



THE WINSTON CHURCHILL MEMORIAL TRUST OF AUSTRALIA

REPORT BY: ASHLEY HUNTINGTON - 2012 CHURCHILL FELLOW

***TO STUDY THE USE OF FRUIT IN REAL ALE PRODUCTION AND
FLOOR MALTING IN BELGIUM, FRANCE, UK & USA***

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Signed: ASHLEY HUNTINGTON

Dated: 11 SEPTEMBER 2013

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ORIGINAL PROJECT PROPOSAL

(as presented on my original application for a Churchill Fellowship)

My business operates Australia's only genuine farmhouse brewery. We brew on-farm, using ingredients we either grow ourselves or source locally. The Australian "Craft Beer" market is relatively new and is growing rapidly. Our region is ideally suited to capitalise on this consumer interest. Like a "new" wine industry, the long term regional benefits are potentially significant. Our region is also well renowned for the production of fruit; cherries, raspberries, pome and stone, fruits which have traditionally used in Belgium (and, more recently, in the USA) for the production of fruit and soured beers, known as "Farmhouse Ales". Such products are presently imported, not produced in Australia. Our goal is to specialise in the production of such ales. Some techniques we require to achieve this goal, such as floor malting, were present in Australia, but have disappeared and need to be revived. Some techniques, such as sour fermentations and the use of certain fruit in beer, would be new to Australia. My project is to travel to Europe, visit specific operations, establish professional peers, learn their techniques, import this knowledge and adapt these skills to our local environment.

INTRODUCTION

A trained and internationally experienced winemaker returned to Australia in 2004 and purchased a farm in Southern Tasmania with the intention of growing a vineyard and establishing a winery but instead became distracted by brewing upon finding the farm located in a traditional hop growing area surprisingly free of breweries. Self-taught, operating from a brewery constructed by converting the farm shearing shed, and indulging the black arts of mixed fermentations, this winemaker-cum-brewer gradually learnt that his view of beer and brewing did not necessarily correspond to the accepted norms of Australian beer held dearly by Australian brewers. Despite an ability to articulate how and why Two Metre Tall was different, the rigid defence of the status quo and a black and white view of any deviation invariably accumulated an impression that it was essential to leave the farm and visit the brewing world ... or return to my origins in winemaking!

Surely my thoughts and products were not that radical? It couldn't be that we were alone in what we were doing! What was the world doing? Was anyone else on the planet attempting what we had set about doing; genuine, 100% farmhouse ales using farm grown ingredients, including the use of fruit in beer, barrel ageing and multiple and mixed fermentations? What new flavours could be tasted? What new ingredients could be discovered? Were all brewers this black and white when confronted with difference or had the very limited educational, employment and commercial options for brewers due to the multi-national corporate dominance of the Australian beer market finally taken its toll on free-thinking?

From May 25th to July 3rd 2013 Two Metre Tall spent time in the UK, Belgium and the USA on a Churchill Fellowship studying traditional methods of floor malting grain, spontaneous fermentation and the use of fruit and barrel ageing in the production of beer.

It was a true sabbatical leave, in the classical sense of the term and afforded time away from the coal face of my own small business to reflect and gain new perspective and insight whilst visiting the world of my chosen profession with eyes wide open.

The process is starting to settle, and this document – my Final Report, to complete my contract with The Winston Churchill Memorial Trust of Australia - is the first decantation of the thoughts bottled.

ACKNOWLEDGEMENTS

My most sincere appreciation is to the maltsters of England and America and the brewers of Belgium and America who accepted my request to visit and invariably offered their time, knowledge and passion to a person they had never met and a business they knew nothing about simply upon my introduction to them as a brewer. I think the pages below suggest that their contribution to my understanding of what I do is permanent and timeless and for the enriching opportunity afforded to me to meet with these people, on their turf, will be deeply appreciated and cherished.

Heartfelt gratitude to Mr Richard Warner, Churchill Fellow, neighbour, friend, confidant and referee for my fellowship application. If the Churchill Fellowship is about mentoring, encouragement and facilitation of ideas and interest, then Richard represents the epitome of this spirit. I owe him so much more than the very significant appreciation of allowing me to conduct many brewing experiments in bowels of his inspirational Valleyfield buildings!

To my wife and daughters, who accompanied me to Belgium, can I say that I probably do understand that it would be far more responsible of me to “go and get a real job” but that would invariably extinguish the fire and, therefore, your collective ability to allow me to occupy my own headspace is indeed the very definition of love.

I would also like to thank my brother Mark Huntington. We come from the same stock and are very much alike in many respects ... but he got a real job, and this perspective is enriching.

Finally, and probably most importantly, I would like to applaud The Winston Churchill Memorial Trust for the ongoing provision of such extraordinary opportunities, open to all Australians. In describing the program to the people I met on my travels, many were simply agog at the concept. Concept is one thing, but delivery is quite another and the humanity of the staff of the Trust with whom I dealt, their professionalism and assistance provided was every bit as good as the idea they nurture. I am humbled and deeply appreciative of the opportunities I have been provided.

Ashley Huntington

September 2013

EXECUTIVE SUMMARY

Name: Ashley Huntington
Address: 2862 Lyell Hwy, Hayes, TASMANIA, 7140
Occupation: Farmer/Brewer, The Two Metre Tall Company Pty Ltd
Telephone: 0400 777 142

Project Description:

Beer is but one example of a fundamentally agricultural product which has been commoditised at all levels; from the production of the grains and hops through to the production and marketing of the end product. Losses in diversity – from varieties of grains through to styles of beer – and disconnection between farmer and the end consumer has cemented a “lowest-price-for-all” status quo.

As one of the world’s oldest foodstuffs – a genuine historical icon of human nutrition – the richness, diversity and complexity of beer has been lost to powerhouse market leaders and dumbed down at a consumer level to the point whereby, in Australia, one of the oldest traditions in beer – the brewing of beverages that are a combination of fruit and grain – is met with surprise by even educated and knowledgeable beer-drinkers and considered to be a thoroughly novel approach for a brewer to pursue.

Using the model of the wine industry - which I have always considered to be the very best example of value-added agribusiness in this country – I have set out to visit and study the remnants of an ingredient and farming approach to the growing and brewing of beer in the diminishing corners of the globe where this is still practised with enthusiasm and skill with a firm belief that not only is this concept applicable to brewing in Australia but that the time is right for such a model to be implemented.

Highlights:

Three aspects of my trip stand out from an experience which provided so much opportunity for professional stimulation and reflection:

1. “Maris Otter”: A variety of barley, bred for malt and beer flavour in the UK in the early 1960’s, protected, nurtured and respected from farm through malting, marketed as premium and demanded by brewers. So different and distinctive. At polar opposites of the treatment the commodity “barley” receives in Australia. This UK example provides a “road-map” for the way forward!
2. “Spontaneous and Mixed Fermentation”: The original “farmhouse” method of fermenting beer and still an unsurpassed potential driver of diversity in flavour and texture. A process nearly lost for all time just a few years ago before being “discovered” in the remaining pockets of Belgium’s Payottenland and gradually resuscitated and reinterpreted internationally to much interest and acclaim.
3. “The American Craft Beer market”: Simply breathtaking! Just a few years ago beer in the USA was an international laughing stock of the industrial, monotonous, ubiquitously-styled, flavour-neutral lager kind, dominated by a handful of huge, powerful corporations with no connection to farming or ingredient that very much resembles the Australian beer-market today! Within one generation, and particularly in the past decade, this has been turned on its head. The American beer drinker is not only spoiled for choice but is educated, fully engaged and driving a dynamic small brewing scene forward at unbelievable pace and in previously unimaginable directions.

Dissemination/Implementation:

Within two weeks of return I had addressed a large group of Tasmanian Farmers who have already formed their own trading group, telling them the “story” of Maris Otter, and urging them to “lift-their-eyes” beyond their farm gates and take greater interest in the transformation and marketing of their fruits of their agricultural production into consumable food. Via follow-up meetings, a project has been conceived ...

My trip, in both Belgium and the USA, demonstrated that the humble consumer is the principle vector for change and the very best vehicle for the dissemination of “not-yet-mainstream” ideas. The challenge is how small business can effectively reach this force for change without diluting the message or forfeiting significant percentages of the potential return. Social media and the internet age breaks down the barriers and allows, for the first time ever on a large scale, the direct interaction between farmer and consumer. Value-added agribusiness, and all the inherent potential for returns to farmers, hinges on an ability to get both message AND products to the consumer. And whilst my particular interest is beer, the model my Churchill Fellowship has permitted me to study applies universally across every field of agricultural endeavour.

COMPLETED ITINERARY

25 May - 03 July 2013

Saturday 25 May 2013

FLIGHT #1: dep: Hobart at 10h40 on QF1012
arr: Melbourne at 11h55

FLIGHT #2: dep: Melbourne at 15h25 on QF9
arr: London at 05h30, Sunday 26th May

Day 1 - Sunday 26 May 2013

Brief sightseeing tour of central London before driving to Long Newnton, Gloucestershire

Day 2 - Monday 27 May 2013

A gentle "jet-lag" recovery day in the gorgeous countryside of the Cotswalds

Day 3 - Tuesday 28 May 2013

MEETING #1: Warminster Maltings, 39 Pound St Warminster, Wiltshire BA12 8NN
A fascinating insight into the traditions & modern production processes of the oldest working Floor Maltings in Britain. Apprised of the story of the Barley breeding exploits of Edward Sloper Beaven leading to the breeding of the famous malting barley variety he named "Plumage Archer". Discussions with Jonathan Arnold (Robin Appel Ltd) regarding the equally famous Maris Otter variety.
Principal Contact: Jonathan Arnold, jonathan.arnold@robin-appel.com
Chris Garratt, Chris.Garratt@warminster-malt.co.uk

DRIVE: Warminster, Wiltshire to Ledbury, Herefordshire

MEETING #2: Bulmers Mill, Ledbury, Herefordshire
This facility is a modern industrial temple to the rise of cider consumption across the western world, crushing & concentrating 800000hl of apples for the Bulmers brand. Bulmers purchase 26% of all the apples in the UK and have a 43% market share of cider in UK. This plant operates for 6-8weeks between September & Novemebr, processing 2200T/day to produce a concentrate of 70°Brix ... At least they still use apples!!
Our tour was organised by Alison Capper of "Stocks Farm", a contracted grower of cider apples for this mill.
Principal Contact: Rod Lees, rod.lees@heineken.co.uk

Day 4 - Wednesday 29 May 2013

MEETING #3: Once Upon a Tree, Dragon Orchard, Putley, Herefordshire HR8 2RG
Quite the polar opposite to the Bulmers Ledbury Mill, this very productive cidery is the brainchild of winemaker Simon Day and re-invigorates the "Dragon Orchard", owned by Norman & Ann Stanier. Small, artisanal and operating from a base of many different cider apple varieties this business is taking an innovative approach to the production and marketing of apple & pear juices and ciders.
Principal Contact: Simon Day, simon@onceuponatree.co.uk

MEETING #4: "Stocks Farm", Suckley, Worcestershire WR6 5EH
A tour of the very impressive farming operation of Alison & Richard Capper. 100acres of apples, 100acres of Hops and rearing 250000 chickens for Highbury Poultry, it was indeed a pleasure to be steered through the farming operations and challenges by the veritable "Tour-de-Force" and ex London-city marketing professional Alison Capper. Indelible impression left on me after this visit was that farming worldwide could use a lot more input from energetic professionals like Alison who have "been-and-seen" life elsewhere and bring new ideas and perspectives to agricultural businesses often struggling to clearly see, let alone navigate, their future.
Principal Contact: Alison Capper, alicapper@mac.com

DRIVE: Ledbury, Herefordshire to Pontefract, West Yorkshire

Day 5 - Thursday 30 May 2013

MEETING #5: Thomas Fawcett & Sons Ltd, Castleford, West Yorkshire WF10 4LE
A remarkable product from a remarkable facility! Thomas Fawcett Ltd have been producing malt on EastFields Lane, Castleford since the late 1780's. This is a complete operation; modern 52T GKV's, Saladin Boxes for Crystal Malt production, a roasting operation and 2 buildings which have housed floor maltings since the beginning of their operation. Having brewed with their malt at Two Metre Tall and considered it one of the highest quality malts I had encountered, I now understand a little more as to why their quality of product is what it is. One of the most detailed and informative visits of my entire fellowship.
Principal Contact: Brian Hickman, BHickman@fawcett-maltsters.co.uk
James Fawcett, JFawcett@fawcett-maltsters.co.uk

DRIVE: Pontefract, West Yorkshire to Wells-next-the-Sea, Norfolk

MEETING #6:**Branthill Farms, Wells-next-the-Sea, Norfolk NR23 1SB**

Sought out the garrulous Teddy Maufe, not only as an example of an English farmer who had rescued his failing cropping business by diversifying into an on-farm "Real Ale Shop", but also because he is one of a select few growers used by Robin Appel Ltd to grow the famous Maris Otter malting barley variety. A brief, but rapid-fire & fascinating account of a property interesting both for WWII history and cropping potential. I had no idea that this area of England, perched on chalk soils, was under an effective rain shadow, receiving a paltry 22" of rainfall, on average, each year.

Principal Contact: Teddy Maufe, branthill.farms@uniconbox.co.uk

Day 6 - Friday 31 May 2013**MEETING #7:****Crisp Maltings, Great Ryburgh, Norfolk NR21 7AS**

Despite having one of only 4 floor malting facilities in Britain, I was hesitant to visit this Crisp facility due to the sheer size of the production on-site (115000T/yr). At just 1% of site production, it almost seemed irrelevant but I went in with the idea to challenge them with "why defend Floor Malting?" and came away, not only with a clear and simple answer "it is the craft brewers who are defending Floor Malting, not us" and a completely different attitude towards both this company and the business of large scale-malting (220T GKV's and 50T Saladin boxes).

Principal Contact: Jake Lambert, jake.lambert@crisp malt.com

DRIVE:

Great Ryburgh, Norfolk to Cambridge, Cambridgeshire

MEETING #8:**The Flying Pig, 106 Hills Rd, Cambridge CB2 1LQ**

CAMRA Cambridgeshire Pub of the Year! OK, not one of my most challenging appointments, but it was Friday afternoon and it was a terrific place to catch up on my note-taking!

Day 7 - Saturday 01 June 2013**FLIGHT #3:**

dep:	London, Heathrow	at 07h50	on BA372
arr:	Toulouse	at 10h35	

Lunch and a wander around central Toulouse before driving to St.Marcel d'Aude, home of old friend James Herrick, name & force-of-nature behind the foundation of Vignoble James Herrick, one of the pioneering "winemakers", along with Domaine de La Baume, in the renaissance of the Languedoc-Roussillon region.

Day 8 - Sunday 02 June 2013

A magnificently nostalgic day down "memory lane", re-visiting Domaine de la Baume then spending a long lunch with Fred & Delphine Glanetas & Solange Dreimere and their families at "Jungle Beach", on the beach at Cap d'Agde before an evening "apero" at Ginestas with "les Glanetas".

Day 9 - Monday 03 June 2013**FLIGHT #4:**

dep:	Toulouse	at 09h15on	on AF6115
arr:	Paris, Orly	at 10h35	

A classic bistro lunch at Café Brune, a stop off at "Le Tour Eiffel" and brief tour of central Paris by car before driving north to Brussels.

DRIVE:

Orly, Paris, France to Schaerbeek, Brussels, Belgium

Day 10 - Tuesday 04 June 2013

Rest day & settle into Brussels

Day 11 - Wednesday 05 June 2013**MEETING #9****Brasserie Cantillon, 56 rue Gheude, 1070 Anderlecht**

A spectacular, ancient, working brewery producing some of the finest lambic, geuze and krieks to be found and operating under the auspices of being a "museum". A thoroughly evocative place, and an excellent way to start our Payottenland journey.

