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IN THIS ISSUE

The end of an era

*John Martin says farewell to the Caledonian Brewery*

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*Also: Laging / Tennent's beers 1830 / Brewery wells /  
Margaret Greville / Memories of S&N*

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## Contents

- 5     **Lagering of beer: art, science, myth?**  
 Jim Murray discusses the gap between industrial and traditional lager brewing
- 18    **Tennent's beers 1830–31**  
 Edd Mather digs in the archives
- 24    **Brewery water wells**  
 Bill Williamson and John Martin look at brewery water sources
- 30    **Margaret Greville**  
 Eleanor Docherty follows the life of William McEwan's daughter
- 52    **End of an era**  
 John Martin says farewell to the Caledonian Brewery
- 58    **Memories of Scottish & Newcastle**  
 Alastair M Carmichael recalls his career

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## Lagering of beer: art, science, myth?

*Jim Murray*

THIS ARTICLE HAS spawned from a BETTER LINES case study on one specific aspect of the lager beer process. Namely, 'lagering', or the extended cold storage period post-fermentation, to which traditional continental beer was subjected, in order to attain full maturation of flavour. Its coverage has been largely ignored in contemporary brewing literature until recently.

From the 1970s onwards, brewing scientists were downplaying the need for extended lagering times of three months. They were led by the doyen of German beer, Professor Ludwig Narziss of the Technical University of Munich. Arbitrary periods of between four days and ten days at temperatures ranging from near zero to five degrees were on offer. The focus was all on upstream removal of diacetyl, etc. *before* chilling to a lagering temperature. Brewers were happy to follow this advice (but understandably not publishing any change). They were helped by the fact that the regular consumer in the US and the UK was unaware of the meaning of the word "lager".

Despite this the motivation of the study was to chart the changes in the practice with time and the nature of the decisions behind those changes which has led to the new lagering order.

The renewed attention which the subject has attracted in the past two years has re-kindled debate and discussion in brewing circles, especially on the role played by yeast. Hopefully our experiences here might interest brewers and others captivated by the enduring legacy of heritage brewing.

### **Personal initiation: lager beer**

David Johnstone's sensitive evocation of the Tennent's Lager story in last year's *Annual Journal* [1] pressed a memory button for the writer. My introduction to lager beer belonged naturally to my student days in the 1960s. An out-of-term spell hitchhiking in Germany and the then Czechoslovakia, found me drinking continental lager beer at various festivals celebrating local beer. I had suffered the ultimate bad beer experience by drinking *kvas* [2] in Russia while on student exchange, but the beer of Central Europe was a revelation; like finding a soul mate, I suppose. Wonderfully quaffable beer extolling 'gasthof bier keller' hospitality and brewed by folks with whom, less than twenty years earlier, we had been at serious odds. Who says that fine lager beer can't be a political as well as social lubricant?

I was to get to know Tennent's Lager beer more intimately on my return to Strathclyde University, in Glasgow. An extra-curricular contribution I had made as a student was to volunteer as a member of the Students Union management team. As it was, our motley team of seven took responsibility for looking after the day-to-day goings-on

within the new union building in John Street, just off George Square. Beer provision in the men's bar was part of the remit. It was an important service and a nice little earner for the union which allowed us to subsidise refectory meals. I recall such exotica as curried haggis on the menu. My, how students lived it up in the 60s!

In 1963, the local Tennent's beer rep offered us a trial run of the newly launched, locally brewed Tennent's draught lager service in keg (the bar already sold canned lager, primarily Tennent's and Carlsberg). What we were being offered was a continental lager brewed in a genuine German brewhouse with traditional 'lagering' in a German-designed maturation cellar.<sup>1</sup>

Well, what a question? Those of us who'd had the experience of drinking draught beer in Central Europe brewed and matured according to the *Reinheitsgebot* [3] viewed it as a no-brainer. It proved to be a great success. Indeed, ten years after leaving Strathclyde in 1967 – and now a research brewer – I managed to arrange a visit to the union bar, courtesy of the Union President, now a full-time, one-year post for the elected student incumbent. He was neither in engineering nor chemistry faculties, played no snooker, studied social science, wore a fetching velvet suit, claimed no knowledge of Cardinal Puff, but was a Tennent's Draught Lager drinker. We enjoyed a pint. Strathclyde had moved on, but so had Tennent's.

### Dilemma for UK ale brewers

One can safely conclude that the beginnings of the UK 'lager' revolution had seminal support in Scotland. 'Lager' is derived from the German word for 'storage', and 'lagering' refers to the prolonged period of cold flavour maturation the beer receives after the initial 'warm' fermentation process.

The five major brewers of ale in the UK swiftly followed Tennents into brewing this new style of beer. Brewers of ale soon understood that the volume throughput of lager, if brewed according to best continental practice of extended lagering, would have a profound impact on beer production. Perhaps the best way of explaining what happened next was the comment recorded from a Bass executive of my acquaintance: "We didn't believe in having beer hanging about in the brewery when it could be in our pubs and earning." [4]. Minimising beer process time after wort gravity/volume declaration (under the old scheme) also had decided fiscal benefits regarding the lag time afforded by HMRC in collecting excise duty after brewhouse declaration. A very welcome gift for the ale brewer but a potential penalty for the classic lager brewer.

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<sup>1</sup> To complete the 50+ year cycle, what of Tennent's Lager, which sparked the writer's original fascination with lager? What can only be by dint of exemplary management of its brand equity this beer has flourished. It has just earned the "Biggest Selling Drink in Scotland Award" in 2023, once again. Remarkable. Not even the so-called "King of Beers" in the US can claim this. Budweiser has just been de-throned – by a beer from Mexico!

It looked as if an extended storage time with the new product, lager, was going to be mighty unpopular. Having said that, Burton brewers had regularly employed prolonged periods of cold storage of ale in former times. Tying up beer inventory for up to three months and spending good cash to conserve it cold, was now a very big ask for an ale brewer. And for what benefit, they politely inquired? The constraint identified, the time-demanding lagering process, would have called for a re-think.

## Lager beer maturation: the fundamentals

Examination of the original 'lager' beer process already established by the early 20th century reveals a well-documented procedure. The beers from Thuringia [5] and other areas of Central Europe would have a two to three week primary fermentation procedure. Typically, wort collection would be at 12° Plato, fermentation 10° Celsius (50°F) and held at this temperature until, say, a degree or so of fermentability remained. The green beer was then racked chilled into cellar tank for the 'storage' process.

Storage, or lagering, is something of a simplification: it is much more complex in its objectives than merely serving as a 'holding' operation. Its downside was that it demanded a commitment to substantial capital investment in cellar tank capacity and its cooling energy demands could be onerous. For the latter, the originating Germanic brewers relied on very low winter temperatures in the storage caves or the use of ice houses (managed with blocks of sea ice on slatted floors and last seen by the writer as a remarkable museum piece in Finland [6] of all places – but showing how ubiquitous was the practice of lagering).

## Drinkability factor

'Lagering' was an irrefutable, integral part of beer-making by these continental practitioners. The drawn-out procedure was seen as not only conserving the fine aroma flavours of fermentation and nullifying its green immature notes, but it endowed the finished beer with a new, additional drinking quality; a beguiling, mellow, seductive mouthfeel resulting in quite remarkable "drinkability", (or 'moreishness' as we might say more clumsily, in English). The new season's beer was a topic of consuming interest, endlessly debated, compared with the last season's beer. It was the very embodiment of *Gemütlichkeit*; comfortable and familiar.

Cellar tank time, or lagering, was considered the leisurely, if critical part of the historical maturation process. An unhurried, two-stage procedure: first, a short period of time to finish-off the fermentation process to achieve target gravity with fine-tuning, by removing unwanted green beer fermentation flavours – all courtesy of a minimally active, but still viable yeast. Carbon dioxide generated added "conditioning". It could take up to three weeks to complete this phase, before activity ceased and yeast viability would eventually wane.

But the beer was not yet considered to have reached its peak in quality. The second stage, 'lagering', continued at near zero temperature for a considerable period of weeks, before the beer had reached the desired quality level. The best description of what was going on, as suggested by the Bavarian past-master of early brewing science, Liebig [7], was that to have "an extended lagering time of some months at a very low temperature, allowed the changeable factors in the beer to be removed with no negative consequences."

Brewers concluded that successful lagering resulted in the component flavours of the beer, harmonised by yeast, "coming together" with time. The changes had created a beer with quite superior drinking quality. German culture of the day waxed eloquently to celebrate the transformation of green beer to matured lager. Some compared it to the metamorphosis of autumn's chrysalis emerging as spring's butterfly; from the dark to the light. It was theatre: it had cultural significance!

I had another object lesson on lager beer and culture some years later in Eastern Europe. On the subject of beer maturation at Budweiser Budvar brewery [8], I was enlightened by them on how Czech beer drinkers appreciated the long prolonged storage of their Budweiser Original brand. It was the key operation to finalise the creation of that wholly delicious, highly drinkable beer: the ultimate benchmark classic lager, in the writer's opinion. The Czechs explained that they likened green beer to a rough sketch of a piece of art: unfinished and in two dimensions only. After maturation, the beer had been transformed into a fully formed sculpture. It had gained substance and another dimension: true Pilsener lager had three dimensions, unlike its many imitators. Quite poetic.

## Yeast and its key maturation role

Detailing the process of lagering is instructive in helping a basic comprehension of yeast's manifest roles within it. With fermentation, it had been commonplace across mainland Europe, and elsewhere, to use two yeast strains as a mixed strain, one with a powdery, less flocculent nature than the other (the writer has seen a Danish AJL yeast system in operation in Africa in the 60s where remnants of such a lagering practice could still be viewed [9]). Racking from fermenter to cellar tank via a chilling system would ensure the beer was cooled to within a target temperature of 0°–3°C in which the yeast would now do its work. Operations would be aimed at having the powdery strain predominate in the lagering tank on transfer of beer: a necessity for CO<sub>2</sub> conditioning. More art than science, perhaps. Further, it would have assisted with the efficient conversion of vicinal diketones e.g. diacetyl to acetoin, and other undesirable flavour notes such as acetaldehyde, to more innocuous flavours. Bunging the lagering tank creates a significant CO<sub>2</sub> top pressure, and increased dissolved concentration of the gas, for the balance of storage maturation time. Its effect on the yeast present would be profound and contribute to managed decline and senescence.



## Factors associated with successful lagering

The success of the heritage lagering of beer depended on a number of key factors all coming together favourably. Core factors generally agreed were:

1. The presence of a substantial amount of retained active yeast in the racked beer.
2. The temperature of storage.
3. The time allocated to the lagering process.
4. The build-up of an increasing concentration of CO<sub>2</sub> by bunging.

The configuration of the lager vessel was also of consideration. The objective of encouraging yeast:liquid equilibrium to be reached most efficiently in terms of Liebig's "exchange of matter" led to some innovative practices. An example of this latter point was the use of sterilised lathes of beechwood, as lashed bundles. These were dropped into the tank and had to be removed expeditiously on completion. Present interpretation of this rather unusual, if not risky practice, is that the enormous surface area of the porous wood provides an ideal surface upon which yeast cells can rest or adsorb. This was thought to improve the Liebig factor. The five guidelines outlined would have served as the maturation playbook of the day.

## Present day considerations

What will commentators and archivists in the future think about the current prose-lytising efforts at repropounding to the drinking public, a modern version of a beverage whose history, as described, goes back aeons?

Contemporary brewing of lager beer has evolved from a tradition-bound, seasonal, artisanal base to a production process defined by economic drivers. From a heritage past where process time lines were discretionary to one now defined by its non-iterative nature: a fast, efficient servant, on call 24/7.

Looking back at the time David Johnstone was writing, it is clear that adherence to strict historical operational standards was important to guarantee high quality. Now that a little more is known about lager brewing technology, they are more nuanced; other issues have to be considered. Marketeers now speak of brand equity, where lifestyle values vie in importance with intrinsic beer quality factors. The outcome is that the contribution from one key factor determining quality, namely, the time-extended maturation of beer by lagering, has been grossly diminished in many lager brands.

## Time/money matrix

Brewing process intensification, or lean technology, has revolutionised brewing in the past forty years. High gravity brewhouse technology is now well founded. High gravity fermentation of worts up to and beyond 15° Plato is confidently practiced. Both are ubiquitous, and here the writer has to declare an interest having been involved in high gravity brewing project developments in the so-called emerging economies, (and even got around to publishing on occasion [10] when not conflicted by confidentiality issues). Saving plant investment costs has been critical to project success in many parts of the world where foreign exchange provision, the dreaded forex, is fraught with uncertainty. [11] Crucially, plant has been rationalised. It means that fermentation – and post-fermentation ‘lagering’ – is now being carried out in a single vessel, a cylindrical conical vessel (CCV), resulting in major reduction in capital invested.

Process modification has synchronised with plant change. For example, at the culmination of primary fermentation, allowing the green beer to rise in temperature by two to three degrees and holding for a period of 24 to 48 hours, the “diacetyl stand”, can achieve a clean-tasting beer free from sensory defects. A no-faults objective! Brewing science has unravelled this complex, biochemical, yeast-modulated reaction, with great benefit to beer production time efficiency. Beer sensory status can be stabilised now by rapid chilling of the CCV to near zero. Essential fermentation aroma volatiles such as esters and alcohols are successfully retained. Classical extended storage, which normally would have followed the latter step, has been effectively discarded.

A pseudo-lagering period of up to a week or ten days at near zero, with sequential removal of any residual, sedimenting yeast, has now become the norm (we have termed it “pseudo-lagering” because there is hint of neither chemical, biochemical, nor flavour change during or after this period). Beer quality is “frozen in” by this procedure. Chill stabilisation will ready the beer for filtration. It is now available as de facto buffer stock available on demand for packaging; a sea change for brewery operations compared with the past practice of authentic, traditional lagering.

## Warning: the matrix has limits

Pushing process development too far, too fast, in aid of economy, can have unforeseen consequences. It might be worth reminding ourselves of the fate of the “beer which made Milwaukee famous”: Schlitz.[12] In 1977, in a desire to satisfy public demand for its excellent beer, the company came up with a series of process modifications which would allow it a very substantial increase in throughput in brewhouse, fermentation and cellaring. Part of the malt grist was substituted with more invert brewing sugar, the collection gravity was increased substantially, the rate of fermentation was further enhanced using mechanical stirrers, and lagering time was severely restricted. Process aids were added to improve beer dispense characteristics.

The outcome was predictable: poor quality beer, which even brand loyalists began deserting in droves. In spite of intervention by a new operations team, an unforgiving public could not be cajoled into going back to their old brand. The company's demise soon followed. Their historic brewhouse complex was finally demolished in 2013. A cautionary tale to those who push the envelope too far.

## Creative disruption?

International lager brands are now manufactured with processes using low-risk strategies; the consumer must not be offended, but not necessarily delighted. But have we travelled too far with this super-efficient, modern process, and denied the consumer a fully-rounded drinking experience, by offering a lager beer which can claim no real lagering?

The dual processes described as being part and parcel of the traditional horizontal lagering vessel have yielded to a bit of smart biochemistry, with its perceived time-saving benefits. In modern business parlance, can we describe this new strategy as “creative disruption”, or is it something else??

