

THE GOLDEN STATE OF BREWING: CALIFORNIA'S ECONOMIC AND CULTURAL INFLUENCE IN THE AMERICAN BREWING INDUSTRY. PART I

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Chapter 1: Introduction

Beer as history

It is strange to consider beer as a text. Yet if we are to seek a deeper understanding of the world around us, all human endeavor is encoded with symbolism. The particular emphasis here is to see how the drink of the common man is more than just the golden suds that have been ubiquitous in American culture for over a century and half. Humans have been drinking beer for over six millennia; it is the first beverage specifically created by humans. Predating wine, coffee, tea, and soda; beer is second only to water in terms of historic beverages consumed by man. Every major civilization has had within it some form of fermented beverage, typically dependent on the ingredients at hand. Mesopotamians were conveniently blessed with an abundance of barley amid the Fertile Crescent, near the ancient rivers of the Tigris and Euphrates. Ancient Chinese drinkers could enjoy a beverage made from fermented rice, millet and sorghum. The men and women who built the Great Pyramids in Egypt subsisted upon a diet of two to three pints of unfiltered beer daily.¹ So long as sugars and yeast could meet, the chemical process of fermentation could take place. Before European colonists set foot in North America, Natives were brewing a beverage with persimmons, gourds and corn, or the agave plant for those in modern day Mexico.² Like music, dancing, spiritual practices, and an affinity for sweet flavors, human civilizations everywhere celebrate the joy of drinking fermented beverages, namely beer, as a cultural universal.³

Brewers in Ancient Civilization knew not only how to make beer, but they knew multiple recipes to produce beer, including fresh, old, red, dark, pressed, strong, weak, and honey flavored brews.⁴ What is striking about this diversity is that, over 5,000 years ago, humanity had a greater choice of beers to drink than Americans did in 1950. Homogenization and market consolidation are two practices that run counter to the historic trend of brewing in humanity. But where the history of beer is long and diverse, American drinkers have a short term memory. If beer is to be considered a text, for much of our recent history we forgot the language. Or at the very least, knew few words of the language.

Like all consumer groupings and their accompanying system of social exchange, the brewing world possesses its own form of language. The lexicon extends from highly technical terms in regards to microbiology to idioms and expressions of social behaviors exhibited by devotees to particular breweries. Possessing knowledge of this language imbues the beer drinker with greater clarity as to the importance ascribed to the admittedly small percentage of brewers that constitute the *craft*-brewing world. The word *craft* itself is a nebulous term, as the nature of this subindustry has emphatically changed since the first years in the mid-1960s. While many enthusiasts can agree generally on what *craft* is, a quantifiable definition is not entirely agreed upon by all consumers. Despite this, the legitimizing effect of an internal form of language has pushed the counter-industry of the brewing world toward a point of wider acceptance. Nevertheless, to engage in this world one must be

privity to a sort of education; having the ability to comprehend not only the verbal language, but to see, taste, and smell the language. The gastronomic lexicon is dependent on acute sensory experience to justify the creation of the internal vocabulary. One cannot say a beer is *hoppy* without an understanding that hoppiness refers to bitter flavors, and within this subgroup, there exist numerous sub-flavors, including citrus, pine, grassy, earthy, floral, etc. Moreover, these subgroups split further, where citrus hoppiness can be grapefruit, or lemon/lime, or blended with other flavors. Understanding the nuances to taste and scent allows the beer consumer to experience an arguably higher form of culinary expression.

California is the flashpoint of a change in understanding about beer. Where the historic trends of brewing in America came from abroad, and from the East Coast, California responded with a different message, in nuanced language. The message accepted the place of beer in American society, but rejected the form it had taken. America was once a nation with local breweries making various types of ales in the Colonial and Early Republic era, but by the time of the Industrial Revolution changes were in place that would gradually strip all that was local and diverse from the American brewing industry. Consolidation of the industry led to the homogenization of the products it created. Industrialization of brewing, like other manufacturing fields, also led to the isolation of the production process to the act of consumption. How the brewing industry became an oligopoly, and how California brewers led the resistance against consolidation, are the primary questions this project seeks to answer.

Project origins

Growing up my family drank Budweiser and Corona as their beer of choice. Visibly both beers were indistinguishable from each other, and when given a sip of these drinks I found them repulsive. I associated beer with the insipid carbonated liquid that my family exposed me to at an early age; and as I grew older, I felt that beer was not a beverage worth drinking. It was not until I first drank a Guinness Irish Stout in the winter of 2010 that I learned about the diversity of beer. A stout looks nothing like the Corona or Budweiser from my youth. The flavors are completely different; slightly roasted, almost

coffee-like flavors and a smooth mouthfeel were far from what I expected beer to taste like. In preparing for this project, I realized that so much of the brewing industry is dependent on experiences like the one I had; more people enjoy beer than they allow themselves to believe. Discovery of new beer styles by consumers is a microscopic reflection of market trends that are influencing the entire brewing industry. In 2013 the brewing industry retracted by 1.9% overall, but Craft Brewers production expanded by 17.2%, breaching 15 million barrels of beer produced in the nation. In 2014, the industry broke through to double-digit market share, holding 11% of the entire brewing market in production volume.⁵ To take a single yet defining brand as an example, Budweiser's market share has been steadily declining for over 25 years. In 2014, craft beer sales finally surpassed the sales of Budweiser, with the King of Beers accounting for 7.6% of the market value.⁶ Admittedly, it took over 3,400 breweries across the nation to beat Budweiser; but many took the news as a symbolic victory over the historic trends of homogeneity and consolidation.

The growth in numbers, production, dollar value, and influence exhibited by craft brewers has yet to cease in America, and the economic impact is substantial. In California, craft brewing generated 44,720 jobs in production, distribution, marketing, and sales. The income from this labor is over 1.6 billion dollars, and the overall economic impact on the state is over 4.6 billion dollars, accounting for 13.6% of the national value of craft brewing.⁷ This economic data illustrates a cultural shift, where once Americans had little to choose from in the internal beer market; we now have an incredible diversity that supports the over 3,400 breweries, ranging from nationally distributed brands to small batch brands that are confined to their local communities. Most Americans are estimated to live within ten miles of a brewing production facility, in a dense area like Southern California, the range can be decreased to five miles.⁸ There are five breweries within five miles of where this thesis was written: Bootleggers, The Bruery, Bottle Logic, Phantom Ale Works, and the Anaheim Brewery. Communities develop around these businesses, jobs are created, tax revenue is generated, and a point of contact for Americans that find themselves more disposed to friendly conversation over a pint of fresh beer is founded. The end result of small efforts made in the 1960s and 1970s can be seen in bars, restau-

rants, supermarkets, specialty bottle shops, trucks with company logos, bumper stickers, screened t-shirts, and in the background of major television shows.⁹ The taste for beer in America has changed, to the point where the two macrobrewery conglomerates that dominate the over four-fifths of the industry have created craft-styled brands and bought out smaller firms to hold the attention of consumers who are continually leaving the brands that once defined American beer.¹⁰ Attempts to gain ‘craft’ credibility for the brand portfolio of Anheuser Busch InBev have backfired repeatedly; breweries in Chicago, Seattle, and Portland have drawn criticism for their decision to sell their company to AB InBev. The decision has temporarily benefitted companies like Elysian Brewing, Goose Island Brewing, or 10 Barrel Brewing; they now have the skeleton keys to the world’s strongest beer distribution network. Additional funding allows for greater output, and the company staff, it is claimed, remains largely in control of the creative process.¹¹ But the multinational AB InBev has not curated outside brands successfully before, and it is important to remember that the Bass and Boddington breweries of England, as well as the production of Becks in Germany, and Hoegaarden in Belgium have all been either shut-down, gutted, or had the production process moved to satellite breweries in America. Couple this with efforts to force craft brands out of distributors since the mid-1990s, and the spirit of Big Brewing companies becomes clearer.¹² The fight continues between small craft breweries and the powerful firms like AB InBev; as the craft industry grows these conflicts have also begun to play out between small and large craft brewers. It remains to be seen if trends of consolidation will appear once more within the craft brewing industry, or the efforts made these past decades toward a more egalitarian market structure will remain.

Methodology

Originally this project began as a rather simplistic investigation of American brewing through the lens of California counter-cultural businesses, but further research has revealed methodological underpinnings that take a simple market and cultural project and tie the research to broader themes of social theory. The importance of place is a theme that runs throughout the project. On a larger scale, California as a whole is the place where all of these changes take place, but at more

local levels, we see shifts and changes by region of the state, and deeper levels of location based meaning. Los Angeles, San Diego, and San Francisco are all part of California, but it would be an over simplification to ignore their differences. The shape the brewing industry has taken in California shows a dividing line between a high output production facilities in the north, to numerous smaller brewpubs developing in the south.¹³ Every new development in production philosophy and consumption patterns has exhibited a sense of rejection of the old standards of beer and brewing culture. In Pierre Bourdieu’s *Distinction: A Cultural Critique of Taste*, the French social philosopher discusses the formation of cultural capital and the differentiation between *vulgar* and *distinction* oriented consumers. If we apply Bourdieu’s theories to the American brewing industry, the idea that there are higher levels of cultural consumption and appreciation can fit neatly with the development of a sub-market and a surrounding community that eschews the vulgar mass-marketed, lowest-common-denominator products produced by *macrobreweries*. Beer drinking as a consumer act can be a passive or active action, depending on the level of knowledge held by the drinker. Being able to answer the simple ‘who, what, where, when, why, and how’ questions about a specific brewery illustrate consumer competency, and the wider community that has developed around new California breweries is quite adept at answering these questions.