Principal Contact: Jean Van Roy, info@cantillon.be

VISIT**In Den Achsten Hemel; 1 Place Peter Beroil, Neder-Over-Heembeek**

We had been recommended to visit this bar on the very outskirts of Brussels. Certainly not a "pub" famous for its atmosphere, but if you are interested in quality beer, rarely will you ever find a better list and a more knowledgeable owner! A most enjoyable way to catch up on trip notes!

Day 12 - Thursday 06 June 2013**Self drive tour; Brussels - Oudenaarde - Roselare - Brussels**

Set up future meeting at the Rodenbach Brewery, 'day of discovery' to explore the home land of the famous Soured Red-Brown Ales of Flanders

Day 13 – Friday 07 June 2013

Tour of the Payottenland; south west of Brussels

MEETING #10

Brouwery Girardin; Lindenbergsstraat 10-12, 1700 Saint Ulriks-Kappelle

Sales only, very private with absolutely no visits allowed. Spoke with owners, but they were pretty busy as they do no deliveries at all and only open 2 days/week, meaning that there was a constant stream of bar-owners from all over Belgium dropping in to collect their requirements. As the days went by we heard various descriptions of them from other people & peers “quiet”, “anti-social”, “weird” even, but one thing IS certain and that is that their Black Label Geuze is one of the very best fermented products I have ever tried.

VISIT

Café de Welkom, 79 Molenveld, Dworp

Given that it was impossible to taste Girardin Lambic en fût (or anything else for that matter) at the brewery, we sought it out in a nearby café. This bar is a classic! A relic from another era. I struggled to communicate with a bar-owner, who looked like she had been part of the furniture here for as long as it had existed, but with my French and her Flemish and a lot of arm-waving, I managed to taste the Girardin “oud” and “jong” lambics; still, aromatic, soft and dry, with the “jong” exhibiting a surprising “hoppy” aromatic lift, more bitterness than the “oud” and also significantly higher residual sugar. She also alerted me to why Girardin no longer distribute their products, by showing me the funeral notice for Jan Girardin, one of the two brothers responsible for the business, the more “outgoing” of the two and responsible for deliveries in the Brussels area until he died suddenly on 10th August 2012.

MEETING #11

De Troch Browerij; Langestraat 20, 1741 Wambeek

Visit & sales. Not terribly impressed with De Troch products. In many ways this place showed all the signs of why lambic beers may have fallen into decline – if you get spontaneous fermentation wrong, the results are not very enjoyable! Nevertheless, like in life itself, the not-so-good experience is often as equally instructive as the very good. An example to me of how skilled the good operators really are.

MEETING #12

Drie Fonteinen; at Beersel

Extended meeting & tour with owner/brewer, Armand Debelder. A stunning and completely lucky chance encounter. Followed with lunch at the Drie Fonteinen Restaurant, owned & run by Armand’s brother, Guido. Very pleased to see that Drie Fonteinen served their lambics in the restaurant from traditional handpumps, they very same beer taps that TwoMetreTall insist on serving their draught products from a “Farm Bar”

Principal Contact: Armand Debelder, info@3fonteinen.be

VISIT

Haassens Artisanaal, 15 Vroenenbosstraat, 1653 Dworp

We believed we could visit this brewery at 15h30 on either Thursday and Friday, but our information was wrong and they no longer do open days at all. Chatted to owner/blender John Matthys from behind his solid security gate, but got no further than this.

Day 14 – Saturday 08 June 2013

MEETING #13

Gueuzerie Tilquin; 110 Chaussee Maieur Habils, B-1430 Rebecq

Extended meeting and tour with the “new-kid-on-the-block” Pierre Tilquin who has boldly created a lambic and geuze blending facility outside of its traditional homeland in the Flemish Payottenland. Rebecq is in the French-speaking region of Brabant-Wallonie, and whilst it is only a couple of kilometres south of the Payottenland, borders and tradition are very important concepts in this part of the world.

Tilquin purchases his lambic worts from Boon, Girardin, Timmermans and is the only blender to be permitted to buy wort from Cantillon.

Principal Contact: Pierre Tilquin, info@gueuzerietilquin.be

MEETING #14

Oud Beersel; at Beersel

Tour of brewery museum by one of the volunteers of the local lambic enthusiasts club who share the investment in the newly renovated office and tasting facilities that are modernising this VERY old brewery building before an extended chat with Gert Christiaens, the owner/blender. Oud Beersel buy 100% of their lambic wort from Brouwerij Boon, which I thought probably makes them more of a brewery who sub-contract out their brewing requirements. A classic lambic blending operation would purchase spontaneously inoculated worts from many producers.

I found these two back-to-back, detailed meetings with two quite different lambic producers fascinating; not only for the production and operational detail but also for first hand exposure of some of the personal relationships and politics at play.

Principal Contact: Gert Christiaens, gert@oudbeersel.com

Day 15 – Sunday 09 June 2013

MEETING #15

Geuzstekerij de Cam; Dorpsstraat 67A, 1755 Gooik

Tour & chat with Karel Goddeau; owner/blender. A “Cam” is Flemish for a farmhouse brewery, which, in the traditional sense, would brew beer in the winter and carry out the farmwork in the summer.

De Cam is Karel’s weekend ‘hobby’, a project dedicated to keep the traditions of Lambic alive. His “job” is as head brewer at Slaghmuylder in nearby Ninove. We found the lambic and geuze to be superb but were particularly impressed with the Kriek and certainly one of the very best products in this style for the entire trip.

Principal Contact: Karel Goddeau, www.oudecam.be

VISIT

Volkscafe de Cam, Gooik

Restaurant on the same site as the brewery; a collection of old farm buildings owned by local council & leased to local business.

Day 16 – Monday 10 June 2013

DRIVE

Brussels – Roselare – Dotteringe – Brussels

Journey into the west countryside of Brussels, as far as the French border. Had a fabulous “encounter” with a Poperinge hop grower on the side of an autoroute; he was crossing the freeway which split his holdings and I was pulled over to photograph his hops. This is a part of the Belgian countryside where many thousands of Australian’s lost their lives in WW1.

MEETING #16

Rodenbach Brewery; Spaanjestraat 133-141, 8800 Roselare

Guided tour of this large, commercial brewery – 294 massive oak casks, the earliest of which date back to 1856 & are still in use, which hold 7 million litres of the famous Flemish Red-Brown sour ale in maturation for two years. By the end of the tour, however, I had become a little despondent by learning that, under present ownership by the PALM group, this magnificent, carefully aged ale is then blended, filtered, sweetened and counter-pressure carbonated in a very industrial way. Yes, Rodenbach is very famous and the marketing is very slick and corporate, but the beer is being “dumbed down” in an attempt to grow volume and make it more “consumer friendly”. Not my thing at all!

MEETING #17

Brouwerij de Ranke; rue de Petit Tourcoing 1a, B7711 Dottignies

Extended tour & generous tasting with part owner/brewer, Nino Barcelle.

Principal Contact: Nino Barcelle, br_deranke@hotmail.com

Day 17 – Tuesday 11 June 2013

VISIT

Moeder Lambic Fontainas, 8-10 Place Fontainas, 1000 Brussels

A new generation “cool” bar specialising in promoting lambic, gueuze, kriek to the new generation drinker.

Provided a great education into the re-birth of lambic in Belgium!

PS The Malmerdy cheese, served as part of their “mixte”¹, and made in the Belgian Ardennes, was very, VERY good!

Day 18 – Wednesday 12 June 2013

DRIVE

Brussels – Orval – Bouillon – Brussels

VISIT

Orval Abbey & Brewery

A large, commercial brewery was set up in the grounds of the abbey in 1931 to fund the reconstruction projects. The Orval ales are famous for displaying *brettanomyces* character. I won’t hide my disappointment. The monks don’t brew the beer, this is a very, large and very industrial operation (albeit in gorgeous surrounds) and the beers tasted like commercial “ghosts” of what I imagined the “real” thing could taste like. I didn’t pick up much (if any) of the “famous” *brettanomyces* character and I left with feelings parallel to those I felt leaving Rodenbach. It is the products that made these breweries famous and slowly-but-surely, with the marketing on high amp, these beers are becoming very commercial and very disappointing to the purist.

A long day on the road for ... that! Next time I will stay in The Payottenland!

VISIT

La Mort Subite, 7 rue Montagne-aux-Herbes Potageres 7, 1000 Brussels

This is such a stunning place, physically. But as for the rest, oh boy! The “lambic blanche au fut” was sweetened with an artificially aromatised sugar (fake pineapple?) and the “Kriek au fut” tasted like a softdrink. And the service, well, it’s not “cool” boys, it’s just rude! Looks like today was all about visiting the very best sites for the very worst content!

Days like this make you appreciate just how good the good days are!

¹ The “mixte” is the classic food accompaniment for drinking beer in Belgium and is usually a platter of various cheeses, cured meats and pickled vegetables.

Day 24 – Tuesday 18 June 2013

- MEETING #20 Brewery Ommegang; 656 County Highway 33, 13326 Cooperstown NY
Tour of Ommegang brewery, which is owned and operated by the Duvel Group from Belgium, with head brewer Phil Leinhart, followed by a chat in the bar afterwards. Phil's background is in Annheuser Busch breweries across America, so Ommegang is the "smallest" production brewery he has operated and he offered a really different and engaging viewpoint of the oft-expressed criticism by craft brewers that the production of industrial and commercial lagers is somehow "easy". Phil is NOT a fan of lambic, geuze and/or sour beers ... but he says he "respects" them!
Principal Contact: Phil Leinhart, Phil@ommegang.com
- DRIVE Cooperstown, NY to Greensboro, VT
A very long, but breathtakingly beautiful drive!
- VISIT Positive Pie, 87 South Main Street, 05843 Hardwick, VT
Arrived late, the town was quiet and dark and this bar was showing some of the only signs of life. What a find! What a beverages list! What a way to end a long road-trip!

Day 25 – Wednesday 19 June 2013

- MEETING #21 Hill Farmstead; 403 Hill Road, Greensboro Bend VT 05842
Shaun Hill, owner/brewer, was brewing a collaboration brew with Pierre-Alex & Kevin Carlier, the father-and-son team from Brasserie de Blaugies; 435 rue de la Frontiere, 7370 Dours, Belgium, www.brasserie-de-blangueres.com which, pleasingly, allowed me to "kill-two-birds-with-the-one-stone"
Principal Contact: Shaun Hill, info@hillfarmstead.com
- DRIVE Greensboro, VT to Lovell ME
- VISIT Ebenezer's, 44 Allen Road, 04051 Lovell, ME
A chance visit after meeting Søren Eriksen from 8Wired Brewing and his travelling companion Brian Watts at Hill Farmstead. They were, like me, travelling down to Portland, ME, but were planning to stop over at Ebenezer's for dinner on the way and suggested I should too. I had never heard of Ebenezer's, was cursing on dusk as I was trying to find it, but what happened when I finally arrived will go down in the annals of "experience". Ebenezer's has been voted by Rate Beer for the last 14 consecutive years as the best bar in the USA – quite a statement – and, my golly gosh, it lived up to every little bit of this reputation. The owner, Chris Lively, was indeed true to his name. A garrulous and extremely generous Texan who quite simply (& very loudly) LOVES beer & brewers, he and his wife Jen took over Ebenezer's in 2004 and have accumulated one of the most remarkable beer cellars you could possibly imagine. A serious life highlight was drinking a 1981 Drie Fonteinen geuze in the cellar, followed by 1995 Drie Fonteinen Geuze at the table, in the company of Armand Debelder and his wife, who, like me, had randomly appeared seeking dinner. Along with Chris & Jen Lively, the evening's company was Søren and Brian, Armand and his wife, Lydie Hulpiau, and Tore Nibø from Nogne Ø
Principal Contact: Chris & Jen Lively, ebenezerspub@gmail.com

Day 26 – Thursday 20 June 2013

- DRIVE Lovell ME to Portland, ME
- MEETING #22 Allagash Brewery, 50 Industrial Way, 04103 Portland, ME
Allagash is an enormously successful American "craft brewery". Operating for 18 years, and still 100% owned by the founder Rob Todd, they are now producing 7.2 million litres of beer annually, 80% of which is of one product, *Allagash White*. For the past 6 years Allagash have been growing at 45% per annum. It really is boom times for American beer! Seven years ago they created a barrel program and have been spontaneously fermenting for the past 5 years and have even built their own dedicated copper "coolship" for this project. It is a remarkable business model; an extremely successful, large scale production business paying for exploration in a very specialised and avant-garde niche product arena. It is a road map for the idea that size doesn't have to kill craft!! My tour & tasting were conducted by Matt Welch, their New England Sales Manager, but I was able to meet and chat with head brewer Jason Perkins in the barrel cellar whilst he was conducting a tour & tasting for Yvan de Baets from Brasserie de la Senne (565 Chaussee de Gand, 1080 Brussels, info@brasserie-de-la-senne.be), with whom he was brewing in collaboration that day.
Principal Contact: Jason Perkins, jasonperkins@allagash.com

Day 27 – Friday 21 June 2013

- DRIVE Portland, ME to Boston, MA

MEETING #23 Cambridge Brewing Co., 1 Kendall Square #100, 02139 Cambridge, Boston, MA
CBC is a brewpub established in 1989 in the heart of Harvard academia. They brew all their own beers and have embarked upon a remarkable and fascinating excursion into barrel ageing, spontaneous and mixed fermentations. Using a 12hl brewhouse (the same size as TwoMetreTall) and operating in a seriously space restricted environment this visit answered one of my most pressing questions with respect to the operation of breweries engaged in multi-species fermentation. A very cramped, but extremely exciting meeting & tasting with head brewer Will Meyers. It was a pity we were both short of time, but it was sufficient for me to gain a very deep admiration for what they were doing.
Principal Contact: Will Meyers, will@cambridgebrewingcompany.com

FLIGHT #6 dep: Boston at 15h16 on UA779
Arr: Denver at 17h53

VISIT Falling Rock Tap House, 1919 Blake Street, 80202 Denver, CO
A terrific and vibrant bar. Rated as one of the very best "craft beer" bars in America. Didn't disappoint!

Day 28 – Saturday 22 June 2013

MEETING #24 The Crooked Stave Artisan Beer Project; 1441 W 46th Ave #19, 80211 Denver, CO
Chad Yakobson is turning the brewing world on its head. He is "Mr Brettanomyces" and is showing the way towards new and exciting flavour profiles in beer. He has very kindly posted his masters thesis, *Pure Culture Fermentation Characteristics of Brettanomyces Yeast Species and their use in the Brewing Industry*, on-line (www.brettanomycesproject.com). The Crooked Stave Wild Wild Beer Series are every bit as good as the research project. Breathtaking stuff, and the fact that this is my impression probably consigns me to be "tarred and feathered" if I ever attempt to move back into the wine industry!
Principal Contact: Chad Jakobsen, chad@crookedstave.com

MEETING #25 Avery Brewing Co; 5763 Arapahoe Ave, 80303 Boulder, CO
Adam Avery is a very successful homebrewer! In 1993 he convinced his father Larry to part with a significant amount of money and established a brewery. Today, Avery are producing about 6million litres per annum. It's not a bad story. I came for the barrel program, but found this a little superficial and disappointing. Even though they are "playing" around with *lactobacillus*, *pediococcus* and *brettanomyces* there really wasn't much available in the tasting room to demonstrate this. What I really did enjoy from my extensive tasting of their lineup, however, was a 2013 "Samuels", a 16.9%, 41IBU number served in a snifter. Having long wanted to produce a beer resembling a port myself, I found this to be by far their "best beer". It was sweet, rich and complex.
Principal Contact: Adam Avery, adam@averybrewing.com

DRIVE Denver, CO to Fort Collins, CO

Day 29 – Sunday 23 June 2013

MEETING #26 Odell Brewing Co.; 800 East Lincoln Ave, 80524 Fort Collins CO
I went with expectations, I left with disappointment. Lots of confusion surrounded the organisation of my meeting led to the disappointment of arriving once the person responsible had left. I was left to their tasting room and found nothing to write home about. A large, successful brewery, expanding rapidly. It's always interesting to wonder if my impressions would have been different had I actually received a tutored tour & tasting.
Principal Contact: Doug Odell, lynseybates@odellbrewing.com

VISIT Equinox Brewery; 133 Remington St, 80524 Fort Collins CO
I didn't even know of Equinox brewery and would never have known about them if I didn't get chatting to some locals at Odell Brewery (who were intrigued by my note-taking in the tasting room in front of flights of beer!). A small brewpub in downtown Fort Collins who only serve their beer at their own bar (lovely!). I arrived very near closing and had time for one beer – their Space Ghost IPA at 6.4%/78IBU was recommended ... and it didn't disappoint. Much better than anything I tried at Odell.