To recall, traditional cellaring practice comprised two distinct duties falling to the yeast. Sequentially, the racked yeast, in still-active mode, completed fermentation and diacetyl “clean-up”. Secondly, the yeast, now no longer able to maintain fermentative activity due to its energy resources (glycogen, trehalose) having been exhausted, lapses into senescence. Viability plummets and eventually with time, yeast cell wall integrity suffers. Slowly, excretion of cellular matter, via the now porous walls, into the beer is the result.

It is this undefined, unquantified biochemical matter which is associated with a remarkable transformation in beer flavour. The precise biochemical nature of this yeast-derived matter or its sensory attributes or power is not known. Our ignorance is surprising given that brewers have spent time and money, likened to angels dancing on the head of a pin, identifying and measuring hundreds of primary fermentation chemicals – yet eschewing the measurement of yeast chemicals initiating maturation flavour. Definition of the chemical entities responsible for the acknowledged sensory enhancement of lagering has eluded brewing science.

But the worm is turning; in the past two years Czech brewers have been showing a re-interest in precisely what makes their heritage brews so special.

## Sensory assessment of lagering enrichment

In addition to our interest in the aforementioned biochemistry deficit, there is another equally thorny problem to confront: the sensory evaluation of lagering. Whilst simple classic techniques of beer-tasting based on orthonasal detection, such as “sniff and sip”, “triangular tasting” and so on, are appropriate for assessing flavour volatiles of primary fermentation, it does not work when trying to describe fullness, body and mouthfeel effects of lagering.

The reason for this discrepancy is that it does not take temporality into account. Temporality is a key issue in sensory perception and drives the concept of “liking”. A method incorporating retronasal detection is, therefore, required. Basically, it means retaining beer in the mouth and recording the mouthfeel, with time. It requires a distinct training regime compared with orthonasal tasting. We have found that measuring the fullness factor/mouthfeel may take up to imbibing 100ml of one beer sample to give a realistic answer. As such it makes for a very different style of tasting compared with conventional beer tasting techniques. For the record, Temporal Dominance of Sensations, developed by Pascal Schlich, is used extensively in the Japanese brewing industry where beer “mouth texture”, as with all their foods, is especially important. [13]

## An analogous case?

We have of course, another famous beverage style which ultimately relies on senescent yeast biochemistry for its special flavour: that of champagne. Champagne begins its life as sparkling wine produced by fermentation of wine must. As soon as the initial flavour components - alcohols, esters etc are formed and the fermentative activity is greatly reduced, the wine is bottled and a “*liquid de tirage*” (a small aliquot solution of yeast, wine, sugar) is added.

A secondary fermentation takes place – somewhat akin to the CO<sub>2</sub> conditioning of beer during classical lagering. After 15 months, when the fermentation activity has long since been completed, but the yeast cells have had time to share their cellular contents with the wine, the yeast residue is removed as a frozen plug. The bottle is topped up with wine to volume and re-corked. The sparkling wine is now “champagne”. From a light-bodied sparkling wine it has become champagne with a “delicious palate and distinctive mouthfeel”. This transformation is performed by the “*methode classique*”[14]. The analogy to beer “lagering” is not perfect, of course. The key link is that yeast has to be able to take part, to contribute uniquely, in both cases. Firstly, to create primary flavour, by fermentation; secondly, to deliver texture, mouthfeel and body, via cell excretion.

## A new status quo

In the contemporary CCV uni-tank model of lager beer fermentation there is no “cellaring” as such: it has been abandoned. If by definition “disruption” is a dispensing with the old way and achieving precisely the same with the new, this is more than disruption. It’s a game-changer: it has created a different outcome. If the perfect lager beer flavour demands both primary flavour enhanced with “lagering” flavour, then perhaps we have taken a step backwards. Should we be contemplating a return to past, proven but expensive practices? The reality is that the ship with Father Time aboard has sailed. There will be no return to a time-intensive lagering era on a global scale. Brand owners appear to be happy with the operational status quo.

At the same time, in this current age of premiumisation there is the commercial opportunity open to brewers to develop a new ‘classic lager’ category of super-premium lager and priced accordingly (cf. champagne). Perhaps the best that can be expected at the moment is that certain heritage beers will continue to be lagered according to tradition.

## Lagering shortfall?

To offer a balanced argument in favour of the heritage process, we should offer up its flaws. Traditional lagering does have its downside apart from the economic penalty it inflicts. Brewing science has yet been unable to describe in detail the beneficial agents responsible for the acknowledged quality benefits. Ignorance spells risk: brand owners are especially averse to risk. Not only would reverting to traditional lagering lump them with inordinate capital and revenue costs penalties, re-adoption would be predicated on a biochemical/chemical/physical process which brewing science has yet to define, and whose beer quality benefits, whilst beckoning, are equally ill-defined. Even if those latter benefits are quantified, how to communicate them as attractive marketing propositions? That remains a challenge, with no clear solution in sight.

## Sorry: it’s all in the mind

Well, it had to happen, sooner or later. One very obvious rebuttal to the claim that prolonged lagering delivers a unique flavour benefit would be to “prove” that it is a chimera, a figment of the traditionalists’ imagination.

An article published in the *Journal of the Institute of Brewing* in 1977 [15] concluded that “a long period of storage... should not be necessary to confer improved beer quality” [sic]. In our examination of their investigation it was obvious that the researchers, BRI, (now Campden BRI), had found no taste enhancement from a pilot plant study of lagering. This project had been specifically commissioned by the UK ale-focused industry. However their “lagering” conditions chosen in the study bore little resemblance to the qualifying conditions laid out earlier in this article for lagering

flavour enhancement: no sensory data shared; and vitally, an absence of information on yeast and its viability. At the time, the conclusions of the publication suited English ale brewers in Burton very well.

Brewers elsewhere in the world – and the writer was one of them – took the conclusion, and particularly the way it was presented, as primarily satisfying the strategic needs of the local ale industry. It did not chime with my own years of experience of brewing super-premium lager brands which demanded many weeks' chilled maturation to achieve the desired full flavour profile. Additionally, it seemed more than a mite insensitive to fly in the face of expert brewers in Central Europe who had successfully practiced prolonged maturation for generation upon generation.

Recently “new science” has been harnessed in an attempt to take us to the ultimate point: to prove that lagering is, in fact, a total waste of time. University of California Davis has claimed pole position on this one. [16] Using a sophisticated analytical monitoring technique (metabolomics) and big data analytics, they assert that all that is needed is the upstream fermentation removal of diacetyl, acetaldehyde, H<sub>2</sub>S and other negative, unwanted fermentation artifacts. Within hours of post-fermentation, crash-chilling to near zero, their data collected over thirty days shows no change in any of the comprehensive flavour components measured. The natural conclusion to be drawn from the analytical data presented by the authors is that absolutely zero lagering is required, to produce lager beer! Quite so.

A considered view of that publication is that, once again, the experimental pilot conditions set by an academic institution to emulate lagering are at gross variance with brewery maturation conditions required to trigger gradual yeast senescence. Whatever, they claim they were wishing to study, it wasn't 'lagering' in the traditional sense. Their earnest efforts might be thought of as unhelpful at best, in our gaining a better understanding of lager beer maturation. Perversely, it has once again stimulated interest in Europe and elsewhere on a topic which has been ignored by brewers for a long time.

## Future scenarios

Disinterest in brewing R&D might prevail within the brewing majors in the UK, but our craft brewers are bursting with ingenuity and innovation. It is largely due to their efforts that the public's beer brand selection on offer has never been so extensive. Mrs Thatcher's Beer Orders objective of the late 1980s, namely, giving beer drinkers access to much greater choice, has been achieved, but she would have been astounded at who actually made it happen. On expanding beer choice in the US, the Brewers Association's entrepreneurial attitude to new brand development has encouraged “thinking out of the box”. Nine thousand brewers chasing USD 7.7bn sales have responded. Extraordinary beers on offer the result!

Many craft brewers, here and in the EU and US, have ongoing small scale experimental lagering trials aimed at concocting new beer flavours. Finally, there is a reawakening of interest in lagering in its birthplace, Central Europe. To assist this momentum, the EBC are to include maturation in the May 2023 Brewers Forum in Prague: very apposite in timing.

As for the scientific underpinning of classical lagering, it still has been tackled seriously by brewing science. Is there a biochemical solution to mitigate the onerous prolonged maturation process? More insights are being revealed: two recent articles in *BRAUWELT International* explored the possible role of biochemical catalysts and ‘kokumi’ agonists in heritage lager brands [17,18] and potentially the replication of the lagering process but minus the pain of time. Add to this a more scientifically focused article on “lagering choices” published earlier in 2023 [19] indicating increased interest.

Classical lagering equates with flavour enrichment of beer (the refreshing factor) and the elevated, rewarding experience of ‘moreishness’ – the craving, mouthfeel factor. The writer would argue that these distinguish it from contemporary lager practice.

But for the brewer it is not an either-or choice, classic versus contemporary. He can enjoy producing both. “Classic” can return in the role of a super-premium lager. This can expand a brand portfolio to give a high-margin product in what is now the fastest-growing niche in the lager market. There is no shame in exploiting heritage when the quality complement added is genuine, brand equity increases, and more customers are delighted. It makes sound business strategy.

## Acknowledgements

I salute many of my contemporaries across the brewing world who have engaged with me in debating and discussing the topic of classical beer lagering. That world is now globalised and the new corporate order makes it awkward for those still in full employment to be as open as they might wish. However, brewers are famous for their gumption: it has been my privilege to listen.

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**About the author**

A Strathclyde University chemistry graduate, Jim Murray began his brewing career in Southern Africa in the early 1970s. His role in developing economically viable brewing systems appropriate for a country with an emerging-market economy, where access to investment capital and imported raw materials was at a premium, proved a daunting challenge. But progress on new technology based upon locally fabricated brewing vessels, home-grown raw materials, state-of-the-art high gravity brewing, and home staff training luckily unfolded in due course. Some ten years later his team could claim that they had assisted a four-fold expansion in beer production to 11m barrels: a credible rate achieved with a minimal £/bbl spend. Hard work but great fun! Brand equity value was all the rage when he returned to London in the late 1980s. There he was occupied with corporate brewing and international beer consultancy, counting some prominent beer brand owners in Canada, Japan, South America, and East Africa as clients. In 2004, he relocated to Scotland ostensibly to retire, only to discover a client trail had followed him. Compromise was called for, so BETTER LINES Ltd was set up by Murray as a semi-retirement, halfway house – for a year! Somehow it has survived all attempts at self-closure and remains a vehicle to study some specific aspects of brewing. It has been especially useful in trying to unravel the science behind contentious, unresolved issues. One such issue is the fascinating, if now unloved, classical ‘lagering’ process of beer.

## A few comments on the beers of J & R Tennent 1830–1831

*Edd Mather*

THE FOLLOWING tables are derived from the information in the 1830–1831 Brewing Book of J & R Tennent.<sup>1</sup>

The analysis of the book involved a fair old whack of complicated mathematics. Firstly, the interpretation of malt gross weights used and the unit measure employed (“bolls”), then calculations to estimate the wort yield to the copper(s) at  $x$  gravity on  $x$  wort barrels (collection yield). This is the yield of barrels of wort to the copper at a specified gravity: for example 102 barrels collected in the copper at 1.053 would be the collection in copper yield.

Then came the fun part of inferring the practices possibly used by Tennent’s in the 1830s. For this I used both period brewing records such as the brewing book from Newington Brewery, Edinburgh,<sup>2</sup> as well as my own knowledge of period technical practice in the era.

The I B U ratings were the result of my knowledge of the alpha acid contents of hops used in the period, the weight used and, importantly, the point in the boil at which they were added.

One point to bear in mind when contemplating old beers is the brewer’s *own* requirements in terms of required bitterness of a finished product, the grist employed, and the eventual trade market, the effect of maturation etc. Whereas a modern Pale Ale might only be at a theoretical 28 I B U and a relatively high final gravity of e.g. 1.010, brewers in Scotland and other parts of the UK were very familiar with the practice of a relatively low hop charge in the copper and a greater degree of attenuation.

For example, a theoretical Export beer at 46 I B U of 1.060 original gravity that ferments down to 1.009 final gravity might include a *lesser* hop addition at racking, say half a pound per barrel, than a stronger beer, say 1.078 at 36 I B U, which might have a racking hop addition at a greater ratio, e.g. 1.25 pounds per barrel. That is, beers back then finished drier than they do today, hence would seem more bitter.

The main point being that the brewer’s own taxonomy of products should be *the* guiding light in terms of classification of product type, rather than an artificial classification system that seeks to shoehorn beers into a more “modern” classification system.

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<sup>1</sup> Records of Tennent Caledonian Breweries Ltd, brewers, Glasgow, Scotland. Production Books, 1830–1889. T/6/6/1. S B A.

<sup>2</sup> Records of Newington Brewery, brewers, Edinburgh, Scotland. Brewing Book 1833–1834. NB 6/1/1/1. S B A.

At first I calculated the A B V using my own formulae and the Gay-Lussac constant. For this article I have used the currently accepted HMRC formulae for the calculations.<sup>3</sup>

## Brown beers

### **Common Porter and Porter**

The Common Porter would, in my opinion, be a “running beer”, i.e. one brewed and consumed within a relatively short period of time, with the Porter being subjected to a more lengthy maturation process before being bottled and further matured before export to a merchant, either overseas or on the home market.

One notable feature of these beers is the not infrequent absence of black malt in the grist make-up! A possible counter to this is the potential for blending “Lower Beers” for balance of flavours and brewer’s requirements and the use of a darker extract malt with a slightly different specification (colour, flavour etc.). Another notable feature of these beers is the re-use of hops from a previous brewing in the main boil, sometimes with the entirety of hops used being spent, or with an admixture of new hops.

### **Porter Double Stout, Brown, Export Brown and Double Brown Stouts**

The innate qualities of this set of beers would, I believe, make them likely candidates for maturation then trans-shipment to an export merchant due to the gravities and consistency of the beers in question.

These are the porter and stout qualities that were being brewed.

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<sup>3</sup> I am grateful to Dr Keith Thomas of Brewlab for this advice.