Habitus is a term Bourdieu uses to describe our dispositions and attitudes toward a cultural field. Knowing the language of the community, understanding the relationships within, and having a sense of what is right and wrong, or better and worse are what compose the habitus of a given field. In the field of art, habitus includes knowledge of the canon and being able to discern between different genres and periods. *Objectified* forms of art culture include galleries, museums, libraries, and art installations, whereas the *embodied* forms include taste, poise, cultivated gaze, and the desire for recognition.¹⁴ Think then of these terms in regards to beer consumption and brewing. Habitus represents knowledge of styles of beer, the history behind the development of these styles, and the scientific production process, or differing artistic interpretations of the style of various beers. The *objectified* representation of brewing cultural capital is the breweries, brewpubs, homebrew shops, and specialty beer stores; places where economic capi-

tal transforms into cultural capital and knowledge of the field is developed or enhanced. The *embodied* representation of brewing cultural capital is the flavor of beer itself, or knowing what the particular beer is supposed to taste like. With gastronomic topics, invariably those involved in the discussion must return to the question of what the item in question tastes like. With a strong sense of habitus, we are able to discern the flavor profile of beers that California has produced since the mid-19th century, where the history of beer in the state begins. If one main thread should remain as questions of legality, market structure, countercultural movements, and the growth patterns of a sub-industry are discussed in the main body chapters, it should be that beer has tasted different over time.

Homogenization is the destruction of diversity and local industries that would have diverse flavors of beer out of necessity. Bourdieu states;

Taste is thus the source of the system of features of a particular class of conditions of existence, i.e., as a distinctive life-style, by anyone who possesses practical knowledge of the relationships (habitus) between distinctive signs and positions in the distributions-between the universe of objective properties, which is brought to light by scientific construction, and the no less objective universe of life-styles, which exist as such for and through ordinary experience.¹⁵

While Bourdieu spoke of taste in much broader cultural terms, we can use his description of taste for the American beer drinker. What is a consumer's relationship to the flavor of their beer? If we take the American Light Lager as an example, it is comparatively speaking a relatively mild and tasteless beverage. Low in alcohol, bitterness, malt flavors, and filtered strongly to remove any trace of sediment; the light lager is exemplified by the most popular beers in America, Bud Light and Coors Light. Both brands accounted for over 8.2 billion dollars in sales for the American beer market in 2013, far outnumbering all craft brewers when put together. Budweiser, the standard American lager, accounts for over 2.1 billion dollars; and only in 2014 did all craft beer production finally outpace Budweiser production.¹⁶ There exists a duality to beer popularity in America, the *vulgar* consumers, according to Bourdieu, consume without knowledge or background of the product, nor care for the actual flavor of the product.

They do not exist within the habitus for beer, whereas consumers with distinction will engage in discriminating consumption, asking the questions of 'who, what, where, when, why, and how' their beer was made. What is dubbed *craft* brewed beer attracts consumers with far greater clarity of language, structure, and understanding of beer culture.

Along with the desire for something that is distinct is the desire for a product that is local. Two cultural geography studies of the craft brewing industry have hypothesized that part of the success of these businesses comes from the embodiment of a locality in the production and sales process. Neolocalism is a term used by Wes Flack to describe a reemergence of local pride exhibited by a rootless population of Americans who possess a 'desideratum of distinctiveness has brought about a disdain for much of national culture'.¹⁷ The same ethos behind farmers markets, cooperatives, and local festivals generates local consumer interest in a business that upholds the sanctity of the community, and provides outsiders a hub through which to better integrate themselves within the community. This theory is expanded upon by Steven Schnell and Joseph Reese in a second study conducted in 2003 that expands upon Flack's theory of microbreweries generating a sense of place. They suggest that not only do Microbreweries embody a sense of place, but actively create 'place attachment' by targeted marketing and brand identity construction. As breweries develop in California, they take their brand identity strongest from their locales and the cultural atmosphere they generate within.¹⁸ Anchor Brewing, New Albion Brewing, and Sierra Nevada are the trio of modern California breweries examined the most thoroughly; for various reasons they became the vanguard of the craft brewing industry, but their success depended on a strong brand identity which they created through simple attachment to locations in California. For Sierra Nevada it is the mountain ranges they are named after, for New Albion, the coast of Sir Francis Drake's landing north of the San Francisco Bay, and for Anchor it is the city of their 19th century roots, San Francisco. California breweries are important to understand for their use of place identity, as well as their level of distinction amid the American brewing industry. As the discussion of locality and differentiating levels of quality or appreciation takes place throughout the chapters, it is important to have these ideas in mind.

Structure

This project follows a broad chronological structure with three main points of time. Treating the development of craft brewing as a phenomenon with Californian origins, the time frame is based around developments within the Californian beer market. The first chapter discusses the development of the beer market and culture in California, beginning in the mid-19th century and tracing the evolution through the turn of the 20th century, addressing the popularization of Lagerbier, the effect of National Prohibition, and the eventual market consolidation that saw the movement of major brewing conglomerates to the West Coast to capitalize on the expanding post-World War II population. This chapter relies upon historic monographs and journal articles as well as archival sources acquired through the gracious assistance of librarians in San Francisco, San Diego, and Los Angeles, as well as brewing industry journal articles and period sources available online.

The second chapter begins in 1965, and analyzes the origin of craft brewing in America, beginning with the purchase of the Anchor Brewing Company of San Francisco by Frederick Louis Maytag III, and the subsequent developments in homebrewing law, beer journalism, and brewpub proliferation. This chapter is constructed around several historic monographs of the brewing industry, as well as newspaper and media sources that contain interviews conducted with key individuals during the events they took part in and retrospectively looking back on their involvement. The two main businesses analyzed in this chapter are the Anchor Brewing Company of San Francisco and the New Albion Brewing Company of Sonoma. Southern California also plays a vital role due to the influence of the Maltose Falcons Homebrew Club of Los Angeles. These three vanguards were the first agents of change in American brewing in the post-War era. Although miniscule in impact at their outset, the two breweries and the homebrew club are universally recognized within the brewing community as the catalysts to the craft brewing movement.

The third chapter takes a deeper look at the environment that the sub-industry of craft brewing developed within. The counter cultural movements of the 1960s in northern California directly influenced the counter-consumerist movements of the following decades.

Apple computers, Peet's and Starbucks coffee, and the high cuisine movement toward farm to table, locally sourced, and artistically crafted dishes from legendary restaurants like Chez Panisse and French Laundry were all born in Northern California's counter-cultural environment. These industries hold a parallel philosophy to small scale craft brewing, and they have all had profound impacts on the American consumer market. Sierra Nevada Brewing is the most successful California brewer and is analyzed as a product of the same environment that created concurrent business enterprises, born from both unique entrepreneurial energy and a receptive environment. The chapter also examines the enduring connection between homebrewing and the brewing industry, as well as iconoclast marketing techniques that continue to draw new customers in an increasingly fragmented market. The chapter concludes with thoughts on the nature of craft beer consumption as opposed to passive mass-consumer based beer consumption. The source base for this chapter, similar to the second, is based on monographs and media sources from within the brewing industry, as well as interviews conducted with several brewing industry members.

A note on sources

Early in this research project it became clear that online sources would prove to be vital to developing later parts of the wider narrative of brewing in California. Using digital and online sources proved necessary because the brewing industry in California is continually growing; a single monograph would be out of date by the time it was published. Further, the founders of the craft brewing movement have had much to say about their experiences, but few have taken the time to produce their own books.¹⁹ Much of the information on the contemporary brewing industry has thus been acquired through media and interview sources. YouTube videos have proven extremely useful as they provide several insights into the early development of craft brewing. The industry and journalists involved with beer seek to preserve the history of California brewing in a format that consumers are more likely to interact with, digital media.

Within the brewing industry there are many people who have provided valuable insights by discussing their

contributions to California brewing history with me, but the complete narrative and the connections to broader themes for this project were pieced together using many sources that contained necessary information. Online and digital sources were used with an eye for their merit and accuracy of information. *Beer Advocate* and *Rate Beer* are widely popular media sites that routinely provide information of beer style parameters and commentary from brewers and brewing industry employees. Local media outlets have also begun paying particular attention to developments in the brewing industry, and companion websites to the *Los Angeles Times*, *The Wall Street Journal*, and *Forbes* should be regarded as sources similar in contextual information as their printed versions. Brewery companion sites vary in their usefulness as historic sources. As the originator of specific recipes or brands, their marketing material is quite useful; but their commentary on the brewing industry at large is both scarce and biased. Material directly from brewing marketing departments should also be differentiated from interviews conducted outside the scope of company supervision. The commentary of modern brewers and brewery owners is a measured release of opinion into the public. The nature of their business, as this project will hopefully demonstrate, allows for greater honesty and personal assessment about the inter-industry relationships that have developed in the past half-decade.

