

FROM GATE TO PLATE: A STUDY OF NORTH AMERICAN CHARCUTERIE

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Introduction

When we think of the influence of North America on our food culture, we invariably think of fast food and the domination of the large supermarkets. So, why of all places did I choose the Pacific Northwest to look at pork production, and specifically charcuterie production?



VS



Having visited a number of salumificio and prosciuttificio factories in Italy it was obvious that both tradition and the natural climate contributed largely to the product that was being made. When asked why something was done in a specific way, the answer would invariably be “because that’s how it’s always been done”.

“...among the sausage-makers of one town, let alone one province, there remains an intensely individual attitude which dismisses everyone else’s product out of hand. Not with disdain, mind you, for disdain implies a positive reaction, but a complete disinterest. What we were told in one street for instance, about *mortadelle*, would be flatly contradicted in the next.”

A & A Hipsley Coxe speaking of Italian sausage-makers, from Book of Sausages

Having returned to the family farm in 2004, the tradition of curing our own pork fell to me. We’d never been large scale breeders, at one time we bred Saddlebacks but in recent years we’d moved to buying 3 or 4 weaners from more commercial type breeds like the Large White and the Welsh, fattening them up through the autumn and slaughtering on-farm in winter. Breed selection was largely down to what was available at market or what neighbours had available.

So, back to that question - Why North America? Well, when it came to the annual slaughter, while I was scavenging online for any information on Southern European curing methods, more often than not, the information I could access would be from blogs by 1st and 2nd generation European immigrants who’d moved to the US, producing charcuterie in their closets, basements or garages. The breadth of charcuterie that we have in our supermarkets isn’t available in the US, so this immigrant population were looking to their own family recipes to produce home cured produce for that taste of home. In addition, although there are a few books available about Continental European pork cookery, they rarely delve into the more complex science behind the curing, the handful of English language books on the subject that do are American.

The climate also plays a part, although the French, Italians and Germans have modernised the methods that they use to produce their air dried produce, introducing environmental controlled chambers regulating temperature and humidity - they also use the natural air flow, their factories are built so that the natural airflow of the valley can pass through their buildings. In Parma they open the doors and windows to allow the breeze into their drying rooms twice a day. With this breeze comes the naturally occurring mould that aids in the drying process and gives the produce its distinctive flavour.

Although we can produce air dried products in our climate, they do vary greatly from those found on the continent. We have a colder, more humid climate and the fungi and moulds that are naturally occurring are different. Therefore we have to look at systems of producing air dried cured meat in wholly environmentally controlled chambers. With such a variety of climates across the US they too have that same problem. They've looked to European production, disseminated that information and built their own designs of climate chambers often doing away with processes that have formed part of the European tradition.

Charcuterie

I've been using the word Charcuterie - but what does it mean? What does it represent?

In it's most basic terms it's **the craft of salting, curing, smoking or drying.**

Like so many other French culinary terms *charcuterie* has been naturalised into the English language. I'm borrowing from Sophie Grigson here from her book on French Pork Cookery, but - it's history, in French terms, derives as far back as the time of classical Rome, the charcutier (the person who creates charcuterie) would sell a variety of sausages and ham at that time - largely in the form of very basic salted meats for the travelling armies. From the 15th Century this extended to any form of cooked pork and raw fat. From the early 17th Century charcutiers gained the right to sell all cuts of uncooked pork as well. This established what we now think of as charcuterie. This would include pates, terrines, headcheeses, potted meat, fresh sausage, semi-dry and dry sausages, bacon, cured ham, gammon and whole cured muscles like air dried ham.



More often than not, when charcuterie is used in a modern context it relates to air dried meats. There are other words that are used - the Italians use Salumi which encompasses Italian products such as prosciutto crudo, guanciale, pancetta, coppa, a variety of salami as well as cooked meats like prosciutto cotto and mortadella.

Most of these processing techniques were forms of preserving meat before the advent of refrigeration. As a family the traditional Carmarthenshire method we use to cure our own hams are near identical to those used in Langhirano, Parma to produce Parma Ham. The big difference is the way we use the product - our heavily salted bacons and hams are soaked, and boiled or fried rather than eaten 'raw'. What tradition we had as a nation of curing and air-drying has largely been lost, our tastes have changed, and the advent of refrigeration has made those farmers who still salt in this method a very rare thing. However, we do have a rich retained history of pork cookery in the

UK. We have a huge range of regional ham variations, we have sausages, bacons, faggots, black puddings, brawn and all manner of pies.

For the modern pork producer and processor, charcuterie, in whatever form provides a way of creating a value added or premium pork product.

Variations of Charcuterie

As a nation we're fortunate that such a variety of charcuterie is prevalent on the shelves of our supermarkets, however there's still an element of mysticism about continental air dried meats. From what part of the animal does each cut come from and how is it made? Most European countries have their own variation of a product - if you take regional variations into account there must be well over a 1000 types of air dried ham alone.