Quality	Date	O G	R G	F G	I B U	A B V
Common Porter	13/02/1830	1.047	1.007.25	1.004	18	5.6
Common Porter	26/02/1830	1.046.5	1.009	1.006	29	5.3
Common Porter	03/03/1830	1.045	1.008.5	1.005.5	28	5.1
Common Porter	25/07/1830	1.046	1.008.5	1.005	24	5.3
Common Porter	03/04/1830	1.043	1.008.25	1.005	22	4.9
Common Porter	20/04/1830	1.042	1.008.25	1.005	26	4.8
Common Porter	01/05/1830	1.043	1.008.25	1.005	22	4.9
Common Porter	29/05/1830	1.047	1.008.25	1.005	26	5.5
Common Porter	02/06/1830	1.043	1.008.25	1.005	24	4.9
Common Porter	05/06/1830	1.05	1.008.25	1.005	26	5.9
Common Porter	03/04/1830	1.049	1.008.25	1.005	28	5.8
Common Porter	28/07/1830	1.045	1.008.25	1.005	20	5.2
Common Porter	12/08/1830	1.047	1.008.25	1.005	22	5.5
Common Porter	25/08/1830	1.043	1.008.25	1.005	24	4.9
Common Porter	10/09/1830	1.047	1.008.25	1.005	20	5.5
Common Porter	30/09/1830	1.048	1.008.25	1.005	24	5.6
Common Porter	15/10/1830	1.047	1.008.25	1.005	12	5.6
Common Porter	27/10/1830	1.049	1.008.25	1.005	16	5.8
Porter	15/07/1830	1.048	1.007.75	1.005	26	5.6
Porter	30/10/1830	1.049	1.007.75	1.005	18	5.8
Porter	03/11/1830	1.048	1.007.75	1.005	26	5.6
Porter	24/11/1830	1.047	1.007.75	1.005	18	5.5
Porter	04/12/1830	1.043	1.007.75	1.005	18	4.9
Porter	25/12/1830	1.049	1.007.75	1.005	18	5.8
Porter	14/01/1831	1.046	1.007.75	1.005	28	5.3
Porter	05/02/1830	1.05	1.007.75	1.005	26	5.9
Porter	31/03/1830	1.05	1.007.75	1.005	22	5.9
Porter	08/04/1830	1.05	1.007.75	1.005	26	5.9
Porter Double Stout	19/06/1830	1.075	1.010.75	1.008	34	8.9
Brown Stout	01/11/1830	1.065	1.013.25	1.010	46	7.3
Brown Stout	03/02/1831	1.064	1.013.25	1.010	46	7.1
Brown Stout	28/03/1831	1.067	1.013.25	1.010	48	7.5
Export Brown Stout	01/02/1830	1.062	1.009.75	1.007	34	7.3
Double Brown Stout	26/05/1830	1.077	1.013.25	1.010	46	8.9
Double Brown Stout	20/11/1830	1.075	1.013.25	1.010	40	8.6
Double Brown Stout	19/01/1831	1.078	1.013.25	1.010	44	9.0
Double Brown Stout	02/03/1830	1.073	1.013.25	1.010	46	8.4

O G=Original Gravity, F G=Final Gravity, R G=Racking Gravity

## Pale ales

### West India and West India Export Ales

A copper-coloured “export quality” beer, well hopped both in copper and cask, with a rich rounded flavour and a relatively sweet finish. As with other beers from this source, I believe that these beers would have been matured for a certain period of time before being bottled and shipped, possibly packed into hogsheads and shipped to a merchant in the West Indies, where the Tennent family had business interests.

### East India Ale

A less frequent brew than its West Indian cousin: paler in colour (golden to a burnished copper colour) and with an increased bitterness and a slightly “thinner” finish and mouthfeel. Again in my opinion probably a bottled product.

Quality	Date	O G	R G	F G	I B U	A B V
West India Ale	16/06/1830	1.056	1.011	1.007.5	48	6.4
West India Export Ale	28/01/1831	1.062	1.011	1.007	36	7.3
West India Export Ale	11/02/1831	1.060	1.011	1.007.5	32	6.9
West India Export Ale	11/04/1831	1.061	1.011	1.007.5	36	7
East India Ale	25/05/1830	1.065	1.010	1.006.5	66	7.7
East India Ale	01/07/1830	1.065	1.011	1.007.5	70	7.6
East India Ale	13/12/1830	1.059	1.009	1.005.75	58	7
East India Ale	30/12/1830	1.060	1.009	1.005.75	66	7.2
Common Export	02/02/1830	1.046	1.009	1.006	30	5.2
Common Export	23/02/1830	1.049	1.009	1.006	30	5.6
Common Export	28/02/1831	1.061	1.009	1.006	28	7.3

### Pale Guinea Ales

As the taxonomy suggests, these were pale beers, with a good hopping level, a big mouthfeel and a beautifully balanced sweetness of palate, which derives from the use of a slightly paler malt than the other Guinea Ales.

One other hallmark is a higher final gravity than the other Tennent Brothers' running and export beers.

Quality	Date	OG	RG	FG	IBU	ABV
Pale One Guinea Ale	19/02/1830	1.064	1.012	1.008	18	7.4
Pale One Guinea Ale	04/03/1830	1.065	1.013	1.009	30	7.4
Pale One Guinea Ale	30/03/1830	1.064	1.012	1.008	26	7.4
Pale One Guinea Ale	15/05/1830	1.066	1.012	1.008	30	7.7
Fpur Guinea Ale	04/10/1830	1.086	1.020	1.016	30	9.4
"New" Four Guinea Ale	15/11/1830	1.085	1.019	1.015	28	9.4
Four Guinea Ale	08/12/1830	1.085	1.019	1.015	30	9.4
Pale Four Guinea Ale	15/12/1830	1.081	1.018	1.014	30	9
Four Guinea Ale	10/01/1831	1.087	1.019	1.015	32	9.6
Four Guinea Ale	04/02/1831	1.091	1.022.5	1.018	44	9.6
Pale Four Guinea Ale	14/03/1831	1.086	1.021	1.016	36	9.4
Pale Four Guinea Ale	14/04/1831	1.089	1.021	1.016	42	9.8
5 Guinea Ale	04/02/1830	1.090	1.028	1.023	28	9
5 Guinea Ale	15/03/1830	1.094	1.028	1.023	30	9.6
5 Guinea Ale	24/04/1830	1.093	1.028	1.023	36	9.5
5 Guinea Ale	04/06/1830	1.093	1.028	1.023	35	9.5
5 Guinea Ale	03/07/1830	1.087	1.022	1.016	34	9.5
5 Guinea Ale	30/08/1830	1.090	1.025	1.020	34	9.5
Pale 5 Guinea Ale	09/09/1830	1.083	1.024	1.020	38	8.4
"Formerly P4" 5 Guinea Ale	08/10/1830	1.091	1.024	1.020	60	9.6
"New" 5 Guinea Ale	15/11/1830	1.091	1.024	1.020	42	9.6
"New" 5 Guinea Ale	01/12/1830	1.090	1.024	1.020	40	9.5
5 Guinea Ale	07/01/1831	1.090	1.024	1.020	36	9.5
5 Guinea Ale	15/02/1831	1.095	1.027	1.022	36	9.9
5 Guinea Ale	16/02/1831	1.093	1.025	1.020	38	9.9
5 Guinea Keeping Ale	22/03/1831	1.093	1.025	1.020	40	9.9
5 Guinea Export	20/12/1830	1.088	1.019.5	1.014	44	9.9
Six Guinea Ale	08/03/1830	1.103	1.030	1.024	32	10.8
Six Guinea Ale	11/04/1830	1.099	1.025	1.020	36	10.7
Six Guinea Ale	18/05/1830	1.099	1.025	1.020	36	10.7
Six Guinea Ale	03/12/1830	1.096	1.021	1.017	38	10.7
Six Guinea Ale	21/01/1831	1.099	1.025	1.020	36	10.7
Six Guinea Ale	08/04/1831	1.104	1.026	1.020	34	11.5
Seven Guinea Ale	29/04/1830	1.113	1.034	1.028	32	11.75

## Summer and small beers

A low gravity and low I B U beer, requiring very little maturation – a class designed for quick consumption. These beers were usually brewed after the Guinea Ales, and in some cases this set didn't have a separate mash for the wort yield, they merely used the lower runnings from the mash tun which were then boiled for the required time on hops which varied in type from “spent” (i.e. previously used) to fresh hops, or sometimes as per the Porters, a mixture of both.

Quality	Date	O G	R G	F G	I B U	A B V
Summer Beer	29/04/1830	1.034	1.008	1.005	18	3.75
Small Beer	06/05/1830	1.025	1.009	1.006	14	2.5
Small Beer	12/05/1830	1.022	1.007	1.004	14	2.3
Small Beer	14/10/1830	1.025	1.009	1.006	14	2.5

## “For Dickson”

There are a number of brewings in the 1830–31 Brewing Book which have “For Dickson” written above the entry. I'm unsure as to the true origins of these beers but would tentatively suggest these were brewed under contract for a fellow Glasgow brewer or export merchant.

The following brews had the statement “For Dickson” or a variant thereof appended.

Quality	Date	O G	R G	F G	I B U	A B V
West Indies Porter	12/10/1830	1.033	1.009	1.006	22	3.5
£3 Ale	14/10/1830	1.063	1.008.5	1.005	30	7.7
3 Guinea Ale	11/03/1831	1.065	1.011	1.008	30	7.5
£4 Ale	11/08/1830	1.075	1.019.5	1.016	32	7.8
£3½ Ale	20/09/1830	1.078	1.019.25	1.016	30	7.8
Dickson P 3 Ale	05/11/1830	1.085	1.019.5	1.016	24	9.2

There are *no* mashing, sparging or attenuation records contained in the 1829–1831 Brewing Book. I've based the attenuation profiles on both Scottish and English brewing records from the period before 1850.

I have interpreted the missing information from period brewing records and practices, with a reduction in a percentage value of hop varieties at an average of 56.93% increase in bittering power/alpha acid content since the 1830s. The average alpha acid percentage back then was 2.4–2.8%.

## Brewery water wells

*Bill Williamson, John Martin*

This article came about following a talk given by John Martin on the history of brewing in Edinburgh at the Edinburgh City Art Centre in December last year. After the talk, there were several questions and a Bill Williamson mentioned that he had worked as an engineer at Fountain Brewery and that he had knowledge of the wells there. Thereafter, Bill and John arranged to meet to discuss further. During his time working at Fountain Brewery, Bill had gathered information on the wells and a combination of this and his working knowledge, led to this article – another example of one thing leading to another.

### Introduction

THE PRACTICE OF obtaining underground water from wells can be traced back many centuries. In the Hebrew scriptures, many instances are given of the importance of wells in the plains of Syria. The oldest known well in Europe is in the former province of Artois in northern France, where the term ‘artesian’ well is derived from and where the Carthusian monks drilled their wells. The Order of Carthusians was founded in 1084.

An artesian well is a well that brings groundwater to the surface under pressure within a body of rock or sediment known as an aquifer. In modern Europe, the art of well making was confined to the simple operation of sinking circular shafts. However, it was clear that care must be taken to prevent any solid matters in the water that could lead to contamination.

### Edinburgh wells

Brewing in Edinburgh can be traced back to the 12th century, when the monks who built Holyrood Abbey brewed their own beer, but it was not until the 18th century that many breweries started to emerge. This was mainly because of an abundance of underground water, good quality barley grown locally, coal for power and improved transport links. Prior to the breweries, beer was brewed in the home.

The plentiful supply of good quality underground water led to the development of a densely packed cluster of breweries, all having their own wells in and around the Canongate, Craigmillar and Dalry/Slateford areas of Edinburgh. This was dubbed the “charmed circle”. As a result, breweries and wells became synonymous. Most of the wells in Edinburgh were used to brew beer. In fact, the chemical suitability of the water from these wells was largely responsible for the growth of the brewing industry in Edinburgh. Brewing in Edinburgh reached its peak between the 1880s and 1920s when there were 40 breweries operating.



It was during the years 1942–55 that a number of pamphlets were issued for limited circulation by the Geological Survey. These pamphlets gave a short hydrogeological account and essential details about the sources of underground water (hydrogeology is the study of water both on and beneath the earth's surface). In 1965, a resurvey of wells was made with additional information gathered by Anne Carter B.Sc. This is detailed in the Record of Wells of Edinburgh. This survey details all the wells including their location, depth, capacity and other technical information.

The first wells for brewing purposes in Edinburgh were from 25 to 60 feet in depth, although some were deeper. During the 19th century, if their water supply ran low, Edinburgh breweries would arrange to have mine shafts or adits driven from the side of their wells into the water-bearing strata in the hope of locating an additional water supply. In time, the task of sinking wells was undertaken by companies who had the expertise to do so and to maintain them.

As can be seen from the site map of central Edinburgh (figure 1), there are many wells with their locations marked and numbered as a reference. The vast majority were used for brewing and some breweries had more than one well. For example, the Campbell, Hope & King brewery, number 105 on the map, had four wells, as was the case at the original McEwan's Fountain Brewery, number 94 (see figure 2).

There were further wells used for brewing outwith central Edinburgh. For example, there were twelve wells at Craigmillar, of which ten served the seven breweries and the other two for the creamery. Water from the wells was also used for cleaning and cooling purposes.

## Fountain Brewery

There were four wells in use at the original Fountain Brewery, as shown in the Water Supply Papers of the Geological Survey (see figure 3) and where William McEwan first started brewing in 1856.

- 94 (a) Park Well (North Shaft)
- 94 (b) Park Well (South Shaft)
- 94 (c) Court Well (McEwan's original well)
- 94 (d) Court Well (adjacent to the original well)

A good indication of the water usage of these wells is shown as a graph (see figure 4) during the years 1966/67, with Court Well showing the highest volume of water extraction. It is interesting to note the peak water usage months of June, July and December coincide with the higher beer sales compared to other months of the year. Summer, Christmas and New Year were always the peak periods of any brewery. However, all the Fountain Brewery wells were discontinued from 1976 to the early 1980s as the water was not deemed suitable.

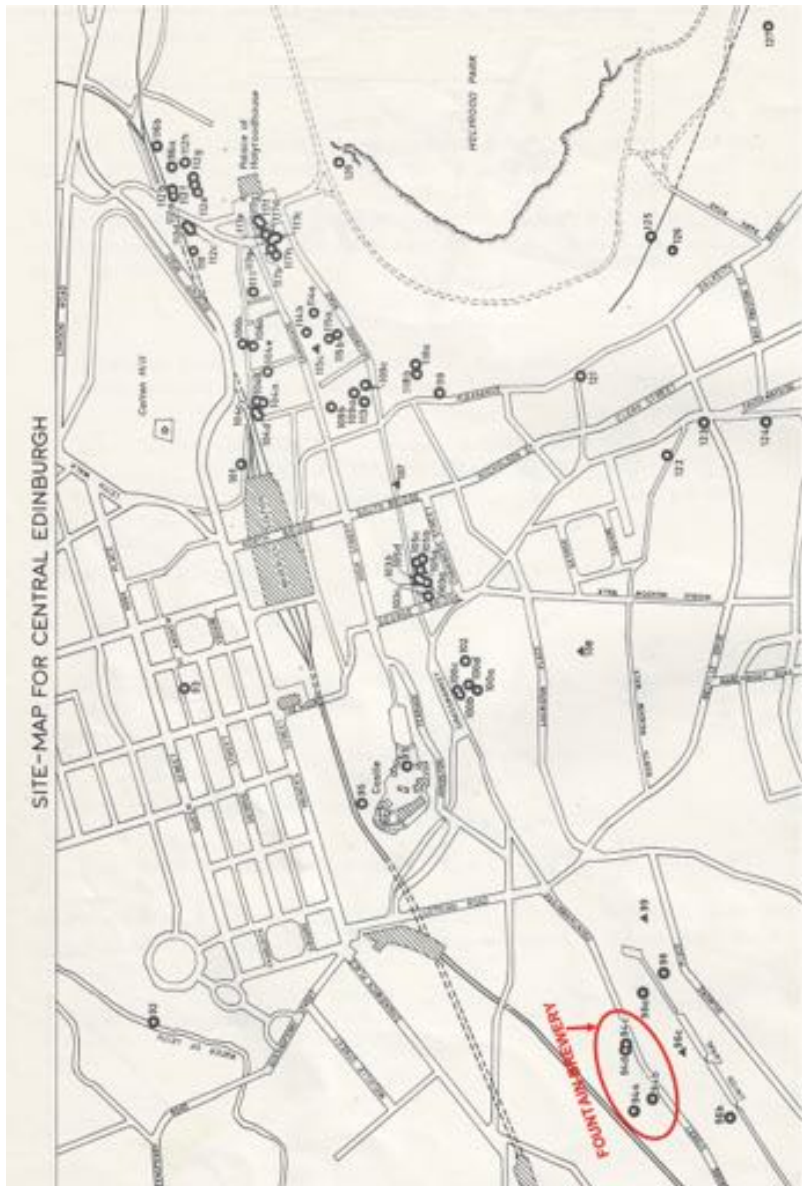


Figure 1: Map of central Edinburgh showing the locations of the water wells.