In some cases print materials are cited from online sources. In lieu of obtaining a printed copy of the document cited, it was decided that the importance of these materials was demonstrable through a digital medium rather than their original form. Time and cost prevented the acquisition of some sources, but utilizing a copy provided by a reputable online medium proved to be an expedient alternative. Throughout this project, commentary in the footnotes will be provided where necessary to justify usage of atypical source material.

Chapter 2: Historical brew

Beer and life in early California

Western people also have their own liquor made from grain soaked in water. Alas, what wonderful ingenuity vice possesses! We have even discovered how to make water intoxicating!¹

The state of California was born at the hand of men of voracious thirst and ill repute; the Golden State's founding fathers have been described by historians as 'self-interested, disengaged, racially prejudiced, and venal, or at best incompetent'.² San Jose is credited as the first seat of the state government, but the city was ill equipped to play host to the California Constitutional Convention. Poor weather, lack of housing and low morale left but one comfort to the representatives, going to a bar and drinking themselves into a stupor. Legend has it that state senator Thomas Jefferson Green ended every session of the convention with the proclamation 'Let's Have a Drink! Let's Have a Thousand Drinks!' The taverns close to the Constitutional Convention were a welcome respite from the heavy rainfall of 1849 in San Jose, and the liquors within were safer to drink than the water. For better or worse, our first state legislature received the moniker of 'The Legislature of 1,000 Drinks' for their tipping tendencies. A lack of faith in the hungover body of government in San Jose may have led the movement of the capitol to Sacramento.³ From the beginning, California was a state with a storied alcohol culture. Overindulgence in alcohol beset the residents in boomtowns and burgeoning cities in the early years of statehood. Californians drank hard, seemingly without thought or care for their consumption practices, so much so that a city in Shasta County was simply named Whiskey Town for the pride that citizens held in consuming so much liquor.⁴ San Francisco's famed Vigilance Committee of 1851 was formed to combat the influx of Australian immigrants who, among their illicit activities, built barrooms and taverns along Telegraph Hill that preyed upon unsuspecting miners and sailors looking for a drink.⁵ In the emerging cities and rural areas, Californians were constantly drinking; alcohol was an undeniable part of the emerging culture of the state.

Before a courthouse was erected to represent the new law of the land, or banks built to store the gold of the Argonauts, barrooms were the finest buildings in California. San Francisco itself had a noteworthy lack of erected buildings by 1849, but a weary traveler could easily find a place to grab a drink in a beautifully decorated and well stocked barroom. Typical shipments from the port would see barrels of brandy, gin, and whiskey.⁶ As early as the 1830s, wineries from Los Angeles and a burgeoning viticulture in Northern California by the 1840s left the drinking public awash

with Pinot Noirs, Cabernet Sauvignons, or stronger fortified wines. Jean Louis Vignes opened his legendary winery in the City of Angels in 1837; it produced some of the finest wines seen in America, and gave the name-sake for one of Los Angeles's famous streets.⁷ The small populace of California had an incredible number of bar-rooms to order a whiskey, wine or beer at; San Francisco alone had over 350 drinking establishments, one for every hundred people in the city.⁸ In all cases, an early Californian could douse themselves with whatever beverage they preferred fairly easily; yet alcohol consumption outpaced production. Beer was available to many Californians in the first years of statehood, but a dedicated brewing industry would take many years to ferment.

Birth of the brewing industry

The first seeds of California's brewing industry were sown squarely within the San Francisco Bay Area.⁹ Beer was first brewed on a commercial basis as early as 1849; Western Historian Hubert Howe Bancroft credits William Bull with opening the first regular production facility in California, Empire Brewing of San Francisco, located on Second Street near Mission. However, several monographs on beer history credit a man by the name of Adam Schuppert with opening the first brewery in California on Stockton and Jackson streets in San Francisco.¹⁰ According to Bancroft, beer flowed as early as 1837, from a brewery owned by William McGlove, but why his brewery was not considered 'regular' is never explained.¹¹ Brewing as an industry began soon after in Los Angeles by 1854, and later in San Diego by 1868. In Los Angeles Christopher Kuhn founded the New York Brewery on what is now Third Street, between Spring and Main, roughly a mile from the then bountiful and occasionally flood prone Los Angeles River. The New York Brewery, like many throughout the state, was a German influenced business. The founder, Christopher Kuhn, migrated to California from Württemberg, Germany, an area known for plentiful crop cultivation, including barley and hops. He is listed as the first brewer to make 'lager beer' within Southern California, by then an increasingly popular beverage in 19th century America. By 1868, the Dobler Brewery in the Chollas Valley of San Diego was the first to produce Lager in the south of the state.¹² Germans owned and operated the majority of

California's breweries, and they tended to produce their homeland's preferred style of beer.¹³

The first Californian produced beers were largely from a Germanic tradition; Lagerbier had become popular as early as the 1850s. German immigration to America, and as far west as California, brought the skills that expatriates were long familiar with, especially brewing. In the history of American brewing, lagers were a relatively new invention by the 1840s, but by the 1860s it had come to dominate the global brewing climate, accompanying an incredible growth in the overall number of breweries in the nation. By 1850, America held 431 breweries, but by 1860 that number jumped to 1,269.¹⁴ This is not to say that ale styled beers had completely vanished from American consumption in the mid-19th century. A complete substitution of lagers over ales would take much longer to complete. Beers as dark as Guinness Irish Stout found their way to boomtowns during the California Gold Rush in 1849, and India Pale Ales found their way to the Port of San Francisco in 1850.¹⁵ The lack of temperature control, long travel time, and lack of artificial carbonation meant these beers were more likely flat and sour by the time they reached the lips of Californians, tasting nothing like they would today. It is hard to imagine if beer in 19th century California tasted anything like their modern equivalents. The effect of yeast cells in the brewing process was not understood until Louis Pasteur's *Etudes sur la Bière* in 1876; beer could not be made to keep well in hotter temperatures, even with a grasp of the science of fermentation and an isolated brewer's yeast available by the 1880s from the Carlsberg Breweries in Copenhagen. There were few styles of beer in the 19th century adapted to the climate of the Southwestern United States.¹⁶ By modern standards of measurement, the early brews of California would not sit well with our twentieth century palate, but for a citizen of 1850s San Francisco, or 1870s Los Angeles, the beer that you drank was the beer that was available. Newspaper ads extolled the quality and benefits of drinking lager produced within the state; the Boca Brewing Company of San Francisco ran advertisements in the *Daily Alta California* and *Los Angeles Herald* from 1876 to 1889. Each of its ads take credit as being the first and best lager beer in the state;¹⁷ its introductory advertisement was an entire column in the *Daily Alta California*, where it stated:

The BOCA LAGER BEER is brewed from the best malt and strongest German and Eastern hops. It contains, as proven by chemical analysis, only such ingredients which make the same not alone an agreeable beverage. ... The master brewer, being of the genuine Bavarian school, has perfected his studies at the celebrated Dreher Brewery of Vienna. It is he whom the beer now brewed in the United States has to thank for its excellent reputation.¹⁸

The advertisement claims to be the first ‘genuine’ lager beer in California. With the strong mention of a German trained brew master, this appears to be a case of stylistic disagreement with the supposed lager brews that came before Boca.¹⁹ The brewery may or may not have been the first ‘traditional’ lager in California, but claiming to be first in a field of brewing and appealing to tradition would go on to be a common and popular means of advertisement in the 20th century California beer industry.²⁰

California’s first indigenous beer

For all of the wines and spirituous liquors that could be found, the desire to make beer, and make it well, persisted within the populace. Commercial brewing in hot climates, before the advent of refrigeration, was a precarious endeavor. While native Californian brews such as pulque, mescal, and tiswin were made in the American Southwest before the mass arrival of Anglos in the 1840s, these beverages tasted nothing like beers we are familiar with today, and are only relatively similar in their alcohol by volume, typically 3 to 6%.²¹ These fermented beverages typically came from dried and milled corn or maguey plant juices; the flavor is a sickly sweetness that is bittered with herbs native to the Southwestern United States. These Native American beers can be considered the first ever in our nation’s history, but they do not serve as the basis through which the modern brewing industry was built upon.²² The history of Native American brewing in the western United States is not thoroughly documented, and only sparse accounts from the time remain, often of encroaching Anglo-Europeans and remarking on the poor quality of the native product, in their own observation. However, these beverages provided a source of nutritious sustenance and a point of contact by which drinkers enjoyed deeper social connection with their community.²³

