Craft Beer in the US: A Production of Culture Perspective

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Abstract

In this dissertation I use the production of culture perspective as a lens to analyze the emergence of craft beer in the US. In doing so, I examine how the six facets of the production of culture perspective have both constrained and stimulated the production of craft beer in the US. The six facets of the production of culture perspective are: law and regulation, industry structure, organizational structure, markets, technology, and occupational careers. These six facets, in concert, allowed the craft beer movement to emerge in the 1970s. In order to demonstrate the effects each facet has on the production of craft beer I employ a content analysis of All About Beer, an industry trade publication that reports on the craft beer culture. Additionally, I analyze the structure of the brewing industry through secondary data regarding technology, production, and industry concentration. In my analysis I demonstrate how the POC explains the production of cultural goods. I also highlight the limitations of the perspective and suggest future avenues of research.
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Chapter 1: Introduction

According to Peterson and Anand (2004) the Production of Culture (POC) perspective “focuses on how the symbolic elements of culture are shaped by the systems within which they are created, distributed, evaluated, taught, and preserved” (Peterson and Anand, 2004:311). The POC perspective can also be understood in terms of producing expressive symbols (Peterson, 1979). These beliefs, norms, and values then become manifested in expressive symbols which include art, music, science, technology, law, and a host of other symbols. Kaufman (2004) notes that, the POC evolved, “out of a need to account for supply-side dimensions of culture” (339). As Grindstaff points out, the POC provides a model for empirical study of culture-producing organizations within specific institutional contexts (2008). It examines how the elements of culture are shaped by the systems within which they are created and distributed (Grindstaff, 2008). Highlighting one of the major criticisms of the POC perspective Grindstaff (2008) also notes that the POC does not seek to interpret culture, but seeks to better understand the characteristics of the industries that produce culture (2008).

The POC perspective views culture and social structure “as existing in an ever-changing patchwork” (Peterson and Anand, 2004). In doing so, the perspective further challenges the view that culture mirrors society. It challenges the claims of the functionalist tradition that there exists an over-arching set of values that shape culture. Additionally, it challenges the conflict perspectives that suggest that the owners of the means and modes of production shape culture to fit class interests.

In a now classic piece, Peterson (1990) uses the emergence of rock and roll as an example of the production of culture. He points to six constraints that led to the advent of rock and roll in 1955, these are: law, technology, industrial structure, organizational structure, occupational careers, and markets. He argues that, rather than simply being explained by changes in audience taste or consumer demand,
changes within these six constraints allowed for rock and roll to emerge as a symbolic cultural product. Peterson (1979) claims that culture is produced by people trying to manufacture meaning through symbols and products. The six constraints of the POC shape the nature of the products produced. Peterson (1990) argues that in 1955 the American consumer’s cultural tastes were shaped by the constraints of the POC. Thus, new laws and regulations, the constraints of the industry structure, the structure of organizations, advances in technology, perceptions of markets, and the creation of new occupational careers, allowed a new musical genre to be created.

Studies using the POC have ranged from the study of the American novel (Griswold, 1981), the advent of rock and roll (Peterson, 1990), to the production of popular music (Ryan and Hughes, 2006). The purpose of this research is to use the POC to explain the craft beer movement in the US. Using the six constraints of the POC as a theoretical guide I will outline the history of the craft beer movement in the US over the last 150 years. Drawing on literature on the music industry I will also compare the craft beer industry to the recording industry and popular music. Along the way, I will consider that American taste for beer has followed a path similar to the way musical tastes are produced.

1.2: Statement of the Problem

Over the last 30 years the production and consumption of craft beer has been increasing. In 1966 there was only one craft brewery; today there are more than 2000 (Brewer’s Association, 2014). After 1978 craft breweries began to spring up all over the country. As more and more craft breweries opened up a craft beer culture began to emerge. The culture that started out in underground home-brew clubs, such as The Maltose Falcons, was now being manifested in the form of national home-brewer’s organizations, beer festivals, and international craft beer competitions (Ogle, 2006 and Acitelli, 2013). But why did craft beer emerge when it did? How can we explain this rise in craft beer?
Popular accounts of the rise of craft beer in the US focus on the pioneering success of pivotal brewers such as Jim Koch, Ken Grossman, Fritz Maytag, and Jack McAuliffe (Ogle, 2006; Acitelli, 2013; and Hindy, 2014). These accounts suggest that craft beer emerged as a response to the homogenized American adjunct lagers that dominated the brewing industry after the repeal of prohibition and the efforts of a few home-brewers turned entrepreneurs. Other accounts have focused on the structure of the brewing industry and how high concentration and the dominance of a few firms created an unmet need that craft beer was able to fulfill (Tremblay, 1987; Tremblay and Tremblay, 1988; Edgar, 1991; and Tremblay and Tremblay, 2009). Other explanations have focused on the structure of organizations within the brewing industry and have suggested that larger firms are less equipped than smaller micro-breweries to handle changes in consumer tastes (Crane, 1997; Greer, 1998; and Carroll and Swaminathan, 2000). These studies have not provided a sociological explanation of the emergence of craft beer in the US. They have only focused on one aspect of the production of craft beer in the US. A more holistic understanding is needed.