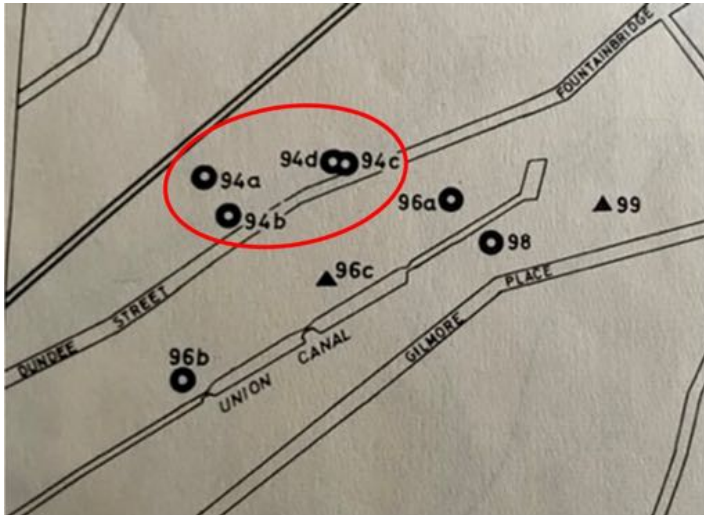


Figure 2: The location of the wells at the McEwan's Fountain Brewery.

94 (c) (32/57). Court Well. 50 yd N.25°E. of junction of Gilmore Park and Fountain-  
bridge. [2437 7284].

Surface c. 225 O.D. Shaft 106 x 6. Headings. R.W.L. 6. During pumping, water level  
falls continuously, pumping stopped at or before 94 level reached. Pump capacity 61 g.p.m.  
Suction at 106. Yield: 191 500 g.p.w., average over 10 weeks. Quality: Anal. Uses:  
brewing, washing and cooling. (Pre-1895).

Drift over Lower Oil-Shale Group.

94 (d) (32/57A). 46 yd N.5°W. of junction of Gilmore Park and Fountainbridge. [2435  
7285]. Disused and covered over.

Surface c. 225 O.D. Shaft. Supply proved unsatisfactory on test.

Drift over Lower Oil-Shale Group.

Figure 3: Details of the original McEwan's well, Court Well

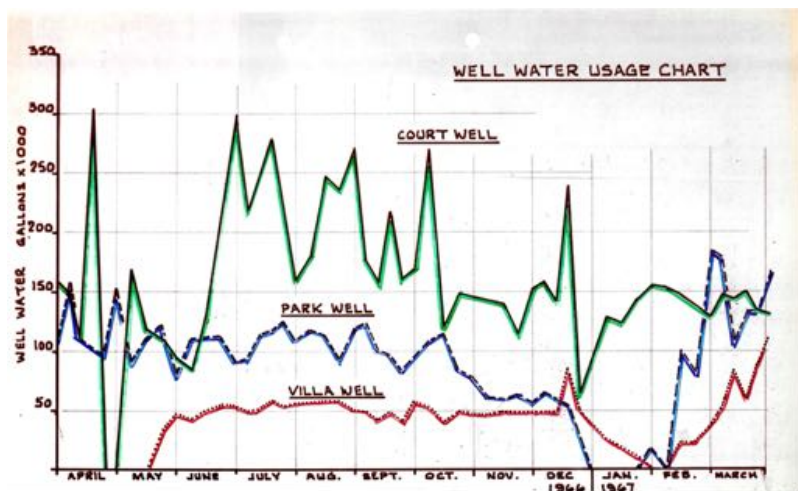


Figure 4: Well water usage at Fountain Brewery, 1966/67.

In the late 1960s, Bill and Alex Davie were lowered down the Court Well in a large bucket with the purpose of inspecting the well adits. The bucket was lowered with the aid of a pulley block and winch, which was positioned over the well-head. The diameter of the well was about six feet. To protect them, Bill and Alex were suitably attired each wearing waders, a waterproof jacket and a sou'wester, dressed more like fishermen than brewers. The good news was that the well adits underground were in good condition and no further work was required.

In 1973 'New' Fountain Brewery was built opposite the original McEwan's brewery on the site of the Rubber Mill which also operated several wells. However, as per the Geographical Survey of 1965, the wells were all disused and sealed off. By this time, many of the brewery wells throughout Edinburgh became contaminated and thereafter an alternative water supply was sourced. Holyrood Brewery was a good example where they piped their water supply from the wells at the Grange over a mile away. This was the subject of an article that appeared in the Annual Journal of 2022: "Water: an essential ingredient of beer".

### Investigation into the use of brewery wells

Bill Williamson was asked to prepare a paper on the investigation into the use of brewery wells, which he presented at the Barnton Hotel in 1982. By that time all four wells at Fountain Brewery were no longer in use and the town water supply was used to brew beer instead. The following are extracts from that paper:

“Over the years local water boards have amalgamated resulting in large Water Authorities controlling and distributing potable water throughout the regions. This resulted in improvements of maintenance and distribution including new reservoirs...

By 1977 Lothian Regional Council under the powers of the Sewerage (Scotland) Act in 1968 began levelling charges for all discharges to drain...

The final result is that water metered on to the premises, including well water less packaged production of beer and less evaporation losses was assumed to be discharged to drain and was charged at 35p / 1000 gallons...

The reinstatement of the wells for brewing purposes would be expensive and result in little guarantee of maintaining them free from contamination in the future. The added cost of paying to dispose of pumped well water must also be seen as a constraint on the use of this resource.

This demonstrates just how important the water wells were for establishing brewing as a major industry in Edinburgh for about 250 years.

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## The McEwans and their legacy, part three: Margaret Greville – from boarding house to stately home

*Eleanor Docherty*

### Introduction

**I**N PART ONE OF THIS series, ‘Family Connections’, which appeared in the 2021 SBAA Journal, I outlined William McEwan’s family tree and showed how brewing was in his blood long before he established his own Fountain Brewery in Edinburgh. In Part Two, ‘William McEwan – Politics, Philanthropy and Accolades’, which appeared in the 2022 Journal, I talked about McEwan’s philanthropy, as well as his career in politics and the many accolades he received as a result of his generosity. In this third and final part, I will tell the story of McEwan’s illegitimate daughter, Margaret, whose colourful life I felt deserved an article all to itself. Her entry into this world could have caused a huge scandal at the time. However, this was prevented and I’m happy to say that Margaret’s inauspicious start in life could not have been further from her middle and her end.

### Humble beginnings

Margaret Helen Anderson was born on 20th December 1863. She was the illegitimate daughter of William McEwan and Helen Anderson. To briefly recap the circumstances of Margaret’s birth, which I detailed in Part One of this series, William McEwan and Margaret’s mother, Helen Anderson, met when McEwan lived in a boarding house in Shandwick Place, Edinburgh. Helen was working as a domestic servant in a nearby boarding house and they became ‘involved’. When Helen became pregnant, McEwan paid for her to travel to London with one of his Fountain Brewery employees, William Anderson (no actual relation to Helen), where they lived as ‘husband and wife’ until Margaret was born. Anderson then returned to his wife and family and Helen came back to Edinburgh, saying that she was widowed. This allowed both Helen and William McEwan to keep their reputations intact.

Before he married Helen, William McEwan always lived close by and he provided generously for her and Margaret. By 1871, the census record shows that Helen was running her own boarding house. This was probably thanks to William’s financial input and this is backed up by the numerous, regular payments to ‘Mrs Anderson’, which appear in the McEwan Journals at the Scottish Brewing Archive. The archive records also show that William paid for Margaret’s education and dance lessons. William and Helen married in London in 1885, when Margaret was aged 21 and, from that point, Margaret was referred to as his ‘step-daughter’, although it was probably



Figure 1: Margaret (Anderson) McEwan, The Hon. Mrs Ronald Greville (1863–1942), 1891, by Emile-Augustus Carolus-Duran (1838–1917) at Polesden Lacey, Surrey. © National Trust Images/John Hammond.

well-known that she was, in fact, his biological daughter. You can see from her portrait by Emile-Augustus Carolus-Duran, painted in 1891, that Margaret was quite beautiful in her youth (Figure 1). In this portrait, she is wearing a large black feathered hat and a deep pink velvet coat with a deep brown fur collar and cape over her black velvet evening bodice and skirt; the bodice is heavily boned and pointed. The décolletage is covered with a large white *fichu* (draped cloth).

## A 'good' marriage

William took a keen interest in Margaret's upbringing and he taught her the brewing business. Once he married Helen, he ensured that Margaret met the kind of people who would help to propel her into the world of the aristocracy and even royalty. The idea was to find her a 'good marriage'. As it so happened, the McEwans knew Lord and Lady Greville, who lived not far from their home in London's Mayfair, and their son was looking for a wealthy wife. Margaret became engaged to The Hon. Ronald Henry Fulke Greville (known as Ronnie). He was the eldest son of the 2nd Baron Greville, Algernon, and was a Lieutenant in the 3rd Battalion of the Argyle & Sutherland Highlanders before transferring to the 1st Life Guards, where he became Captain in 1892.

Their engagement was rather surprising, given that Ronald had only recently broken off his engagement to a Miss Virginia Bonyng, following reports that her stepfather, Charles Bonyng had come to physical blows in 1891 with a business associate, John William Mackay, after a falling-out over Mackay's business dealings. It then came to light that Virginia's biological father had shot a man and had served time in San Quentin prison. It was felt that such a marriage would sully his family's honour. However, whilst Ronnie's family had the titles and their honour, what they lacked was money. William McEwan had money – lots of money – more than enough to erase any 'sullyng of the family honour' that might be caused by Ronnie's marrying a woman of illegitimate birth. It was the perfect arrangement for both parties, giving both what they wanted, although they do appear to have been happy.

Margaret and Ronnie were married on 25th April 1891 at St Mark's Church, North Audley Street, Mayfair. Although the McEwans had a lease at 16 Charles Street, the reception was held at their other home at 4 Chesterfield Gardens, where the couple had first met. The wedding was a lavish affair and the couple received countless expensive gifts. Margaret's father gave her a diamond tiara, priced at £50,000 as well as a diamond corsage in a leaf design. He also gave the couple the lease on a house in Deanery Street, Mayfair. Margaret's mother gave her a gold-mounted travelling bag, filled with everything that a young lady could need on her travels. The Grevilles also presented her with expensive jewellery and the employees at McEwan's Fountain Brewery in Edinburgh presented the couple with a silver Menteith bowl and a pair of candelabra. In return, McEwan provided a dinner for 500 of his employees at the



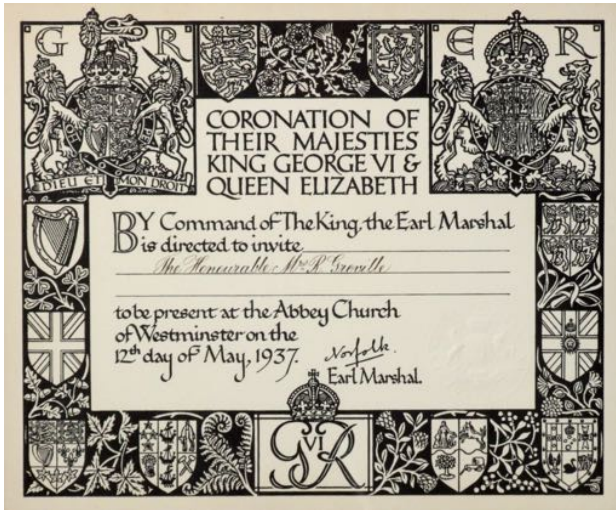


Figure 2: Margaret Greville's invitation card to the coronation of George VI and Queen Elizabeth. © National Trust/Andrew Fetherston.

Music Hall in Edinburgh to celebrate the wedding. Altogether, more than 200 gifts were received and guards were employed to keep an eye on them!

### High society and royalty

Upon her marriage, Margaret gained the title The Hon. Mrs Ronald Greville as well as society connections, which would have been beyond her wildest dreams had her father and husband not been who they were. To her friends, she was known as Maggie or Mrs Ronnie. I personally prefer to use her baptismal name of Margaret. Margaret's husband, Ronnie, was a member of the 'Marlborough House set' – a group comprised of the future Edward VII and his royal and aristocratic friends. Margaret had clearly 'arrived' and, in May 1892, she was formally presented to Queen Victoria. For this momentous occasion, she wore the diamond tiara given to her by her father on her wedding day. A few years later, Ronnie left the army to take up a career in politics, winning the Bradford East by-election in 1896 as a Conservative candidate.

In 1901, Queen Victoria died and Edward succeeded her. Margaret was invited to the Coronation, which must have been thrilling for her.

Not long after their marriage, William McEwan gave the couple a house at 11 Charles Street, not far from his own house at number 16, and he also gave them an income for life. In 1907, he gave Margaret £80,000 to purchase the Polesden Lacey estate near Dorking, Surrey. This would be their country retreat, where they could



Figure 3: The Saloon at Polesden Lacey, near Dorking, Surrey. © National Trust Images/Andreas von Einsiedel.

entertain their illustrious guests at the weekends and during the summer. The estate consisted of 900 acres, including woodland and farmland, so visitors could be assured of privacy. It was purchased in Margaret's name only, so that neither Ronnie nor any other future husband could gain control of it. Margaret had the house refurbished and extended by Mewès & Davis, who had designed the Ritz Hotel in London. She told them "I want a room fit for kings, queens and maharajahs." This would become the Saloon or Gold Room as it was also known and she really did entertain kings, queens and maharajahs in it!

The Saloon is decorated in the Italian Renaissance style. It consists mainly of a sumptuously-carved and panelled 'salone', dated c. 1700, which was removed 'en bloc' from an Italian palazzo. It is painted in cream and blue, with gilded decoration. The red brocade in the panelling was replaced in 1960. The marble fireplaces are in the French style c. 1730. There is a herringbone parquet floor, which is covered with Persian carpets. Around the border of the ceiling are rectangular canvases, depicting *putti* (cherubs) holding garlands of flowers. The corner roundels depict Old Testament scenes from the life of David. The large portrait to the right of the photo is Margaret and is by Herman Schmiechen.

The furniture in the Saloon was originally Italian. However, the National Trust sold much of it after Margaret's death, as it was not considered to be of 'museum quality'. It was replaced with French furniture from her Charles Street home. This seems to be a decision which was later regretted.



Figure 4: The Dining Room at Polesden Lacey, near Dorking, Surrey. © National Trust Images/Andreas von Einsiedel.