As a basic introduction to Italian cured meats, a split carcass would be processed as follows:

Gola or guanciale - whole cured and air dried jowl.

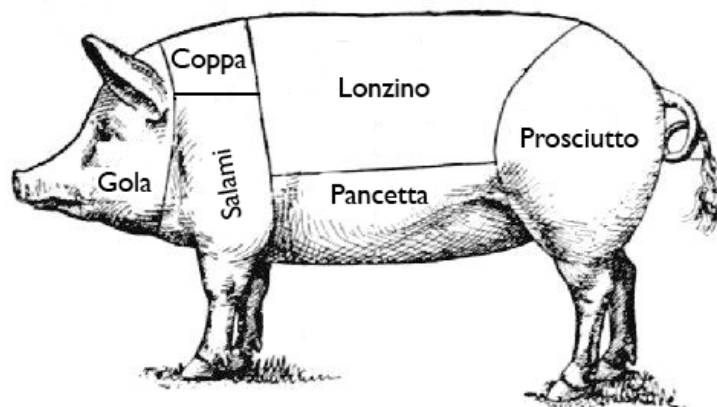
Coppa - whole cured and air dried collar.

Salami - generally a mix of shoulder meat and back fat (though regional variations can include jowl, belly or leg meat).

Lonzino - whole cured and air dried loin.

Pancetta - whole cured and air dried belly.

Prosciutto - whole cured and air dried ham.



The traditional mode of production has changed very little - large pigs were slaughtered during the coldest months - usually during early Autumn. Carcasses were left to hang for 1-2 days before being cut into primals and cuts. If we take salami as an example - the shoulder meat, any trim and fat would be chopped or ground, seasoned with salt, garlic, wine and herbs and stuffed into natural animal casings. These casings would be hung above the fire for a short period of a day or two to start the 'fermentation' process in the meat before being transferred to a colder room such as a cellar or outbuilding and left to dry for weeks, or months depending on their size. Drying would be wholly dependent on environmental conditions with the same basic product differing from one year to the next.

Modern production processes are very similar. However, industrial chambers mimic the seasonal variation in temperature and humidity, allowing producers to create an uniform product throughout the year. Products such as Parma Ham have a rigorous process that they must adhere to in order to retain their Protected Designation of Origin. Only pigs from the Parma region are used, usually Large White breed, with a minimum deadweight of 147kg. Cut hams are delivered to the factories, are massaged and salted by hand using only sea salt. They're left in a chiller for a short period, re-

salted and returned to the chiller before being moved to a warmer drying room. Part way through the drying, sugna is applied to the meat (a paste of flour, pepper and lard) and the ham is left to mature. From the delivery stage to the final slicing and packaging, the process takes a minimum of 12 months. Hams can be dried for up to 3 years, and these command a far higher premium.



Large producers pay on average £4/kg for the legs, they expect a 30% weight loss during the drying phase. Whole legs sell at £12/kg to supermarkets, with a further 30% loss in product weight after de-boning, trimming and wastage. A 12 month Parma Ham retails at £19/kg in Lidl, around £30/kg in Tesco and up to £65/kg at independent delicatessens. 32-month aged hams can retail for £100+/kg.

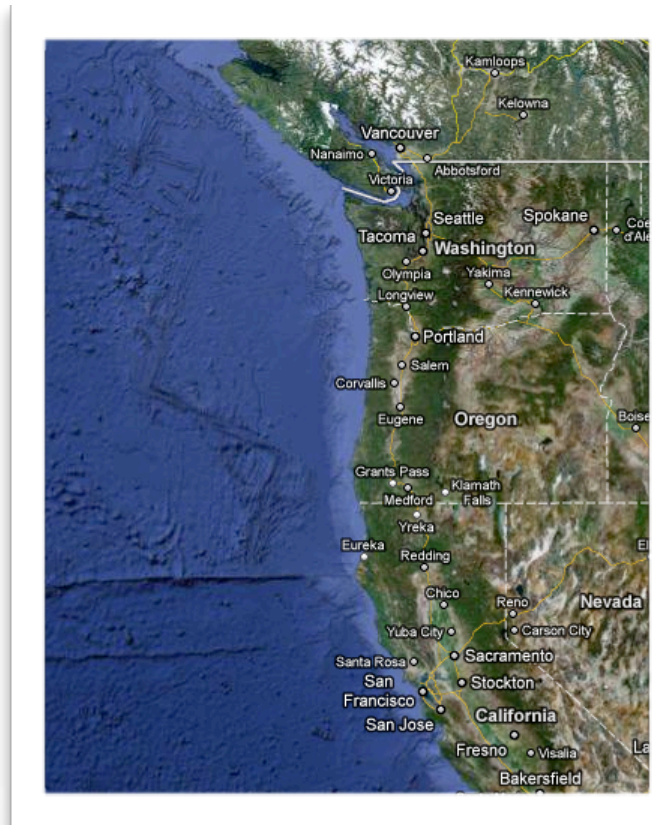
Through the advent of new processing technology a number of the products that we see on our shelves don't require the same investment in time as an air dried ham. With the production of salami, developments in casing technology allow us to use collagen, fibrous and plastic casings that produce uniform shaped and sized products. Starter cultures and mould cultures allow us to manage the possible microbial threat and also allows us to use younger, less developed pigs. Thermal processing allows us to produce shelf stable products with far shorter production times. These processes are largely used by big manufacturing firms, however as a small producer there are a number of lessons to be learnt where the technology and the science behind the production can be replicated and used by small, artisan producers.

