

Guile Brews

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Guile Brews – Extra Strong

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For my third book on recreating traditional beers for present day brewers I have chosen to revisit the Cornish beers of my youth, plus selected beers from Irish and English regional breweries.

In researching my first book *Bronzed Brews*, for some U.K. beers to compare to the mainly Australian beers in that book, I took opportunities presented by work trips and holidays in the U.K. to visit some archives. I found the Dorset History Centre in Dorchester provided a rich resource for J. A. Devenish, John Groves, and Eldridge Pope Breweries in Dorsetshire and the Shakespeare Birthplace Trust, in Stratford-upon-Avon, had Flower and Sons – Pale Ale Brewers who had exported to Australia. Later I visited the Cornwall Record Office, then located in Truro, Cornwall, and mined the rich seam of the Redruth Brewery records, which are now located at Kresen Kernow, fittingly located in the refurbished Redruth Brewery buildings.

This fascination with U.K. archives continued with my second book - *6 O'CLOCK Brews*, where I was seeking relevant examples of imported beers to test the "equal to best imported" slogan, again this book was focussed on old Australian beers. Details of arguably the most famous brand of export pale ale - Bass Red Triangle resulted from a visit to the National Brewery Centre in Burton-upon-Trent and the City of Westminster Archives Centre revealed Reid's Imperial Stout. Further research trips to Chippenham, to the Wiltshire and Swindon History Centre – for Ushers of Trowbridge, (later taken over by Watneys), also to the Hampshire Archives and Local Studies in Winchester for Crowley of Alton and Strong's of Romsey, then to Oxford for Morrell, and back in Cornwall I visited the St Austell Brewery.

This meant that after 5 years or so of investigation I had ended up with a huge amount of data, from which I had developed a few recreations. I shared some other beer information with Ron Pattinson that ended up as "Let's Brew Wednesday" beers, on his blog "Shut Up about Barclay Perkins."

Then I decided to concentrate on what I could do with the materials that I had harvested, along with my learning about historical brewing from writing and researching my first two books.

So for the last 3 years I visited archives and breweries that represented gaps in my review of beers from mainly the first 80 years of the 20th century. I visited Cork and rummaged in the Murphy's brewing archive at the University College Cork to gain an appreciation of Irish Stouts, and I went to Banks's Park Brewery in Wolverhampton to see how that quintessential Midlands brew, Mild had developed.

A feature of 20th century U.K. brewing practice was the extensive use of adjuncts both raw grains and sugars. For manufacturers of sugars I returned to Stratford-upon-Avon and went through the Kendall and Son's archive and also delved into the Hammersmith & Fulham, Local Studies and Archives Centre, to see what could be found in the Manbré and Garton records. Plus the London Metropolitan Archives provided some data on Whitbreads' application processes.

Finally to the title, *Guile Brews* – the brewery books from each brewery revealed their own permutation of gyles, parti-gyles, use of return wort, and some used methods for high gravity brewing. This crafty use of many different gyling techniques in the brewing processes are represented in *Guile Brews* through 82 curated recreation recipes along with associated brewing history.

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Strong's of Romsey

In 2014 I visited the Hampshire Archives and Local Studies in Winchester and over one intensive day searched their brewing records. I did not have time to review all 69 brewing books in the Strong of Romsey archive, 79A01/A3, so I chose a sample. Later analysis of the information revealed that I had harvested insufficient data to form a decent chapter in Guile Brews. So I have made what I did find about beers from Strong available as a sample which represents my approach to the analysis of other breweries and beers in Guile Brews.

That the archived material for Strong and Co. of Romsey Ltd. is still available was due to Whitbread. They took an interest in the company in 1955 and moved to full control in 1969. The brewery at Romsey was closed in 1987 and the Whitbread archives were eventually distributed to the local county archive. ¹

The earliest brewing book in the archive, that I sampled, was from October 1930, just after the brewery had been upgraded. The brewing book format documented the full brewing processes with most beers comprising of a single gyle with the occasional parti-gyle of SB and XX. Strong's range in 1930 was:

Name in Brewing Book	O.G. lb/brl	O.G. °S.G.	F.G. # lb/brl	F.G. °S.G.	ABV * %	Colour °L?	Probably Sold As
Pale							
AK	12.2	1.034	3.6	1.010	3.2	11	Draught Bitter
LDA	13.6	1.038	3.8	1.011	3.6	10	Dinner Ale
GA	15.8	1.044	5.2	1.014	4.1	10.5	Golden Ale
PA	16.7	1.046	5.1	1.014	4.3	10.5	Pale Ale
A	18.8	1.052	5.4	1.015	4.9	12	Draught Ale
Dark							
XX	10.0	1.028	3.0	1.008	2.6	23	Draught Mild
XXX	14.6	1.041	5.4	1.015	3.5	29	Draught Mild/ Brown Ale
SB	21.0	1.058	9.0	1.025	5.5	35	Strong Ale XXXX
Stout	15.8	1.044	5.4	1.015	4.0	-	Double Stout

at racking * Estimated % ABV allows for priming or reduction in racking F.G.

There were sometimes two numbers recorded for colour, these may have been at different stages of the brewing process, perhaps before and after the caramel addition. Thatcher in 1905 ² suggested that pale ale would be 9 or 10°L using the Series 52 yellow glasses, not knowing how these values were obtained e.g. with a ½" or 1" cell, makes any comparison to modern EBC values difficult.

However, the recreation recipe colours reflect the actual proportions of the materials used in the brewing book and look reasonable to me at least. All the recipes here had caramel colour additions for which I have made suggestions.

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Strong's range of beers, in the 1930s, was very similar to other regional breweries in the south of England, so I looked for some standout beers to derive some recipes.

The strongest beer in the 1930s books was SB, which was probably sold as Strong Ale - XXXX and there was also a Golden Ale worthy of investigation.

Some helpful information in interpreting the production details was found inside the front covers of several brewing books.

Water Treatment

This 1930 liquor treatment was per 40 brl of liquor; for SB, XX and XXXX (i.e. Dark Beers) add 7 lb Gypsum and 4 pints CaCl and for all the Pale Beers add 17 lb Gypsum and 4 pints CaCl. Stout – was untreated. ³

Not knowing what the actual water analysis was for Romsey, the best that can be said is that the Sulphate to Chloride ratio was higher for the Pale Beers and lower for the Dark Beers.

Materials

The malts used in the 1930s were Mild Ale, Pale Ale and Californian—assumed 6-row. The adjuncts used in the mash tun were—Malt Extract, Flaked Maize, occasionally Flaked Rice and something called P.G.

P.G., and I am taking a punt here, may well have been Beanes' Patent Grist. Thatcher in his 1905 "A Treatise of Practical Brewing and Malting," was a fan, with several mentions about using Beanes' Patent Grist, as not introducing "thinness" that arose from the use of Rice Flakes, due to it having more dextrin.

"The well-known preparation upon the market known as 'Beanes' Patent Grist' is prepared from rice by a special process of the manufacturers. It imparts to the finished beers a high percentage of dextrin, so that the palate thinness given to beers by flaked rice is entirely avoided, and beers brewed from this patent grist improve in brilliancy and condition the longer they are stored, while their flavour is clean and entirely satisfactory.

It yields a high extract and does not produce the defects in beers which are observable in those brewed from other preparations of rice or maize. For the production of pale ales and beers which are required to remain sound during hot weather, this material is indeed an excellent one, as it is already practically converted when the brewer receives it. ⁴

"Beanes' Patent Grist is manufactured in the following way—The grain [finest selected rice] is steeped in a solution of acid at a certain strength [Nitric 2%], and after it has absorbed as much of the acid solution as desired, it is washed with water to remove any excessive amount of acidity until the water coming away from the grain becomes neutral to litmus paper. Then the grain is dried on a kiln in a suitable manner, and the temperature raised from 280° to 310°F [138° to 154°C] until the starch in the grain has been changed to what is required, the grain being then more or less converted into dextrin. [2 hours. After the grain has cooled to air temperature it is ready to use. ⁵]

By this unique method of treatment one of the most excellent brewing materials that can be obtained is manufactured. The process appears at first sight a very simple one, but many who have tried to imitate it have failed to produce the exact article with regard to quality as supplied by the original manufacturers." ⁶

I have substituted what could have been Patent Grist in the mash, with Brown Rice Malt Syrup in the copper.