California’s first modern contribution to the history of beer styles is the ‘steam’ beer, known today as the California Common. In the 20th century this beer would come to represent the vanguard of a massive consumer movement within the brewing industry, but upon its creation in the breweries of 1850s San Francisco, it was a convenient recipe to brew without the use of cold cellaring or effective refrigeration. One brewer from the John Wieland brewery of San Francisco described the beer’s specific production in 1898:

Although it is erroneously asserted by some writers that steam beer is top-fermentation, it, nevertheless, is bottom fermentation and the fermentation proceeds at the high temperature of from 60 to 68 degrees Fahrenheit. ... When steam beer is cleanly and properly brewed from good material, it is a pretty fair drink, when the weather is not too warm which is not often the case here (in California). At any rate, it tastes better than the raw hopped, bitter and turbid ales. Steam beer is allowed from ten to twelve days from the mash tub to the glass.²⁴

Key things to take away from this statement, provided to the Western Brewers Association in 1901, is that the author emphasized that steam beer is bottom fermenting, indicating the behavior of a lager beer;²⁵ and that the final result tastes better than the ‘turbid ales’ that were available at the time. By the time of his statement in 1898, the national consumption of beer had shifted to lagers instead of ales, but steam beer had been brewed in the San Francisco Bay Area and surrounding cities since the 1850s. As early as 1851 the Hartmann and Scherrer brewery of San Jose was brewing steam beer, but the first year of operation only saw the production of 1,240 gallons; by 1898 they upped their production to over 430,000 gallons. Dozens of breweries sprang up in California by 1860, 83 in total, with a production value of 1.2 million dollars statewide for all types of beers. Yet the creation and spread of steam beer appears to have been relatively isolated to the San Francisco area and surrounding cities such as Oakland, Santa Clara, San Jose, Sacramento, and Redwood City. The furthest south that Steam beer was produced was in Salina, according to the Western Brewers Association Report in 1901.²⁶ While steam beer would serve as the harbinger of massive changes in California brewing, before the 20th century it was an isolated phenomena.

Ingredients, styles, and growth

Further south in the state, many brewers began their business by brewing beers that were more closely related to popular styles out of state, Germanic lagers. Variations existed between breweries across the state; depending on the quality of local water sources and availability of specific barley and hop strains, the beer you had from one brewery in Los Angeles likely did not taste as it would have in San Diego. An effect similar to *terrior*²⁷ or grape varieties in the wine industry, barley, hops, and water impart their own effect on the final result of a brew. The California brewing industry was, and in many ways still is buttressed by the hop growing regions of the Northwest, specifically the Yakima Valley in Washington and Willamette Valley in Oregon. However, breakthroughs in understanding the potency of hop oils were discovered in studies conducted by hop growing regions of California. The knowledge that hop effectiveness was sustained at colder temperatures was obtained in a cross examination between English and Californian hop varieties. Hops had always been understood to have bittering and preservative properties within the brewing industry, but their full effect and varietal potency was only understood in the early 20th century.²⁸

Barley was a major crop within California in the late 19th and the early 20th century as well. Over 100,000 tons were produced in 1859 alone; by 1910 the tonnage had increase to over one million.²⁹ The major growing areas for barley in the state were the San Joaquin and Sacramento Valleys, producing 82% of the barley in the state by the first two decades of the 20th century. Hops and barley are absolutely vital to the brewing industry, and California was conveniently in the position to reap the benefits of its own internal production, and the production of surrounding states for the brewing industry. California had the good fortune of natural ingredients and countless waterways in various parts of the state for brewing. The lager style was the most produced and consumed at the time. Brewers in Milwaukee and St. Louis made the straw colored, light bodied and effervescent brew popular, but California was quick to adopt the style as the primary beer of the state.³⁰

German immigrants popularized the style, but consumers readily adopted it, especially as larger brewers perfected their production process, leading to consistently clean and unspoiled batches of beer for consumers to

enjoy. Whereas ale, porter, and stout were the first popular European styled beers in the nation, the limitations of production in varied climates, and problems with foul taste sullied the product in the eyes of the consumer. Ale existed and was a part of the brewing landscape in the first decades of California statehood, but lager effectively replaced it by the turn of the century; now brewed by the largest firms in the nation.³¹ As the brewing industry entered the 20th century these firms already began the process of consolidation. Technological improvements in refrigeration, transportation, and packaging, as well as increasing budgets for advertising illustrated that the industry was heading toward period of monumental growth and concentration. Between 1865 and 1895, the entire output of America's breweries increased tenfold, to over 33 million BBLs³² of beer; and reaching a pre-Prohibition height of 59.8 million BBLs. The number of breweries in operation, however, dropped from 3,280 in 1870 to 1,345 in 1915.³³ A decline in growth beset the largest brewing firms between 1900 and 1915, but the enactment of National Prohibition would help pave the way for the success of America's largest *Macrobreweries*.³⁴

The dry spell and the home brew

The records of the first year of Prohibition in the United States under the War-Time Prohibition Measure which went into effect on July 1, 1919, and the National Prohibition Amendment which became operative on January 16, 1920, show a remarkable decrease in crime and overwhelming benefits of every kind.³⁵

The stated goal of Prohibition was to purge the United States of the perceived social evil of alcohol, but in reality it would only serve as a thirteen year interlude between drastically different consumption patterns of the American beer drinker. How breweries interacted with law enforcement and the consumer changed emphatically as well. The California brewing industry supplied much of the beer west of the Rocky Mountains from 24 different facilities in 1919. By that year, the California beer industry employed over 4,000 individuals directly, and valued at over 50 million dollars. Hop production, then still a viable agricultural enterprise, was valued at over 7 million dollars. Cooperage, the production of barrels for the beer and wine industry, accounted for 5 million dollars alone.³⁶ As the state

reemerged from the thirteen-year dry out imposed by Prohibition, the brewing industry would follow a path shaped by the political sentiments and local laws of the era.

The biggest of buzz kills

Within the alcohol industry, it was the brewers that fought hardest against Prohibition. But given the suspicion of immigrants from enemy nations during the First World War, a German-American dominated industry could not have swayed the opinion of the masses. Prohibition was a highly regimented and disciplined political action movement, the spearhead of which was the Anti-Saloon League (ASL). The State and local governments in California considered temperance and prohibition laws as early as 1874. The state legislature first attempted to pass 'local option' laws, allowing individual counties and cities to decide if they would ban alcohol within defined local boundaries. The bill passed in the legislature, but was declared unconstitutional by the State Supreme Court.³⁷ Only after a protracted and focused campaign by the ASL and the Women's Christian Temperance Movement would Prohibition gain significant ground in California, and the rest of the nation.

Prohibitionists utilized religious campaigning and direct action through prayer at barrooms and appeals to Progressive and Republican politicians. Their most influential tactic was the forced adoption of Prohibition textbooks in schools nationwide. By 1886, seven-eighths of California schoolchildren passed through classrooms that taught blatant propaganda that equated the consumption of any alcohol to grievous bodily harm and death. The 'Department of Scientific Temperance Instruction' of the Women's Christian Temperance Movement took no issue with the information in schoolbooks being a complete lie, for the end of alcohol justified the means of deceit.³⁸ During the January 1911 ballot initiative elections, the law for local option passed; by the end of the year over 42% of California counties had already voted themselves dry. By 1917, Los Angeles, San Jose, and Santa Clara abolished saloons and distilled beverages. In order to purchase a beer a customer had to do so at a restaurant or hotel, and only in packaged form, not draft. Furthermore, customers had to purchase a meal before having a beer or glass of wine.³⁹

Other efforts to restrict the sale and consumption of alcohol continued throughout the state. In Sacramento, the City Commission on Public Health forced the shuttering of saloons and purchased the property of thirteen such establishments. Plans for expanding the program were discontinued when nearby businesses protested the closures. Also the main targets of the program were built on property too valuable for the City Commission to purchase.⁴⁰ The Los Angeles City Council, under the guise of building code updates, criminalized brewing companies and bottling warehouses throughout the city by changing the permitted license for a business on a piece of property. As early as April of 1916, the Register of Licenses for Los Angeles shows those breweries listed 'OUT' from their licensing payments, signifying that their operations must be shut down. By the end of the year the only three breweries were left in operation. In 1917, these three breweries were still in operation, but the following year has no records of the city collecting payments for brewing licenses or any type of liquor warehouse.⁴¹ By the time of 17 January 1920, when Prohibition became national law, cities had already attempted to run alcohol out of its borders. Curiously though, for two years California did not have a state wide law establishing Prohibition. The Harris Amendment for statewide prohibition to the California State Constitution was defeated in the referendum elections of 1920, but passed the following year after a hurried attempt by prohibition supporting lawmakers.⁴²