The Pacific Northwest

Iowa a Midwestern state, and the largest pork producing US state would have been the obvious choice to visit on a livestock scholarship. However, having previously visited Iowa State University on a Sausage and Processed Meats Course and had the opportunity to travel the state I decided to look further afield.



The Pacific Northwest of North America, bound on one side by the Pacific Ocean and loosely on the East by the Rocky Mountains, has, in places a similar temperate climate to that of the UK. It also has an excellent balance of agricultural land punctuated by a number of large urban areas. The trip would see me fly to Vancouver, British Columbia, Canada before moving South crossing the US border and traveling to Seattle - Washington, Portland - Oregon and Redding, Fairfield and San Francisco - California before returning to Vancouver for the flight home. All in all, over 3000 miles driven in just over four weeks.



The itinerary was relatively fluid - a number of breeders, producers and processors had been contacted but enough time was allowed for 'happy accidents' - both recommendations from visits and suggestions received via social media. Stops in major urban areas were also timed to coincide with large scale farmers markets.

Vancouver, British Columbia.

The Cure

The very first visit of the trip was to see Chef Robert Belcham at his curing facility above one of his restaurants in Vancouver. It was a very modest set-up, and he produced a small range of salami that showed his culinary background - using a lot of fresh ingredients. He was evangelical about the pork that he used. Years earlier he'd made it a personal pilgrimage to search out the very best in local pork. He ended up with a 'local' company - which was a three hour drive and two hour ferry ride away. I soon came to realise that what I deemed to be local in Wales, didn't translate to being local in North America. Local seemed to mean from within the State or the neighbouring State - which would usually amass to a 250 mile radius.



Unfortunately I wasn't able to meet with Robert's breeder Dirk but I did manage to speak with him about the way that he raised his pigs at Sloping Hills Farm. His were the first Berkshire pigs of the trip, they were a niche producer, raising their pigs outdoors on a custom feed free of Corn, Soya and Canola and any GM crops. Average deadweight was around 80kg with high killing-out percentages ranging from 80%-85%. Around 90% of the animals were being sold wholesale (as whole carcasses) and the remaining 10% as cuts through local farmers markets. Berkshire pork is hugely popular in North America, especially in Vancouver. Due to its proximity with Asia, Vancouver has a sizeable Asian population, by percentage Asians form the largest ethnic group in the metropolitan area. Like the Wagyu Cattle the Kurobuta (Berkshire) breed is prized for its marbling, taste and quality. Before meeting with Robert I'd had lunch from a street vending cart called Japadog which specialised in Japanese influenced hot dogs. At \$7.25 the Kurobuta Terimayo was the most expensive offering on the menu.



The Oyama Sausage Company

I ran through the trip itinerary with Robert, he'd tried produce by most of the breeders and producers along the route, but there was one processor in particular that I just had to go and see - it was John van der Lieck of the Oyama Sausage Company in Vancouver. Robert described him as the Godfather of North American charcuterie. Luckily, I was due over at John's home the following evening for a barbecue. John is a fifth generation curer, he was born in the Netherlands, and had spent time in Asia before moving initially to Alberta, Canada. He'd spent time farming, and working in a butchery where he developed his repertoire of cured meats. Prior to meeting, he'd suggested I pay his stall in the public market a visit - the market on Granville Island is a thing of beauty, the produce is stunning. While living in Alberta, on a trip to Vancouver years earlier John had visited the market, he knew instantly that it was the right retail venue for his business, he put his name down for a stall, and had to wait eight years to get the right one.

At his home, John was testing a new smoker - and had been cooking a brisket, jerk pork chops, pulled pork and a dry aged shoulder for over 14hrs. I'd never come across anyone before who dry aged pork in the same manner as beef. The producer he used was a small farm in North British

Columbia - he bought all the farm's animals in late autumn and would only use those animals for air dried meat. The pigs were pasture raised, grazing animals and the higher levels of vitamin E ingested by the animals from the grasses worked as a natural antioxidant, allowing the meat to be hung and aged for longer without fear of rancidity.



From a small unassuming industrial unit he produced over 300 products, the stall at Granville Island had well over 100 products at any one time dependent on the season. The production facility was an excellent example in the economic use of space. His machinery was truly international, a mixture of North American and European - I even saw a John Hunt of Bolton Little Champion pork pie machine. Most of his staff were European, with a knowledge of the products they were making. He did import a few things - the odd Parma or Serrano Ham, but equally he'd make his own version using traditional methods. His knowledge largely came from that which had been passed from one generation to another, but he was also a voracious reader, buying any book on the subject of charcuterie.