The POC (Peterson, 1979; Peterson, 1990; and Peterson and Anand, 2004) provides an excellent sociological lens with which to examine the craft beer culture in the US. The POC provides a model to better understand the production of cultural goods by examining the effects of six elements: law and regulation, industry structure, organizational structure, markets, technology, and occupational careers; and how they work in concert to both constrain and stimulate the production of cultural goods. I conceptualize craft beer as a symbolic cultural product that has been shaped by these constraints and I will bring data to bear that demonstrates the impacts of these constraints on the production of craft beer. The purpose of this dissertation is to sociologically explain the emergence of the craft beer movement using the POC.
The POC has received some critiques. Kaufman (2004) suggests that cultural change can occur independently of social structural, technological, or material change. Hughes (2000) notes the “production of culture approach becomes a more complete theory of culture when it shows the linkages between culture consumption (what has recently been termed the auto-production of culture) and self-conscious culture creation” (186). In response to these critiques, Peterson (2000) posits the notion of “auto-production” which highlights “the fact that mass production is not linked to mass consumption, but to a reception process in which people actively select and reinterpret symbols to produce culture for themselves” (230). I use the POC to sociologically explain the craft beer movement in the US.

In doing so I will focus on several key constraints and highlight the ways in which they have affected the emergence of craft beer. The six constraints of the POC may be able to shed theoretical light on craft beer by highlighting the macro-level forces that both kept craft beer underground and allowed for it to emerge as a unique cultural product. However, the POC cannot explain, and is not intended to explain, the reception of craft beer, nor can it explain the meanings attached to cultural products and how and why they are meaningful to certain groups of individuals. In the next section I will outline my theoretical framework, the POC. I will give an explanation of each constraint of the POC along with scholarly examples of their use in the sociology of culture.
Chapter 2: Theoretical Framework

2.1: Production of Culture Perspective

In the following paragraphs I outline each constraint of the POC. I begin each section with a brief theoretical definition of each constraint. I then review several relevant studies that have highlighted a constraint from the POC in some meaningful way. After reviewing the literature on the POC I briefly discuss several major critiques of the perspective. Finally, to conclude each section I propose how craft beer in the US provides an excellent case study to further test the POC.

Law and Regulation

Laws and regulations can greatly constrain the production of culture. One example of how law constrained the production of culture can be seen in the effects of copyright law on the production of rap music in the 1990s. During this time the popularity of rap was increasing and many rap artists used digital samples as rhythmic elements in their songs. Sampling involves taking a section, or “sample,” of previously recorded music or sounds and creating new music or sounds with it. Chuck D., front man for the rap group Public Enemy, notes, “we thought sampling was just another way of arranging sounds. Just like a musician would take the sounds off of an instrument and arrange them their own particular way” (McLeod, 2005). Sampling has a rich tradition in rap music. Chuck D. (2005) contends that, “sampling basically comes from the fact that rap music is not music. It’s rap over music” (McLeod, 2005). Prior to digital sampling artists recorded over live bands, or used expensive synthesizers to create sounds (McLeod, 2005).

As rap became more popular many artists were being sued for copyright infringement by big record companies over the use of samples from their artists. As Chuck D. (2005) contends, “corporations found that hip-hop music was viable. It sold albums, which was the bread and butter of corporations.
Since the corporations owned all the sounds, their lawyers began to search out people who illegally infringed upon their records” (McLeod, 2005). Hank Shocklee, producer for Public Enemy, also notes that, “once the little guys [original artists who were being sampled] started realizing you can get paid from rappers if they use your sample, it prompted the record companies to start investigating because now the people that they publish are getting paid” (McLeod, 2005).