The National Trust guide book for Polesden Lacey (2008 edition) is full of photos showing the opulence of the house. It had 14 luxuriously-appointed guest bedrooms, which were kept ready at all times for Margaret's regular weekend parties. The Portico Bedroom is described as having a suite of green and gold furniture with red silk damask upholstery, red damask curtains, a brown pile carpet and soft green on the walls. There were nine bathrooms for her guests to use.

The dining room was designed by Ambrose Poynter in 1903–5. The white marble chimneypiece is late 18th century and was added by Margaret. The mahogany dining room chairs are late 19th century, in the style of Thomas Chippendale. At one end of the dining room, there is a portrait of William McEwan, painted by Benjamin Constant. Although William himself did not like this painting, Margaret always ensured that she sat opposite it, so that she could see it.

Like her father, Margaret collected many artworks and you can see some of these on the dining room walls. She also inherited William's art collection after his death. The Picture Corridor runs around three sides of the central quadrangle of the house and provides an excellent space for displaying these works. However, the very best paintings were put on display at Margaret's house in Charles Street.

The house also had a tea room for Margaret to entertain in, a billiards room, a smoking room and a gun room. Margaret ensured that the maharajahs' entourages of staff were made to feel at home by providing a separate 'curry kitchen' for them to cook their exotic dishes in. The house had electricity and central heating throughout,

as well as the kind of décor you would expect to find in a royal palace. In May 1907, King Edward VII and his mistress, Alice Keppel, made a day visit to Polesden Lacey. This was one of many visits and, in fact, the King had his own private suite there.

### Widowhood – no barrier to royal friendships

Sadly, in 1908, before the renovations were complete, Ronnie died of pneumonia, following an operation for throat cancer. He was only 43 years old and Margaret remained a widow for the rest of her life. They did not have any children, but during her time at Polesden Lacey, Margaret had 17 dogs, which are all buried in their own cemetery in the grounds.

Ronnie did not have much to leave in his will, but Margaret didn't need money. What she still needed were her 'connections' and, following a respectful period of mourning, Margaret continued to live the high life as a society hostess. In June 1909, Edward VII brought Alice Keppel and some of his Marlborough House set friends with him to stay at Polesden Lacey for the weekend. This was just what Margaret needed to ensure that she remained secure in the upper echelons of society.

Edward VII died in 1910, but Margaret was already a friend of his son, George V and his wife, Queen Mary, so her royal connections were uninterrupted. She strengthened her bond with the royals in 1914, when she offered to bequeath Polesden Lacey to the Duke of York, 'Bertie' (Albert – the future King George VI). This gift must have been looked upon favourably, as Bertie and his new wife, Elizabeth Bowes-Lyons, chose to spend ten days of their honeymoon at Polesden Lacey, following their marriage in April 1923. They, too, were great friends of Margaret, who was particularly fond of Elizabeth.

Although the Polesden Lacey estate afforded privacy from prying eyes, news of Margaret's VIP guests at both of her lavish homes would often still manage to reach the press.

On 26th October 1921, *The Tatler* ran a story, with photographs, entitled "At A Polesden Lacy [sic] Shoot". The list of guests demonstrates the type of people that Margaret was on friendly terms with e.g. Lord Louis Mountbatten, Miss Edwina Ashley (see next paragraph), Lord Cochrane, Major Loder, Lord Portarlington, Sir Edward Naylor, the Duke of Sutherland and Miss Vanderbilt.

The *Yorkshire Post and Leeds Intelligencer* of 12th April 1922 included a piece on the engagement of Lord Louis Mountbatten to Miss Edwina Cynthia Ashley (daughter of Col. Wilfred W Ashley MP and heiress of Sir Ernest Cassel, her grandfather). It states "The engagement ... marks the culmination of a romance which began at Polesden Lacy [sic], the Surrey home of Dame Margaret Greville, where the young Lord Louis and Miss Ashley were staying."

The *Sheffield Daily Telegraph* of 1st July 1922 reported on a "brilliant society party" at Charles Street for 46 guests, including "a number of Royalties." The guest list



Figure 5: Polesden Lacey house party, 1909 © National Trust/Richard Holtum.

included many from the shooting party mentioned in *The Tatler* (above), as well as Lords and Ladies, Earls and Countesses, a Marquis and Marchioness and a Duke and Duchess. However, Margaret was only just getting started! Other attendees were the Duke of York (the future George VI), the Princess Royal (Mary), Princess Maud and Princess Arthur of Connaught. The piece describes the dining room being hung with green brocade and Dutch art. The ballroom had just been enlarged, having been two rooms knocked into one. It was decorated in white and gold. The music was performed by Vassie's band and Margaret wore "a wonderful white draped gown and many emeralds". I will talk more about Margaret's love of jewellery later.

In addition, there are countless press entries entitled "King and Queen Visit Polesden Lacey" or similar, e.g. *Dundee Evening Telegraph* – 15th September 1942, "King to Visit Polesden Lacey", *Lakes Falmouth Packet & Cornwall Advertiser*, 28th May 1909 and "King's Visit to Polesden Lacey", *Clifton Society*, 3rd June 1909. There are too many to mention here, but this demonstrates that the royals were regular visitors to Polesden Lacey. In fact, when Margaret died in 1942, several newspapers described her as an "intimate friend" of the royals e.g. *Liverpool Daily Post*, 16th September 1942.

Figure 5 is a photograph taken at one of Margaret's house parties in 1909. The people in the photograph are (Back row): William Brownlow, 3rd Baron Lurgan, Lady Sarah Wilson, The Rt Hon William McEwan MP, Lieutenant-Colonel Lord Alastair Robert Innes-Ker, The Hon. John Ward, Count Albert Viktor Julius Michael von Mensdorff-Pouilly-Dietrichstein, Lady Saville, Sir John Christopher Willoughby, 5th Baronet, Lieutenant-Colonel, The Hon. George Keppel. Front row: Anne Breese, Lady Innes-Ker, Portuguese Minister, Margaret McEwan, The Hon. Mrs Ronald Henry Fulke Greville, DBE, King Edward VII, Georgina Elizabeth Moncrieffe, Countess of Dudley, Alice Frederica Edmondstone, The Hon. Mrs George Keppel, Lady Emily Julia Cadogan, Lady Lurgan, Miss Sonia Rosemary Keppel, later Lady Ashcombe, Mrs Cavendish Bentick.

Quite the list of glitterati of the times! Note that Margaret is sitting immediately on the right-hand side of the King, with her father behind her. I imagine that this would have been one of Margaret's favourite photos and she no doubt enjoyed showing it off to her fellow hostesses! However, whilst many of her guests held grand titles, Margaret was always comfortable in her own skin, declaring that "I'd rather be a beeress than a peeress".<sup>1</sup> This was an acknowledgement of the fact that her wealth had come from her father's success as a brewer, rather than from a background of aristocratic lineage.

## Society hostess with the mostess and caring employer

Margaret loved to host lavish events in her homes.

Every occasion, which Margaret hosted at either of her homes was sumptuous, with the best food, wine and entertainment available. Only the best would do for her guests. Such were her hosting skills that Edward VII said Margaret "had a genius for hospitality".<sup>2</sup> High praise indeed, from someone who would have been used to nothing but the best throughout his life. From what I have read about Margaret, more was always more! She wanted to impress her friends, but she genuinely wanted them to have a good time too.

In her biography of Margaret Greville, Pam Burbidge describes one particular weekend party in December 1932, when Margaret transformed the ballroom at Charles Street into a railway station and waiting room for a railway-themed party. There was a restaurant and bar, complete with railway sounds, such as whistling and shunting! It must have been quite an evening.

Of course, in order to lay on such wonderful occasions, Margaret needed an army of hard-working and loyal servants. She had around 70 servants at Polesden Lacey and 30 or more at Charles Street. These were headed up by Frank Bole, Head Steward. It must have been a daunting task to be in charge of so many servants, especially with so many grand guests visiting.

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<sup>1</sup> Evans, p. 34.

<sup>2</sup> Burbidge, p. 55.

Servants took care not only of the houses, but at Polesden Lacey there were also the extensive grounds and gardens, where fruit, vegetables and many varieties of plants and flowers were grown. In addition, there were tennis courts, a golf course, stables and the motor cars to be cared for.

Margaret was, on the whole, both kind and compassionate to her servants. They were well-dressed and well-fed and Margaret often laid on special treats for them and the children on the estate. She held an annual ball for her servants at Christmas with families living on the estate, which included a special meal, wine and beer – I do hope it was McEwan's! One of these occasions made it into the *Dorking and Leatherhead Advertiser* on 11th January 1913. It described Margaret's "thoughtful kindness", by providing the annual ball for nearly 180 people. Polesden Lacey's hospitality was described as being "proverbial", with no expense or effort spared. The event was organised by Mr Bole, Margaret's steward, whose sole aim was reported as being "to achieve the wish of Mrs. Greville that the household staff should have a real good time of it." Margaret is described as having worn a beautiful costume of lace over white satin, with her "magnificent ropes of pearls, and a diamond tiara in her hair." At the end of the evening, a Mr Hartshorn of Leatherhead made a speech in which he praised Margaret and her father, William McEwan for their kindness. He said that "Mrs Greville had always a kind thought for others, not merely in her own station in life, but especially those who esteemed it an honour to serve her."

Margaret also set up a staff social club, with activities such as billiards, darts, cards, dominoes and there was even a library. When her second ladies' maid, Gertie Hulton, got married, Margaret had her leave from her Charles Street home in her Rolls-Royce. Margaret's personal maid was Adeline Liron, who later became her companion and who accompanied her on her many worldwide travels. She travelled first class along with Margaret.

Margaret was very forgiving of her servants' misdemeanours and I find one story in particular rather hilarious. Margaret was entertaining some dinner guests one evening. One of her manservants, William Bacon, was known for liking 'a wee refreshment' (or three!). On this particular occasion, he was visibly tipsy, so Margaret wrote him a note, saying "You are drunk. Leave the room at once." Bacon dutifully received the note upon his silver salver and staggered along with it, before presenting it to the guest of honour! Despite this awful faux-pas, Bacon kept his job.

There are far too many stories of Margaret's kindness to her servants to recount here. However, there is one story, which must be included, because it demonstrates a level of kindness, care and compassion, which went well above and beyond that required of any employer. Pam Burbidge gives an account of this in her book.<sup>3</sup> It was also reported in the *Dorking and Leatherhead Advertiser* and in the *Surrey Advertiser* in April and May of 1917.

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<sup>3</sup> Burbidge, p. 167–169.

A young fifth under-housemaid, Alice, known as Ada, aged 21, had been employed at Polesden Lacey for around six months. In her book, Pam Burbidge refers to Ada as 'Joyce', so as not to upset any of her descendants. This is to be commended. However, as the incident was reported in the local press and has already been made public, I have given her real name here. I feel sure that no-one who reads this story would judge this poor young woman harshly. Not only do I not judge her harshly, but I have nothing but sympathy for her and the other poor innocent victim involved. I give only a shortened account of what happened here.

Ada had become unwell during the night of 23rd/24th April 1917. There was some to-ing and fro-ing during the night and at one point, Ada was seen returning to a bedroom shared by other servants, wearing a raincoat. Early on the morning of the 24th, when asked, Ada said that she felt better, but that she would rather stay in bed a while. Another maid, Ethel, took Ada a cup of tea and reported to the head housemaid, Annie Sessions, that she didn't think Ada was quite right. Annie spoke to Ada and then sent Ethel into Great Bookham to ask Dr Candy to visit the house. When Dr Candy was speaking to Ada, Annie saw him open a tin trunk in her room. The trunk tragically contained the dead body of a new-born baby girl. The baby had been strangled and a duster pushed into its mouth. Ada was put on trial for murder. At the trial, Dr Candy described finding Ada in "a very frightened, emotional state of mind." The coroner, who had carried out the inquest into the baby's death, declared that he believed Ada to be guilty of "wilful murder" whilst in "a state of frenzy". At her trial, Ada was defended by Sir E Marshall Hall KC, who was assisted by Mr Comyne Carr. Marshall Hall pled for leniency, with the defence that a soldier "had forcibly taken advantage of her" i.e. raped her. Ada was found guilty of manslaughter, but the jury recommended mercy. They must have heard a great deal of testimony, which backed up Ada's story about the soldier and felt that she should not be punished. As a result, the presiding judge, Mr Justice Darling, sentenced her to only six months' imprisonment – the least he could impose. It really was a tragic situation and I'm sure that poor Ada paid the real price for the rest of her life. I don't believe that anyone would have condoned what Ada did, but, considering the circumstances and the times, it is a little easier to see why people showed compassion.

What did all of that have to do with Margaret Greville? Most employers at any time in history would have been scandalised and embarrassed that such a thing could happen under their roof, but especially those in the public eye and with such illustrious social connections. However, instead of throwing Ada out and distancing herself from the scandal, Margaret paid for all of Ada's medical and legal costs, without which the outcome of her already heart-breaking story could have been so much worse. Did she think that poor Ada had suffered enough or was she reminded of her own humble beginnings and how differently her own mother might have been forced to act, had her father not been so supportive? She too, could so easily have had a similar fate to



that poor baby. I'm sure we will never know, but whatever the motivation for helping this poor young woman at a time of such tragedy and distress, this is probably the most humane and compassionate act of kindness I have read about Margaret and I feel sure that her beloved parents would have been extremely proud of her.

## Jewellery

When I think of Margaret Greville, one of the first things that comes to mind is her love of fabulous jewellery. Margaret loved to collect expensive jewellery from the best jewellers in the world, such as the House of Boucheron and Cartier. She was especially fond of pearls and diamonds and she owned jewels, which are said to have belonged to Marie Antoinette, Empress Josephine and Catherine the Great.

I could not possibly cover Margaret's entire jewellery collection here, so I have chosen only a few pieces to describe, as they are particularly beautiful and of interest.

Unfortunately, I was unable to obtain the use of any images of her jewellery free of charge from the licence holders, but please do have a look at the links provided.

The first is the Greville Diamond Tiara. It was made in 1901 by Boucheron. Originally, it took the form of a circular crown of diamonds on a platinum base, in the shape of papyrus leaves and was worn by Margaret at the Coronation of King Edward VII in 1902.<sup>4</sup> The tiara was later redesigned by Lucien Hirtz into a geometric honeycomb bandeau style and it became one of Margaret's favourite pieces of jewellery. This tiara is of interest, because it was one of many pieces of jewellery, which Margaret bequeathed to the Queen Mother. The Queen Mother had several diamond clusters added to it by Cartier in 1953 to give it a bit more height. It became one of her favourite pieces too and she wore it to many events.<sup>5</sup> The tiara has also been worn frequently by Camilla, now Queen Camilla, but then as Duchess of Cornwall, at state occasions.<sup>6</sup>

Another item of Margaret's jewellery which has been seen in recent years is the beautiful Greville Emerald Kokoshnik Tiara, worn by Princess Eugenie when she married Jack Brooksbank in October 2018.<sup>7</sup> The tiara was created by Boucheron in 1919.

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<sup>4</sup> Evans, p. 109.