The Saturday I visited his stall I had to wait as the queues around the stall were three deep, around Christmas, apparently there's a good 20min wait to be served.

Seattle, Washington.

Heath Putnam Farms/Wooly Pigs

The very first person I contacted prior to the trip was Heath Putnam. He's somewhat of a pork rockstar. In 2004, after a trip to Austria he decided to be the first to import an obscure breed of pig called the Mangalitsa. He formed his own company - Wooly Pigs, and sold his first carcass to The French Laundry, a three michelin starred restaurant in Northern California, which, at that time was rated as the best restaurant in the world.

The Mangalitsa are a rather unusual breed. They're a lard producing pig, with a curly coat, which makes them resemble a sheep-pig or a womble-pig. Their composition is similar to that of the pata negra or the Iberian black pig, though they're much hardier and would suit our climate due to their thick coats. They're a small boned animal, and provide high killing out percentages, though their primary benefit is their distinctive fat. The fat itself is lower in polyunsaturated fat, higher in monounsaturated fat and has a balance of Omega 6 to Omega 3 fatty acid comparable to seed oils. It essentially makes it a healthy animal fat. Being a lard pig, it's not usually kept for its meat. However, the meat itself has intense marbling, and due to slow growth rates, older animals produce pork that is far more developed. From a taste perspective, fresh Mangalitsa meat is comparable to that of modern breeds, where it shines is as a cured product. The different fat composition makes for a raw product which can be cured for much longer periods.



Heath has worked tirelessly over the past seven years promoting the breed across America. He's carved a niche for himself, he's also found a market, at a very high value. His wholesale meat prices range between £7/kg and £15/kg, double that for direct sales which range from £14/kg to £30/kg. Compare that to British prices where standard breed pigs range from £1.60/kg to £3.50/kg wholesale and £4/kg to £9/kg retail. Heath is very much a businessman, his animals were contract bred by a series of farmers across the country. Paid per animal, per day, and fed on a varied diet. The only consistency was in the finishing of the animals, 4lbs of barley per animal for 60 days. The breeders who supplied the pigs in Austria adhered to strict feeding, sticking to barley, hay and fresh vegetables for the animals whole life. Heath took the view that regardless of the quality of feed the pigs had had during the growing period, that a finisher of barley would cleanse the system during finishing.



I met Heath at a Seattle pizzeria; *Serious Pie*, we both ordered the clam and pancetta pizza. The pancetta had been house-cured from one of Heath's Mangalitsa. Although this particular restaurant cured their own, it was an example of how 'bacon ends' and 'bacon trim' could be utilised and sold to manage wastage levels - selling a low cost wastage product but ultimately creating a high end, luxury dish. The pizza was beautiful, the saltiness of the pancetta complimenting the clams perfectly. I'd already tasted cured Mangalitsa produce from the the Austrian producer that Heath

had purchased his original animals from and to be perfectly honest the end result tasted vastly different.

One of the key questions I wanted answered was 'how processors, chefs and butchers rated the end product?' Anecdotal evidence differed greatly - by and large processors disliked using Mangalitsa as the increased fat caused a huge amount of smearage during production (especially during sausage production). Chefs and cooks on the other hand were near evangelical - even with their hefty price tag there didn't seem to be a shortage of customers.

Lather Unusual

Another of Heath's customers who had a novel use for his Mangalitsa was Logan Niles. She owned Lather Unusual, a small suburban store selling home produced soap, some of which was made from pork lard. A former Chef, Logan had packed up her worldly belongings and driven cross country from Chicago to open her store. She brought with her a hugely culinary perspective towards her soaps, often using raw spices and herbs to flavour soaps much in the same way as you'd flavour a dish to eat.

She'd render her own lard in a nearby restaurants kitchen, some of the soap would be made from a 100% pork fat, others would be cut as a 50% mix with palm oil and coconut oil. She played on the pork theme, making a 'bacon and egg' soap and a 'phoney baloney'. Each soap would be produced in small batches; due to the living nature of the lard, the soap would at some point succumb to rancidity causing a light discoloration. She'd started to 'cure' her soaps by cold smoking them and extending their shelf life - essentially using a traditional charcuterie production method as part of her soap production.



Later in the trip, having been handling some pork, I was struck by the thought that I was removing pork fat by using pork fat.