Copyright laws directly constrained the production of rap music in the 1990s. The increase in copyright suits led many rappers, most notably Public Enemy, to abandon the use of samples. According to copyright law an artist would have to pay each artist that he/she sampled on a record. In the case of Public Enemy, that would mean paying hundreds of artists. It simply became too expensive to pay all the artists that were sampled on a record (McLeod, 2005). Some artists turned to organic instruments to create sounds rather than samples. Organic instruments lack the compression and equalization of sampled instruments and can affect the feel or mood of a song (McLeod, 2005). But as Shocklee (2005) notes, there was an alternative, “if I recorded my own version of someone else’s song I only have to pay the publishing copyright” (McLeod, 2005). This led artists, such as Dr. Dre, to begin sampling grooves or hooks and recreating them. Shocklee (2005) notes that, “it’s easier to sample a groove than it is to create a whole new collage. That entire collage element is out the window” (McLeod, 2005). Essentially, artists had to abandon the use of sampling due to the high costs of artist royalties. They then had to rely on recreating grooves to create new music. Copyright laws changed the nature of rap music by constraining its production.

Similar to the effects of copyright law on the production of rap music, over the course of America’s brewing history there have been numerous laws that have significantly affected the production and consumption of alcoholic beverages. In this dissertation I explore the effects these laws had on the beer industry. Much in the same way copyright laws affected the nature and production of
rap music, I expect laws and regulations to have constrained the production of craft beer both directly and indirectly.

**Industry Structure**

The second aspect of the POC perspective is industry structure. According to Peterson (1990), industry structure is the structural relationship between the degrees of oligopolistic control and the levels of vertical and horizontal integration. This aspect can be clearly seen in the work of David Hesmondalgh and his examination of Indie rock (1999). Hesmondalgh points out how Indie music emerged from a network of “post-punk” companies which challenged the commercial organization of cultural production (1999). Indie music is called such because as a genre it originally started out as several bands on independent record labels. Some of these record labels were part of small-town record stores that promoted local acts and eventually signed them to small record contracts. The music from this scene began to gain popularity and the small independent labels could no longer support or promote the rising stars. This left small time labels with two options: sell out or go out of business. Hesmondalgh provides an example of two independent labels that tried to integrate into the mainstream (1999). In the case of Creation, a major record company (Sony) saw the success of its artists and bought the company and its artists to market them to bigger audiences. One Little Indian, another independent label, sought similar success for its artists, but was conflicted by the ideals of independent labels and selling out (Hesmondalgh, 1999). What the author has done is demonstrated that the structure of the music industry is such that to gain popularity one must “sell out.” The industry does not allow for independent success and as was the case with Creation, if the record industry executives believe they can profit from you they will buy you out.
According to Peterson (1990) industry structure can vary in degree of oligopoly, as well as vertical, and horizontal integration. An industry structure is oligopolistic when there are only a few firms that effectively control the price, quantity, quality, and style of the goods produced in a given market (Peterson, 1990). Peterson (1990) also contends that another industry structure can emerge. This is a structure in which a few firms operate as an oligopoly and control much of the market, but there are also several smaller firms that serve a portion of the market not reached by the larger firms. Peterson (1990) points to the music industry as an example of this type of structure. Vertical integration refers to the degree which a firm controls the all the production processes from securing raw materials to selling the final product (Peterson, 1990). Finally, horizontal integration refers to the degree to which firms produce products solely for the industry they are involved, and to what degree are conglomerates linked to other industries (Peterson, 1990).

If the structure of the brewing industry were constraining the production of craft beer it could be evidenced by firm size, product diversity measures, and acquisition of smaller firms (Tremblay and Tremblay, 2009). The constraining effects of industry structure can be seen as limiting and shaping the tastes of consumers through promotion of homogenous products. It can also be seen through the major acquisitions and mergers conducted by large firms and each firm’s control of the market share. Evidence of the effects of industry structure on craft beer can be measured by looking at the number of acquisitions of major firms by year and the production of firms after acquisition. Additionally, the homogeneity of domestic products could be measured by looking at the decrease in diversity of style of beer produced over time.
Organizational Structure