<sup>5</sup> In the following image, the Queen Mother is seen wearing the tiara as she arrives at a gala performance at Covent Garden, London on 15th May 1963: <https://www.gettyimages.co.uk/detail/news-photo/queen-elizabeth-the-queen-mother-arriving-for-a-gala-news-photo/458848884>

<sup>6</sup> <https://www.gettyimages.co.uk/detail/news-photo/camilla-duchess-of-cornwall-arrives-at-the-serena-hotel-for-news-photo/78075464>. Here, Camilla is photographed arriving at the Serena Hotel for the Queen's banquet for Commonwealth heads of government in November 2007 in Kampala, Uganda. As well as the Greville Tiara, she is wearing the glittering, five-string Greville Festoon Diamond Necklace, made by Cartier of London. This is actually two spectacular diamond necklaces, which can be worn together or separately. One has three rows of diamonds and was made in 1929 and the other has two rows, made in 1938. When Camilla became engaged to the then Prince Charles, her engagement ring was also remodelled from one of the Greville bequests.

<sup>7</sup> You can view an image of the tiara here: <https://www.gettyimages.co.uk/detail/news-photo/britains-princess-eugenie-of-york-wears-the-queens-greville-news-photo/1051959498>

Its stunning centrepiece is a 93.70 carat cabochon-cut emerald. The bandeau-style platinum base is covered in rose-cut diamonds, pavé set, with six smaller emeralds, three either side of the main gem. I would actually say it is the more beautiful of the two tiaras.

From these pieces alone, only a few from a huge collection, it is easy to imagine the massive wealth and great status that Margaret Greville possessed, but Margaret was extremely competitive when it came to her jewellery. During one dinner party at her Charles Street home, an American guest lost a diamond from her necklace. As everyone was searching for the missing stone, Margaret remained very calm and offered up a magnifying glass, saying “perhaps this may be of assistance?”, implying that the jewel was tiny! On another occasion, when asked her opinion of Lady Granard’s pearls, she shuddered and replied “I thought it better not to look.”

### Margaret ‘the Magpie’

As well as collecting stunning jewellery, Margaret collected all sorts of beautiful items. Like her father, she had a penchant for art and Dutch art in particular. She also collected religious paintings and Scottish paintings and had a collection of miniature portraits from the 17th to the 19th centuries by various English and continental artists. These included miniatures of her mother, father and husband by Eunice Pattinson, which are on display at Polesden Lacey. She also inherited a large collection of artworks from her father when he died.

Margaret had a large collection of silver, dating from the 17th to the 19th centuries, including a decorated tankard, dated 1681. She inherited a silver teapot on a stand from her father, which bears his initials. In addition, she had a collection of silver mugs, salvers, cake baskets, candlesticks and much more.

Margaret also had some beautiful items by Fabergé, Cartier, Collingwood and other high-end designers. These were mainly gifts from friends and guests, including King Edward VII, who gave her a blue lapis lazuli seal bearing his crest, a brooch with diamonds and rubies and a shagreen box with tortoise shell.

Margaret’s furniture reflected the opulence of the rooms in which it stood, as well as her love of the world (she travelled extensively). One item, a French Louis XV commode (cabinet), dated c. 1750, is stamped by Jacques-Philippe Carel, a Parisian cabinet-maker. It sits in the Saloon and is said to be of national importance. Another commode, which sits beneath the portrait of William McEwan in the dining room, is Chinese lacquered, bordered with English japanning and mounted in ormolu. It is dated 1760–65. Ormolu is a technique, where finely ground high-carat gold/mercury amalgam gilding is applied to a bronze object. Once fired in a kiln, the mercury burns off. It was a technique used by the most skilled craftsmen.

Margaret’s interests in Asian works did not end with her taste in furniture. She had many Persian rugs and around 180 pieces of Asian art, including porcelain,

paintings and books from the Kangxi period (1662–1722), as well as other pieces from the Qianlong period (1736–95), including jars, jugs, plates, vases, bird and animal figurines and a large Chinese lacquer folding screen. Her Japanese collection included porcelain and a set of woodblock prints, bound in three red cloth books.

As well as all of this, Margaret collected clocks, European porcelain, Italian maiolica and too many things to mention here. What is clear from her collections though is that she liked to be surrounded by beautiful objects, which reminded her of the people and places she loved and which would also impress her guests. I don't doubt that many of her acquisitions were shrewd investments too.

However, whilst conspicuous wealth was the order of the day for Margaret, so that she could enjoy the high life and out-do her rival society hostesses, she did not forget those in need or less fortunate than herself.

### Like father, like daughter

Like her father, Margaret was also a great philanthropist and she contributed generously to the war efforts during both world wars. During World War I, she allowed Polesden Lacey to be used as a convalescent home for soldiers, she helped to run a social club for the men and transformed her golf course into a potato field. Margaret also gave the use of her house at 11 Charles Street, London, to the first Maple Leaf Club, which was a club set up for Canadian soldiers who were stationed over here. The idea for the clubs came from Lady Julia Drummond of Canada. The club at Charles Street provided sleeping accommodation, two dining rooms, a lounge, a smoking room and a billiards room. There was also food, hot baths, bed and laundry services. The men could purchase breakfast and lunch for eightpence each and dinner from one shilling. The club ran from 1915–1919, initially for 50–60 men, but the numbers quickly grew to 110.

Margaret donated one of her pearls to the Red Cross Pearl Necklace Sale, which was held at Christie's in London on 19th December 1918. The campaign was held to raise funds for wounded troops. Each pearl donated was made into a new necklace with other donated pearls and the sale raised a total of £82,492 and 10 shillings. Margaret had also donated a ruby and diamond pendant to the same charity and this was sold at Christie's for £315 on 10th April 1918.<sup>8</sup>

Margaret was awarded the DBE (Damehood of the Order of the British Empire) by Edward VII in July 1922 for her contributions to the war. Her medal is in the Polesden Lacey collection. Whilst not as flamboyant as her other jewellery, I am sure that this particular decoration meant a great deal to Margaret. The medal is given to those who have made "a pre-eminent contribution in any field of activity (usually, but not

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<sup>8</sup> Burbidge, p. 156.



Figure 6: Margaret Greville's Damehood of the British Empire Medal. © National Trust/Andrew Fetherston.

exclusively, at national level), or in a capacity which will be recognised by peer groups as inspirational and significant nationally and demonstrates sustained commitment".<sup>9</sup>

During World War II, Margaret housed 30 child evacuees and allowed Polesden Lacey to be used as a headquarters for the army's ammunition department. She gave up space in the grounds for troops to be accommodated. Officers were given lodgings in the house itself and they were also allowed to dine in the house.

Although Margaret certainly 'did her bit' towards the war effort, prior to World War II, she was sympathetic towards Nazi ideals. She attended the Nuremberg Rally of 1934 to hear Hitler speak and she attended the 1939 Olympic Games in Berlin. At the time of King George VI's coronation, Joachim von Ribbentrop (a politician and diplomat, who served as Minister of Foreign Affairs of Nazi Germany from 1938–45) hosted several large-scale events at the German Embassy, which were attended by royalty and aristocrats from around the world, so Margaret was not the only British socialite to be supportive of the Nazis. It seems to have been fashionable for a while. Margaret attended one of the lunches laid on by Ribbentrop at the Embassy. However,

<sup>9</sup> UK Government Cabinet Office - Honours.

when she eventually saw the reality of the situation that was unfolding in Europe, Margaret changed her attitude and had nothing more to do with the Nazis. Whether it was to atone for her previously-held beliefs, to rehabilitate her reputation or a bit of both, Margaret paid for a Spitfire to be built. It was a Spitfire Mk IIB P8643, made in 1941–42 and it was named ‘Margaret Helen’.

As well as her war efforts, Margaret funded a Guy’s Hospital scholarship for cancer research and a research lecturer in pharmacology post. She continued to fund the McEwan-Pretsell scheme, co-founded by her father, which gave financial assistance to students of Heriot-Watt College and Edinburgh College of Art and she also gifted her father’s house at 25 Palmerston Place, Edinburgh to the University of Edinburgh.

As previously stated, Margaret was very generous to her servants, passing on her old clothes and jewellery to her favourite maids. She held an annual Easter egg hunt in the grounds of Polesden Lacey for the children who lived on the estate and an annual party for the pupils of St James’ Church. The children were treated to a merry-go-round, Punch and Judy show, coconut shies and swings and were given food and a threepenny piece each. Margaret even joined in the games herself!<sup>10</sup>

Whilst these accounts show a woman who was kind and generous, Margaret was no-one’s fool. As a woman of means, Margaret received many letters, asking for ‘assistance’. The following letter is reproduced by Evans:

“Dear —

For the following reasons, I am unable to meet your demands. I have been held up, held down sand bagged, walked on, sat on, flattened out and squeezed by the Income Tax, Super Tax, Tobacco Tax, Beer Tax, Motor Tax, Purchase Tax and every Society, Organisation, and Club that the inventive mind of man can summon up for the Red Cross, Double Cross and every bloody cross and hospital in this country.

The Government has governed my business until I do not know who the hell owns it. I am inspected, suspected, examined, informed, required and condemned so that I don’t know who I am, where I am. I am supposed to have an inexhaustible supply of money for every need, desire or hope for the Human Race, and because I will not beg, borrow or steal money to give away, I am cursed, discussed, boycotted, talked to, talked at, talked about, held up, rung up, robbed and damned near ruined.

The only reason I am clinging to life at all is to see what the bloody hell happens next.

I am, Yours faithfully, etc...<sup>11</sup>

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<sup>10</sup> Burbidge, p. 166.

<sup>11</sup> Evans, p. 111.

I love this letter! It shows the other side of Margaret – the wicked, acid-tongued side and this was a side of her that her enemies or even her ‘frenemies’ were well-aware of, although she was always kind to her friends. Bob Boothby, an MP of the day, called her “a bit of an old bag, but good to me.” During her final years at Polesden Lacey, another friend ‘Chips’ Channon, visited her. He said of the visit that “we gossiped, and she proceeded to be awful about Mrs Vanderbilt whom she hates. There is no one on earth quite so skilfully malicious as old Maggie.” Going one step further, one of her rivals, Lady Leslie, is quoted as having told the writer James Lees-Milne “I’d rather have an open sewer flowing through my drawing room than Mrs Greville round for tea.” Ouch! Tut, tut, ladies!

Margaret spent her last few years at the Dorchester Hotel, where she continued to entertain her high-ranking friends. Many aristocrats decided to stay in London hotels during the war, as it was felt to be safer, given that they had been built of concrete and steel. Despite being frail and unable to walk, Margaret continued to wear her stunning jewels and to gossip with her friends, which no doubt continued to give her great pleasure. In 1938, King George VI allowed her to use the royal entrance to Royal Ascot, so that her car could take her directly to the royal box, to save her from having to walk.

Margaret’s health continued to deteriorate and she eventually fell into a coma. She had suffered a cerebral thrombosis. She had also been suffering from arterio-sclerosis, nephritis and dilation of the heart. Her years of living the high life had finally caught up with her. Margaret died on 15th September 1942 and was buried in the Lady Garden at Polesden Lacey.<sup>12</sup> Her funeral was held at St Nicholas Church, Bookham. The Bishop of Guildford presided and the event was attended by her staff and society friends. The King and Queen were represented by Sir Eric Melville. A memorial service was also held at St Mark’s Church, North Audley Street, where Margaret had married Ronnie. The Archdeacon of Wells and the Rev K H Thorneycroft officiated and royalty was again represented, so that, even in death, Margaret was still mixing with ‘the right kind of people’.

## Bequests

After tax, Margaret’s net fortune at the time of her death was £1,505,120 5s 10d.

As a mark of gratitude for their service and loyalty, Margaret ensured that her servants were well-provided for. To her maid and companion, Adeline Liron, she left all of her clothes, two rows of cultured pearls and all of her jewellery under £100 in value per piece. She also gave her a tax-free sum of £50 per month for the rest of her life, her dogs and £100 per year to provide for them. She also ensured that Adeline had a home for life at Polesden Lacey.

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<sup>12</sup> A photo of her grave can be seen here: <https://www.nationaltrustimages.org.uk/image/1414444>

To her head steward, Francis Bole, Margaret left £1,000 and an annuity of £500 for life, as well as all of the modern household silver. Unfortunately, he was instructed to destroy all of her personal papers. One can only imagine what tales they would have told!

To her chauffeur, Sidney Smith, she left an annuity of £200 for life, all of her cars, accessories and garage furniture at 11 Hay's Mews, London. To her head butler, George Moss, she left £100 per annum for life. To her personal maid, Gladys Yealland, she left the sum of £500. To all of her servants of between six months' and eight years' service, she left two years' salary, and to all of her servants of over eight years' service, she left seven years' salary. Margaret also allowed a Mrs Hart, who was the widow of one of the estate employees, to live rent-free in the cottage at Goldstone Farm on the Polesden Lacey estate for the rest of her life.

She also left gifts to her friends, her godchildren, her two favourite doctors and various charities, as well as making provision for the upkeep of her late husband's and parents' graves.

Margaret bequeathed £25,000 to the exiled and widowed Queen Ena of Spain and made generous gifts to King George VI and the Queen Mother. However, she had at some point changed her mind about leaving Polesden Lacey to them. Instead, she left it to the National Trust, along with the lease on 16 Charles Street and half a million pounds. This must have come as a bit of a disappointment to George and Elizabeth. However, Margaret made up for this by leaving much of her fabulous jewellery to the Queen Mother. This included all of her jewellery valued at over £100 per item. There were around 60 such items, including the jewellery I have already mentioned, as well as the Greville Chandelier ear-rings, which were made by Cartier, consisting of 32 diamonds set in platinum. The King and Queen gave these to Princess Elizabeth on her 21st birthday and she was seen wearing them on formal occasions. Another pair of ear-rings were the Greville Peardrop ear-rings, which were made up of over 20 carats of diamonds! I'm sure that no-one needed a magnifying glass to find those!

The story of Margaret Greville is truly remarkable. Her start in life was far from ideal. Had her father not been who he was, not only in terms of wealth, but more importantly in terms of the love and care he showed her, Margaret's life would have been that of just another commonplace young woman growing up in Victorian times. It is unlikely that her mother Helen would have been able to work in service with a young baby to care for and, at best, Margaret would probably have ended up in domestic service herself. There is nothing at all wrong with that, but who would have guessed that a little baby, born out of wedlock to a domestic servant would have risen through the ranks of society to become one of the most prominent society hostesses of her day, bedecked in the finest clothes and jewellery, socialising with the highest in the land? Thanks to her generosity, like her father's before her, Margaret's legacy lives on, not only in the sparkling jewels that we see adorning our present-day royal

ladies, but also in her home at Polesden Lacey, which truly was “fit for kings, queens and maharajahs”!

I will leave the final words on Margaret to one her close friends, the late Queen Mother, who, upon hearing of Margaret's death, wrote the following of her: “I shall miss her very much indeed ... she was so shrewd, so kind and so amusingly unkind, so sharp, such fun, so naughty ... altogether a real person, a character, utterly Mrs Ronald Greville...”<sup>13</sup>

## Acknowledgements

I would like to express my sincere thanks to:

The National Trust Images Department for allowing me to use a selection of their images free of charge. Without their kindness, this article would have been rather bare!

Pam Burbidge, Volunteer at Polesden Lacey and author of *The Maggie Greville Story*, whose generosity and efforts on my behalf in helping to secure the National Trust images are hugely appreciated.