Day 30 – Monday 24 June 2013

DRIVE Fort Collins, CO to Denver, CO

FLIGHT #7 dep: Denver, CO at 14h35 on UA1259
arr: San Fran, CA at 16h21

Day 31 – Tuesday 25 June 2013

DRIVE San Francisco, CA to Chico, CA

MEETING #27 Sierra Nevada Brewery; 1075 East 20th St. Chico, CA
At 120 million litres production per annum, this is no longer a craft brewery. Established by Ken Grossman in a shed in 1980, it does trace an unbroken timeline to the origin of the modern American Craft Beer revolution. 70% of their total annual output is in one product, their flagship *Sierra Nevada Pale Ale*. But I wasn't initially attracted to visit by their

brewery. I visited because they were the only brewery business I could find in America (and the world!) who were growing their own hops and barely. OK, so it was only 4T of green hops and 45T barley for one (only!) 60000litre product line (which puts their farming output on an approximate par with my own, albeit their brewery is "slightly" bigger ... !!) but I was still impressed by this CRAFT BEER approach, something a lot of other supposed craft breweries I know either never had or have lost at significantly lower production volumes. There were many other things to be impressed by too, including a lesson for all production breweries on the saving, recycling and conservation of energy across the entire production process. A truly impressive site and a truly impressive brewery business. My visit and tour was conducted by their "farmer", Lau Ackerman.

Principal Contact: Lau Ackerman, lau@sierranevada.com

DRIVE Chico, CA to Reno, NV

Day 32 – Wednesday 26 June 2013

MEETING #28 Rebel Malt; 560 Moran St., 89502 Reno NV

I enjoyed this visit! Lance, a brewer, started a small scale maltings in his garage in 2004 and has built and installed most of the equipment himself. Extremely laid back, Lance produces about 40T of Rebel Malt each year in 500kg batches which he sells to home brewers in 2 to 50lb bags at \$1/lb and to professional brewers in 50lb sacks at \$0.65/lb. It was an excellent demonstration for "TwoMetreTall scale" and an extremely useful visit, worthy of the long and beautiful drive across the Sierra Nevada range.

Principal Contact: Lance Jergensen, lancejergensen@gmail.com

DRIVE Reno, NV to Oakland, CA

VISIT Drakes Barrel House; 1933 Davis Street, 94577 San Leandro, CA

Was hoping to organise a meeting with Jesse Freidman from Almanac Brewery whilst in San Francisco, but Jesse had to cancel our meeting at the last minute. Pity, because with a motto of "Farmer to Bottle" and producing a raft of barrel aged, fruit steeped beers, I was very interested in their philosophy. Jesse, in cancelling, made a few recommendations ... and Drakes was one of them. A nice spot for a beer and to catch up on my notes at sunset, but the Drakes barrel program was very much about new oak flavours in *saccharomyces* inoculated beers, which didn't hold a lot of interest for my fellowship studies.

VISIT The Old Depot; 468 3rd Street, 94607 Oakland, CA

Another Jesse Freidman recommendation and this one, a downtown Oakland bar, hit the spot really well. An exciting beer list, that allowed me to try some products I had been hoping to track down. Unfortunately, neither Drakes nor The Old Depot had any Almanac and neither did anywhere else I tried during my stay in San Fran. So, both Jesse and Almanac, with their story very much appropriate to both TwoMetreTall and my Fellowship, remained elusive.

Day 33 – Thursday 27 June 2013

DRIVE Oakland, CA to Capitola, CA

MEETING #30 Sante Adairius Rustic Ales; 103 Kennedy Dr, 95010 Capitola, CA

A small brewer, relatively new on the scene and a kindred spirit! I really enjoyed my meeting with part owner (the other part owner is his wife, Adair) and brewer Tim Clifford. Sante Adairius are making some excellent beers, to an increasingly wider acclaim, from a really interesting approach to yeast and inoculation.

Principal Contact: Adair Paterno, adairp@gmail.com

DRIVE Capitola, CA to Santa Rosa, CA

VISIT Russian River Brewing Co., 725 4th Street, Santa Rosa CA 95404

Is there a more famous craft brewery representing the possibilities of soured ales in America – I doubt it! Vinnie Cilurzo and his Russian River Brewery are the very definition of experimental craft brewing. Unfortunately the obscene traffic that is San Francisco prevented me from the possibility of a chance meeting with the "famous" Vinnie, although I did establish email contact with him afterwards. Russian River operate a production facility in a different location to their famous brewpub, which when I finally arrived near dusk on a Thursday was absolutely heaving. I persisted – these people can drink Russian River anytime they please – and jostled and pushed my way to the bar, took out my black notebook and pencil and ordered tasters of the entire range ... some genuinely impressive beers with *Sanctification*, *Supplication* and *Propitiation* highlights for me as representing significant works of the sour beer craft. "Infection" be damned! The users and abusers of this term certainly need to visit Russian River!

Principal Contact: Vinnie Cilurzo, vcilurzo@russianriverbrewing.com

Day 34 – Friday 28 June 2013

MEETING #31 Ale Industries; 975 Detroit Ave, Concord, CA 94518

Met with part owner and brewer Morgan Cox who took me through some of their really interesting (and growing!) experiments with soured and fruit-steeped beers.

Principal Contact: Morgan Cox, morgan@aleindustries.com

FLIGHT #8 dep: San Fran, CA at 16h14 on UA580
 arr: Portland, OR at 18h01

VISIT Cascade Barrel House, 939 SE Belmont Street, 97214 Portland, OR
I couldn't shake a meeting out of owner/brewer Ron Gansberg on a weekend, so I spent the evening at his taphouse on a self-guided tour. This brewery is almost dedicated to sour and fruit-steeped sour beers and was one of the very first exponents of this craft on the American scene. I was fascinated by the way Cascade preceded each beer with the "North West Style Sour". It was almost as if he were taunting beer shows and judges and challenging them to change their ways. By-and-large, in America at least, they have and one wonders if this may well have been due to the obvious favour show by consumers towards these beers rather than any natural acceptance by the "good-beer-bad-beer" gatekeepers!
Principal Contact: Ron Gansberg, ron@cascadebrewing.com

Day 35 – Saturday 29 June 2013

DRIVE Portland, OR to Corvallis, OR

MEETING #32 Block 15, 300 SW Jefferson Ave, 97333 Corvallis, OR
This visit felt similar in many ways to the meeting I had with Will Meyers at Cambridge Brewing Company in Boston, MA. Small, exciting, experimental brewpub/café with a meandering, multiroom, underground cellar area which felt like the deeper you went in, the more interesting things got. On so many levels these two operations, possibly together with Gueuzerie Tiquin in Belgium and Sante Adairius in Capitola CA, were the operations I visited which had the most similarities and relevance to my own brewery and brewing. Nick even started Block 15 in 2008, which is the same year we started to operate from our farm, and – blow me down with a feather – he even has the same type of fermentation tanks as me! Nick is doing much experimentation with *brettanomyces* yeast and spontaneous fermentation and is also working creatively with fruit. From what I was able to taste, he is certainly producing some of the most exciting results I encountered in America. Nick was introduced me to the Brewing Science Institute, Colorado, (www.brewingscience.com) as a source for obtaining pure cultures of *brettanomyces* (and various other specialised) yeast
Principal Contact: Nick Arzner, nick@block15.com

DRIVE Corvallis, OR to Mt Hood, OR

MEETING #33 Logsdon Organic Farmhouse Ales, 4785 Booth Hill Rd, 97031 Hood River OR
Most brewers will be familiar with the products of WYEAST, particularly the packaging with that almost fantasy-novel snow-capped mountain scene. What they may not understand is that the photo is of Mt Hood and that WYEAST is the native name for the area and the mountain. It seems almost too corny to be true that a brewer and brewery would be found at the bottom of a mountain the native Americans called WYEAST, but surely it is the most visually captivating sight for a brewery in the world! And, boy, what a brewery! Dave Logsdon has spent his professional life culturing yeast (he was the founder of the Wyeast business) and his beers shows emphatically his control, ease of use and selection-provess with regard to this essential beer ingredient. As he said himself "I would never have been able to brew beers like this until now" a statement which underlines that we must never underestimate the power of maturity and experience. The beers were sublime, to the extent whereby in tasting his *Seizoen* (7.5%, 4 grains, 4 hops and 4 yeasts) I was overcome by the thought that this was exactly the kind of beer from which the possibility of exploring the subtle differences between varieties of grain (eg barley) seems possible in a non-sour beer. His beers were SO grainy, SO subtle and SO clean. On a warm, sunny day he was serving barely-chilled beers at around 14°C and all were wonderfully refreshing and flavoursome. As a demonstration of yeast knowledge and management, this visit cannot be surpassed. His *Cerasus* was a cherry red ale (he was targeting a West Flanders base ale) inoculated with two strains of *saccharomyces* yeast, one strain of *lactobacillus* and one strain of *brettanomyces*, which were pitched into the beer in time over the 12 month barrel-ageing period. Most memorable of all was, however, the demonstrations of *saccharomyces* species capable of acid production and super-fermentation to produce dry, crisp, refreshing and exceptionally smooth and flavoursome beers.
Based on a farm, his side-project was planting Schaarbeek cherry trees – the classic cherry variety for the production of Kriek Lambic, and rarely available in their native country anymore - from cuttings imported from a licensed nursery in Belgium. It was the first time I had been able to see these cherries for myself, and even though it was early summer and they were still a long way from harvest, it was immediately evident why they were so famous; small, thick-skinned, richly coloured (almost black when ripe) and an extremely low juice-to-seed ratio ... if it were a winegrape, it would be mistaken for Cabernet Sauvignon!
Principal Contact: David Logsdon, dbrewlogs@gmail.com

DRIVE Mt Hood, OR to Portland, OR

Day 36 – Sunday 30 June 2013

VISIT The Commons Brewery, 1810 SE 10th Ave, 97214 Portland, OR
Unable to meet with the owner Mike Wright, but had a very good chat with Travis whilst he took me through a full tasting of their products.
Principal Contact: Michael Wright, mike@commonsbrewery.com

VISIT Upright Brewing, 240 N Broadway #2, 97227 Portland, OR
Unable to meet with the owner Alex Ganum, but met with Bobby, 1 of their 3 brewers, in their taproom, located right in their brewery. Unfortunately, despite a very handy barrel program, they had none of their fruit/sour/barrel-aged beers

on tap during this tasting session as they only bottle these for an annual release. Bobby kindly gave me a bottle of *Fantasia*, which results from a wort transferred to barrel with fresh peaches and fermented/aged for 12 months prior to bottle and given a further 3 months in bottle prior to release. I had a lot of fun with an "experimental" brew they made, which was an identical replica of *Budweiser*, right down to the precise yeast strain; it was a very pleasant tasting, if a little light, beer which begs the immediate question of "what are the REAL Bud doing?!"

Principal Contact: Alex Ganum, alexganum@gmail.com

VISIT

Saraveza, 1004 Nth Killingsworth Street, 97217 Portland, OR

A very interesting bottle shop and restaurant, which refers to itself as a "Pastry Tavern" given its specialty is pasties. It really is a very serious place for the dedicated beer-lover, and I'd love to have such a bottle-shop as my local. I particularly liked the very old lampshade in the front window, a peculiar promotional item for *Heileman's Oldstyle* beer which touted itself as being "fully Kraeusened, Naturally carbonated" ... the way all self-respecting beer should be n'est-ce pas?

Day 37 – Monday 1 July 2013

FLIGHT #9 dep: Portland OR at 08h10 on AS568
 arr: Los Angeles at 10h32

VISIT

The Bruery, 715 Dunn Way, 92870 Placentia, CA

Well, who would sit at an airport for a 12hr flight connection when you could visit one last brewery! It also ment I was able to nip down to *Huntington Beach* and pick up a bit of branded clothing for my daughters! There website describes them as "A boutique craft brewery located in Orange County, California, specializing in experimental and barrel-aged beer. Our name is a fusion of 'brewery' with our family name, Rue". They are certainly another example of an American craft brewery who started small and have got very, very big. Potentially I was fatigued, but I found almost all of their sours to be quite palate harsh and the acids to be fairly aggressive. Given the excellent quality of most of the sours of which I had partaken of across America, I was disappointed by what I perceived from such a well-regarded brewery as The Bruery. Maybe this is what Armand Debelder, from Drie Fonteinen, was referring to when he observed that he would find sour beer undrinkable; "lambic" he said "is not sour. It is acidic, but never sour". I can only agree. When sour is harsh, it is unpleasant. When any character is in excess the result is not balanced and this is rarely positive. Armand also benefits from a generic name for these beverages, which the English language does not, so for now – and for a long time yet – they will continue to be called sours, but I hope, after reading of these notes, the reader will understand what is really meant by this.

... and now it is time to go home!

FLIGHT #10 dep: Los Angeles at 23h50 on QF108
 arr: Sydney at 07h40 on Wednesday 03 July

Wednesday 3 July 2013

FLIGHT #11 dep: Sydney at 09h25 on QF1019
 arr: Hobart at 11h20

MAIN REPORT

PHILOSOPHY

Two Metre Tall was never going to be “just another” brewery. This is principally because Two Metre Tall was not a brewer! Wasn’t qualified as a brewer, hadn’t worked as a brewer, didn’t home brew and whilst a working winemaker for more than a decade, was exceptionally fond of employing the phrase “it takes a lot of beer to make a good wine”, certainly didn’t explore the world of beer with any particular interest or gusto.

All this changed radically with a return to Australia after an 8 year absence and a move to the Derwent Valley in Tasmania in 2004 and the purchase of a 600Ha farm. The intention was to plant a vineyard and practise my profession as a winemaker, but having located myself in traditional hop growing country I soon realised that 60% of Australian hops were grown all around me and yet not a single brewery was located within cooeee ...

... odd!

It smelt like opportunity and, with the wine industry in meltdown, I jumped in head-first.

In retrospect it was never going to be smooth-sailing! Whilst we have made “every mistake” in the small business manual, it pales against how we have sinned against the “norm” of brewing conventions. Not knowing the field I had embarked on, I crashed into most obstacles before I knew they were there. The winemaker in me assumed I had to grow my own ingredients in order to make the beer I wanted and I had a small hop field and a cereal cropping operation before I realised that this wasn’t happening anywhere else in the country. I taught myself to brew, in a brewery I built myself by converting the farm’s existing shearing shed and exposed every trial and tribulation to the marketplace, commercialising product from bottle number one of brew number one.

Further, the complexities and diversities of beer fermentation, far more complex than wine fermentation, were new to me and my resulting encounter with the “brew Nazis” (as I began to call them) who would insist that anything other than a very linear, specifically inoculated commercially available *Saccharomyces* yeast (read *plain vanilla!*) fermentation was “right” and anything and everything else was “wrong” and needed to be thrown away (all said with a facial expression indicating that the brewer and brewery should probably be burnt as a precaution as well!) were intriguing. Frankly, I liked a lot of the flavour and characters I was seeing as a result of my, initially unintended, wild yeast ingressions. Secondary esters and, in particular, acidity were a godsend, delivered naturally, and seemed to address the fundamental issues I had with a lot of craft beer I had tried to that point; nice flavours, but heavy, excessively sweet (and/or bitter) – or “fat” as we winemakers referred to wines with a similar array of palate characteristics - and difficult to drink.

And, of course, a winemaker is never far from fruit and it wasn’t too long before I was transferring acidic beer into wine barrels and steeping fruit from neighbouring orchards; in full experimental mode, I was clearly a long way from any sane connection to the brewing world as it existed in Australia.