Prohibition succeeded in California because it followed upon the heels of California Populist sentiment. Not only could the Prohibitionist movement point to the social flaws that alcohol had wrought American families, they would also be taking on big business and an entrenched alcohol industry that held the State and Federal governments hostage through liquor tax revenue. Directing the populist crosshairs on breweries like Anheuser Busch or Pabst was easy enough for the Anti-Saloon League in California, and the Women's Christian Temperance Movement needed only to point at the anti-suffrage campaigns of the United States Brewers Association to bring women voters to their cause.⁴³ The largest brewery owners were no less capitalist robber-baron than Leland Stanford, Andrew Carnegie or John D. Rockefeller. Adolphus Busch built an extravagant Bavarian castle in Pasadena on Orange Grove Boulevard; so impressive was his creation that Andrew Carnegie and J.P Morgan built their own estates in his

wake, giving the moniker ‘millionaire’s row’ to the boulevard.⁴⁴ Hiram Johnson, on deciding California’s fate in the liquor debate, erred on the side of the Prohibitionists because of the leadership and corruption of the liquor industry, and the captains of industry who had turned their breweries into national business giants. Personally, on the issue, he took no umbrage with alcohol itself, refusing to support bone-dry Prohibition initiatives that failed to pass in California in 1914 and 1916.⁴⁵ However, his passions against the ‘liquor trust’ led to his approval of the 18th Amendment to the United States Constitution. In a letter debating on whether to approve the Sheppard Amendment, the precursor to the Volstead Act, Johnson states,

I am not at all certain but what, logically, I should have voted for against the [Sheppard] amendment, but yesterday morning, when I tried to piece together every consideration which might suggest voting by me against the amendment, I simply could not convince myself that I should thus proceed.⁴⁶

California would be the 22nd, 23rd, or 24th state to ratify the 18th Amendment, as Tennessee and Washington also ratified the 18th Amendment on 19 January 1919.⁴⁷

Where there is malt extract, there is a way

In the 13 years that Prohibition was in effect, a well-known but rarely talked about movement within beer culture took place. Home brewing was the open secret in the midst of the ban on all alcohol. As the first years of Prohibition enforcement took place there was an attempt across the nation, and in California, to stop the sales of malt extract, hop syrup, and isinglass gelatin.⁴⁸ With a stove top, water, and readily available baker’s yeast, any simple home kitchen could produce home brewed beer. Prohibition Commissioner John F. Kramer attempt to restrict the sales of the basic ingredients in brewing in November of 1920, but this attempt was defeated when the Internal Revenue Service refused to issue orders to branch offices across the nation to enforce a ban on malt extract.⁴⁹ By the following year, companies were so bold as to print advertisements for malt extracts and copper boilers, specifically stating that their product is to be used for homebrewing; their warehouses were fully stocked with ingredients, as well as cooking and bottling equipment.

The pace with which Californians took to homebrewing during Prohibition outpaced, and eventually exhausted attempts at enforcement of the Volstead Act. Arrests of homebrewers were few and ineffectual. Federal courts routinely dismissed cases on grounds that no sales of home brewed beer took place; the 4th Amendment also protected homebrewers who were arrested without a proper warrant.⁵⁰ In one case, an overzealous police chief from Stanislaus County attempted to arrest the proprietors of a card room in Modesto for selling home brewed beer and wine. The chief was greeted by gunfire but escaped uninjured. After a complaint to the sheriff of Modesto, the chief was told to apologize to those who owned the card room and then asked to stay within his own jurisdiction.⁵¹ The greatest threat to those who took to brewing on their stove top or crock pots was the infamous bottle bomb. Should a freshly bottled home brew begin secondary fermentation in the bottle, the resulting carbon dioxide generated in a tightly sealed bottle will explode with enough force to injure anyone nearby, leading to a common phrase amongst home brewers, ‘don’t put green beer in ketchup bottles’.⁵²

Arrests and prosecutions of black market brewers increased markedly from 1924 to 1925, but these arrests were of those attempting to profit off of brewing. Entire bootleg brewing facilities popped up in San Francisco, Stockton, Sacramento, San Jose, and other cities. State and local law enforcement could not ignore entire warehouses stocked with full strength (some up to 8%) illicit beer; their raids were occasionally backed by federal officials. But those who were cautious enough, and without the ambitions for illicit business, were freely able to brew their own beer at home. The advertisements of malt extract and the token arrests of bootleggers, along with the seizing of thousands of barrels of beer for sale from black market warehouses are the only indicators of the prevalence of home brewing, the scale of which cannot be accurately determined.⁵³

The lengths that Californians took to receive their beer during Prohibition led to breakthroughs in civilian aviation as well. In 1926 the Los Angeles-San Diego based Ryan Airways Company flew nearly 1,000 barrels of beer between Mexicali brewing plants to Tijuana, where thirsty Southern Californians would routinely visit Main Street for an alcoholic sojourn. Within the space of 200 yards the bar district had over 75 liquor stores and barrooms. Ryan Airways supplied these

cantinas until 1926-27 when breweries were built within Tijuana and nearby Ensenada to meet demand.⁵⁴

Federal officials would eventually throw in the figurative towel on Prohibition. The National Law Enforcement Commission, formed in the late 1920s finally conceded by 1931 that the 18th Amendment was completely unenforceable.⁵⁵ California was the 14th state to ratify the 21st Amendment on 24 July 1933. Over one million voters approved the Repeal of Prohibition, whereas fewer than 320,000 voters attempted to uphold the now widely unpopular law. In the years following Repeal attempts to create 'local option' laws for city-wide liquor control failed in the State Legislature; in 1934, 1936, and 1948.⁵⁶ It appears as though once 'bone-dry' Prohibition was ripped from the penal code, there was no desire to bring it back, at any level of Government.

Bigger, blander, and nationwide

Contemporary problems of financing, public relations, and promotion, in addition to an increasing uniformity of taste ... which is brought about by better and closer communications, may be doing away with all that is local and independent. The sociologists will have to decide in the end whether this is a good or bad thing.⁵⁷

By the time of repeal in 1933, the American brewing industry was primed to supply suds across the nation. The largest brewing facilities needed only slight modifications to return to their pre-1920 production. In Los Angeles the L.A. Brewing Company celebrated the end of Prohibition by having actress Jean Harlow smash a bottle of Eastside Lager over a delivery truck one minute past midnight on 7 April 1933, to mark the legalization of 3.2% ABV⁵⁸ beer. Full strength beer would return eight months later on 5 December. L.A. Brew Co.'s main rival, the Maier Brewing Company, would face legal disputes resulting from 4.0% beer being brewed before repeal was enacted; they would not turn a profit until 1940.⁵⁹ In San Diego the brewing industry literally crossed the Mexican border back to California, where the Cerveceria de Azteca of Mexicali and the Wise Brewery of Nogales transferred all of their equipment to new facilities, establishing the Aztec Brewing Company and Balboa Brewing Company in 1933.⁶⁰

In San Francisco, the Anchor Brewing Company would be one of ten to open up in the city. The new proprietor, Joe Kraus, had to witness his newly opened brewery go up in flames the following February, later re-opening Anchor in an old brick building several blocks away.⁶¹ Anchor was among ten breweries in San Francisco that opened just after prohibition, but only two others would last more than five years before going out of business. The two that lasted into the following decades were the General Brewing Corporation and the Milwaukee Brewery, both of which would later integrate into the Falstaff Brewing Company of St. Louis.⁶² The process of market consolidation in the brewing industry not only continued with the end of Prohibition, it expanded immensely. With many local breweries who maintained their own individual identities going out of business or integrating into companies with inoffensive products and brand names like 'General' or 'Acme', once historic breweries were on their way to becoming part of multinational corporations. In the reported words of Gussie Busch, the grandson of Anheuser Busch founder Adolphus Busch and Chairman of the company from 1946 to 1975, 'being second isn't worth shit'.⁶³ Being best, at any and all costs, was the business philosophy. But 'best' did not equate to quality products or responsible business practices; best equaled market share.

Canned beer crushes the bar

The pattern of improving packaging, refrigeration, and transportation of beer that begun before Prohibition accelerated to unseen heights as the nation emerged from the 1930s. The most important innovation was the simple metal beer can. Before Prohibition, a brew was most often a publicly consumed product; Americans pulled up a barstool to enjoy their suds amongst a community of fellow drinkers. Beer consumed in home was often inconvenient due to paying a charge for individual bottles or returning them to where they were purchased, and with no means of keeping the beer chilled, it would spoil in all but the coldest climates in America. Growlers, large containers usually in the form of lined metallic buckets, could be purchased for home consumption, but it had to be filled at a barroom with a tap handle, not from a grocer or dedicated liquor store.⁶⁴

Restricted consumption patterns necessitated and popularized on-site beer consumption in the nation, but by 1940

household consumption surpassed on-site consumption for the first time in America. Convenient in-home refrigeration was not common by the turn of the century, while large brewing facilities, like other fast moving consumer goods, had utilized artificial refrigeration as early as 1870; many Americans resorted to using an ice box, if attempting to refrigerate their foods at all. By the 1920s, the affordable in-home refrigerator was possible for all but the poorest American households. In 1920 a Frigidaire would cost a family \$1,000; by 1925 the price would be less than \$500. Continued competition between Frigidaire and GE would drive the cost of an in-home refrigerator to less than \$100 by 1933. The price of convenient in-home refrigeration continued to decrease and improve in reliability, this spurred the development of frozen food departments in increasingly popular grocery stores; and it conveniently occurred when beer was again legal.⁶⁵ By 1936 there would be over one million refrigerators manufactured in the United States, by 1942 that number would be over six million. By 1950, over 90% of all urban homes, and 80% of American farms had a household refrigerator.⁶⁶

The beverage can was perfected in 1935 after extensive market testing in Richmond, Virginia followed by a basic questionnaire by the Kruger Brewing Company of New Jersey. Its light blocking properties, faster cooling, and no-return package proved far more convenient than the brittle glass bottles that were prone to light skunking and oxidation. Canned beer carried a slightly higher price point on average to bottled beer, but the price difference would level off and eventually reverse by the 1950s.⁶⁷ With a place to store their beer, a convenient and easily disposable package, and a lingering public suspicion of the barroom from the Prohibition years, public consumption trends completely reversed; beer drinking increasingly took place in the home. By 1940, over half of all beer sold was 'packaged' for home consumption; by 1950, over 70% was packaged. By 1960 four out of every five beers in America was consumed from the bottle or can.⁶⁸ In the post-War era beer conformed to an industry standard through packaging, storage, and consumption patterns. It follows that the contents within the bottles and cans would conform as well.