Link Labs

Seattle is known for its public market, it's the centre-point of the main commercial hub of the city and it's a fantastic sight for both shoppers and tourists alike. However, the place that stood out for me on my visit was a tiny garage space, and the home to a company called Link Labs. I'd come across the company through a British ex-pat living in Seattle who keeps a home curing and food photography blog - <http://mattikaarts.com/blog/>. The owner, David Pearlstein produced a range of artisan sausages from his converted garage - a mini-processing plant which was United States Department of Agriculture inspected. The visit to Link Labs was the biggest eye opener in terms of food business regulation for me. British regulations, though strict, are catered towards the varying size of food businesses. US law is very much in favour of the large processors. Small meat businesses were few and far between - largely due to regulation. On any day that David was

handling meat, an USDA inspector had to be in attendance. He also had to provide office space and storage for the inspector. All in all, the office took up around a quarter of the garage.



David would have to inform the inspector of his cutting and processing schedule - both the dates and times in advance, and the inspector would visit sometime during that period on every production day. One inspector would have on average 8 processing facilities within a 50 mile radius that they would inspect. There was no cost to the processor for the inspection, an average working day was 8hrs, anything above that would have a cost implication of around \$60/\$70 an hour. In a period of economic depression, USDA inspectors along with military personal are classed as 'essential workers' by the US government such is the power and the demand for food. The level of inspection and regulation provides for a very efficient paper trail - it's largely due to inefficiencies in large operations that the current system is in place, a system that rarely encourages new small scale ventures to start-up.



David sourced his meat from a variety of farmers across the Pacific Northwest - one of which was the Portland based Tails and Trotters whom he'd put me in touch with. He'd buy in primals, breaking them down to produce hand crafted sausages which were free from preservatives. With a short shelf life, they were mostly frozen on day of production or delivered fresh. He'd produce in the region of 50kg of sausages a week, selling mainly to wholesale customers, but orders were increasing week on week. With such a small production space, strangely the main issue with his facility was less to do with output, more so to do with storage of finished product.

Portland, Oregon.

Oregon Food Innovation Centre

I currently use the facilities at the Food Centre Wales, Horeb for all the production development work for all my own charcuterie produce. I've also visited the facilities in UWIC, Cardiff where they can provide sensory testing and packaging development. While researching online I came across

two facilities in Portland that held similar roles. Oregon, as a state is a major food producer, most specifically of artisan produce. Abundant agricultural land, a progressive population and a hugely foodie culture provide for an area that is 'food-rich'. Within the city of Portland there are over 700 foodcarts - they're not your regular 'burger vans', these are high end restaurants in the space it would take to build a garden shed.



While in Portland I visited the Food Innovation Centre, a federally funded food development centre. It opened in 1999, the first of its kind in the US. Their bias was very much on flavour and recipe development as opposed to process. They run monthly classes on starting food businesses which are hugely oversubscribed. Portland acts as a hub for many food producers, with cooks, chefs, farmers and producers migrating from all over the US to Oregon to start food businesses.

The centre features a sensory testing area, and had a database of 13,000 people that could be called upon to taste test. They also have a large production facility which was available to hire for product development, costs ranged from \$45-\$110 per hour. Processing from the facility cost in the region of \$120 per day. They also specialise in packaging development and they have on-site laboratories that can provide shelf life testing. During the week of my visit, over 80 new food entrepreneurs had passed through their doors. Although deep in recession, there was a huge increase in food start-ups. The 'foodcart culture' provides an accessible means of establishing a food business with little start-up cost.

Kitchen Cru

Kitchen Cru, the second food development centre was a private business. It acted as a small business incubator providing 24hr accessible kitchen space for producers. When I visited, a vegan pastry chef was making cakes next to a gluten free pastry maker, next to a sea salt producer - people were working shoulder to shoulder, using each others produce and making some extremely inspiring products.



Kitchen Cru is the brainchild of Michael Madigan. He formerly worked for IBM before establishing his own IT business. He's hugely passionate about food, and on selling his business looked to establish a new venture. It took nearly a year to plan the business, but after finding a suitable location in November 2010, building work started and the facility opened in March 2011. He started with just six clients, but in just over eight months the roster has increased to 32. Of those businesses, Tails and Trotters looks to be the first that will outgrow the facility and move to their own purpose built site.

Once a week the shopfront area of the facility is turned over to the producers as a mini-farmers market. The site can also be hired as a dining facility - and currently hosts a monthly restaurant night called Ten Top, where 'up and coming' chefs are invited to cook a set menu for ten people. The facility also hosts classes by some of their clients. I met with Camas Davis at Portland Farmers Market, she runs regular butchery and charcuterie classes from Kitchen Cru. She'd trained as a charcutier in France, and ran 'Meet your Meat' classes covering topics such as basic butchery, sausage production, and curing. On average she'd host six classes per month, ranging from \$150-\$250 with 12 students per class.

Tails and Trotters

Tails and Trotters had been recommended by David Pearlstein of Link Labs in Seattle. Although I'd arranged to meet with Aaron Silverman of T&T at the Farmers Market I was fortunate enough to see some of their produce during my visit to Kitchen Cru. Under state licence they are able to produce a small amount of their product from the facility, including bacon, pancetta, lardo and guanciale.