Similar to industry structure, but more micro in focus is the aspect of organizational structure. DiMaggio and Hirsch (1976) refer to organizational structure as the routine ways people coordinate their efforts in actualizing a symbolic product or service. Organizational structure has three dimensions: the number of decision levels in the organization; functional differentiation, or specialization of tasks; and the level of vertical integration (Peterson, 1990). A classic example of organizational structure is presented in “Breaking the Decision Chain” by Ryan and Hughes (2006). The decision chain refers to the process by which a song, or other cultural product, is selected for mass consumption. Ryan and Hughes (2006) contend that in this new age of digital technologies, technologies such as the internet that the organizational structure of the recording industry is in turmoil. Ryan and Hughes (2006) point to the increase in availability of affordable home recording technology as one of the causes or “breaks” in the decision chain. The organizational structure of the recording industry is such that a decision making process that involves many people decide what will be made available to the consumer and what will not. Some of the individuals in the chain are record producers and sound engineers whose jobs have been jeopardized by home recording. These individuals are responsible for making sure that a recording is of the highest quality. Home recording eliminates the need for these positions, but as the authors argue may have latent consequences in the form of a lesser product (Ryan and Hughes, 2006). Here we see the production of culture is directly affected by the changing organizational structure of the recording industry.

Organizational structure can constrain the production of craft beer in ways similar to the production of popular music. Home-brewing craft beer may be viewed as taking links out of the decision chain. The DiY nature of home-brewing is similar to the production of digital music in the home. In both of these settings the individual is both producer and creator and in both situations the individual is
breaking the decision chain by limiting bureaucracy within the process of production. Additional
evidence of the effects of organizational structure could be analyzed by looking at the degree of
specialization between large domestic firms and smaller craft firms. The level of bureaucratic control
could also be measured by examining the number of positions within the structure of both large and
small firms. Finally, horizontal integration could be measured by looking at how much of the total
process is done in house by firm size. Smaller firms should show higher levels of horizontal integration
than larger firms.

Markets

Peterson (1982) contends that, the “market denotes the audience as it is identified and
conceptualized by financial decision-makers within a popular culture industry” (146). One example of
how markets constrain the production of culture is evidenced by Peterson (1990). Upon sitting in a diner
and watching a waitress play the same song over and over a radio station owner reasoned that this
waitress was spending money to hear exactly what she wanted. What she wanted to listen to were the
most popular songs of the day. After leaving the diner the radio station owner decided to experiment
and began playing only what the trade magazines showed to be hit records (Peterson, 1990). This
format would come to be known as “Top 40” format because the radio station only played the best-
selling records at the time (Peterson, 1990:113). After implementing the new airplay strategy the radio
station became the most listened to station in the area and rival stations began to copy the format. Prior
to the “Top 40” format radio stations played what they felt fit with the popular aesthetic of the time.
Now radio stations played other genres of music that were appearing on the record charts and the
market was conceived of as “a mosaic of distinct segments” (Peterson, 1990:113). This also had a major
effect on the record industry. They were now forced to release an increasing variety of music to meet
the needs of their consumer. The shift from homogenous to heterogenous airplay constrained the
industry in such a way that rock and roll was able to emerge in the late 1950s. Markets are perceived by the producers of culture by looking at demographics, old tastes, and instincts as to what the next big thing will be.

If markets are the producer’s perception of an audience’s taste then we should see the production of goods constrained in ways that reflect the popular. Large macro-breweries helped to shape the tastes of Americans by predicting that we all wanted to drink beer and be healthy. Light beer is a perfect example of how markets have constrained the production of beer and American taste for beer. Other effects on the market include the imported beer craze; the emergence of craft beer and a new market; and attempts by macro-brewers to produce micro- and craft-like beers. These factors have all contributed to the production of craft beer in several ways. I will argue that American tastes for beer have been directly constrained by markets and that the craft beer culture exists as a culturally-produced alternative that strives for diversity in products. Additionally, I will argue that craft producers are much better equipped to handle changes in the market and consumer tastes. They are able to produce products more easily than larger firms with much more bureaucratic structures.

Technology

Volti (2006) defined technology as “a system that uses knowledge and organization to produce objects and techniques for the attainment of specific goals” (p.6). In more sociological terms we can think of technology as the total knowledge and skills available to any human society for industry, art, science, etc. Technology can also include “machines, equipment, and possibly the productive technique associated with them; or a type of social relationship dictated by the technical organization and mechanization of work” (Scott and Marshall, 665). Peterson demonstrates the role of technology in
constraining the production of culture. Technological advances and innovation have shaped the cultural products we consume in many ways.