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The other copper adjuncts were—glucose, No.1 and No.3 Invert Sugars plus a proprietary sugar called Candy.

Hopping

Another important note was from 1933 and dealt with Hop Blends and the sequence of changes to the hops as stock from one supplier ran out.

These recorded application rates and timing that allowed interpretation of the production data in the brewing books, as the brewer had used a method of red underlining to indicate the amounts of hops into the copper(s) and hopback. ⁷

Both Pale and Dark Beers had 20% of the blend split between a 20 minute addition, before the end of the boil, and the hopback (potentially a hopstand/whirlpool addition in current parlance.) Then for the copper hopping:

Pale Beers

40% Saaz and 40% Betts (Kents) in the copper. (Your choice of at boil or First Wort hopping.)

Dark Beers and Stout

50% Day (Kent) and Tassell (Kent) and 30% Timson (Weald of Kent)

Of course this information was of limited help as the varieties were not listed. Notably no U.S. hops were sighted. However, investigating the districts where the growers were based, none of them, that I could find, were in East Kent. But statements made before a 1932 enquiry into hop growing and marketing, led to the recommendations in the recipes.

“What class of hop does a brewer want? We want two sorts and two sorts only. We want a good hop for hopping down—of the highest grade for flavour—and a hop for putting in the copper, and there we want a high class Fuggle hop.”

“The Chairman of the Hops Committee of the National Farmers Union declared that Fuggles were the most popular variety of hops both to the grower and the merchants. A good Fuggle would make nearly as much as a good Golding. The Fuggle constituted 75% of the whole growth and was becoming more and more popular.” ⁸

I rate it a 75% chance of the hop variety being Fuggle. And all the growers in the 1930s that I could identify from the brewing books were in the Weald of Kent or near to it, an area suited to Fuggle. So Fuggle would be a reasonable choice as both copper hop and hopback hop. These hops were all whole seeded hops and I have discounted the hopping rates to take account of the use of pellet hops, seeds, age, and poorer storage etc.

Choice Goldings or Saaz or Alsace or Styrians were used for hopping down over the 1930s. Dry hopping rates and suggested varieties have been included in the recipes.

The Golden Ale had a final gravity of 1.013 and the 1930 SB and 1962 Royal had final gravities of 1.016.

These final gravities could be difficult to achieve with modern malts and the amount of sugar used. I have selected a less attenuative yeast i.e. White Labs WLP002 English Ale, used a higher mash temperature 70 - 72°C for a shorter mashing time of 60 minutes, all with the aim of achieving the target F.G.

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Below are the details of the materials used for a 1930 Strong's Golden Ale.

It helps with sales if you can win a prize and Strong's Golden Ale won second prize at the 1932 Brewers' Exhibition, along with a third prize for their Light Dinner Ale. ⁹

Mash		lb	%
English	4 Qr	1,344	23.1
Californian	8 Qr	2,688	46.2
Flaked Maize	2 Qr	672	11.5
(Beanes' ?) P.G.	2 cwt	224	3.8
Malt Extract #	1 cwt	112	1.9
Copper			
No.1 Invert	3 cwt	336	5.8
Glucose	3 cwt	336	5.8
Candy *	1 cwt	112	1.9
Total	19 Qr	5,992	



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for the recipe I added the Malt Extract, possibly diastatic, to the English Malt and added the Candy * to the amount of No.1 Invert.

Make your own invert – details here <http://www.unholymess.com/blog/beer-brewing-info/making-brewers-invert>

A 2 hour boil was shown in the brewing book which I adjusted to a more reasonable 70 minutes while maintaining the same bittering.

The hopping timings are as shown, I assumed a hop stand of 20 minutes at 80°C to mimic the hops that were added to the hopback.

Dry hopping was at the rate of 4 oz/brl (Imperial brl of 36 gal) added on transfer to the bottling store, say dry hop for 3 – 4 days, with Saaz at 0.69 g/L.

The recipes are based on a mash efficiency of 75%.

The recipes were finalised using Brewfather® <https://brewfather.app/> which I highly recommend.

The first recipe is a Golden Ale that coincidentally just happens to fit the 2015 BJCP guidelines as a 12A British Golden Ale.