Aaron is well established in the food industry, as well as owning Tails and Trotters he has his own Heritage Poultry Business selling to high end supermarkets and an extensive market garden business. He works closely with the local Slow Food chapter and back in 2004 he was invited to attend the Salon del Gusto in Turin on their behalf; that's where he tasted a variety of air dried ham. Since that point he's been working towards establishing his own facility in the US.



The business started as a Meat CSA - a Community Supported Agriculture scheme - they would process their own animals, selling directly to the consumer in the form of quarter, half or whole animal. In addition to their own animals they'd source meat from other producers and provide the processing know-how, sales and marketing on behalf of those producers. As the business grew, Aaron concentrated on production and their herd was contract bred. By this point they were generally using a mixed hybrid of Duroc X Berkshire X Landrace X Yorkshire, the new breeder keeps the pigs in large open romney arks, and utilises the Swedish deep bedding method. Two thirds of the grain that the pigs eat are produced on the farm. Their feed consists mainly of oats, field peas and flax but is supplemented by a 30-34% mix of hazelnuts for the final 60-100 days of finishing. Oregon is the major producer of hazelnuts in the US, accounting for over 90% of the countries production. This hazelnut finishing provides an incredible sweet flavour to the fat. But it

does have its drawbacks, the high level of polyunsaturated fat in the nut makes for a softer fat. This isn't ideal for a long cure - but the sweet nutty flavour makes for a distinct product which is very much Oregonian.

They were processing in the region of 14 pigs per week, in feed terms they're using approximately 80 tonnes of nuts a year to finish between 700-800 pigs. The standard US target deadweight is 81kg, their target is 118kg - 127kg, though actual weights fluctuate between 100kg - 145kg. In addition to using KitchenCru they also rent a small space within a larger meat facility where they do all of their butchery - this seems quite common in the States. Due to USDA regulations it's far easier to rent a space within a space, rather than setting up a small scale cutting room. They're working towards setting up a larger facility, and while I was there they pointed me in the direction of a retail butchery store they were hoping to take over.



I met Aaron on his stall at the weekly Portland Farmers Market, it's unlike any British market I've ever seen. 150 stalls set on the leafy campus of Portland State University. The place was unbelievably busy, though talking to traders it was a pretty quiet day. A good trading day in winter is \$500, in summer that increases to \$2000. T&T had a diverse selection of products - including one of the first batches of back bacon that I'd seen on the trip. Due to stringent environmental health regulations, all meat and meat produce at US farmers markets has to be frozen. US farmers market provide a sensory overload - the sheer variety of stalls, the quality of products and the choice of food products in really quite amazing. However, when it comes to meat stalls, all the produce is kept in insulated boxes. It's the one product that customers don't purchase 'on-sight' which in my opinion put meat at a serious disadvantage. When I quizzed various meat producers at markets there was a general consensus that people would rather buy produce 'fresh' as opposed to frozen. Customers were more conservative with their meat purchases - buying one item on their first visit, and then buying larger and larger quantities on their following visits.



Fairfield, California

Suisun Valley Farm

On a damp misty morning with the smell of wild sage floating on the air, I made the early morning journey through countless rows of vines to Suisun Valley Farm. At the farm I met Shane Pietersen, a bio-chemist and a pig farmer. He'd bought his Mangalitsa stock from Heath Putnam, and was now the main breeder in California. He feeds his pigs on a custom made pellet of wheat, alfalfa and various minerals, they're also fed hay and are allowed to graze for 6 months of the year. He supplements his feed with vegetables - he rents a few acres to a local grower who produces tomatoes, squash and pumpkin.



As would be my luck, I was there on the first day of the rainy season - generally it'd be 6 months of sun, followed by 6 months of rain. I'd obviously brought the weather with me. With the rainy season comes mould and mildew on the vegetable produce, so that morning, the glut of tomatoes on the vines were ours for the taking.

Bob, a local cattle rancher was due to pick up three animals due for slaughter, the largest was a 30 month old castrated boar. All his animals are slaughtered at a minimum age of 18 months. Based on the analytical information he'd collated from various slaughters, marbling in the meat peaks at 9 months, the main development in the meat is between 12 and 18 months and the animals then tend to plateau in weight (in terms of meat). However the animals put on fat even on a pure fibre diet passed 18 months.



All his largest animals are destined for the French Laundry as part of their charcuterie program. I'd spoken with the head of the program in the hope of paying him a visit at the restaurant, but sadly I'd chosen the worst timing possible - he was in London setting up a 'pop up restaurant' in Harrods offering £270 a head dinners. Shane was getting between £8 and £10 per kilo wholesale for his produce. Of all the pork and pork products that I tasted during the trip, the very best that I had was

a home cured coppa produced by Shane himself. The dark red developed Mangalitsa and the rich fat rivaled any European product that I've ever tasted.