This is not a page from “Brand Building 101”! The results were beers which are true individuals in every sense of the term. Unrepeatable expressions of a place and time. Unique in both thought and execution. Independently executed. Artisan. Craft.

In a sea of ubiquitous, monotonous, homogenous, industrial “beer” and trendy new, faux, “Kraft Beer”, Two Metre Tall the brewer, apprenticed to the Two Metre Tall farmhouse brewery, learnt to brew all alone, on an isolated farm, in a most unusual way with the most unusual ingredients. It is, in hindsight, this very denial of all brewing convention - ignorantly AND defiantly in equal measure – that have had the most significant impact on our evolution.

The products have found both their detractors and their supporters. They can polarise. They can inspire.

But, after 6 years of “flying solo” on a farm in Southern Tasmania and having, bit-by-bit, learnt to confidently converse with the brewing world and, importantly, articulate how and why Two Metre Tall is SO different, it was time to leave the farm and visit the brewing world.

Surely we were not alone in what we were doing! What was the world doing? What new flavours could be tasted? What new ingredients and techniques could be discovered?

From May 25th to July 3rd 2013 Two Metre Tall spent time in the UK, Belgium and the USA on a Churchill Fellowship studying traditional methods of floor malting grain, spontaneous fermentation and the use of fruit and barrel ageing in the production of beer.

It was a true sabbatical leave, in the classical sense of the term and afforded time away from the coal face of my own small business to reflect and gain new perspective and insight whilst visiting the world of my chosen profession with eyes wide open.

Upon return and reflection, the primary realisation of my Churchill Fellowship is that TwoMetreTall – my business - IS unique.

Almost every brewery I visited – and this numbers well into the thirties, mostly highly specialised affairs and very few of them making what you may describe as “commercial” beer – remarked via various appropriately linguistic expressions how novel and interesting our approach to beer and brewing was. Indeed, having articulated how I came to be brewing in the first place – winemaker-cum-farmer-finds-himself-in-hop-country-with-no-breweries-and-sees-opportunity - many of these brewers (often with their head cocked thoughtfully to one side) replied with their culturally equivalent expression of “Yeah, right! I’d never thought about it like that! How cool!”

And yet, whilst the uniqueness of our articulated approach was verbally confirmed, what also dawned on me through the sheer volume of visits to different businesses was that the practices, ideas and techniques I have embraced are not in and of themselves necessarily unique, rather it is a cherry picking and re-assembly of various techniques, both current and historical, from my multi-industry fermentation career, which is unique.

It is, in essence, about the application of new perspectives to existing industries and I see this as an extremely powerful tool for modern Australian agriculture, which seems to be suffering challenging forces on a number of fronts; ageing workforce, rising costs, rising obligations and regulations, declining terms of trade and too few roads to market for Australian farmers to feel like they are in control of their business destiny. Certainly, Australian agriculture is suffering economically and politically as a result of many of these challenges and a once major economic and productive powerhouse of the Australian economy has been significantly eroded in just a few generations, the very same generations, particularly latterly, when the interest of the population at large in “wining and dining” has been growing exponentially.

The disconnect is alarming! We hear much of food fashion. We hear much of how the human race will be challenged to feed itself into the future, potentially even the near future (this century!). But as farmers, we don’t see much change; static or declining commodity prices, the economic gains of productivity improvements not returned. We need to be more involved in markets. We need to “stick-our-hand” deeper into the economic pie. Where are the city chefs at the saleyards? Where are the bakers at crop harvest? And where are the brewers and breweries in the Derwent Valley, which has grown at least 60% of Australian hop production for over 175 consecutive years?!

The success or otherwise of my individual business, however, should not be a marker as to the application of the model I am advocating. Indeed, my business can only ever provide one example of this model. But it can illustrate the essence of the thought. It can also point to the resistance to change even in a scenario where the need for change is obviously the ONLY way forward and, thanks to my Churchill Fellowship, it can offer the benefit of turning to the world for support, nourishment and confirmation that, having embarked on a new approach, you are not alone!

Even as a winemaker, I had only ever viewed winemaking as value-added farming. Whilst there has been significant corporatisation and industrialisation of the wine industry, particularly in Australia, at its best and most evocative, winemaking is the business whereby a farmer not only grows and harvests the grapes, but transforms them to juice and, subsequently, wine before packaging the product and taking it to market. Substitute the word grapes with milk and you have the world of artisan cheese, use the word pigs instead of grapes and you have the delicacies of charcuterie. In other words wine was a model for agribusiness to follow as a means of escaping both the price and soul destroying commodity farming model which seems to be ubiquitous across innumerable agricultural industries.

I merely substituted the word wine with the word beer and traced the same model in reverse, which demanded I grow hops and cereals. Simple. But not done. At least not in Australia. Not anymore.

Once upon a time, not so long ago, the Australian population didn't know much about wine, didn't drink much wine and didn't engage the lifestyles where the drinking of wine seemed appropriate. Now we drink Chardonnay, and Cabernet Sauvignon and, not only realise that one is white wine and one is red wine, most would understand that both are the names of varieties of grapes and appreciate that it is the inherent differences between these varieties that gives rise to the fundamental differences encountered in the wine.

But when I came to plant my first crop of barley (because how do I produce a Tasmanian farmhouse beer with barley purchased from elsewhere?) and sought advice as to which variety I should plant from professional maltsters I was told, without equivocation, that there was "nothing in that".

Clearly they had NOT encountered the story of Maris Otter!

MALTING BARLEY

I first encountered the name Maris Otter many years ago, on a beer label whilst casually drinking in England during a visit on wine business. I don't remember the name of the beer – let's make it up & say it was "Johnny Rottens' Maris Otter Summer Ale" – but I do remember being struck by finding out, on enquiry, that Maris Otter was a renowned barley variety. "Well I'll be!" I thought, "a beer touting an ingredient – and a barley variety at that - as a selling point!" ... and my intrigue never dissipated.

Not surprisingly, the very first meeting of my Churchill Fellowship was at Warminster Maltings in England, the home of this apparently exceptional ingredient Maris Otter. Here I encountered first hand something which has long since disappeared from the Australian brewing scene; a traditional, labour intensive, production facility where everything was manually handled by nothing more sophisticated than shovels, rakes and as a concession to the modern world, the odd lifting device! When I visited, the workers were engaged in the unpleasant, physically demanding task of shovelling damp wheat from the steeps because this tricky grain had, as is its wont, bridged in the augers. I could well imagine an Australian visitor remarking at how chaotic and out dated this scene seemed and I myself wondered aloud why something, even so richly evocative of a quality and specialised treatment of brewers grain, but evidently so demanding on labour and cost per unit was defended. The answer was as surprising as it was instantaneous; because of flavour!

It was music to my ears. It was use of the language of ingredient, attention to the deeply subjective field of flavour and insistence on clearly outmoded industrial practices. Why? Because it was believed to produce a better result for the specific market to which it was targeted. It seemed to confirm the long held adage of craft brewers that whilst technology, automation and industrialisation had done much for increasing the quantity of beer produced, they had done nothing whatsoever towards improving the taste of beer!

Robin Appel is a significant English grain trader, handling specifically barley, at all levels of the UK market from feed barley through to malting barley. He had also purchased the exclusive rights to the Maris Otter variety – already renowned amongst English cask ale brewers for its superior flavour and texture - when the Thatcher government was in full privatisation mode. In 2001 he purchased the Warminster Maltings² and proceeded to re-establish it as a site dedicated to this revered and in-demand barley varietal, employing a magical combination of the very modern concept of a vertically integrated supply chain for this specific variety – growing contracts, seed quality assurance programs and dedicated harvest logistics – and the evocative and traditional approach to the transformation of Maris Otter from barley to brewers malt "on the floor" and then marketed this business as the quality pinnacle of his entire grain trading activities. Brilliant! Wine-like!

Even better, realising that, with respect to marketing, many conversations were better than one, Appel allowed the other British maltings to malt his Maris Otter grain; but only those maltsters who continued to operate a floor malting facility! A

² which apart from continuing as one of the oldest traditional floor malting operations in the UK, was also the home of the barley breeding program which resulted in Plumage Archer, the first purebred British barley variety, which was launched in 1905 and was eventually to become a grandfather variety to Maris Otter.

premium product, a dedicated business and restricted supply of the raw material only to businesses prepared to “bleed” in the defence of the quality reputation of this particular ingredient.

I travelled from Warminster, to Thomas Fawcett’s in Castleford’s, West Yorkshire, the oldest continually operating malthouse in the British Isles. The Fawcett’s are a terrific multi-generational example of value-added farmers NOT from the wine industry. Today the Fawcett family are still cropping the same soils and still malting in the same facilities they established in 1809. Not surprisingly given this history, Thomas Fawcett, from their rambling and historic facilities are servicing a clientele around the world NOT engaged in brewing great volumes of cheap adjunct laden, industrial beer and have embraced and are actively engaged in the Maris Otter story, dedicating their own 204 year old floor maltings exclusively to the variety. It is a terrific story, it is exceptional malt and it provides a true example of what I believe of what the smaller end of Australian agriculture should be seriously engaged in pursuing; value adding of their farm produce into niche, high-value non-commodity markets

From Thomas Fawcett’s, I drove to Crisp Malting in Great Ryburgh, Norfolk. This place intrigued me! The site of a maltings for over 150years³ it today belongs to a multi-national, industrial malting group producing 250,000 tonnes of malt annually across 5 sites. The Great Ryburgh site is the largest in the group, producing 115,000 tonnes of malt annually in an enormous, and thoroughly modern, malting operation. Despite this, Great Ryburgh maintains the operation, with all the compliance and work place safety obligations, of a 150 year old floor malting facility dedicated to the exclusive production of Maris Otter on the same site!

Why?

“Because the brewers want it!” was the dead-pan response from site manager and head maltster Jake Lambert. I suspect also that Crisp Maltings also want a piece of that “artisan-je-ne-sais-quoi”, a certain quality cache, afforded by such a highly regarded (and impeccably managed and marketed) ingredient. Clearly to be a “Maris Otter maltster” is a matter of pride, even worth the expense of maintaining a separate facility, a separate production team and separate logistical arrangements for 1% of site production.

My next question, however, was not so easily answered. Not by any of the managers in any of the maltings I visited; “Why is Maris Otter the only barley variety to have achieved this level of respect and can it be repeated?” It appears, although no one specifically said so in as many words, that Maris Otter is a very special relic of a rather unique plant breeding programme, established not just to breed *flavoursome* barley varieties, but to produce the most flavoursome food and as an indicator of the success of such a research concept, the very best regarded English potato variety, Maris Piper, came out of the same program!

Modern barley breeding research targets yield, disease resistance, water-stress and a variety of other very measurable criteria. I know of no program following a breeding-for-flavour philosophy. Perhaps this is because flavour, per se, is essentially subjective and inherently difficult to measure. In a quantitative brewing industry, where production volume, cost-per-unit and efficiency are king, the research money flows for quantitative research.

I left England, and my week long studies into the traditional and artisanal world of floor malting, smelling the strong scent of opportunity for my Tasmanian cropping brethren; why would the farmers from a small island off the southern coast of the Australian continent with just 1% of the national landmass and a freight disadvantage, but benefitting from a cool, dry climate and ample water resources – a situation perfect for growing flavour focused food - be flailing around on the international commodity grain markets when the quantity of grain grown in the very best year represents about the same tonnage recorded as “spillages & losses” on the national harvest register. An island state, a perfect cropping climate, a plant breeding program focused on producing unique Tasmanian varietal barleys, some malting expertise and there it is; an extremely unique, highly marketable, value added agricultural product of earning potential at least ten times the commodity price ... Nothing is quite so simple ... but it surely it can’t be too difficult either! Certainly it was something to follow up upon my return to Australia.

³ The English countryside is dotted with former maltings. Remnants of a more diverse, more localised agricultural manufacturing era, most have now been converted into very trendy housing estates, only 4 remain in operation

FERMENTATION & FRUIT

My plane departed Heathrow, headed for continental Europe and fermentation overtook my thoughts. As a winemaker, I had viewed beer from a distance as a simple beverage and had given scant thought to the challenges of its production. After all, winemakers are educated to and heavily indulge the postures and language of the makers of complex, serious, structured beverages of extremely high cultural merit. Clichéd images contrast sophisticated wine drinkers with fat bellied male beer drinkers, and if one spends enough time inside these clichés, they do take on a certain truth. In any case, the multi-national industrial beer companies do nothing to counter these stereotypes with their “blokey” advertisements and a production repertoire that could be politely defined as “narrow”.

So when I committed my act of professional original sin, and determined to brew some beer with the hops grown in the valley in which I had purchased my farm (and upon which I intended to plant a vineyard!), I almost arrogantly dismissed my lack of brewing knowledge with an “it can’t be that hard” wave of arm.

How wrong I was almost instantly proven to be!

The fermentation of beer makes the fermentation of wine look like a stroll through nature’s garden. It is, evidently, far too simplistic to simply say that wine, a fundamentally natural product, is designed to be “self-made”, with all elements required for its production contained in and on the singular fruit from which it originates; if you split the skin of the grape you expose the sugary liquid within to the fermentative organisms which naturally coat the skin. But, in comparison to what is required to produce beer, it provides a statement of relativity and I am constantly reminded of the old adage “If you crush grapes with your feet you will get wine, but if you crush grain with your feet you will only get sore feet!”

Beer production is, fundamentally, a cooking process⁴ and it is here where there is an enormous divergence between beer and wine when it comes to fermentation. Winemakers are responsible for fermenting the grape sugars presented following harvest of the fruit each year. Brewers are not only responsible for fermenting the beer sugars, they first need to MAKE these sugars via a cooking process of starch filled grain which is what is presented after each annual harvest. Not surprisingly when one thinks about it, beer is closer to bread fermentation than wine fermentation. In fact, one Chinese word for beer translates as “liquid bread”.

But the most remarkable observation that this “new” brewer made, early on, was that the natural microflora covering the surface of every grain harvested on the farm each year was not yeast, as is the case with winegrapes, but a family of bacteria called lactobacillus. When yeast ferments sugar, it produces alcohol and carbon dioxide. When lactobacillus ferments sugars, it produces lactic acid. Think cheese, think salami, think cured hams, think yoghurt, think sourdough bread; all have at some stage undergone a lactic acid fermentation and, importantly as a result, present to the human digestive system as far easier to digest than how they would have prior to this fermentation.

It was a discovery that made my mind race and caused a rush of experiment. One of my principal criticisms of beer as a wine maker and drinker was that the flavour extracted from grain and malt naturally tended towards the honey, buttery, full-mouthfeel, malty end of the spectrum and, whilst flavoursome, this could tend towards the heavy – or “fat” as we winemakers would describe wine exhibiting similar characteristics (following, for example, excessive barrel fermentation, new oak ageing, heavy lees-stirring or starting from over-ripe grapes, particularly if harvested from warm climates) – and reduced the overall “drinkability” of the beer as well as its capacity to refresh the palate. This natural tendency of beer led to the use of hops in brewing from the middle-ages; their bitter characteristics refreshed the beer, cutting through the “fat” sweetness of the malt backbone⁵. For similar reasons, we winemakers were always interested in fruit which had naturally high acidity at full sugar ripeness. The acidity not only contributed to bright, fresh, natural colours in wine (important for presentation of the finished beverage!) but ensured that the palate was left clean, lively and refreshed after drinking.

⁴ Indeed historically, in middle-ages England, only women were allowed to make the beer, as they were responsible for cooking and nourishing their families. This contrasts sharply with a French ban on women entering cellars where wine was being made, particularly at certain times of the month, for fear that their presence had the capacity to turn the wine “sour”.