The American adjunct lager

Much like the developments in technology for storage and transportation, the development of beer styles in

America came to a uniform apex in the decades following Prohibition's repeal. American beer was in all practical senses, lager styled. The trend that begun in the mid-19th century was omnipresent by the end of the Second World War. One would be hard pressed to find a pale ale, stout, or porter on market shelves. Beer in America had become the American Adjunct Lager, a derivative of the beers popularized by German brewers in America. The most ubiquitous incarnation of lagers in the mid-20th century were pale yellow in color, effervescent, low in bitterness, and between three to 6% ABV. The term 'adjunct' comes from the grains utilized in the brewing process. Traditionally, modern beer is brewed with either all malted barley or wheat⁶⁹ in the initial stages of preparation. The American Adjunct Lager, according to industry standards, utilizes rice, corn, or other sources of cereal grains to supplement the traditional use of barley.⁷⁰ In the 1870s, these lagers stood as the pinnacle of American brewing, a triumph of industrialization over inconsistent, small batch ales. In 1878 Anheuser Busch won the Grand Prize of the Paris World Beer Exhibition for Budweiser, a brew that to this day proudly proclaims the rice used in the recipe on the front label of the bottle. Indeed, German brewers claimed that the American version of their nation's beverage was sweeter and lighter bodied than their hearty homeland versions had been.⁷¹ But in the post-Second World War era, the once finest lager in the world was a commercialized, mass produced product that bore no distinctive characteristics from any of its market competitors. By the 1950s the largest breweries in the nation saw California as the fertile soil beckoning for the seed of brewing. By the end of the war period there were only nineteen breweries active in the entire state, by 1954, there only existed thirteen; including Anchor Brewing in San Francisco, Aztec in San Diego, and the Maier and Los Angeles Brew Co. plants in the city of angels.⁷² Of these breweries only Anchor would remain in business after the takeover of the California brewing market by Anheuser Busch, Pabst, Schlitz, Miller, Falstaff, and other Eastern brewing powers.⁷³ By the end of the 1950s the largest breweries in California were no longer native to the state, and their primary product was the American Adjunct Lager.

With descriptors such as *dry*, *mild*, or *less filling*, American beer was indistinct; a victim to trends that befell all of American food and drink.⁷⁴ What happened with beer also happened with spirits. Vodka, a clean

and neutral flavored beverage that blended easily with juices, became the top selling liquor in America; overcoming early allegations that it was the beverage of Communist Russia by associating the product as the drink of the Czars. Rum became lighter as well, as spiced and dark varieties fell out of favor for the unaged and colorless version.⁷⁵ Light cigarettes, white breads, highly sugared sodas, drive-through fast food, and Salisbury steak TV dinners were all results of the 'watering down' of the American palate. For better or worse, the trends of speed, convenience, and inoffensive flavors became synonymous with American culinary culture. Ray Kroc purchased McDonald's in 1955, thereby setting it on the path to becoming the franchise corporation that now dominates fast food around the globe.⁷⁶ In 1959, Coca Cola was being bottled in over 1,700 facilities, based in over 100 countries.⁷⁷ Wonderbread and other industrially produced white breads accounted for 25 to 30% of American's daily caloric intake, with consumption averaging a pound and a half per week from the late 1950s to the 1960s.⁷⁸ It is undeniable that the American people gained from the developments of these now universal companies; but gains were chiefly restricted to convenience and affordability. The employment, capital, and revenue generated by these mass conglomerates no doubt contributed to the success of the national economy. The cultural costs of these developments, though, must also be acknowledged; for growth, profit, and standardization increasingly took precedence over community, individuality, and cooperation.

American beer followed this course with the largest companies defining the category of product, differentiating themselves only in their advertisements.⁷⁹ California, with an expanding population and increasing suburbanization, took readily to these trends, playing host to the largest brewing facilities west of the Rocky Mountains. Beginning in 1948 with the Pabst Brewery in Los Angeles and Lucky Lager in San Francisco; in 1954 the Schlitz and Anheuser Busch facilities opened in Van Nuys; in 1961 a Schlitz facility was constructed in San Francisco. The national market share of each individual brewing company went up by at least one percentage point after the opening of a California based brewery.⁸⁰ After 1954 the Pacific states produced 10% of the nation's beer, from less than twenty individual brewing facilities, whereas the rest of the nation had over 270 breweries.⁸¹

Although the trends of bigger, blander, and nationwide continued, they would bifurcate in extreme ways in California. The biggest companies would continue to grow and saturate the market with homogenized products, leading industry analysts to conclude that there would be only two brewing firms in existence in the coming decades, much like PepsiCo and Coca Cola.⁸² No one could have reasonably predicted that a second massive change beer consumer preferences and brewing business models would take place within California. The battle cry of this movement would instead be smaller, bolder, and local. The story of how the counter-cultural movement against homogenized corporate beer begins, appropriately enough, in San Francisco.

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8. Baron, W.S. (1962) *Brewed in America: A History of Beer and Ale in the United States*. Boston, MA: Little, Brown and Co, pp.201-206.

9. It is important to note that as early as 1771, California was producing the ingredients for brewing, utilizing barley varieties that had been planted by Spanish settlers by 1701 in South Arizona. The Coastal and Atlas barleys were grown in late 18th c. California for use in breweries throughout Europe. While actual production would come much later, the state had within it the ingredients necessary for an indigenous

brewing industry, for more information see Cumo, C.M. (ed.) (2013) *Encyclopedia of Cultivated Plants: From Acacia to Zinnia*, Vol.1. Santa Barbara, CA: ABC-CLIO, pp.84-85; Briggs, F.N. (1940) 'The History and Improvement of Malting Barley in California', *Journal of the Institute of Brewing*. 46, No.1, February, p.31; Wiebe, G.A. (1933) 'Barley Varieties in California', *Journal of the Institute of Brewing*. 39, No.3, March, pp.242-243.

10. Van Wieren, D.P. (1995) *American Breweries II*. West Point, PA: Eastern Coast Brewiana Association, p.3; Baron, W.S. (1962) op. cit. p.203.

11. Bancroft, H.H. (1890) *Works, Vol.24, History of California Vol.7 1860-1890*. San Francisco, CA: The History Company, Publishers, p.85.

12. Baron, W.S. (1962) op. cit. p.207; Carroll, T. (2015) 'Los Angeles, BC: A Column Documenting the History of Beer in Los Angeles Before Craft', Part 13, *Beer Paper L.A.* 2, No.9, February, pp.12-13; Williams, D. (1984) *An Outline of Breweries in the San Diego Region*, Revised Edition. August, archival notes courtesy of the San Diego History Center.

13. Baron, W.S. (1962) op. cit. pp.202-203; Western Brewers Association (1901) *100 Years of Brewing: Supplement to the Western Brewer & Souvenir of the Twenty Fifth Anniversary of the Founding of the Western Brewer*. Vol.XXVI, No.8, August. Chicago, IL: H.S. Rich & Co., pp.74-75; Mechanics Institute of the City of San Francisco (1864) *Report of the Fourth Industrial Exhibition: Held at the Pavilion Institute*. San Francisco, CA: Office of the Mining and Scientific Press, pp.44-45.

14. Erickson, J. (1987) *Star Spangled Beer: A Guide to America's Microbreweries and Brewpubs*. Reston, VA: Red Brick Press, pp.47-48; Yenne, B. (2003) *The American Brewery: From Colonial Evolution to Microbrew Revolution*. St. Paul, MN: MBI Publishing Company, pp.42-43; Hall, J. (1996) 'The Lager Beer Industry in 19th Century America', *German Life*. 2, No.4, January, pp.46-51.

15. Thomas, D. (2013) *Of Mines and Beer: A History of Brewing in 19th Century Colorado and Beyond*. Gilpin, CO: Gilpin County Historical Society, pp.93-94; 'Ale Ale Ale!', *Daly Alta California*. 30 March 1850, 3 Ad Column.