A few days later I met Shane on a delivery to San Francisco - our one stop was Perbacco, a high end restaurant in the Financial District. A deathly Saturday morning was a poor reflection on an area more used to weekday customers treating clients on their expense accounts. After rolling up my sleeves and helping cart the carcass the owner led me down a series of narrow winding corridors in the basement to see his curing chamber. Every quarter or so he'd order a carcass, curing and air drying the whole animal. Cured Mangalitsa featured heavily on the menu, including a starter of their house cured version of the prized Italian cut - Culatello, and a tasting platter of house cured salami.

San Francisco

Boccalone

While researching for the trip, I sent a out a call via Twitter asking for any contacts in the US charcuterie world. Thankfully I had a few responses, one of which was from Jules Jackson, owner of De-lish a charcuterie business based in Wells-next-the-Sea, Norfolk. He put me in touch with William 'Bud' Teasley in Brighton, one of the founders of Boccalone, a San Francisco based charcuterie company. I was well aware of Boccalone, and had visited their store on a previous holiday to San Francisco. Throughout the trip, everyone I visited asked 'are you going to Boccalone'? With so much buzz it could have proven highly anticlimactic, however, I wasn't disappointed.



I couldn't have picked a worse day to visit - a busy Saturday morning. However Marc Pastore one of the owners was happy to sit and talk, though a tour of the production area in Oakland was definitely out of the question. What I did learn from Marc was mainly about retail. The shop sits in the Ferry Building, a beautiful converted period building that houses a plethora of food businesses.

The area surrounding the building also lays host to a weekly farmers market, which along with Portland are the two best markets of their kind that I've ever seen.

Marc was extremely generous with his samples, and I got to try a variety of salamis, a mortadella and a cooked ham. Though a little too salty for my palate, one of the products that I found the most interesting was a 'guest' air dried ham. It was a prosciutto made from a Berkshire X Ossabaw Island Hog. The Ossabaw is a breed of pig that dates to the 16th Century that's found only on the uninhabited Ossabaw Island, Georgia. The pigs were originally released by Spanish and Portuguese explorers onto the island, in the hope that they would breed and provide a sustainable food crop on return voyages. Largely forgotten, the breed remains pure. Through genetic research, they've traced the pigs to a breed found on the Canary Islands. The characteristics of the animal resemble the traditional lard type Iberian pate negra and the Mangalitsa.



Although they had an Ossabaw Island Hog prosciutto, Marc was very definite in his views that breed didn't matter - feed was what was the absolute key. As Tails and Trotters had done, when establishing the business in order to guarantee a steady supply they'd started a Meat CSA. The Bay Area Meat CSA is one of the largest in the US, and is now organised by the local chapter of the Slow Food Movement. Although the produce at Boccalone was very good, what made them stand apart from all the other retailers that I'd visited was the sheer choice available to the consumer: little taster cups, freshly sliced produce, vacuum packed product, platters, picnic trays, sandwiches, gift boxes, merchandise, branded cool bags. On first impression it seemed like a bombardment, an over-commercialisation, however it made the produce accessible to the buying public. Something as simple as having a 4oz sample of sliced ham in a glass case provided the consumer with a level of knowledge when it came to simple ordering.

Redding, California.

Keller Meat Group

The day I spent with Mark Keller of the Keller Meat Group was probably one of the most enjoyable of the trip, it was also the most tiring. I was due to meet Mark at 6am at the plant where he processed, so I was rather bleary eyed when I made it to the Premier Meats Processing Plant. Much the same as Tails and Trotters, Mark hires a space within a larger plant - the main difference being, that Mark is an extremely commercial producer. Although he grew up in an urban area, he'd always wanted to farm. His first job was as the first 'meat' employee for Prather Ranch, running their commercial slaughter program. At the time they were a standard ranch producing high quality beef, and were making their first foray into selling direct to the consumer. The 40,000 acre ranch was part owned by Walter Ralph, who at the time owned the Californian supermarket chain 'Ralph's'. Prather Ranch also have a retail outlet across the way from Boccalone in the Ferry Building.

Various jobs in the meat industry followed, including assisting Boccalone in setting up and working with the Bay Area Meat CSA. In 2009, he sold everything, moved from San Francisco and headed North to Redding, California to establish a herd of Large Black Pigs. He'd chosen the area specifically because he'd found a meat processor who was willing to give him a chance and good farming land was plentiful and cheap in the area. Sadly, he found he couldn't manage both a herd of 3000 pigs and the weekly processing on his own so earlier in 2011 he moved his animals north to Carlton Farms in Oregon. Carlton Farms are the main meat supplier for most of the producers that I met - they're the market leader for traceable, sustainable pork, they ultimately produce commercial pork from rare breeds. Mark's done things a little different to most, his arrangement with Carlton Farms is that they breed and raise his Large Blacks to his specification - they slaughter the animals and cut them into primals and then into cuts - they're then shipped to him and he produces bacon and 'deli products' with the vast majority returning to Carlton Farms for them to sell under their own label. He also processes for Prather Ranch and any produce remaining is sold at Farmers Markets in the Bay Area under his own label (which commanded far higher retail prices for pretty much the same produce).