⁵ It has also led to the multi-national industrial brewers, concerned with cost above all else, replacing much of the malt content with far more flavour neutral cane sugar (or rice flour, or various liquid sugars or combinations of cheap ingredients which can be fermented into alcohol without contributing flavour. These ingredients are referred to in the industry as “adjuncts”), using the acidic characteristics of carbon dioxide to “clean” the palate and advising customers to drink the beer as cold as possible

Acidity was not traditionally associated with beer. It was not talked about as a key structural component. We hear endless comment on malt strength, hop flavour, bitterness ... but not acidity! But I was convinced that acidity had an important role to play – after all, the application of the acidic properties of carbon dioxide was why beer was fizzy and the call to refrigerate industrial beers as much as possible prior to consumption was another technical response aimed at increasing the palate refreshment of the product.

Wine can be bitter (tannic), bubbly (sparkling wines), chilled (various styles, particularly white and rose wines) but principally we know it as a still beverage and an excellent accompaniment to a meal as both an aid to digestion and for pure enjoyment. The reason for this is acidity! We also indulge in the ageing of wines and the wine boffins go to great length to describe wine flavour development throughout this ageing process. Again, many factors contribute to this process, but the key component is acidity. Without acidity, wine wouldn't be refreshing, wouldn't age well, and wouldn't be anywhere near as revered as it has been across the ages of human existence. And acidity is an agricultural component; naturally occurring in the grape, the quantity, quality and type of acidity is dependent upon the variety, the region where the grapes were grown, the growing conditions of the particular year in which they were grown and the degree of ripeness at harvest.

My reasoning, as a new brewer, was that similarly regarded, beer would behave identically and this would be a mere starting point for the exploration of beer as complex and refreshing beverage capable of providing at least the equal food matching capacity and stylistic diversity as wine at the dining table. Acidity was key.

My first experiments in exploring the concept of acidity in beer were based around the concept of adding fruit to either the wort (unfermented beer) or to the beer following fermentation. I chose apples – departing on a concept of apple tart; pastry, butter, biscuit, even coffee and chocolate notes from the malt and fruit sweetness and tartness from the apples – late-season, Tasmanian apples which were naturally very sharp.

But I couldn't help myself, and leapt into the exploration of acidic fermentation as well. How would I employ this coating of acid-forming bacteria, naturally present on the exterior of grain to advantage? It seemed reasonable to me to postulate that low pH, acidic or "sour" beers were in fact the natural state of beer, despite the fact that I struggled to find any interpretations of such beers present in my domestic market. I also reasoned that the wild yeasts, present in the air, would be useful. Being an avid amateur bread-maker, I was already well aware of "sourdough" fermentation cultures, which were created by "culturing" naturally present microflora already present in the atmosphere.

What I didn't expect was the reception such activity would generate in the market place. Not from consumers however, but from other brewers. I quickly found out that an interest in wild yeast was going to grind counter to the prevailing attitudes within the Australian brewing community. Not being trained amongst them, I was unaware of the potential for scorn, fear and loathing which was directed towards anything that was not the strict result of sterile wort, inoculated with commercially available strains of yeast (only) which had been isolated and cultured in a laboratory. In many respects it is difficult to write about a situation whereby you find yourself on the outer of a profession, to which you don't belong, hearing constant rumours of faults and "infections" (as they pejoratively label anything which doesn't correspond to the straight and narrow path described above) from a chattering industry class who were evidently extremely fearful of what they were discovering upon tasting my beers, whilst at the same time appearing to highly engage and connect with a certain segment of beer consumer who were thrilled to be finding someone actively engaged in a search for something different. It was a challenging environment within which to build a business. I was surprised by the penetration of the negativity of this "chattering professional class". Sourdough bakers were considered the true craftsmen of their industry, so why were brewers interested in wild yeast and bacterial fermentations considered "bad" brewers producing "faulty" and "infected" beers? If this was true, why did I – and not only me – enjoy some of the characteristics I was discovering. It was made all the more difficult by the fact that I had embarked on such a pathway not long after I had started brewing my first beers. Everything was new, my journey had just begun, I was not a confident and seasoned professional brewer, I was more an explorer enthusiastically venturing into the unknown and all of a sudden my "opportunity" to "brew some beer whilst my vines grow" on the assumption that "it can't be that hard" was looking awfully like I had bitten off far more than I could chew!

Like sourdough bakers, the domain of wild yeast brewing is not a controlled or fully controllable affair, hence the descriptive term “wild”. I have seen sachets of commercially available “wild yeast” and have scoffed. A tiger born and raised captive in a zoo is definitely still a tiger, but it is not wild. I watched with interest as an emerging craft beer scene began to release beers labelled “Saison”, a French term describing traditional beers brewed on farms, by farmers, from ingredients grown on the farm and fermented with harvested yeast cultures which were invariably reported as being highly variable, extremely specific to each brewery and often soured by the wild inoculums used or the fruits steeped within them to soften the harder acids produced by the wild yeasts. The very thing I was being vilified for doing by a small but vocal section of the professional set was now being copied by them, albeit in a very sterile form, using commercially available “Saison” yeast isolates (isolated from the genuine articles in a laboratory, before being cleaned and cultured and sanitised prior to commercial release) without any of the effort, challenge and unpredictability of the journey required to create the genuine article. The zoo-keeper was pretending to be the wild-animal keeper all-the-while criticising the game-keeper for the comparatively rough presentation of his animals and their bad behaviour.

Enough was enough! I was fascinated by the results I was achieving. Even the infrequent “failures” – as judged by my own reckoning – which added to my knowledge at an exponentially faster rate than my successes did. I was motivated by both positive and negative feedback I was achieving from consumers – it was real and defined the challenges I was embarking upon and was constructively helping me to hone, to understand and to position my craft, and was, by now, well aware of its specificity in a very generic marketplace – but I was increasingly fatigued by a trade and professional set habituated to encountering their wild animals from the safety of a zoo and I thirsted to encounter, mix and fraternise with the real thing. The Churchill Fellowship beckoned as a wonderful opportunity.

I arrived in Brussels on Monday 3rd June 2013. Belgium is a strange country. Formed in the early part of the 19th century, it is like a unresolved “grey area” between two strong, very different and intransigent cultures. The Australian equivalent is Canberra; an awkward appeasement of two unbending forces. Unlike Canberra however, the land is flat. Historically rich and productive farming land, this produced the cashflow which fuelled the desire for succession. Jammed between the beer-drinking, protestant Dutch to the north and the wine-drinking, catholic Latin French to the south, the Belgians drank both, ate both, traded with both and, as a result, developed one of the world’s enviable food cultures.

The structure of the country is innumerable villages. Communities structured originally around the provision of labour to the farming operations. In summer the labourers would work hard, planting and harvesting crops which fed the communities. In winter, to prevent idleness and maintain and sustain the workforce, many crops were transformed – value added – into food and beer played a central and essential role in all of these aspects of community life; from being a source of nutritious food, to providing a healthy alternative to drinking from contaminated water sources through to sustaining and entertaining the labouring force throughout the busy and physically demanding summer months.

The beer produced was a still drink, served directly from the wooden barrels in which it was brewed and matured. Brewed in winter to last throughout the year, it needed to be robust in flavour and durable, the last glass before the new brews were ready could be twelve months old. This era was pre Louis Pasteur, yeast was not known. The brewers were craftsmen, plying their trade. The beer was “sour” but delicious, respected, life-giving. It was often blended with local fruit to flavour, to colour, to revive if a brew had tired. It was, upon request, served with a *stoemper* (a flat-bottomed instrument designed to crush small things, presented suspended from an ornamental holder) and a sugar cube for those who wanted to mask the acidity with sweetness. It was undeniably more wine-like than anything we would presently describe as beer. It exhibited all of the quality characteristics we still today associate with the most revered foodstuffs; flavour, texture, complexity, balance, not to mention the craftsmanship and time involved in the production. The humble source of, in many cases, basic farmhouse nutrition and “clean” drinking ended up becoming a famous beer internationally and an example of food excellence. It was known as *lambic*. The fruit steeped versions were known as *kriek*, after the Flemish word for cherry, which was the most popular fruit for purpose. And, when glass bottles became available, these barrel matured lambics were bottled and underwent the most amazing transformation, a process even more remarkable than the celebrated Champagnes of northern France because the process is completely natural, involving no manipulation and re-dosing of yeast by the maker, and became the gushing, sparkling, joyous, celebratory beverage *geuze*, which is the undeniable traditional origin of “beer” as we in Australia know it today.

Throughout the 19th and 20th centuries industrialisation of the Belgian countryside consumed increasing quantities of once productive and profitable farming land. Farmhouse brewing, as it was known, decreased. Belgian beer consumers were seduced by the same market movements that occurred across the beer-drinking world, including Australia. The difference with Belgium was that the brewing and beer-drinking culture was more diverse and significantly richer at the onset of these industrial and homogenising forces and whereas traditional beers in all their diversity and specificity, largely disappeared completely from most other countries, more diversity survived in Belgium than anywhere else. It is this fact that leads to Belgium being universally held as famous for its beer today, in 2013. This is not a representation of the inherent diversity of today's market, which is undeniable when one visits from the perspective of the Australian market, but it is actually a direct reflection of *what it once must have been like*, given what has survived the ravages of a century and a half of industrial expansion, globalisation and international market consolidation in both beer style and communicated message.

Armand Debelder was a joy to meet and was the one-man brewing dynamo of *Drie Fonteinen*, with his brother Guido operating the adjoining restaurant. In his sixties, he visibly wears both the enthusiasm and the passion for what he does and the trials and tribulations of the hard-work and hard-times he has been through. Lambic is enjoying a renaissance, but this phenomenon is recent and Armand, having spent a professional lifetime struggling into a wind insouciant of tradition and defending by continuing to brew a unique beer that he saw bought to its knees just a few short years ago and teeter on the edge of oblivion, showed on his face the story of his personal battle to keep the Lambic tradition alive. I felt comforted in his presence, and reflected on my own experiences. To be a brewing outsider was not necessarily to brew something outside of the accepted norms, it was also to persist in brewing something which once had been the accepted norm in an era where that was no longer the case.

Saved by a booming American Craft Beer market, which had whipped itself into such a frenzy that even its own exciting production was not sufficient to slake the thirst of the new generation craft beer consumers they had inspired, the Americans – chiefly through the efforts of importers Shelton Brothers from Massachusetts - had become interested in traditional beer styles from Europe and had fallen, completely seduced, by the most traditional, most different and most famous of them all; Lambic.

Armand was now famous. Less impressed by his new found fame amongst young bearded American beer-drinking pilgrims (and you could see the look in his eyes that he considered this a “phase”) he was more impressed that this imported energy towards the drink he made in the same way his father made had rubbed off on some of his countrymen and Lambic – particularly Geuze Lambic and the pretty coloured Kriek Lambic – was becoming popular and fashionable once more at home. Impressed or not, he was caught up by it. And it was affecting him. He had built a new brewery; shiny stainless steel, not at all traditional. He found a way to explain this off. He was fiddling tradition, adding greater concentrations of the small, dark Schaerbeek cherries to his barrels to produce bigger, fruitier, more richly coloured – more American – riffs on the classics. This was all in the spirit he said. But he thought New World interpretations of Lambic were “undrinkable” and he refused to countenance the descriptor that Lambic is “sour”. He detested the word. Lambic is NOT sour, it is balanced. Spontaneous fermentation is a true art, native to the area in and around his home town of Beersel, and is not the result of an “infection” which is how “Sour” beers outside of the Senne Valley are made. I could feel him inhabiting a grey area surrounding the hard-fixed line in the sand that was instrumental in defining Lambic across the ages.

Tradition has it that it was only possible to make Lambic within the defined borders of the Flemish speaking Payottenland⁶ because of the particular characteristics of the indigenous microflora. It is excellent marketing, all the more solid for the fact that it is marketing born from the historical realities and superstitions that faced the craftsmen brewers who for centuries plied their craft without any knowledge of microbiology. Are these fermenting microflora unique and special? Absolutely. Does their influence define the unique characteristics of lambic beer? Of course. Can lambic beer be produced outside of the Payottenland? No, but only in name!

Lambic is a name of a particular regional foodstuff, traditionally produced across many centuries in a particular place and the very fact of physically visiting this area and meeting those involved instills a belief that it is not right to use that

⁶ The Payottenland, often referred to as the Senne Valley, is a “department” of Belgium encapsulating Brussels and the immediate countryside to the west and south west of the capital.

particular name in any other situation than that which it describes. The correct question to ask is not “can Lambic be produced elsewhere?” but “can a beer of spontaneous fermentation be produced elsewhere?” and the answer to this is a very emphatic “yes, of course!”

Further, the use of spontaneous fermentation is perhaps the very key to unlocking a methodology of producing beers of very specific characters, defined by their region and their production. If we were talking about wine, we would use the French term “terroir”. Is terroir really applicable to beer?

I explored this concept further at *Geuzerie Tilquin*. Whilst located physically and geographically just a little further south in nearby Rebecq, Pierre Tilquin had caused massive upheaval in Lambicland when he recently appeared on the scene as a blender of Lambic because, although only by a few kilometres, his establishment was located OUTSIDE of the Payottenland AND he was a French speaking Walloon! He even had to invent a new French word to describe his business to his fellow francophones; *Geuzerie* being an adaptation of the Flemish *Geuzestekerij*, describing a facility where Geuze Lambic is blended for sale.

Pierre was relaxed about this. A potentially awkward personality, he relaxed significantly when engaged in the detail on the subject of Lambic. With a PhD in statistical research and not born into the craft of lambic brewing like the majority of those who remain involved, but came to it through interest, respect, and, I suspect the never-ending challenges and endless blending possibilities resulting from observed-but-not-controlled wild fermentations stimulated his statistical mind. He smiled wryly when I put it to him that he was the straw-who-broke-the-camels-back with respect to the maintenance of the inability for spontaneous fermentation to occur anywhere else but inside the Payottenland. Of course he had lived through much criticism and upheaval by breaking the established mould in a land where personal freedom is considered very much secondary to tradition, he admitted to having never viewed his decision to establish his affair in Rebecq from the perspective of crossing the oft-alluded to microbiological line-in-the-sand. And, in any case he remarked, he was a lambic blender only, and purchased all of his wort from “inside” the line.

Intentionally radical or not, one bold decision leads invariably to another, and like Armand twisting to meet his market whilst all the while talking tradition, Pierre-the-Bold, having crossed the line once, had already crossed it again by being the first ever lambic blender to bottle a lambic steeped with local plums; his *Quetsche Tilquin* which is one of only two bottled products he commercialises.

Pierre also offered me an explanation of the process of wort production specific to the manufacture of Lambic, which upon reflection is truly amazing and a tribute to the power of the artisan craftsman to know his craft in extraordinary detail through the practice of that craft only, without the need to understand it from in what we would refer to as a scientific manner. Over the centuries lambic brewers have developed a procedure to brew a highly specialised wort, which science is only just starting to be able to explain at the most basic level, although with sufficient detail to have determined that it a near perfect substrate to initiate and sustain the plethora of microorganisms that will act upon and exert influence over the three year fermentation period it takes to produce a finished spontaneously fermented beer. Even a 16th century decree by the taxation office to tax the volume of the grist receiving vessel in the brewhouse, rather than the volume of beer produced and led to brewers stuffing their vessels to over-capacity, before draining off some of the excess liquid, boiling it to solubilise the starch and returning it, hot, to the original vessel so that even more grist could be added was pivotal in producing a wort which performed remarkably better for the task of spontaneous fermentation. Science can only now describe how this process leads to a high concentration of long chain dextrans in the wort. These dextrans, which are not fermentable by *saccharomyces* species⁷ remain in the wort until they are available to generate and sustain the fermentation activity of *brettanomyces* species, whose contribution is considered an essential part of establishing the Lambic character.