Polesden Lacey House Party, 1909. Collections - Public © National Trust/Richard Holtum

Margaret Greville's Damehood of the British Empire Medal. Collections - Public © National Trust/Andrew Fetherston

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Margaret (Anderson) McEwan, The Hon. Mrs Ronald Greville (1863-1942), 1891, by Emile-Augustus Carolus-Duran (1838-1917) at Polesden Lacey, Surrey. NTPL Commissioned (NTPL) © National Trust Images/John Hammond

Margaret Greville's invitation card to the coronation of George VI and Queen Elizabeth. Collections - Public © National Trust/Andrew Fetherston

The Saloon at Polesden Lacey, nr Dorking, Surrey. NTPL Commissioned (NTPL) © National Trust Images/Andreas von Einsiedel

The Dining Room at Polesden Lacey, nr Dorking, Surrey. NTPL Commissioned (NTPL) © National Trust Images/ Andreas von Einsiedel

## Postscript: A visit to Polesden Lacey

I am delighted to be able to add a short postscript to this article, following a visit to Polesden Lacey in May of this year with John Martin.

In the run-up to our visit, we had been in email correspondence with Pam Burbidge, an SBAA member and one of Polesden Lacey's Volunteer Research Historians, who I have mentioned throughout this article as the author of *The Maggie Greville Story*. Pam went to a great deal of time and trouble, enlisting the help of fellow volunteers and staff members, to ensure that we had a truly wonderful day. Upon our arrival, we were greeted very warmly by Pam and two of her fellow Volunteer Research Historians, Fiona Dunstan and Janet Durbin. All three were so welcoming and gave us a personal tour of the house. Their knowledge and dedication was truly impressive. We were also introduced to National Trust Curator, Dr Alice Strickland, who talked us through the Treasured Possessions Exhibition in the 'Red Room' which was once William McEwan's bedroom.

This exhibition was a stunning showcase of some of the items that Margaret left to the National Trust and marked 80 years since she had left Polesden Lacey. The collection included many items by Cartier and Fabergé, including a beautiful egg with a diamond clasp in the shape of a snowflake, which you can see here: <https://www.nationaltrustimages.org.uk/image/1621198>. There were rare ceramics and silver, all of the most outstanding workmanship, and a selection of French, Italian and Dutch paintings. My favourite piece was the gorgeous diamond and ruby brooch, gifted to Margaret by Edward VII, in the form of his cypher, which she wore to his coronation. You can see this brooch, which was made by Collingwood & Co., along with another brooch gifted to Margaret by the king here: <https://www.nationaltrustimages.org.uk/image/1621201>

It was truly exquisite. The exhibition runs until the end of October, so depending upon when this journal is issued, you might just manage to read a bit more about it online here: <https://www.nationaltrust.org.uk/visit/surrey/polesden-lacey/treasured-possessions-riches-of-polesden-lacey-exhibition>

It is all very well, reading about Polesden Lacey either online or in a guide book and seeing photos of the beautiful rooms. However, I have spent the past 6–7 years researching William McEwan and his family, including Margaret. When you spend that much time researching people, you almost get a sense that you know them and I have certainly developed a certain affection for them. Visiting Polesden Lacey really brought my research to life. I was able to visualise some of the stories I'd read in Siân Evans' and Pam Burbidge's books, especially the one about the tipsy butler, which I love! I found it both exciting and poignant, looking at all of the wonderful collections, seeing Margaret's bed and her bathroom, modelled on the bathrooms at The Ritz Hotel. It was also very special, seeing her DBE medal. In another display, there were

replicas of the Greville diamond tiara and the Kokoshnik emerald tiara. Those were definitely another highlight.

Once we had completed our tour of the house, Pam had arranged lunch for us which was also a great delight. In the afternoon we had time to wander through the gardens where we were able to visit Margaret's grave, which is in a very quiet area. It looked very serene and peaceful and you can view a photo of it here: <https://www.nationaltrustimages.org.uk/image/1414444> The stunning views from the gardens of the rolling countryside reach for miles and miles. It was easy to see why this house and its location were chosen by Margaret and Ronnie and why it was such a popular place for their royal and aristocratic friends to visit. I must say, however, that the welcome they would have received could not possibly have outdone the wonderful welcome and hospitality that we received from Pam, Fiona, Janet and Dr Alice. Polesden Lacey's legendary hospitality clearly still lives on through the kindness and great efforts of our wonderful and generous hosts. Thank you all for making our visit so highly personal and so very, very special. We will remember it for a very long time to come!

Visiting Polesden Lacey is certainly a must for anyone visiting London or nearby. It is a fitting tribute to Margaret, who continued her father's philanthropy by gifting this home and its treasures to the National Trust. Who would ever have thought that this gem came about as a result of William McEwan's wealth, a humble Scottish brewer?

Aye, McEwan's, the best buy in beer!



Figure 1: Some of the best known Caledonian beers.

## End of an era

*John Martin*

**I**N MAY 2022, Heineken announced the closure of Caledonian Brewery, following fourteen years of ownership.

It was the last heritage brewery in Edinburgh, which had been operating for over 150 years. Heineken's decision to close the brewery was said to be for economic reasons.

A sad day indeed. CAMRA did intervene after hearing the news of the closure and called on Heineken to think again and to enter discussions to find a way to save the brewery. However, all efforts were fruitless. The Caledonian beers will now be brewed under license at Belhaven in Dunbar, another historic brewery that was established in 1719 – some 150 years older than the Caledonian Brewery.

The good news is that Belhaven Brewery were able to take on five employees from the Caledonian brewery.

It all began in 1869 when George Lorimer formed a partnership with Robert Clark, who was previously a brewer at Alexander Melvin's Boroughloch Brewery in Edinburgh, and established the Caledonian Brewery in Slateford Road. The brewery was named after the adjacent Caledonian Railway line. They expanded into the west of Scotland and north east of England, before entering into a trading agreement with Vaux & Sons Ltd of Sunderland in 1919.

Lorimer & Clark was registered in January 1920 as a limited liability company. The company was taken over by Vaux Associated Breweries Ltd in 1946 and ceased to trade in 1963, although the Caledonian Brewery continued to brew.

In 1959 Vaux acquired Steel Coulson & Co Ltd and Thomas Usher & Sons Ltd. In 1961 Vaux acquired another famous brewing company John Wright & Co of Perth. Production concentrated on the two main Edinburgh breweries, the Caledonian Brewery and Usher's Park Brewery in St Leonards Street. After the closure of Steel Coulson the Usher brewery expanded considerably. In 1972 Thomas Usher & Son

changed their name to Ushers Brewery and in 1979 to Lorimer's Breweries Ltd. The Lorimer & Clark label was revived in the late 1970s, which a previous trade agreement between Vaux and Usher had prevented.

In 1980 Vaux Breweries Ltd sold the assets of Steel Coulson, Lorimer's and John Wright to Allied Breweries. The Caledonian Brewery continued to brew under the control of Vaux Breweries until 1985 when the brewery was closed.

In 1987 the Caledonian Brewery was sold to the Caledonian Brewery Co. Ltd as a management buyout, headed by the former manager Dan Kane and the former brew master Russell Sharp.

In 1994 the brewery suffered a fire in the maltings and rebuilding of the most badly affected areas occurred in 1995. A second fire in 1998 destroyed one of the three original coppers dating from 1869.

The end of 1994 saw the brewery winning contracts for new business both national and international, specialising in traditional Scottish ales, with products like Deuchars. Caledonian Brewery did operate the only direct fired open coppers in the country.

In 2004, Scottish & Newcastle (S&N) bought a 30% share in the Caledonian Brewery following the closure of nearby Fountain Brewery. Four years later S&N acquired full control but not long after that S&N itself was bought over by a combined bid from Heineken and Carlsberg. This resulted in Heineken becoming the new owner of the Caledonian Brewery in 2008.

The following is a summary of the key dates and events in the Caledonian Brewery history. It comes from the Caledonian website, which has already been taken offline.

**1865 – Fire at the Theatre Royal** George Lorimer senior is killed trying to save a labourer trapped in the church next door. George Lorimer junior, then 18 and working as a tea-broker in London, returns to Edinburgh.

**1868 – The partnership begins** George Lorimer junior inherits his father's fortune. He meets Robert Clark in the Golf Tavern in Bruntfield. They strike up a friendship and discuss a possible business venture in brewing.

**1869 – A brewery is born** Lorimer & Clark's Caledonian Brewery opens its doors for the first time, perfectly located next to the new Caledonian railway line on Slateford Road.

**1870-1900s – Open for business** The business holds its own and quickly starts to thrive.

**Early 1900s – Crossing the border** The Caledonian beers go down a storm in the south, cleansing the dust from the throats of industrial England's miners.

**1919 – Expansion** Brewing giant Vaux is impressed by the success of Lorimer's Scotch Ale and decides to take a stake in the brewery.

**1947 – Takeover** Post World War II, Vaux is one of several brewers to invest in the lucrative Scottish market, taking full control of the Caledonian brewery.

**1986 – Under threat** The market has changed, dominated by big brands of keg beer and lager. Vaux pulls out of Scotland and the Caledonian brewery.

**1987 – Resurrection** Head brewer Russell Sharp and managing director Dan Kane

lead a buy out, rescuing the business and re-launching in the empty Victorian brewhouse as the Caledonian Brewery Company.

**1990 – A world's first** Caley brewery creates the clean and crisp Golden Promise Ale, the first organically brewed beer in the world.

**1991 – Innovation for the nation** A modern twist on an India Pale Ale, Deuchars IPA ushers in a new era of brewing, allowing lager drinkers to finally discover the joy of cask ales.

**1994 – Disaster strikes** A fire causes damage that will take two years and £3m to repair. The original brew house survives the blaze, the rest is rebuilt in period style with strictly traditional materials.

**1998 – Brews of steel** Fire sweeps through the site once again. This time the brewery is back up and brewing within a week. Deuchars IPA is voted Champion Beer of Scotland by CAMRA.

**2004 – Staying power** Scottish & Newcastle buy a 30% share in Caledonian so it can continue brewing in Edinburgh following the closure of Fountain brewery.

**2008 – Double takeover** Scottish & Newcastle buy the remaining 70% of Caledonian, but then Heineken buys S&N. Caledonian remains an independent company under the Heineken umbrella.

**2015 – The adventure awaits** Caledonian introduces Wee George, a pilot brewery named after their pioneering founder, where two young brewers tinker away creating innovative craft brews.

**2022 – The end is nigh** Heineken announces that it plans to close the brewery, with production being moved to Belhaven Brewery in Dunbar.

Several years ago when I was researching the heritage pubs of Edinburgh for a presentation, I discovered that the design of the Caledonian Brewery was undertaken by the architect Robert Hamilton Patterson. He was also the architect for Abbey, James Calder, Castle, Holyrood and Drybrough breweries and the Café Royal public house in Edinburgh, a glorious example of Victorian and Baroque style.

In 2012, the SBAA and the Brewery History Society arranged a joint visit to Caledonian Brewery and were given an in-depth tour of the premises which was greatly appreciated. At that time the Caledonian Brewery were corporate members of the SBAA, but their membership lapsed in 2018 when many of the managers left.

The SBAA was grateful to Jeff Sechiari of the Brewery History Society in providing a selection of the following photographs taken during that visit.

Caledonian's better known beers are Deuchars IPA, 80/- (rebranded as Edinburgh Castle) and the Flying Scotsman. Caley also brewed a number of seasonal beers.

Over the years Deuchars has won over 40 awards including the CAMRA Supreme Champion Beer of Britain in 2002. The name Deuchar originally comes from the Robert Deuchar Duddingston Brewery established in 1895 and closed in 1961. (see Journal 2015 for further information in the article, The breweries of Craigmillar). Caley Brewery created the Deuchars beer in 1991.

I wonder how long these products will survive.

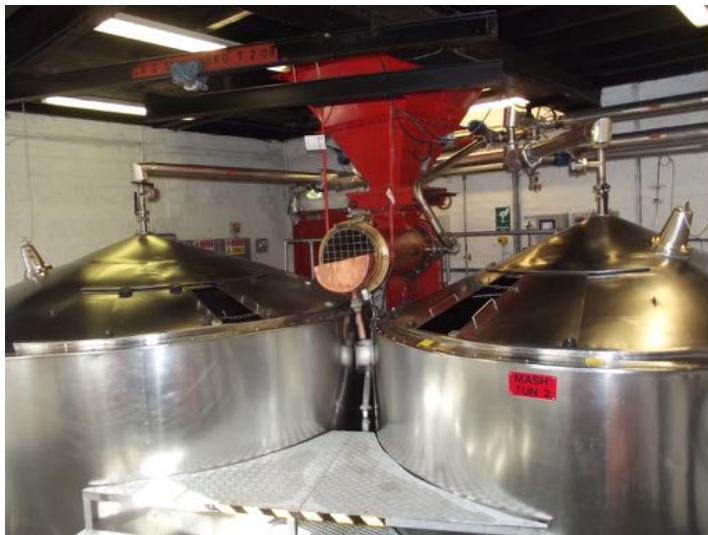


Figure 2: Mash tuns.



Figure 3: Coal-fired coppers.



Figure 4: Open fermentation vessels.



Figure 5: Trailer being loaded with casks.



## Postscript

Earlier this year we learned of the death of Russell Sharp, who was the Head Brewer at Caledonian Brewery in the 1980s and 90s. He was the man responsible along with Dan Kane for saving the Caledonian Brewery from closure in 1987 with a management buy out.

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## Memories of Scottish & Newcastle, and other beer tales

*Alastair M Carmichael*

THIS ARTICLE ALL started out as a few of my own recollections of Scottish & Newcastle Breweries after reading John Martin's excellent book a copy of which he kindly gave me, relating to his 40 years (1967–2007) working in a variety of positions and locations within the company. My own S&N recollections then sort of wandered off into other industry and drink related experiences and incidents (both work and pleasure) from the thousands there have been over my time and I simply couldn't stop, so here goes at aged 65 a few of my 50 years (1972–2022) of memorable related experiences. Indeed, a Golden Anniversary of many things, beer related.

### Fountain high speed canning line, 1973

There are several references in John Martin's book on S&N about the new high-speed canning line at the then newly built Fountain brewery in 1973 and I remember this equipment being installed, although I was but an urchin. I seem to recall it being a Crown Cork & Seal filling machine manufactured in Philadelphia, and like most higher speed bottling and canning equipment, teething problems were not (and still are not) uncommon, much to the frustration and ire of the customer desperate to achieve maximum production targets at the earliest opportunity, and Fountain was no exception. Crown Cork was the supplier of all the bottle crowns to S&N, and along with Metal Box, they were the two can suppliers for S&N.

When my stepfather Bob Feltham retired from S&N as Group Packaging Manager in May 1977, having formerly been Bottling Manager at Fountain, the retirement presentation was done by board director Mr Clutterbuck, the same man who had offered him his first job with Younger's 25 years earlier. The S&N journal *Tartan Star* reported:

Bob joined William Younger & Co. in 1952, having retired six months before from the Royal Marines stationed at Lymptone, where he held the rank of Marine Warrant Officer. He met Mr Clutterbuck, who was in the Territorial Army at the time, during a TA training exercise at the Marine base.