16. Swinnen, J.F.M. (ed.) (2011) *The Economics of Beer*. New York, NY: Oxford University Press, pp.14-15; Carlsberg Breweries in Copenhagen isolated two distinct 'cultures' of yeast, a top fermenting ale strain, and a bottom fermenting lager strain, which were distinct from the untold numbers of 'wild' yeast strains. See Baron, W.S. (1962) op. cit. pp.238-240.

17. 'Boca Beer! The Most Delicious and Only Lager Beer

Brewed on the Pacific Coast!', *Los Angeles Herald*. 4 April 1882, p.4.

18. 'Boca Brewing Co. - 417 Sacramento Street', *Daily Alta California*. 14 August 1877, p.2 Ads.

19. *ibid*; 'Boca Beer! ...' *op. cit.*; 'Sierra Lager Beer! Our Latest and Finest Production. Boca Brewing Co.', *Sacramento Daily Union*. 5 August 1887, p.4, Ads.

20. Anchor Brewing Company (2013) 'Anchor California Lager®: California's First Genuine Lager Reborn', *Anchor Brewing Product Portfolio*, 7 February 2013, accessed via http://www.anchorbrewing.com/beer/california_lager; Anchor Brewing claims to have recreated the first Germanic styled lager brewed in California with the California Lager, utilizing barley and hops sourced from the state, the company states that the brew is a replica of the Boca Brewing lager, which successfully created lager beers due to the cold temperatures of the high Sierra Nevada Mountains, and a frozen lake bed nearby used to cool beer during fermentation. Company historian David Burkhart, as well as Anchor staff comment in an accompanying video about the creative process. While Anchor's online records are largely a source of company advertising, the company has shown a greater interest in the renewal of historic styles of California beers. Anchor's history will be covered further in Chapter 3.

21. Sipos, E. (2013) *Brewing Arizona: A Century of Beer in the Grand Canyon State*. Tucson; University of Arizona Press, pp.4-5; La Barre, W. (1938) 'Native American Beers', *American Anthropologist*. 40, No.2, pp.227, 233-234.

22. Litzinger, W. (1998) 'Native Brewing in America', in Papazian, C. (ed.) *Zymurgy: For the Homebrewer and Beer Lover*. New York, NY: Avon Books, pp.1-4.

23. *ibid*. pp.3-4; Sismondo, C. (2011) *America Walks Into a Bar: A Spirited History of Taverns and Saloons, Speakeasies and Grog Shops*. New York, NY: Oxford University Press, pp.7-10; For more information on the social importance of drinking in early America, see Rorabaugh, W.J. (1979) *The Alcoholic Republic: An American Tradition*. New York, NY: Oxford University Press; and Oldenburg, R. (1997) *The Great Good Place: Cafes, Coffee Shops, Bookstores, Bars, Hair Salons and other Hangouts at the Heart of a Community*. Cambridge, MA: Da Capo Press, specifically Chapter 9, 'The American Tavern'.

24. Western Brewers Association (1901) *op. cit.* p.194.

25. Simply put, lager yeast cells sink to the bottom of a fermentation vat, and optimally convert sugars into alcohol and carbon dioxide at lower temperatures [45 to 55 degrees typically]. Ale yeast cells rise to the top of the fermentation chamber, and optimally ferment at higher temperatures [68 to 72 degrees]. For a comprehensive work on the behavior of

yeast cells in beer brewing, see Papazian, C. (2003) *The Complete Joy of Homebrewing*. 3rd Edition. New York, NY: Harper Resource Books; White, C. with Zainasheff, J. (2010) *Yeast: The Practical Guide to Beer Fermentation*. Boulder, CO: Brewers Publications.

26. Western Brewers Association (1901) *op. cit.* pp.195-197, 223; Eckhardt, F. (2009) 'Steam Beer-America's Monumental Brew Still Going Strong', *All About Brewing Magazine*. 30, No.5, November, <http://allaboutbeer.com/article/steam-beer%E2%80%94america%E2%80%99s-monumental-brew-still-going-strong>

27. Defined as the specific flavors expressed in an agricultural product [i.e., grapes, hops, coffee beans, etc.] that are dependent on the climate and geography of a given production area.

28. Heron, H. (1922) 'Some Notes on the Deterioration of Hops during Storage', *Journal of the Institute of Brewing*. 28, No.2, February, pp.181-184.

29. Briggs, F.N. (1940) *op. cit.* pp.31-32.

30. Ogle, M. (2006) *Ambitious Brew*. Orlando, FL: Harcourt Press, pp.84-85; Jackson, M. (1977) *The World Guide to Beer*. Englewood Cliffs, NJ: Prentice Hall, pp.207-210; McGahan, A.M. (1991) 'The Emergence of the National Brewing Oligopoly: Competition in the American Market, 19330-1958', *The Business History Review*. 65, No.2, Summer, pp.239-241; Hall, J. (1996) *op. cit.* pp.46-51.

31. Mechanics Institute of the City of San Francisco (1857) *Report of the First Industrial Exhibition: Held at the Pavilion of the Institute*. San Francisco, CA: Frank Eastman Printers, pp.79-81; Mechanics Institute of the City of San Francisco (1886) *Report of the Twenty-First Industrial Exhibition: Held at the Mechanics Pavilion*. San Francisco, CA: P.J. Thomas Printers, p.107.

32. BBLs is a common designation within the brewing industry for 31 gallons. The kegs commonly seen behind bars or restaurants contain 15.5 gallons, and are referred to as half barrels.

33. Stack, M. (2000) 'Local and Regional Breweries in America's Brewing Industry, 1865 to 1920', *The Business History Review*. 74, No.3, Autumn, pp.437-439, 448-449.

34. *ibid*. pp.461-462.

35. Cherrington, E. (1920) *The Evolution of Prohibition in the United States of America: A Chronological History of the Liquor Problem in the United States from the Earliest Settlements to the Consummation of National Prohibition*. Westerville, OH: American Issue Press, p.384; Cherrington's book, to note, is unabashedly a call to praise the efforts of absolute Prohibition. However it is a worthwhile source to track to overall developments on a state by state basis. Also

of note are the mentions of minor laws in California, related to Prohibition [e.g. ordering food with beer / keeping bars closed between 2 a.m. and 6 a.m. / preventing the building of a liquor production facility/sales location near schools or places of worship] The laws passed before the Volstead Act would remain a part of the liquor control initiatives after Repeal in 1933.

36. Stammerjohan, G.R. (1972) 'The Age of Jackass Prohibition in Northern California, 1919 -1925', MA Thesis. Sacramento State College, pp.74-75.

37. Prohibition, Episode No.1: 'A Nation of Drunkards', first broadcast 2 October 2011 by Public Broadcasting Service (PBS) Arlington, VA. Directed by Ken Burns; Kassis, A. (2014) *Prohibition in Sacramento: Moralizers and Bootleggers in the Wettest City in the Nation*. Charleston, SC: American Palate, division of The History Press, p.21.

38. *ibid.* pp.21-23; Okrent, D. (2010) *Last Call: The Rise and Fall of Prohibition*. New York, NY: Scribner Publications, pp.20-23; Prohibition, Episode No.2: 'A Nation of Scofflaws', first broadcast 3 October 2011 by Public Broadcasting Service (PBS) Arlington, VA, Directed by Ken Burns.

39. Okrent, D. (2010) *op. cit.* pp.51-52, 86; Cherrington, E. (1920) *op. cit.* pp.192-204, 292-296, 304-307, 310-312;

40. Kassis, A. (2014) *op. cit.* pp.48-50

41. City of Los Angeles, *Register of Licenses* - 1916, provided by Los Angeles City Archives, pp.542-546; City of Los Angeles, *Register of Licenses* - 1917, provided by Los Angeles City Archives, pp.521-524

42. Kassis, A. (2014) *op. cit.* pp.48-49.

43. Okrent, D. (2010) *op. cit.* pp.42, 64-65; Kassis, A. (2014) *op. cit.* p.69; Gusfield, J.R. (1986) *Symbolic Crusade: Status Politics and the American Temperance Movement*. Chicago: University of Illinois Press, pp.104-105.

44. Knoedelseder, W. (2012) *Bitter Brew: The Rise and Fall of Anheuser-Busch and America's Kings of Beer*. New York, NY: Harper Collins, p.18; William-Ross, L. 'LAistory: Busch Gardens in Van Nuys', LAist, http://laist.com/2009/07/18/lai-story_busch_gardens_in_van_nuys.php

45. California Secretary of State, 'Initiatives by Title and Summary Year', History of California Initiatives, <http://www.sos.ca.gov/elections/ballot-measures/pdf/initiatives-by-title-and-summary-year.pdf>

46. Kassis, A. (2014) *op. cit.* pp.36-37.

47. *ibid.* p.43; 'Clean, Stainless Nation: Pulpiteers Say National Prohibition is World Achievement', *Los Angeles Times*. 20 January 1919, p.3; 'Action on Dry Law Certified: California Legislature Notifies Capital of Approval', *Los Angeles Times*. 25 January 1919, p.17.