Yet the lambic craftsman already knew this, even if he didn’t know about it quite in that way, and had practiced the technique, continuously, for centuries. The poignancy of such reflection on the near disappearance of lambic beers is

⁷ Species from the genus *saccharomyces*, identified in beer by the original studies of Louis Pasteur in the 1860’s, form the exclusive fermentative organisms used by the overwhelmingly vast majority of modern brewers. In spontaneous fermentation, *saccharomyces* species represent just one of potentially hundreds of organisms responsible for overall fermentation of this medium. And, like the similar situation around the competing philosophies of monoculture .v. biodiversity as related to farming practices, the appropriateness of one or the other technique have the capacity to raise the heat of many discussions!

rammed home in the visits. Had, through industrialisation and homogenisation of beer at the behest of fewer and fewer and larger and larger corporations, the production of lambic been lost, so too would all of the knowledge associated with the craft but not restricted to application within the craft. Would that really be progress? My understanding of progress is that it involves the accumulation of knowledge thus allowing the more selective applications of techniques and processes to particular problems, not the loss and replacement of existing knowledge by “new” knowledge based on an assumption that it is better suited to the task at hand.

Perhaps the closely guarding of a very specific knowledge and the fear of it being scorned, dismissed and disrespected is why the universally judged best producer of Lambic wort, particularly by the most important “judges” of all – the lambic blenders who purchase wort from the various brewers - the *Girardin* family, conducted their revered operation shrouded in secrecy. I managed to get myself inside the high stone walls on my first visit. On my second visit I was even able to conduct a very interesting discussion with Mme Girardin – who warmed when she learned that I was a farmer from Tasmania, brewing beer in my own on-farm brewery - as I was purchasing the product which I now describe as one of the most impressive beers I have ever tasted, but my persistence was not rewarded by any visit inside their ancient farmhouse brewery. And I soon realised that I join a very long line of similarly motivated people, similarly unable to penetrate their defences and interrogate their knowledge and motivations. Instead we were left gazing from the outside, at an beautiful copper brewhouse, proudly displayed behind a glass window, which interrupted the stone walls of the ancient buildings nestled in the middle of a verdant green, early summer wheat crop. It was situation which was probably the closest in delivery of the spirit of the journey that I unwittingly embarked upon when I declared all those years ago “I’ll brew a beer. It can’t be that hard!” and, there in that field, I felt the overwhelming inspiration that all of the challenges I had endured in persisting with my journey and all of the hard work, toil and energy that I had applied to date were all not only worthwhile, but had actually, by getting me to this point, placed me at the starting point of the rest of my journey which was doubtless going to be significantly richer and more rewarding for having visited and tasted the products of *Girardin*.

Whilst on the plane to Europe, I learned that a spontaneously fermented geuze lambic – produced by *Oud Beersel* – had won the best international beer at the annual AIBA⁸. I was not an entrant in beer shows. Even in my winemaking days, I found them to be bastions of concentrated group thought and cursed them for being, in my view, responsible for accelerating the homogenisation of wine flavours and the demise of wine style as producers fell over themselves trying to replicate the “styles” of previous winners, sure that this was the pathway to rapid commercial success. I was shocked by this result. I didn’t think it possible that a unique, particular, non-commercial, spontaneously fermented, sour tasting, traditional relic could succeed in a modern, multi-national beer show.

I’m not sure that this result says anything conclusive about beer shows in general, other than rewarding such an outstanding yet totally bizarre and non-commercial beer certainly looks and sounds good for the organisers. It may be a small sign that, despite massive and increasing publicity surrounding the domestic craft beer movement and obstinately slow commercial results to show for all this marketing noise, that the days of monotonous tasting, ubiquitously produced industrial lagers dominating the market to the quasi-exclusion of all others are really over. One can but hope, but in reality, if we compare this result with the results of the previous years, it simply looks odd.

Gert Christiaens was happy! A young, enthusiastic, hard-working, marketing savvy chap, he was the antithesis of what you would expect to find in such an ancient and run down brewery that is Oud Beersel. A victim of the demise of lambic, and a beneficiary of its new-found cache, Gert has found someone else’s money, enthusiasm and time from a local lambic-enthusiasts club to run his brewery tours and, in stark contrast to some of the dilapidated and ancient brewing equipment now good only as museum pieces illustrating his tours, the new, giant oak *foudres* and smell of fresh paint everywhere, a modern approach to marketing and the bombarding of their products onto international beer shows, suggest that Oud Beersel is intent of aggressively announcing to the world that Lambic is not dead! It was an excellent visit, graphically demonstrating the peril that this craft had so recently be shadowed but a work-in-progress testament to the power of belief in renewal.

We started our fortnight in the Payottenland at *Brasserie Cantillon*. Arguably the most famous of all of the lambic producers, principally because it is the last operational lambic brewery situated inside the Brussels ring, Cantillon was, at

⁸ Australian International Beer Awards.

the time of its founding, one of innumerable lambic breweries in the largely rural outer suburbs of Brussels supplying lambic to all the cafes and bars within delivery distance of its brewery doors. One by one these lambic brewers disappeared, *“au profit d’entreprises de production industrielle”*⁹, until by 1970, when the Jean-Pierre Van Roy took over the operation, Cantillon was one of only a few remaining and, with diminishing turnover, it appeared that their days were numbered as well. It was in 1978 that Jean-Pierre took the extraordinary step of classifying the production site as a working museum in order to protect the heritage and culture of lambic production. Squeezed by urban crowding, fighting regulation and business annihilation, it was remarkable to reflect upon how their fortunes had changed and now, just a few short years later, their major problem is how to supply market demand from a site which must continue to maintain and operate the ancient working equipment and a modern business whilst accommodating the hordes of tourists, interested visitors and lambic pilgrims who crowded the cramped facility from opening time continuously through to the closing hour.

Equally remarkable was relating the insinuation I have heard so often in my short brewing career that brewing needed to exclude any form of naturally occurring or extraneous yeast otherwise the resulting beer would be classed as “infected”, “off” or otherwise “bad” and that the only way of warding off such dangers was via production in modern equipment, manically sterilised to what I witnessed at Brasserie Cantillon. Located in the middle of suburban, modern day crazy Brussels, ancient brewing equipment (clean, but impossible to sterilise) made from all manner of microbiologically porous materials, being operated whilst visitors filed past in great numbers, in a cramped and seriously-under-sized-for-the-current-activity workspace which would make the hairs on the back of an Australian OH&S inspectors’ neck stand bolt upright, Cantillon are producing beers which are simply sublime; naturally sparkling bottled geuze lambic¹⁰ with fine bead and exceptionally fine acidity alongside various kriek lambic, some steeped in the traditional cherry, some using raspberries, peaches, apricots, blueberries ... even grapes from the famous vineyards of Bordeaux, which is clearly an exercise in establishing the very premium credential of these remarkable beverages in the wider world.

My last word on the lambic producers of the Payottenland leads me very nicely to the airport to catch my plane to America, where this topic was explored in greater depth. It involves the interrogation of the ability of a brewer to successfully produce products of pure *saccharomyces* fermentation in the same facility as used for the production of spontaneous “wild yeast” fermentations. This concept strikes at the heart of the fear of the modern, mono-cultural brewer with regard to wild yeast and the origin of the pejorative expression “infection” used to describe any crossover of the two techniques.

In my experience within the Australian brewing scene, and additionally based on some of the personal feedback I have harvested from my own endeavours in this direction, the response seems to be not only an emphatic no, but rarely is the topic even discussed. To do so would be to step into an area that is so little understood, so barely researched, so unspoken that the elephant in the room is the fear of each and every brewing professional that to be guilty of producing an “infected” beer would come the exclusion of that person from the class of “good brewers” and a subsequent reputation of running a “dirty” brewery, regardless of whether the facility had ever been visited or not. So a loud, black, almost medieval silence descends. It seems so surprising for a country with such an educated body of professionals and such a rigorous approach to science and process in all other facets of the brewing game and can only be attributed to fear of the unknown.

I encountered the same issue in the winemaking profession with the “wild yeast” (and ubiquitously present in the atmosphere) *brettanomyces* strain of yeast. Supposedly a nasty infection, responsible for “stripping” a wine of its fruit weight and leaving an unpleasant taint in the wine akin to “bandaids” and considered, after the issue of cork taint, to be the most prevalent and ruinous winemaking “fault” in Australian wine and supposedly responsible for significant cost to the industry at large. Consequently we have trained a generation of winemakers to spot any character in wine that could have been produced by “Brett” (as it is colloquially known) from 100 paces, squirm excessively and pronounce to anyone

⁹ ... *La véritable lambic (base de la gueuze) est en voie de disparition, remplacée par des bières de moindre caractère, correspondant mieux à l’évolution du goût des consommateurs (plus de sucre et moins d’amertume) et plus facile et rapide à produire en grande quantité*

¹⁰ Bottled Geuze Lambic is a blend of one, two and three year old lambics and needs to spend a full twelve months in bottle after blending before the very slow natural fermentations work their magic and subsequently pressurise the contents, producing a beverage at least comparable in craftsmanship to the most famous, most sophisticated and most expensive French Champagnes. It goes without saying that a product requiring a minimum twelve months bottle conditioning needs to be stored for this length of time prior to delivery to market ...

nearby who will listen, what a disgustingly faulty wine the offending article was and exaggeratedly tip it out. The sort of oxygen thieving, completely aggressive behaviour from supposedly trained and qualified professionals that is unlikely to be challenged by an untrained audience, many of whom probably enjoyed the character but wouldn't dare to offer such an opinion now that such a distasteful pronunciation had been made by an "expert". The proof is that for thousands of years, the naturally occurring *brettanomyces* species have been contributing to wine aroma, flavour and character without any great disturbance and, in many cases, very great enjoyment. It is one thing to identify a characteristic typical of a certain influencing factor, but it is quite another to observe that fact and then, standing back from the coal face, ask whether the particular characteristic is positive, negative or neutral within the matrix of the product as a whole. In other words, "congratulations on your evident ability to spot the "brett", but could you now make a judgement, in a softer voice than your declaration of discovery, as to the effect of this relative to the overall aroma, taste, palate structure and enjoyment of the beverage in question". This is a learned skill, requiring much palate experience, as in the highly subjective world of taste and aroma, it requires the rigours of learning the nuances of each and every sensory experience and then an effective "unlearning" of this knowledge so that the mind can successfully put the pieces of the puzzle back together once more and view and assess the whole as if it had never been pulled apart in the first place. In essence, the learning and experience which distinguishes the true professional from the learned amateur.

My point is that "group thought" can be a powerful influencer, particularly in a field of such obstinate subjectivity such as the sensory sciences. It goes without saying that an excessive activity by *brettanomyces* in wine can produce some unpleasant characteristics. But this effect is not unique to *brettanomyces*. Indeed it may apply to sugar in certain circumstances. In fact, rarely is anything in excess good for the whole, and this includes opinions!

What is surprising in a modern, professional, trained and scientifically rigorous industry such as either the Australian brewing or winemaking industries that such "fear and loathing" of the unknown is not accompanied by rigorous scientific analysis of the offending article, with an aim to learn everything there is to be currently known and study and experiment with what isn't known in order to find it out. We laugh at the ignorance of the medieval brewers, who evoked spirits and praised gods for the magic of fermentation, but in 2013 there is a paucity of research money in the beer industry flowing towards the research of just how "infected" beers like lambic result, even though "infection" is still one of the greatest fears facing the modern brewer and, likewise, there is no decent research emanating from the wine industry as to the nature and behaviour of the supposedly insidious *brettanomyces*. It surprised me greatly to have heard, from Australian brewers, and causes me more than a little embarrassment to report, remarks along the lines of "just don't risk it! If this type of wild yeast gets into your brewery you will never be rid of them". I'm conjuring images of invading barbarian armies, burning and looting in my brewery. I don't want to sound cynical. Contamination of unwanted species of yeast and bacteria in beers where they are unintended can be a serious problem, and I have fallen foul of this experience on many occasions. But I wanted answers that made sense, not suspicions, loose opinions and overstatements based on irrational fear. These "infections" are microorganisms. They don't have legs, they can't walk around the brewery, contaminating at will. Pasteur proved this in the 1860's and the theory holds true to this day.

So I put my question about conducting fermentations of sterile wort using inoculated cultures in the same facility as fermentations conducted via spontaneous, airborne inoculation to the lambic brewers I visited. Karol Goddeau from *De Cam Brouwerij* was the most emphatic. The answer was no, absolutely no. I was surprised. Karol produced excellent lambic, and his kriek lambic was the very best I tasted. *De Cam* was also his weekend "hobby", as he was production manager at the nearby *Slaghmuylder* brewery, which produced only commercial beers from a base of sterile wort and *saccharomyces* inoculums, and he went to great lengths to explain how he would never wear the same clothing to either site, not go from one site to the other without a stopover at his home for a "shower". A fantastic story, but quite unbelievable and would be considered irrational if it wasn't such a widely held belief!

It slowly dawned on me that each and every lambic brewery were also marketing beers of "normal" fermentation in order to reach a wider audience than the niche consumers of lambic. Presumably this was required to financially support the continuation of their brewery businesses. Without exception, they all had these beers made for them in other facilities that were not engaged in the production of lambic. I was dismayed, because the more I pursued this topic, the more the shutters on the conversation came down.

It wasn't until I visited *Brouwerij de Ranke*, that I achieved some semblance of a satisfactory answer to my quest. Technically *de Ranke* is not considered to be a lambic brewer (they are certainly located a long way from the Payottenland!), but Nino Bacelle is purchasing lambic beer, in bulk, from *Girardin* to blend into the naturally red-brown soured ales he brews in his own brewery from a deliberate process of mixed fermentation¹¹ and casually responded to my question without changing the expression on his face; "of course you can. You have to be careful. You have to know what you are doing and you have to manage the process, but there is no inherent barrier to this occurring. We do it, and have done it for many years without any great problems. We have the occasional issue of cross-contamination, but nothing has ever been very serious".

It was a line I was to hear time and time again in the "New World" Soured Ale breweries across America. My reflections led me to a few conclusions;

- (i) That the driver of the negative response I have personally encountered in Australia could be put down to fear of the unknown and the more destructive aspects of "group thought". I determined to continue my endeavours in the face of such nonsense, focusing more on the positive responses we have received across the years which clearly demonstrate that what we are doing is respected by an audience already and we need to focus on discovering who these people are and concentrating our business attentions on finding as many of them as we can.
- (ii) That the driver of the negative response of the lambic brewers, puzzling as it initially appeared, was actually almost a way for them to express their deep devotion to their craft and an attempt to elevate it to a higher plane. Lambic IS special, lambic is unique and lambic brewers operate lambic breweries exclusively and
- (iii) That the rational and reasoned responses were to be found from the operators who were actively engaged in producing such beers, regardless of what anyone else thought because either there was a market for them or they personally liked them or, in all likelihood, a combination of both. In every case where I met a brewer producing such diversity of beers in the one facility I spoke of the potential to be exposed to professional negativity. In each case this sentiment was acknowledged, a personal story was related and, with shrug of shoulders, they – like me – had dismissed the criticism and carried on.

One American brewer, Nick Arzner from *Block 15* in Corvallis, OR had even named one of his beers produced from mixed fermentation "Golden Canary" in response to the "feedback" he had received from his "peers" once they discovered what he was up to, deep in his cellars "You'll ruin it for all of us" they proclaimed, referring to the supposed potential of his exceptionally original and well received beers to "spoil" the reputation of the region. The "Golden Canary" reference is a twist on the canary-at-the-coal-face story.

My two weeks in America were a blur of either driving miles each day between the breweries specific to my interests or catching planes to fly the distances too great to drive in the time afforded punctuated by incisive and exciting bursts of intense clarity as the cumulative experiences of the Fellowship started to bed themselves deep into my psyche.

Knowing that America was on the cusp of a Craft Brewing boom, I was also distantly aware of the growing interest in the brewing and consumption of beers other than those produced by standard *saccharomyces* fermentations. I had even found the *Alamanac Brewery* on twitter whilst searching the planet for any other brewer engaged in the "farming of beer"; that is the growing and brewing of the component ingredients used. *Alamanac* touted a slogan "Farm to Bottle Beer", replete with all the American trimmings of T-shirts, coasters and posters to underline their cause. I saw pictures of oak barrels, and bearded brewers stuffing whole fruits into these casks and tasting notes of releases of apricot beers, peach beers, cherry beers, pumpkin beers. I might be alone in Tasmania, I might even be professionally alone in Australia, but it appeared I most certainly wasn't alone in the world!