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1930 Strong's GA – Golden Ale

Gyle No. 11 – 6th October 1930 ¹¹

Recipe Specifics

Batch Size (L): 19.00 Wort Size (L): 22.00
Total Grain (kg): 3.09
Anticipated OG: 1.043 Plato: 10.9
Anticipated FG: 1.013
Anticipated EBC: 9 or 18 with caramel
Anticipated IBU: 41
Alcohol: 4.1% ABV



Grain/Extract/Sugar

%	Amount	Name	Origin	Potential	EBC
46.3	1.73 kg	Castle Pilsen 6-row	BE	80	4
24.9	930 g	Simpsons Maris Otter Malt	UK	80	5
11.5	430 g	Flaked Maize	Generic	74	4
7.8	290 g	No.1 Invert or Lyles Golden Syrup	Own	78	35
5.9	220 g	Dextrose Powder	Generic	99	2
3.6	140 g	Brown Rice Malt Syrup	Generic	80	4

The colour tinting capability of the caramel used by Strong's is not known. Caramel was added to this batch @ 4 pints per 100 brl. This converts to 0.13 g/L or 3 ml of say 16,000 EBC caramel colour for a 22 L batch.

Water Treatment

Bru'n Water Pale Ale.

Mash Schedule

Mash at 70°C (158°F) for 60 minutes, Sparge 77°C (171°F).

Boil

70 minutes – Whirlfloc added 5 minutes before end of boil.

Hops

Amount	Name	Form	Alpha	IBU	Boil Time
53.0 g	UK Fuggle	Pellet	4.5	37	70 min.
7.2 g	UK Fuggle	Pellet	4.5	3	20 min.
5.5 g	UK Fuggle	Pellet	4.5	1	20 min. hopstand @ 80°C
0.69 g/L	CZ Saaz	Pellet	2.5	0	Dry Hop

Yeast

White Labs WLP002 English Ale.

Fermentation

Pitch at 18°C (65°F) let rise to 20°C (68°F) over 3 days, hold at 20°C for 3 days then gradually cool to racking temperature ~14°C (58°F) over 1 day. Rack and dry hop.

Carbonate the beer at ~2.0 volumes.

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The next recipe is a 1930 SB Strong Ale - XXXX which could be considered as a type of Burton Ale. ¹²

1930 Strong's SB – Strong Ale – XXXX

Gyle No. 39 – 16th October 1930 ¹³

Recipe Specifics

Batch Size (L): 19.00 Wort Size (L): 22.00
Total Grain (kg): 3.43
Anticipated OG: 1.059 Plato: 14.4
Anticipated FG: 1.016
Anticipated EBC: 42
Anticipated IBU: 39
Alcohol: 5.5% ABV



Grain/Extract/Sugar

%	Amount	Name	Origin	Potential	EBC
23.3	1.07 kg	Simpsons Maris Otter Malt	UK	80	5
20.8	970 g	Castle Pilsen 6-row	BE	80	4
20.8	970 g	Muntons Mild Ale Malt	UK	80	6
14.0	650 g	White Cane Sugar	Generic	100	0
9.0	420 g	Flaked Maize	Generic	74	4
8.0	370 g	Dextrose Powder	Generic	99	2
4.1	190 g	Brown Rice Malt Syrup	Generic	80	4

Caramel was added to this gyle @ 1.75 gallon per 76 brl. Relatively SB was 3 times darker than Golden Ale, perhaps add 14 ml of caramel 16,000 EBC, to a 22l batch.

Water Treatment

"Per 40 brl of liquor add 7 lb Gypsum and 4 pints CaCl." Bru'n Water Brown Ale.

Mash Schedule

Mash at 72°C (162°F) for 60 minutes, Sparge 77°C (171°F).

Boil

70 minutes – Whirlfloc added 5 minutes before end of boil.

Hops

Amount	Name	Form	Alpha	IBU	Boil Time
53.0 g	UK Fuggle	Pellet	4.5	37	70 min.
6.7 g	UK Fuggle	Pellet	4.5	3	20 min.
5.0 g	UK Fuggle	Pellet	4.5	1	20 min. hopstand @ 80°C
0.69 g/L	CZ Saaz	Pellet	2.5	0	Dry Hop

Yeast

White Labs WLP002 English Ale.