48. The addition of isinglass in brewing is for the purposes of clarification. Isinglass is produced from fish bladders, and acts as a natural filter to remove organic materials that would normally leave beers opaque and filled with sediment. It is a naturally produced product, and bears no effect on taste or health of the consumer. For more information see Papazian, C. (2003) *op. cit.*

49. 'Stumps Dry Dictator: Cataract of Home Brew Limitless - Thousands of Kitchen Vats Singing Merrily, Exuding the Odor of Hops - Another Army of Officials Need to Stop Sale of Ingredients', *Los Angeles Times*. 13 November 1920.

50. Stammerjohan, G.R. (1972) *op. cit.* pp.86-87.

51. *ibid.* pp.88-89.

52. *ibid.* p.87; For a technical analysis of why beer bottles can explode if improperly prepared, see Smith, B. (2009) '5 Home Brewing Tips to Avoid the Dreaded Bottle Bomb', on *BeerSmith Home Brewing Blog*, posted 27 August, <http://beersmith.com/blog/2009/08/27/5-home-brewing-tips-to-avoid-the-bottle-bomb>

53. Knoedelseder, W. (2012) *op. cit.* pp.28-29; Cochran, T.C. (1948) *The Pabst Brewing Company: The History of an American Business*. New York, NY: Oxford University Press, pp.332-334; Cook, P.J. *Paying the Tab: The Economics of Alcohol Policy*. New Jersey: Princeton University Press, pp.21-26; Asbury, H. (1950) *The Great Illusion: An Informal History of Prohibition*. Garden City, NY: Double Day and Co., pp.232-237; Ashbury's work covers homebrewing in Eastern U.S. Metropolises like New York and Chicago, but it accurately illustrates the frustration Federal officials had in attempting to regulate a an industry that largely ignored the law, homebrewing and crooked near-beer manufacturers could easily skirt a law that no agency had the manpower to enforce.

54. Williams, D. (1988) 'Air Mail Beer', *All About Beer*. December, pp.26-29; Alcohol tourism to Mexico was a common escape for residents of Southwestern United States, where beer and tequila flowed a plenty in border towns along the Mexican border. A similar phenomena took place with Cuba during the Prohibition years. Curtis, W. (2006) *And a Bottle of Rum*. New York, NY: Three Rivers Press, details border crossings in Mexico and Cuba for spirits consumption, see pp.151-158, 176-181.

55. Asbury, H. (1950) *op. cit.* pp.326-327.

56. United States Brewers Association (1978) *Brewers Almanac: 1978*. Washington D.C.: United States Brewers Association, pp.110-112.

57. Baron, W.S. (1962) *op. cit.* pp.343-344.

58. Alcohol By Volume, the percentage of which any beverage is pure alcohol. Subsequent measurements of alcohol

strength by percentage will indicate the ABV scale.

59. Okrent, D. (2010) op. cit. pp.351-354; Masters, N. (2011) 'From Eastside Lager to Maier's Select Malt Tonic: A Brief History of L.A. Beer', *KCET - SoCal Focus*. 28 July, http://www.kcet.org/updaily/socal_focus/history/la-as-subject/from-eastside-lager-to-maiers-select-malt-tonic-a-short-history-of-la-beer-35419.html

60. Williams, D. (1984) op. cit.

61. Anchor Brewing Company, Our History: Timeline, http://www.anchorbrewing.com/brewery/our_history; The Anchor Brewing Company frequently posts historic articles on their products and brewing history in San Francisco, as well as providing a digital venue for beer historians to debate the origin stories of different styles of beer. Their company historian, Dave Burkhart, is a frequent contributor, his posts can be found at <http://www.anchorbrewing.com/blog/category/from-the-archives>

62. Van Wieren, D.P. (1995) op. cit. pp.35-39.

63. Knoedelseder, W. (2012) op. cit. pp.48-49; spoken in August of 1946 when Schlitz was reported to have outsold Budweiser for the first time.

64. Powers, M. (1998) *Faces Along The Bar: Lore and Order in the Workingman's Saloon, 1870-1920*. Illinois: University of Chicago Press, pp.33-37, 53-55; Kassis, A. (2014) op. cit. pp.35-38; Growlers have seen a re-popularization as an efficient means of transporting fresh beer from brewery to home. Logo emblazoned glass containers are now sold at brewery taprooms, allowing a further level of connection between the consumer and producer.

65. Nagengast, B. (2000) 'It's a Cool Story!', *Mechanical Engineering*. May, pp.59-60, <http://www.seedengr.com/Refrigeration%20and%20air%20conditioning%20in%20the%2020th%20century.pdf>; Kamp, D. (2006) *The United States of Arugula: How We Became a Gourmet Nation*. New York, NY: Broadway Books, pp.116-117; Levenstein, H. (2003) *Paradox of Plenty: A Social History of Eating in Modern America*. Berkeley, University of California Press, pp.106-108.

66. Krasner-Khait, B. (2002) 'The Impact of Refrigeration', History Magazine Online, <http://www.history-magazine.com/refrig.html>; For a detailed analysis of home refrigeration unit design and their connection to American consumer values, and appeals to domesticity norms, see Nickles, S. (2002) 'Preserving Women: Refrigerator Design as Social Process in the 1930s', *Technology and Culture*. October, pp.693-727.

67. Ogle, M. (2006) op. cit. pp.214-218; Bernstein, J. (2011) *Brewed Awakening: Behind the Beers and Brewers Leading the World's Craft Revolution*. New York, NY: Sterling

Epicure, pp.219-222; Light oxidation is a process by which the flavors of hops, malt, and yeast are affected by ultraviolet light, there by leading to foul, 'skunked' flavor in a beer.

Oxidation occurs when oxygen enters a beer container and overtime neutralizes any natural or artificial carbonation, thereby making a beer flat. Bottle caps are not completely efficient in sealing a container from oxidation, but canned beer is completely oxygen resistant. For more information on light-oxidation and chemical reactions in beer, see Bamforth, C. (2005) *Food, Fermentation, and Microorganisms*. Davis, CA: Blackwell Science Ltd., Chapter 3, pp.62-63.

68. McGahan, A.M. (1991) op. cit. p.230; United States Brewers Association (1978) op. cit. pp.20-21.

69. According to another Germanic brewing tradition a Hefeweizen is brewed with brewed with all wheat or a combination of wheat and barley.

70. Beer Advocate, 'American Adjunct Lager - Style Profile', BeerAdvocate Online, <http://www.beeradvocate.com/beer/style/38>

71. Ogle, M. (2006) op. cit. pp.82-84; Knoedelseder, W. (2012) op. cit. pp.16-17.

72. 'Big Brewers Move West: Liebmann Follows Other Big Names into California', *Business Week*. 16 January 1954, p.128; Van Wieren, D.P. (1995) op. cit. pp.26-27, 35-42.

73. 'Big Brewers Move West ...' op. cit.

74. Allison, R.I. and Uhl, K.P. (1964) 'Influence of Beer Brand Identification on Taste Perception', *Journal of Marketing Research*. 1 No.3, August, pp.36-39; Nelson, J.P. (2005) 'Beer Advertising and Marketing Update: Structure, Conduct, and Social Costs', *Review of Industrial Organization*. No.26, pp.271, 273.

75. Curtis, W. (2006) op. cit. pp.208-211; 'U.S. Taste Buds Want it Bland', *Business Week*. 14 July 1951.

76. Schlosser, E. (2001) *Fast Food Nation: The Dark Side of the All American Meal*. New York, NY: Perennial, pp.34-36; Levenstein, H. (2003) op. cit. pp.228-229.

77. Bhasin, K. (2013) 'Coke vs. Pepsi: The Story Behind The Never-Ending Cola Wars', *Business Insider*. 4 January 2013, <http://www.businessinsider.com/coca-cola-vs-pepsi-timeline-2013-1?op=1>; for an in-depth examination of the cola industry, specifically the historic rivalry between PepsiCo and Coca Cola, see Louis, J.C. and Yazijian, H.Z. (1980) *The Cola Wars*. New York, NY: Evert House.

78. Schultz, C. (2012) 'The Life and Death of Wonderbread', *Smithsonian Magazine*. 16 November 2012 <http://www.smithsonianmag.com/smart-news/the-life-and-death-of-wonder-bread-129979401/?no-ist>

79. Allison, R.I. and Uhl, K.P. (1964) op. cit. pp.36-39.

80. McGahan, A.M. (1991) op. cit. p.265.

81. *ibid.* pp.235, 237; United States Brewers Association (1978) *op. cit.* p.26.

82. Reid, P.V.K. (1996) 'Fighting the Seventh Beer War: Analyst Bob Weinberg Projects the "Trifurcation" of the Beer Industry', *Modern Brewery Age*. 20 May 1996, accessed online via <http://www.thefreelibrary.com/Fighting+the+seventh+beer+war%3A+analyst+Bob+Weinberg+projects+the...-a018482257>