I was nervous about visiting America. Particularly after the very genuine traditional approach I had been immersed in during my time in Belgium, which has appealed greatly to my senses and my own sense of what it was that I was trying to achieve. The philosophy of visiting America was to compare and contrast the approaches of these "fringe dwelling"

¹¹ A beer of "mixed fermentation" is a beer which is primarily fermented with an inoculum of *saccharomyces* yeast followed by a secondary fermentation of wild yeast and/or souring bacteria. I delighted in the irony that Belgian brewers, internationally renowned for their exceptional quality beers, were intentionally producing (and had been for centuries) deliberately "infected" beers of the identical type and style that would be pilloried and ridiculed in Australia as being examples of "bad" brewing issued from "dirty" breweries.

soured ale brewers, who had evidently been inspired by the traditions I had discovered in Belgium. I wanted to explore the concept behind the expressed “distaste” of Armand Debelder for what they were doing; were their products really inferior, thus somehow underlining that the lambic brewers were correct in asserting that genuinely high quality beers of resulting from spontaneous fermentation could indeed only be produced in the Payottenland? I wanted to see if the American industry had reached beyond the influence of the hop, the experimental use of which by craft brewers in the 1980’s had created such a demarcation between “craft” beer and the insipid, almost flavourless industrial products like *Budweiser* that American beer had hitherto been known for producing, and which led to the rapid explosion of interest in “real beer” not only in America, but progressively throughout the world.

Lots to see, theories to test, but as the aeroplane crossed the Atlantic, also a niggle. I had been to America many times whilst working in the wine industry. I was even “head-hunted” for a very senior management position on the east coast whilst still in France. I was never terribly impressed with what I saw, which was generally a very great quantity of “marketing” and very tiny quantities of “delivery”. I found the wine industry to be wedged stylistically between an overt adoration for the old world wine styles of Bordeaux and Burgundy and geographic situation that was very “New World”. Wines were made to styles which couldn’t be delivered from the grapes being presented, but pretentious affectations of greatness were applied regardless of the result. In contrast, I was proud of the Australian industry, which had been bold, inventive, innovative and embracing of its own geographical situation and delivered the wine styles to match to significant international acclaim – including significant American acclaim, which only seemed to further multiply my impressions of their own deficiencies.

The niggle didn’t last long. On day one, less than twelve hours after arrival at JFK airport, I was in Belchertown, MA, sitting in the office of *Shelton Brothers*, an importer and distributor of, principally, Belgian beers – with a focus on lambic and soured (products of mixed fermentation) beers – and a significant engine room behind the fact that “Sour Beer” was one of the “hottest” things in the American brew scene and, to contextualise this, the American brewing scene is “white hot” and one of the most breath-taking commercial industries I have ever been exposed to. In fact, *Shelton Brothers* can be given a decent amount of credit for also sparking the renaissance of lambic beers in Belgium. Initially they started by drinking *Cantillon*, when they couldn’t find it, they started importing it and when they discovered that Americans were taking to this dry, acidic and unusual beer style, they added significantly to their portfolio. Done well, in a population the size of America, a successful niche can mean sales of an awful lot of beer, the cashflow from which is an essential element required to underpin the brewing activities of the truly inventive, the most passionate and the eccentric explorers who are busy pushing at the boundaries of the world of beer as we know and understand it.

I left Belchertown excited. I hadn’t met any wine distributors like this. They had also added to my recommended list of places to visit. American meeting number one – tick!

Greensboro Bend in Vermont, not so very far from the Canadian border, was a long way away. I had established an email conversation with Shaun Hill from *Hill Farmstead* brewery before I left Australia, but when I realised exactly where he was located I seriously considered the merits of such a long drive. Shaun nonchalantly responded that, even though he would be busy on the day I planned to visit and wouldn’t be able to spend much time with me, that “*regardless of all of the other visitors in the area - I wholeheartedly believe that your trip all of the way to the United States would be greatly wasted without a visit to our brewery. We are the only brewery in the United States doing what we are doing - Rural - Heritage - and when you taste our beers, it will all make sense to you*”. I made the five hour plus journey by car on the preceding day, and conscious of his time limitations, arrived at his farm mid-morning. Like my own place, Shaun ran a brewery in a converted farm shed, at the very end of a long and winding dirt road, which was quite a challenge to find for a visitor unfamiliar with the region. Exiting my vehicle and wandering towards the brewery, it all felt very familiar – oak barrels were stacked about the place, left where they had last been moved, the small scale brewing equipment reminded me of my own and each visitor was left to form their own impressions of the place, rather than being bombarded with a confected story. It was a very real atmosphere. There was no artifice. It was not the American experience I had expected.

I was surprised to see a few cars already parked, and a few people loitering around in a simple gazebo of pinewood construction. The landscape was wild, and although verdant with the growth of spring, I felt that this was a land of very long, snow covered winters. I introduced myself to the two men waiting in the gazebo and we started conversation. They had left New York city at 5am that morning, Shaun’s cellar door opened at 11am and they had arrived with fifteen minutes

prior to the hour. By the time those fifteen minutes had elapsed, there were more than ten cars in the carpark (a paddock, with a roped off area) and a queue of more than twenty people waiting for the shop door to open. In the two to three hours I spent at *Hill Farmstead* that queue only grew longer. It was a Wednesday, one of his two designated opening days per week. A simple “shop” in the brewery area, a basic display, limited promotional material and we were literally miles from the nearest town. I didn’t get to say goodbye to the two men I had initially met. Having purchased their allocation, they immediately embarked on the very long return journey to New York City. They ran a bottle shop. *Hill Farmstead* doesn’t use a distributor. They had driven 12 hours to purchase the maximum allocation from his small production to on-sell in their own shop. I was gobsmacked! The retail trade doesn’t yet operate like that in my own country. It seemed *Hill Farmstead* was currently surfing the wave where reputation, supply and demand were functioning very strongly in their favour.

Shaun appeared at some point. He was doing a collaborative brew with the father and son brewing team from *Brasserie de Blaugies* at Dour on the Belgium/France border who brew traditional *Saison* beers ... the real way! The collaboration – not the first such exercise I encountered during my trip and evidently the current “must-do” trend in the American brewing scene – was organised by *Shelton Brothers*, even though *Hill Farmstead* was not distributed by them. Suddenly there were more brewers present. I was introduced to Søren Erikson of *8 Wired Brewing* from Marlborough, New Zealand and a few others, including quite a few representatives from *Shelton Brothers*. The place was busy. Fun. I saw little of Shaun. If the roles were reversed, I expect he would have seen little of me – brew days are busy enough without the circus he was dealing with on that day.

The collaborative brew was based on buckwheat. Neither the Belgians nor Shaun had used this cereal before and there was some excitement as to the possibilities this would present. I had a very long conversation with Pierre-Alex Carlier from *Brasserie de Blaugies*. He used Spelt in many of his brews, as did I. I explained that I first used Spelt when a neighbouring farmer grew some for the first time and substituted it for wheat in one of my brews. I expressed how favourably this had worked for me and how I had not expected it to change the flavour and texture of the beer to the very favourable extent that it had. Pierre-Alex casually remarked that this was because Spelt was high in the amino acid tryptophan, which acted on the human palate very much in the same way as mono-sodium-glutamate did, which was the reason that it was so very much sought after by German bakers, who described it as not only one of the most nutritious grains available but certainly one of the most flavoursome.

Driving away, with a very favourable impression of the beers I tried, I think I *got* precisely why *Hill Farmstead* worked the way it evidently did. If the quality of beer, coupled with a steely determination to succeed and a firm belief in, and strong ability to communicate, the spirit of the project embarked upon counted for anything, then Shaun Hill amply demonstrated what is possible, regardless of location. In relation to my own situation, this was a significant take-away message, and the effort to get there – somewhat less than that made by some of his regular customers – was well invested.

I descended into Portland, Maine and caught the warm-up events for their now enormous annual *Shelton Brothers* craft beer event called *The Festival*. Whilst in Belgium, I had time and time again been told by many of the brewers I was meeting – Armand Debelder, Pierre Tilquin, Nino Barcelle and others – that they were travelling to the USA for this event. Are you going too? No, and with confirmed flights there was not much I could do to change that fact, but in reality all I missed was the bit where they went to work, tasting and describing their wares to the heavily-subscribed, extremely enthusiastic, specifically interested beer drinking American public who were congregating in Portland for this event from right across America. I was able to coat-tail the lead-up to *The Festival*, attend the welcome functions, meet and greet, converse and get a very good sense of the high quality work this impressive agency was doing.

I arrived in Boston with enough time to chance a quick meeting with Will Meyers, part-owner and head brewer at the *Cambridge Brewing Co*, a brewpub situated right in the heart of Harvard academia before he departed for *The Festival* and I flew to Colorado. I’m glad I did, even though I only just managed to make my flight. I’m disappointed, however, that I could not engage this chap for many more hours. I am tall, and if CBC’s brewing workspace is tiny and cramped, his barrel cellar was a nightmare for my physical well-being but one of the most stimulating meetings I had during my entire trip. Crawling about on my knees, Will took me to barrel after barrel of variously spontaneous and mixed fermentation projects. In this cramped environment I tasted some astonishing things, including a maturing spontaneous fermentation he had set

up under a *solera* system, which has its origins in the maturation of complex Spanish sherries. With no room to move, let alone work, it became evident that Will was, in this extremely challenging, cramped environment, producing beers of “normal” *saccharomyces* inoculated beers side-by-side (and often on top of) beers of mixed fermentation and spontaneous fermentation and this a mere glass window from the bar where all these products were served to an audience which must be the envy of every inventive brewer and engaged bar-owner on the planet; this was the local haunt of the thirsty, engaged, beer-loving Harvard academics and intelligentsia ...

It was the encounter which definitively answered any lingering questions I had regarding the ability of successfully engaging and managing a brewery dedicated to fermentation via as diverse an array of microorganisms as is currently possible. Will was quite adamant; you have to be careful, you have to know what you are doing and you have to manage the risk. Full stop. No mystery, no fear, no superstitions, no silences, no dark-rumour mongering. Solid, pragmatic, applied knowledge. It seemed very appropriate that this verdict fell within the vicinity of Harvard University.

From the perspective of my palate, it also buried any doubt that the very best American sour beers were on the same quality plane as the lambics, geuze and krieks that I had encountered in the Belgian Payottenland. Different, yes, and free from the constraints of the potentially rigid edicts of tradition, they were evidently more exploratory, bolder, brasher ... American! As they ought to be, as the fundamental principle underpinning the engagement of these techniques is the desire to create expressions of place and time. Beer terroir! Armand Debelder is entitled to hold his own opinions on these American versions of spontaneous fermentation and, as an active and long-standing defender of the lambic faith, and one who has suffered through the periods where the very core of his professional existence was not valued and nearly disappeared as a result, it is not only his right, but, more importantly, it is his role to do so.

I delighted in the potential strength of this concept. I imagined its growth across the brewing world. I could envisage in my minds-eye the very alluring prospect of travelling around the world drinking beers which were not a slavish local mimicry of some internationally ubiquitous “beer style”, but beverages produced by creative and inventive brewers harvesting their local ingredients – cereals, hops or local significant spices and aromatics – and transforming these worts into beers of provenance by harnessing the fermentative powers of the microflora indigenous to the location of the brewery. It recalled the very best of the international wine industry, and evoked the elements common to the most flavoursome, the most sought after and the most revered foods on the planet; time, place and individual. Even more alluring was that such a concept in beer could emerge from the intellectual ruin of the profiteering multi-nationals, who for their own profit, have reduced the imagination of brewers and the expectations of consumers to the very baseline. No, beer is not simply the common beverage of the poor, just as it is a fiction that wine will somehow raise the social standing of those who are knowledgeable about it. Beer deserves its place as one of the oldest, most important, most nutritious and most culturally significant foods offered to humankind and it is very much the remit of the brewing craftsman to deliver against this ambition.

In Denver, Colorado, Chuck Yakobson has set about turning the world fermentation on its head. Delivered from scientific analysis of what was traditionally regarded as the magical transformation of wort to beer by the long, slow processes of spontaneous fermentation came the knowledge that these most complex of fermentations proceeded in three major phases;

- i) Initiation and primary fermentation: there are many organisms involved here, some good, some bad, with the balance being achieved by how the wort is prepared and at what time of year the fermentation is initiated. Lambic production was, and still is, a strictly winter affair. This is not simply the result of tradition and the availability of a farm labour force not otherwise occupied by the demands of the “farming” seasons. It was also about striking when the most unfavourable and potentially harmful organisms were at their lowest ebb¹². Primarily, however, the bulk of the fermentative work in the primary phase is undertaken by a raft of species belonging to *saccharomyces* and this phase, along with the digestion of the majority of the simplest sugars, is generally complete in two-to-three months and produces the majority of the alcohol that will be present in the finished beer.

¹² Afterall, the organisms ubiquitously present in our atmosphere are not only capable of fermenting beer and raising sourdough, they are also capable of rotting, spoiling, breaking down, rendering ill, killing and everything in between. They are indeed a capable of the full range of life forces.

- ii) Acidic fermentation: The acidic bacterial fermentations, generally resulting from the activity of *lactobacillus* and/or *pediococcus* species occur from four to eight months after initiation, increasing the acidity and lowering the pH of the beer to below 3.5.
- iii) Brettanomyces fermentation: Capable of multiplying in the very low nutrient, high alcohol, environment the very slow *brettanomyces* fermentation will occur from month eight potentially through to month sixteen and beyond. Capable of enzymatically cleaving the long chain, complex sugars called dextrins, *brettanomyces* species are responsible for many of the very specific flavour and aroma characteristics associated with lambic beers.

Chuck completed his Masters thesis on the role and behaviour of *brettanomyces* species in beer fermentation, then immediately opened his own brewery dedicated to the production of beers issued from exclusive fermentation by this yeast.

On a warm June Saturday, I sat in his *Crooked Stave Artisan Brewing Project* tasting room and had my own world and impressions completely transformed by what I encountered. In a handful of beers, I think he changed my life! He had showed beers produced from worts inoculated with pure (and sometimes multi-species) cultures of *brettanomyces* yeast. Some were fresh, served at the completion of primary fermentation and others were variously matured in wooden casks¹³, three months, six months, one year. It was indeed impressive. Winemakers classically vilify *brettanomyces*, describing characteristics as medicinal, horsey, earthy and, at extremes, like the scent of bandaids. What they describe can be very real, but it is not the sum potential of this organism and would be like suggesting that their preferred fermentation organism, *saccharomyces* is only capable of producing rotten-egg like mercaptans! *Brettanomyces*, under the stress of low nutrient, high alcohol, difficult conditions will potentially present us with the worst of its repertoire. Let's call it a cry for help! Under favourable conditions, however, it behaves well, is an efficient fermenter (albeit slower than *saccharomyces*) and, if the beers brewed by *Crooked Stave* are used as an example, exhibits an array of attractive "secondary" esters, which offer new and intriguing, fruity and complex flavours and aromas of a nature I had never before encountered and found to be particularly enjoyable. *Brettanomyces* will also produce acidity, in varying amounts depending upon the circumstances it finds itself in, and again, the *Crooked Stave Wild Wild Beers Series* demonstrated how attractive the application of these techniques can be in the production of fully flavoured, wonderfully refreshing and thoroughly unique beers. The longer these beers were matured, the longer *brettanomyces* had to ferment and the drier was the result on the palate. This phenomenon is described in brewing as super-fermentation and refers to the consumption of complex sugars which are not fermentable by *saccharomyces*. Until I brewed, I had never heard this term, but it immediately gelled that this is exactly what is happening when winemakers complain that a *brettanomyces* "infection" of a barrel or bottle of wine will "strip the fruit sweetness and palate structure" from the wine. What they are actually describing is that *brettanomyces* is super-fermenting their wine and that they had not designed their particular wine for this to happen. It also suggests that, whilst appealing for some wine styles, residual sugar and high alcohol environments, sufficient to arrest the fermentation of *saccharomyces*, remain inherently unstable with respect to organisms with a capacity to exhibit super fermentation.