He processes 120 carcasses largely single handed every week. The day that I was there was spent trimming, brine injecting, vacuum tumbling and hanging 124 bellies ready for thermal processing. The afternoon was spent trimming, masticating, emulsifying, vacuum tumbling and netting 96 hams ready for smoking. When the production facility has extra capacity the small group of around six processing room staff are at Mark's disposal - they spent a couple of hours trimming some products ready for the following days production. However, the speed and commitment that Mark showed meant that his work rate equalled the six other men on shift.

Mark's aspirations are huge, he's currently working with another business partner to set up a show farm - somewhere where people can visit, to see the animals, to taste the product, and hopefully to take it home with them. He isn't interested in selling to foodies, his direct market is families - high quality ingredients for everyday food. He isn't interested in owning his own facility - the company that he rents from 'Premier Meats' have seen a dramatic downturn in their product sales - they see Mark's use of their facility as a lifeline. He's hoping to use more capacity, and hopes in time to set up a dedicated butchery to cut processing costs at the slaughterhouse and to raise cutting standards.

Summary

Although I fully expected the trip to be biased towards charcuterie production, I was happy to see that the actual 'process' was secondary, what became important whenever I met a new producer was the their key ingredient - the pigs. The first questions would be about breed, feed, slaughter age and weight, fat quality, curing quality etc. As the majority of the food production companies had bred their own animals initially, they had an incredible working knowledge of their supply chain. Even if their animals were currently bred 200 miles away, they were still in control of both the breeding regime, but more importantly the feeding regime.

Feed, was a key issue during the trip. Recent subsidies from the US government for the production of bio-ethanol had seen a number of traditional corn and wheat growing areas in the US Midwest turn to soya. The waste product from the bio-ethanol production was being fed to factory farmed pigs. The resulting meat proved to have far lower levels of Vitamin D, E and phosphatidyl choline which resulted in far shorter shelf life due to rancidity. In the UK we often lose sight of what we should be feeding our animals. Supermarket shelves and farmers markets have products labelled as rare breed, outdoor reared, free range and high welfare. All these things are perfectly valid, however when it comes to charcuterie, what I came to fully understand was that you need the very best ingredient to produce a long term cure. You need hard fats, plenty of marbling and intramuscular fats, a docile, low stress animal. Whether the breed is a lard-type or developed it should be a grazing animal. Feed should be low in polyunsaturated fat, no corn, no soya, very little wheat. For niche products, producers have the luxury of choosing slow growing breeds, raised for over 12 months and to a high weight. Strangely the main breeds and products that I encountered in the US came from black pigs (Berkshire, Swallow Bellied Mangalitsa, Ossabaw, Large Black), breeds that have long fallen out of favour in the UK.

In terms of charcuterie production I was shocked at the simplicity of the machinery used in so many of the facilities. In the smaller plants fermenting chambers were simple cupboards with makeshift heaters and de-humidifiers, drying chambers were converted walk-in chillers. I was fortunate enough to visit some huge facilities in the San Francisco area (though I had to sign a disclaimer promising not to speak about what I'd seen) - their facilities were as impressive as anything I've seen in the heart of the Parma region.

Where we differ greatly is on flavour. I tend to label the charcuterie produced across Europe into two separate categories - Southern and Northern European. The difference comes largely from climate - if you take salami as an example - Southern European (Portugal, Spain, France and Italy) provide a relatively low acidity in the fermentation stage creating very little 'tang'. While Northern European salami (Austria, Hungary, Germany and Scandinavia) all have a heavy acidic flavour. German influenced American-charcuterie (burgers, hotdogs and salami) have a far greater influence on the American palate, however, the majority of the produce I saw on sale were of Italian and French origin. One producer that I visited labelled it's produce as 'American Charcuterie' - to an European palate it was a strange combination, a product, technique and recipe that was wholly Italian but with a flavour and tang of a Northern European salami.

Although supermarket stores dominate our shopping culture, we're very fortunate that independent butchers, delicatessens, farm shops and farmers markets are a staple. Small stores are a rarity in the US, though I was heartened to see that educated consumers were turning their backs on mass produced commodity pork. Farmers markets are on a far grander scale, and provide a rare link between consumer and producer. We have a great deal to learn from North America when it comes to markets and the way that they retail their products. The current culture here in Wales more often than not, is that a producer is a success when he sells to a major supermarket or chain. However, selling to a major retailer often results in a lowering in quality and an 'economy of scale' production.

Increase in world population and dwindling energy resources are putting immense pressure on food producers. DEFRA have targeted 2025 as a key stage to raise the amount of food that we produce. We rely heavily on mass-farming to provide cheap commodity produce, however there is an alternative. If we are to follow the mantra of 'eat less, but eat better' we could produce high quality food, locally, utilising organic principles, creating sustainable produce and sustainable communities while also reducing our carbon footprint.