Fermentation

Pitch at 18°C (65°F) let rise to 20°C (68°F) over 3 days, hold at 20°C for 3 days then gradually cool to racking temperature ~14°C (58°F) over 1 day. Rack and dry hop.

Carbonate the beer at ~2.0 volumes.

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Finally, a 1962 Strong's Old English Ale (Royal), to compare with the SB from 30 years earlier, very similar but with a different take on the materials used.

1963 Strong's Old English Ale – Royal

Gyle No. 71 – 1st November 1962 ¹⁴

Recipe Specifics

Batch Size (L): 19.00 Wort Size (L): 22.00
Total Grain (kg): 3.87
Anticipated OG: 1.059 Plato: 14.6
Anticipated FG: 1.016
Anticipated EBC: 32
Anticipated IBU: 38
Alcohol: 5.6% ABV



Grain/Extract/Sugar

%	Amount	Name	Origin	Potential	EBC
71.2	3.51 kg	Simpsons Maris Otter Malt	UK	80	5
7.1	350 g	Dextrose Powder	Generic	99	2
7.1	350 g	White Cane Sugar	Generic	100	0
5.5	270 g	No.3 Invert Sugar	Own	67	130
4.7	230 g	Crisp Medium Crystal	UK	76	176
2.6	130 g	Flaked Maize	Generic	74	4
1.8	90 g	Brown Rice Malt Syrup	Generic	80	4

Add 4 ml of 16,000 EBC caramel colour for a 22 L batch.

Water Treatment

Bru'n Water Brown Ale.

Mash Schedule

Mash at 72°C (162°F) for 60 minutes, Sparge 77°C (171°F).

Boil

70 minutes – Whirlfloc added 5 minutes before end of boil.

Hops

Amount	Name	Form	Alpha	IBU	Boil Time
54.0 g	UK Fuggle	Pellet	4.5	36	70 min.
6.7 g	CZ Saaz	Pellet	2.5	2	20 min.
3.9 g	CZ Saaz	Pellet	2.5	0	20 min. hopstand @ 80°C
0.69 g/L	CZ Saaz	Pellet	2.5	0	Dry Hop

Yeast

White Labs WLP002 English Ale.

Fermentation

Pitch at 18°C (65°F) let rise to 20°C (68°F) over 3 days, hold at 20°C for 3 days then gradually cool to racking temperature ~14°C (58°F) over 1 day. Rack and dry hop.

Carbonate the beer at ~2.0 volumes.

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I hope that these recipes and beers give you a flavour of the 82 curated recipes in Guile Brews. If you brew these beers please let me know how they turn out.

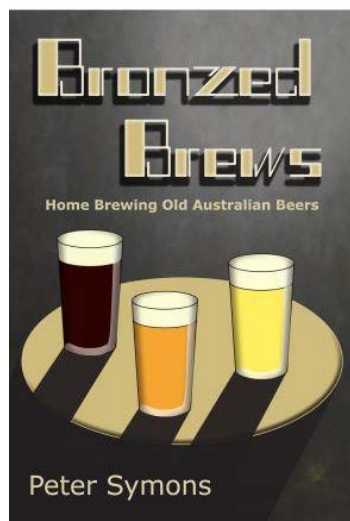
Cheers
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Guile Brews is available as print on demand from Lulu here
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Also available



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References

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- ⁵ The British Library, Treatment of Grain for Use in Brewing, Letters Patent No. 1554, Edward Beanes, 30 March 1882, GB188201554A
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- ⁹ Bournemouth Graphic - Friday 04 November 1932, p12
- ¹⁰ Bournemouth and Southampton Graphic - 30 December 1932, p10
- ¹¹ HALS, Strong's of Romsey, 79A01A3/3/5, Brewing Book, Oct. 1930 – Nov. 1931
- ¹² <https://dev.bjcp.org/beer-styles/17a-british-strong-ale-burton-ale/>
- ¹³ HALS, Strong's of Romsey, 79A01A3/3/5, Brewing Book, Oct. 1930 – Nov. 1931
- ¹⁴ HALS, Strong's of Romsey, 79A01A3/3/36, Brewing Book, Jun. 1962 – Jun. 1963