As a qualified and experienced winemaker I learnt more about *brettanomyces* and microbiology in general in four weeks on the ground at breweries in both Belgium and America, than I ever heard or read during five years of university, more than 10 years as an operational winemaker and further 6 years as a self-taught brewer doggedly trying to find as much published material as I could lay my hands on in relation to this subject matter, which was of such great intrinsic interest to my own farmhouse brewing operation.

I immediately started to imagine a trial involving the primary fermentation of grape must with *brettanomyces*. When inoculated as the sole fermentation organism, *brettanomyces* does not produce the same aromatic or flavour profile as when it is in competition with other microorganisms. Any competition for available nutrients is invariably a fight

¹³ Wooden casks present the ideal home for *brettanomyces* species, as they are able to slowly metabolise the cellulose in the wood structure. Once a cask is inoculated (or otherwise exposed) to *brettanomyces* it is essentially impossible eradicate it without destroying the barrel. This is, of course, the bane of many winemakers professional lives, however, if the inoculation is intentional, then it needs only occur once, as once establish within the cellular wooden structure of the oak cask, the organism can and will survive to ferment any suitable substrate presented to it.

brettanomyces loses, and it prefers to wait until all competition subsides (and, as a consequence, most of the nutrients have been consumed) before commencing its own growth phase¹⁴.

More concrete, however, were my plans to engage these techniques in my own beer production upon my return to Australia. How exciting! I have amused myself with the irony of my excitement over this situation; a winemaker who “crosses over” and starts to brew beer is probably already breaking some unwritten rule, but my intention to actively use *brettanomyces* as a primary fermentation vehicle must represent the ultimate treason against my original profession and surely stamps my papers as a brewer!

Sierra Nevada, based in Chico, CA is one of the pioneering American craft brewers. The *Sierra Nevada Pale Ale* is a landmark beer on the international scene and represents one of the very first, and certainly one of the most successful, examples of the audaciously hopped beers that set the international craft beer movement in motion.

It is worth a moment of reflection to consider the reality of the above statement. Beer had become benign; a vehicle for the profiteering of major corporations more concerned by mergers, acquisitions and expansion than by what was going on inside their production facilities. After all, beer was simply beer, and the consumer demanded nothing else other than a lot of it and a funny advertising campaign. And because beer was so benign and was being brewed to formulations which specified that it be “flavour neutral”, the hop industry – providers of the principal flavour ingredient for the production of beer - was in decline. Then, onto this scene appeared Ken Grossman, a scruffy, fluffy-haired Californian lad with an interest in brewing beer. With his best mate, in a tin shed, he started *Sierra Nevada* brewery and his first commercial beer was a Pale Ale, brewed with an unheard of quantity of pungent American hops. It was an enormous success. Not only did it excite and stimulate a worldwide interest in beer and brewing, it reversed the fortunes of an entire agricultural industry.

Farmers take heed! The big changes in food consumption behaviours do not generally originate from marketing campaigns, despite what the marketers would have us believe, but, more often than not, result from the discovery of, or the increased availability of, or the new treatment of ingredients.

Other than a nice story about the origins of the craft beer movement, I had no particular simpatico with *Sierra Nevada* who are, nearly 35 years on, a massive corporation in their own right now producing over 100 million litres of beer annually – with 70% of this production being of their Pale Ale – which puts them at almost twice the size of the largest Australian owned brewery, Coopers. Not exactly a craft brewer anymore! In fact, their presence in the Australian market, whilst masquerading as an imported craft brewer and trading aggressively on price whilst the exchange rate was favourable, was particularly annoying from the perspective of a genuine Australian craft brewer struggling to penetrate his domestic market without the volumetric, financial and distribution clout that they were able to bring to bear.

But in all of my research to find another brewery actively growing their own hops and harvesting their own cereals, the *Sierra Nevada Estate Ale* was all I could find. So I contacted them and requested a visit. Have to see this for myself! Estate Ale be damned! From a 100 million plus litre brewery? They are taking the mickey! This is a ruse, nothing more than a bit of marketing, of no consequence to their operation.

Then I received a reply from Lau Ackerman, their Agriculture and Landscape Supervisor. Lau confirms that they are growing hops, right next to the brewery and have done so for fifteen years and grown sufficient barley on a nearby farm to supply the needs of their Estate Ale project.

Indeed they do. And Lau faces the challenges of many farmers; he struggles with the hops as they have serious problems with mites, he struggles with brewery management over harvest dates and supply and if it wasn't for the dedication to ingredient quality still demanded by Ken Grossman¹⁵, he may well struggle to be there at all. But they appear to be serious, and their hop production is certified organic as is the Estate Ale itself, which requires a certified pathway through

¹⁴ I discussed these experiences with Steve Lubiana from *Stephano Lubiana Wines* upon my return to Australia, and whilst seemingly surprised by what I was saying, as is typical of Steve he was more interested in the potential of discovery of something new and different rather than being dismissive of an idea which would have otherwise been very foreign to him ... who knows, we may well trial a *brettanomyces* inoculation of a barrel of his grape must during the 2014 vintage.

¹⁵ Ken Grossman is still apparently personally involved with the ingredient sourcing – hops and barley - for Sierra Nevada products and retains many of his original ingredient suppliers from the early 1980's. I was very pleased to hear (and see!) that he still insists on hop flowers, supplied directly from the farms (delivered frozen in bales at 29°F), as I was surprised that the vast majority of brewers I visited were exclusively using compressed hop pellets.

the brewery to trace their own ingredients in this single batch production product ... no mean logistical feat when considered in context with the size of their overall operation.

As we walked around Lau's farm, talking farming, I found myself beginning to articulate for the first time one of the major conclusions of my Fellowship experience.

The first great movement in modern craft beer was centred on the hop. At first it was simply generic American hops; pungent, powerfully aromatic and bitter which, when layered over a backbone of sweet malty beer to produce a new aromatic sensation. Through brewing experimentation, new hops were bred and heritage hops were re-discovered and the specific variety of hop used became important to the brewer. As the drinkers were offered more products, they became more sophisticated and more knowledgeable and very soon they were conversing in the language of hop variety, discussing their merits in relation to "alpha" and oil content. Whilst we may not yet be at the level where the individual farmer can drive an economic benefit, certainly the differentiation between the characteristics of hop growing regions of the world and, within this, the varietal differences and their variation for region to region has allowed certain reactive hop producers to be more savvy with their breeding and marketing programs and allows them scope to escape the commodity pricing structure of the generic.

But whilst the hop has matured, brewing cereals are still very much supplied and treated at the commodity level. And whilst I disagree with the Australian malt professional's response that their "was nothing in" the varietal differences of cereals following my questioning when I first sought to grow my own brewing grain, I feel that if there is indeed "something in it" – as I strongly suspect there is – then the beer as it is currently conceived and produced, even allowing for all of the diversity of styles which presently exist, is probably not the vehicle from which the subtle differences between the varieties would be able to be detected, let alone differentiated and appropriately applied. By this I am referring to the fact that modern beer is largely a balance between sweet and bitter; sweet from the malt and bitter from the hop. Differentiation of individual hop varietal characteristics was able to be exploited, as these powerfully aromatic hop oils and variations in bitterness were far easier to discern and apply. But sweetness is a great masker of flavour and I expect the varietal flavour differences between grains to be subtle and delicate.

Taking my lead from wine, I proffer that the appropriate base beverage from which to discern and explore the subtle nuances defining one barley variety when compared to another would in fact be the dry, acidic, super-fermented beer that result from the use of spontaneous, *brettanomyces* and/or mixed fermentations. This beverage, with a structure and complexity more akin to wine than our general impression of beer, is capable of expressing, just as wine is known to do, the infinite nuances that combine to form the individual that results from the fermentation of specific ingredient, in a specific place, at a particular time by a particular individual applying a particular technique.

For the farmer, this is indeed an exciting concept as it is via this beverage that generic cereals become varietal grains, and develop in breweries and the marketplace the way that varietal winegrapes became central to the way we think about, the way we produce and the way we market wine. Should this happen, the price of these individual crops will change, as they will no longer be simply homogenous, generic commodities able to be supplied from anywhere in the world, so long as this is at the lowest price.

And it would confirm that the value-added agribusiness model, so successfully applied by the wine industry, is applicable to the beer industry. The Maris Otter story demonstrates that it is possible at the level of the grain, the spontaneous fermentation knowledge demonstrate that it is possible at the level of the brewery and the American craft beer market, with its can-do attitude and energetic engagement of the consumer proves beyond doubt that it is possible at the level of the market.

By engaging the entire system; from farmer all the way through to consumer, offering a diverse multi-faceted, evocative and never ending journey of discovery.

Wow, how about that! It really does need a beer to celebrate!

Lau had been quiet, listening. When I'd finished he nodded his head slowly. "Yeah, I can see what you mean. Gee, I'd never thought about it like that before and I love your passion. But I guess that's why I just get paid to do my job and you're over here on one of those scholarship things"

I thanked him for his time, his tour and as he directed me towards the tasting room, I felt like the moment immediately following a deep sigh; a release, a relaxation, a calmness of knowing what my journey was all about.

CONCLUSION AND RECOMMENDATIONS

GENERAL

Australia doesn't do nearly enough to celebrate and defend the small, the niche, the creative and the periphery. The continual drive for growth is conducted at the peril that one of the most obvious forms of growth is to take over or knock out the smaller and/or less firmly established. One has the impression that diversity is exhausting and too hard to understand and that if "it" (replace "it" with your field of specific interest) was all "under one roof" then it would be so much more approachable and easier to understand. True enough, of course, but to achieve this is to be "dumbed down" to a level where all can understand, at the expense of complexity and diversity which are the adjectives describing the numerical richness, the conceptual beauty and principal driving force for improvement.

Too much of the activity in our country has become dominated by large interests. Our grocery markets – the nations primary food chain - are dominated by a duopoly, our brewing industry is dominated to an even greater extent by a foreign owned duopoly, and our agriculture, at all levels – from varietal diversity, farming practice through to price – displays disturbing signs of homogeneity.

Knowledge is best when it accumulates, not when the supposed "old" knowledge replaces the "new". Whilst I celebrate, for example, the convenience of a digital hit song that I can download in seconds from *Spotify*, I deplore that the majority of the richness of sound from the original recording has been lost in packaging the sound suitable for this format. Or, as another example, whilst it may be true that a consumer can purchase many more different types of vegetable from a country supermarket than they could many years ago, the truth is that these often plastically uniform, industrial, largely flavourless, gassed ripe, energy- guzzling cross continentally distributed imitations of the real thing present a mirage of choice and a very poor substitute for the very fresh, highly nutritious, harvested at peak ripeness and flavour, but slightly more limited numerically offerings of yesteryear.

The clichéd 80:20 rule has too often, in the country and elsewhere, become the 99:1 rule and this is not good. It is not good because the "99" is too dominant, too powerful and behaves like it is the only one and the "1" is there, contains most of the richness, colour and diversity but is subject to existing in an environment tailored to the "99", conditions which, in the overwhelming majority of cases, are pertinently inappropriate (at best) for the "1" to continue, let alone flourish.

There can be no greater niche in Australian beer (where two multi-national, foreign owned, corporate brewing behemoths control 96+% of beer sales in the country) than a project which seeks to study the production of soured and fruit ales through the use of either spontaneous or mixed fermentations. It is such a niche subject matter, that most Australians would probably not even use the term "beer" if they encountered such a beverage in a blind tasting. In actual fact, these beers are the oldest known beers and the techniques of fermentation they employ could well count amongst one of mankind's first skills. In only a generation or two of market dominance by too few, and too large, players we – fundamentally a country of beer drinkers – are presently ignorant to not only one of the greatest beers on the planet, indeed one of the greatest and most ancient accomplishments of the human race! Cheers to that, not!

Floor malting once existed in Australia. In all likelihood it was probably the only practical methodology to prepare grain for brewing. The skills existed. They have been lost, principally because the demand for farm fresh, craftsman malted, superior flavoured malt is not at all what is required by the dominant industrial brewers. Whilst acknowledging that, given the growth of the lager beers and the reduction in the market for full-flavoured ales throughout the 20th century, one would expect this craft to contract in number and size of operators, but why did it have to disappear altogether? And now, with a renaissance in small scale "craft" brewing, where is the demand for it to return? The answer is as simple as it is shocking. This industry was lost, so were its skills and, as such, even the very fact that it ever existed is not even in the minds of our new generation of craft brewers, let alone them having the knowledge of where it might fit in to their own brewing activities.

Why? Why?! Why?!!

We must be better than this. We must aggressively hold onto our collective knowledge, not slip into a form of dumbed down, affluent mediocrity as a nation. Headlines are useful, they are convenient but detail is more important. Even if we continue to let too many entities in this country become too big and too dominant, we must NEVER let them remove from our conscious knowledge. It is said that "from little things, big things grow". I interpret this saying in a cultural way. I do not see it as an invitation to *Woolworths* to grab a few more percentage points on the market share of our grocery industry. I want Australia to be more culturally rich, and I may surprise you, dear reader by offering a conclusion that even a humble farmer and brewer has a lot to offer in this direction and intends to do as much as he possibly can in this direction.

The fundamental conclusion of my Fellowship is that this report has been brewing inside me for a very long time and that the immersion in travel, the great diversity of many rapid-fire encounters and the professional fellowship engendered has crystallised and precipitated many thoughts, perspectives and knowledge that has been accumulating inside me for the majority of my professional career.

If faced with offering the opportunity of one Fellowship to one of two candidates; one who had an idea that they would like to explore outside their field of demonstrated interest or professional activity and one who wished to further their knowledge in their chosen field of endeavour, I would, based on my own experiences before, during and after this fellowship, always select the latter candidate.

I could not have written such a document before I departed. I am now very much more secure about the intellectual ground I stand upon as a brewer and I look forward to applying this professional confidence to my own business circumstances.

Much of the information I have presented is experiential and observational. My field of endeavour involves the creative work of interpretation of what I know through the products I create and the manner in which I operate. If what I have seen and experienced has had the effect on me that I think it has, the most effective dissemination of the information relative to my fellowship will be via what I do rather than what I preach.

I will make the same promise to the Winston Churchill Memorial Trust as I will make to myself everyday; be thorough, do better, reap more. It is not just about size ... and take that from someone who stands at Two Metres Tall!

I have surprised even myself how quickly I have followed up leads and ideas that I believe can be applied to other people and other businesses within my sphere of influence, but feel that this is really only the beginning ...

SPECIFICALLY

- i) I have given a presentation to a group of Tasmanian Midlands cropping farmers, already organised into their own trading business, explaining the story of Maris Otter and urging them on the possibilities a project like this could represent to Tasmania. There was strong interest, a follow-up meeting has already occurred, and a project looks very much like it is taking shape.
- ii) I have been invited by various media to talk about the experiences of my Churchill Fellowship, both prior to and after my travels.
- iii) I have organised, and fully subscribed, two tutored tastings of the “Highlight Beers” from my trip. These will occur in late November/December, one at my own brewery for the Southern Tasmanian audience and one in Launceston.
- iv) I operate a public profile on social media and posted continuous updates of my experiences whilst I was travelling.
- v) I will be posting this report on my company website, and advertising links that this has occurred on social media. Many of my observations will be of some interest to many other professional brewers, and this forum will permit them to access my information without feeling the need to contact me directly (which may result in many not doing anything ... you know what we’re all like!)
- vi) Finally, and certainly the most important and most efficient way I can disseminate the information and knowledge I have gained from my Churchill Fellowship, I intend to put into practice, in my own brewery, many of the concepts I have encountered. We operate a “tap room” at our brewery, which both my wife and I personally staff. Beer is, afterall, is a social drink, a vehicle of much goodwill and the very best way I know to share knowledge!

I am incredibly appreciative of the opportunity and investment the Churchill Trust have made in me and it is with the greatest pleasure that I can confirm at the end of my travels and the end of this report, that the experience has been of such deep significance and value that I feel certain that what has poured out onto paper via this report is simply the first bottling of what will surely prove to be an outstanding vintage!

Cheers