He was then approached by Bill Avery, President of Crown Cork and Seal in the USA, to become General Manager for the new Crown Cork can making plant in Livingston, West Lothian. Bob remained there until his death from cancer in 1979, and some time later Crown Cork closed the Livingston plant as being economically unviable.



Figure 1: *Tartan Star* (May 1977) report on Bob Feltham's retirement.

Bob Feltham was indeed a fine fellow and was encouraging myself aged 15 and my brother James aged 17 to enjoy a can of McEwan's Export with our Sunday roast lunch (and also frequently other times). When at Glenalmond boarding school in 1973, coinciding with the commissioning of the Fountain high-speed canning line, Bob actually had Coca-Cola cans filled with McEwan's Export for me to take back to school. The penalty for booze at public school was expulsion but what better guise than guzzling beer from Coke cans – and it was certainly more rewarding than the revolting homebrew kits from Boots that my best mate Colin Liddell and I were brewing under the floorboards at the time.

Years later in 1993 with my own company Carmichael (Scotland) Ltd, I met Bill Avery in his somewhat basic office (for the president of such a large company) at their corporate HQ in Philadelphia when we were awarded a contract by Crown Cork to design and manufacture a special labelling machine for Hormel Foods for their SPAM plant in Nebraska. We installed this Scottish-built Carmichael labeller in 1994 which ran extremely well at 800 SPAM cans a minute, although the little trains running through the plant, with wagons spilling over with crushed and liquified pig, were stomach-churningly grim.

## A bit of background

Whilst my step father Bob Feltham worked for S&N, it is notable that my own father's building and civil engineering company James Turner & Co. Ltd, a subsidiary of A.M. Carmichael Ltd, was constantly involved in building works at S&N sites.

To provide some background on all this, in the 1950s and 1960s, A. M. Carmichael Ltd was Scotland's largest civil engineering company, at times employing some 5,000 men. Founded by my grandfather Alastair M Carmichael in 1913, Carmichael's

"THE SCOTSMAN" TRADE REVIEW Friday, April 25, 1938



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- Edinburgh Corporation, and  
Imperial Chemical Industries, Etc. Etc.



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(Incorporated in Scotland)

Figure 2: This extract from *The Scotsman*, April 1938 shows the extent of the works carried out by A. M. Carmichael Ltd.



Figure 3: Some of the projects undertaken by Turner & Co in the 1960s.

projects were involved in the construction of hydro-electric schemes, dams, airfields, bridges, roads and motorways (A8, M8, M9, A74, A1M) whilst also being the largest open cast coal miner in Scotland for the National Coal Board. My father, also Alastair M Carmichael was an operational director of Carmichael whilst also being Managing Director of James Turner (Figures 2, 3).

James Turner, located off Gorgie Road in Edinburgh had permanent site offices at both Fountain and Abbey breweries for numerous contracts over the decades varying from fixing the bogs to significant construction jobs including new buildings, stores, foundations, structural steel work, and sub contract work on the new Fountain brewery. In 1963 Turner built the new blending and bottling plant for the S&N-owned Mackinlay's Whisky in Leith (see figure 3) working in conjunction with S&N's engineering dept. My tireless father, a regular visitor to S&N sites over the years, died suddenly from a heart attack in 1965 aged only 44, and thereafter his brother James took over as Managing Director until he died in 1970, and the firm passed to the fifth and youngest brother Iain Carmichael and during all this time Turner had continual work in the two Edinburgh S&N breweries and also at North British Distillers.

### A student's tale, 1980

In 1980, Turner (now incorporating R.C.L. Plant Ltd) had a job at Fountain Brewery to destroy thousands of slightly outdated cans of McEwan's Export, Younger's Tartan and Kestrel Lager. Turner was contracted to crush, load and transport these flattened, ripped and leaking cans by tippers to an Edinburgh council dump under supervision both at the brewery and escorted by H. M. Customs to the dump to ensure no pilfering. I, aged 22, was at Fountain that day on 24 May (I often visited Turner sites and knew the employees well from my Dad's days) and I despaired at watching the R.C.L. International Harvester drotts (caterpillar loaders) drive over these many thousands of cans, crushing them with those steel tracks and then loading them into the R.C.L. tippers. As a constantly poverty-stricken student at Newcastle University, it was a tragic sight to watch, and I returned to Turner's yard on Gorgie Road to pressure wash my 1968 Hillman Minx estate (unfortunately as this beast was used for cleaning construction equipment it quickly started removing the paint off the car). An hour later one of the lorries fully laden with this beer can carnage arrived at the yard. It was 4pm on a Friday.

Big George Willum, the lorry driver I had known since my Dad's days told me that as the council tip closed at 4pm this load would now have to wait in the yard until the tip opened first thing on Monday, and he also suggestively told me that not a few cans – although bashed, scraped and disfigured – were not punctured and still retained their delightful liquid products. Thus, on Saturday, I did a most unusual thing. I got up early. I drove the Hillman from our house on Frogston Road to Turner's yard, had a brief chat and cuppa with the watchman in his hut and parked right next to



Figure 4: 1968: Turner building the vast bonded warehouse for North British Distillers, Muir Hall at West Calder (photo by my Kiddy Instamatic 25).



Figure 5: 1980: The International drotts used for 'can crushing' at Fountain (better camera by now).



Figure 6: Whilst this photo was taken on Xmas eve 2022, the RH can is still full of Export from that 24 May 1980.



Figure 7: 1977 to 1980 – Our student local in Newcastle opposite Tyne Tees TV, long since demolished, where much Newcastle Exhibition and Brown Ale disappeared. We called the landlord No-Neck because it seemed to us he didn't have a neck.

the Leyland multi-lift tipper, noticing beer still dripping out the tailgate into big beer puddles mixing nicely with the pools of diesel.

In one of the workshops I commandeered a couple of big plastic crates and put one on the roof of a company Land Rover parked on the other side of the lorry and then I clambered up into the tipper body. Thereafter, I became some sort of deranged



maniac delving through the tons of cans and when occasionally finding a non-leaking one, cast it into the crate on the Land Rover roof. After a couple of hours both my arms were streaked in blood from the ripped aluminium cans but that was no matter as I now had two full crates of nearly OK cans, somewhere in the region of 200, albeit these would have unlikely been accepted by Tesco or Sainsbury's QC in their pitiful condition. I returned to the yard on the Sunday and again left with a substantial haul. A couple of weeks later I returned to Newcastle with my booty weighing down the Hillman and whilst most of the stash stayed in our own student flat for consumption with my great pal and flatmate, Trev Butler, I certainly made a few quid on selling off some slightly spoiled stock. A good result, although it took some time for the scars on my arms to heal.

As Trev, myself and a few other blokes on our degree course residing in Garth Heads (fortunately long since demolished as a health hazard) had to frequent our grotty local pub the Rose & Crown (Figure 7) most evenings, where food was optional but drink essential, such S&N bounty was considered as Red Cross parcels. Over the course of four years we were, however, compelled to trial a great number of Geordie S&N pubs, and we did.

### Can labelling at Eddie Stobart, 1995

John Martin also mentions John Hunt in the book and regarding my company's reputation in designing and manufacturing labellers, John as Purchasing Director of S&N Beer Production contacted me in 1995 regarding a potential can labelling project. The intent was to install a de-palletizer, labeller, and palletizer in Eddie Stobart's mega-massive warehouse in Carlisle, as Stobart had the contract to transport all the empty printed cans from the CMB (Metal Box) can-making plant in Carlisle to Fountain and other S&N breweries around the UK. John's idea to reduce inventory, increase flexibility, and provide short promotional runs was to label blank bright cans at Stobart on this mini line. We quoted circa £200,000 for the labeller (similar to the labellers we supplied to Coca-Cola all around the world) including an air inflation system to keep the empty cans rigid whilst labelling. John thought the price very reasonable and Stobart were very much in favour of the project, but sometimes even very good ideas on saving costs and increasing flexibility do not get board approval. This was one of them.

### Lion Brewery, Pennsylvania, 2008

Over the years we supplied six high-speed labellers running up to 1,000 bottles per minute to Coca Cola Philadelphia, and in the early days in 1994 and with a plague of problems in commissioning our kit I was terrified of meeting their Vice President



Figure 8: Cliff Risell, President and C.O.O. of Lion Brewery, Pennsylvania.

of Operations, Cliff Risell, who had summoned me over from Scotland for a serious kicking – Cliff had a proven reputation of savaging non-performing suppliers.

However, we sorted all the technical problems and in time Cliff became not only a real fan of Carmichael equipment but also a friend, and for any new labeller we were specified whilst all the other equipment went out to tender. A nice situation indeed. When major organisational changes within Coca-Cola's US bottling plants came around, Cliff decided that he had enough of liaising with 'clueless greenhorn Harvard grads' (toned down from his real opinion) based at Coke's world HQ in Atlanta, and with some other investors he bought the Lion Brewery in Wilkes-Barre in Pennsylvania which was regarded as a craft brewery and thereafter Cliff was appointed President and Chief Operations Officer.

Cliff needed my advice on some matter and he took me to the brewery one day in August 2008. I was somewhat surprised to find then that this 'craft' brewery had four bottling lines, a fleet of six-wheeler Mack articulated trucks (in the UK the well-to-do craft breweries have a Transit van), and employed over 300. It even had a railway line running through the site to ship beer by train. Well, I guess there are craft breweries, and well, then there are craft breweries.

The brewery had been making losses for some years and Cliff concluded that this was from too much contract brewing and bottling, with too much variation of product and too many options for bottle designs, label types and end of line packaging options. He reduced the 28 bottle design options down to six generic ones with limited labelling options, whilst he restructured production shifts and maintenance schedules and with a bit of arse kicking the union (which he was well used to), Lion Brewery was turning healthy profits within two years. Clearly his experience and drive as Vice President of

Operations with both Pepsi in New York and then Coca-Cola in Philly was reaping benefits.

## Heineken, 1997

Although I was somewhat saddened at the Heineken and Carlsberg takeovers of that great Scottish company S&N in 2008, a decade earlier in 1997 my company was contacted by Heineken and we ended up doing a significant amount of engineering development work and R&D for Heineken in Amsterdam on a new project called Labelcoat.

This entailed using transfer labels (similar to those on Airfix model Spitfires we glued to ourselves and everything else as kids, and when after a week your mum would find a propeller stuck to the back of your head) to be applied to glass bottles at an anticipated speed of 700 bottles per minute (thus a bit faster than the Airfix Spitfire). The patented process involved these printed transfers peeling off a backing web on label reels being fed through a high-speed labelling machine and then applied onto bottles, and thereafter passing through a heat process to cure the inks – the benefits of the process being lower cost images than the currently applied clear pressure sensitive labels, whilst making the bottles more recyclable as the decoration was water-based ink transferred onto the bottle rather than the permanently attached polypropylene adhesive labels.

The initial project in fact involved us designing and building an application rig to apply this process onto Heineken's plastic bottle crates, which albeit a side project proved a great success.

The Heineken R&D project team included some half dozen somewhat extrovert and rowdy Dutchmen. At our initial meeting in Amsterdam after they collected my design engineer and me from Schiphol Airport we went straight to a bar and then another before having dinner. Around 2am we got back to the hotel and had a few more beers at the bar. Wearily we hit the sack, aware that breakfast was at 7am ahead of a full day's technical meeting at the brewery. Feeling a tad wrecked I dragged myself downstairs – only to see two of the Heineken guys still drinking Duvel beer (a mere 8.5%) at the bar. Having drunk throughout the night they cheerily came over to join us for breakfast.

In 2000 when some Americans were attempting to copy the patented Labelcoat technology, Heineken paid me as a consultant expert witness in the IP case against these individuals (one of whom I knew from years gone by) and I had several meetings with their IP lawyers. Ultimately Heineken offered me a job to head up their packaging R&D team – but firstly it would mean disposing of my company and moving to Amsterdam, and secondly, I knew my liver could never stand the pace with these guys.



Figure 9: Test bottles for Labelcoat and a label reel for application to the plastic bottle crates in Holland.



Figure 10: The CMB bottling rig at Stewart Brewing in Loanhead.

### Mobile beer bottling, 2016

Much more recently in 2016 a few of us from the industry with collectively a vast amount of experience in beverages, brewing, processing, bottling and packaging pooled our technical and financial resources and incorporated Carmichael Mobile Bottling Ltd based at Loanhead. It involved a private equity investment of circa £500,000 for a new DAF artic lorry which we liveried Lord of the Isles and a custom built 30 feet long trailer including a full processing and bottling line with installed carbonator, bottle rinser, filler, capper, labeller, date coder and shrink wrapper, 1,000L water tank, and

with power provided by a diesel generator. I designed all the graphics for the livery of the truck and trailer to make the rig look truly unique. The interest from craft brewers all around the UK was immense as they all either laboriously hand bottled or sent their beer in IBCs to often remote contract bottlers.

The rig frequently bottled at craft breweries in Newcastle and went as far as Sheffield Brewery. Indeed, a great concept which was well received as a first in the world but the logistics, tight on-site bottling time frames, brewers' problems on site, government regulations for HGV drivers' hours, and technical problems with the equipment which sometimes arose when bottling, coupled with some bad paying craft brewers and their cash flow problems, meant that we decided to abandon the project a year later. This just goes to show that whilst there is never a shortage of good ideas, many do not work in the long term for a variety of reasons. The aforementioned Cliff was also involved in evaluating the possibilities of incorporating CMB in the USA and together we visited quite a few breweries in Pennsylvania, New York and New Jersey, but decided not to proceed based on the operational experiences in the UK.

### My S&N museum (Benson), 2022

I have an abundance of S&N items from the 1960s and 1970s including many marketing and packaging items, most given to me by my stepdad Bob Feltham who as mentioned was Group Packaging Manager at S&N. These items include posters, pub lights, beer fonts, off sales advertising items, pens, pencils, playing cards and much more, and on the packaging side, numerous sheets of uncut beer labels (in 1975 I worked at Fell & Briant Ltd in Croydon, who at that time printed most of the S&N brand labels), printed flat plate for three-piece cans (from Metal Box), empty two-piece and three-piece test cans, test ring pulls and various can opening devices, Newcastle Brown 50 year Gold limited edition cans and uncut label sheets, and even the very first two-piece production can filled on the high-speed line at Fountain – this being a McEwan's Export one. Benson also has a bar and 100 watt hi-fi system. Perfect!

Some of these classic items, mainly the Tartan bar lights, Colin from school will remember lighting up our study at Glenalmond in the mid-70s, much to the bemusement of our house master Peter 'Pub' Adam who regarded our study as a bar (albeit without booze) with all the S&N stuff adorning it. This in turn allowed us to drink the clear and no-smell vodka in our tea mugs without suspicion as Pub was frequently pissed and couldn't tell what we were drinking if he came into our study. The Tartan lights went wherever I did as Trev will testify when used in our Newcastle student flat in the late 70s, and now 50 years old, they light up Benson as above, which is where I'm going now for a nice cold Export!



Figure 11: Benson.



Figure 12: Part of the author's breweriana collection.



Figure 13: My best mate Trev Butler and me in The Beehive pub, Newcastle-upon-Tyne, 46 years after our first Newcastle Browns (sadly now no longer brewed in Newcastle but at Tadcaster) were downed in there, us being poor students, and still that bloody sticky carpet has never been changed.

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