One example of the role of technology in producing culture can be seen in Harrison’s (2006) work on underground hip-hop tapes. Harrison (2006) notes that technological advances in the modes of playback of recorded music allowed hip-hop to disseminate itself and become a musical genre. The advent of the cassette tape allowed music to become more portable. Devices like the Walkman and the boom box allowed music to be heard in new places and in new ways. Another latent function of the cassette tapes was the ease of recording and re-recording. Cassettes were very inexpensive and provided a much easier way of distributing new music (Harrison, 2006). Radio and music television (MTV, VH1, etc.) rejected hip-hop early on, so cassette recordings became the only way to hear hip-hop outside of a live show (Harrison, 2006). Along with the versatility of the cassette a new sense of “do it yourself” was ushered into the music production process. Advances in technology are a crucial aspect of the POC perspective.

We can think of technology as the sum of knowledge and skills available to human society for the arts, science, and industry (Volti, 2006). To measure the effect of technology I will examine advancements in brewing technology historically to demonstrate how new technologies may have increased the production of beer and craft beer in the US. Technology constrains the production of culture in different ways. One way is that it impacts the cost and distribution of cultural products. It can also open up new markets of consumers to a product that was not accessible before. Similar to the technologies of recording and the portability of recorded music, the brewing industry has experienced many advances that sought to achieve the same goals: increase audience, increase marketability, and increase profitability. I will analyze these similarities in greater detail in later chapters on technology and markets. Another function to consider is how the rejection of technology and the emergence of
craftsmanship affected craft beer. If technology has constrained craft beer in some way we should see a change in the production of craft beer as a result of a major shift in brewing or industry related technologies.

Technology has played a role in the production of craft beer. Technologies such as pasteurization, the glass bottle, the aluminum can, television, and digital technologies such as apps and social media have greatly impacted the production of beer in the US. Additionally, technological advances have allowed macro-producing firms to dominate the brewing industry by increasing the minimum efficiency scales of production (MES). During a time of high concentration a few large firms were able to raise the level of production so high that smaller firms could no longer compete. Advances in canning and other production technologies allowed these firms to produce such large amounts of beer that it was virtually impossible to compete. These changes helped increase industry concentration and therefore helped to create an unmet need that craft beer would fulfill.

**Occupational Careers**

Peterson (1982) suggests, that the “ways that creative people define their occupations and organize their careers can influence the nature of the work they produce” (148). Peterson (1990) classifies occupational careers into four main groups: craftsman, showman, entrepreneur, and bureaucratic functionary. The craftsman takes pride in the knowledge he/she possesses to solve technical problems (Peterson, 1990). The showman is a “salesman of the self” who will go to any lengths to please a paying audience (Peterson, 1990:108). Entrepreneurs are individuals seeking to capitalize on an unmet need and bring together the necessary pieces for economic success (Peterson, 1990). Finally, the bureaucratic functionary is an individual who performs the necessary tasks in a system of production that shapes cultural products (Peterson, 1990).
In his work on self-taught artists Gary Fine provides evidence that folk artists are craftsmen of cultural products (2003). According to Peterson the craftsman is someone who is more concerned with building a reputation among his peers than achieving financial success for his or her work (Peterson, 1990). Fine notes that many of these self-taught artists lack social capital and are not considered as professionals (2003). They hold their work in high regards because it has true authenticity, which in this case refers to the recognition of differences between folk art and modern art styles (Fine, 2003). Many of these artists have no formal training and create art as they interpret it. The collective works of art represent the individual culture of the artist and his position in society. This article provides evidence that the four types of occupational careers, specifically that of the craftsman, aid in the production of culture. The craftsman’s career is the production of cultural artifacts.

The craftsman, according to Peterson (1990), is one who takes great pride in their work and in the knowledge that only they can produce a certain type of good or service. Peterson (1990) contrasts the craftsman with the showman, contending that the showman is a “salesman of the self” and will do anything to please a paying audience (108). Entrepreneurs sense an unmet audience demand and bring together the factors of production in unique ways (Peterson, 1990). Lastly, bureaucratic functionaries fill the ranks of bureaucratically organized structures (Peterson, 1990). Peterson (1990), drawing on the music industry as an example, notes that there can be some overlap between these occupations and that individuals may float between several occupations. This may be dependent on firm size which could translate to the craft beer industry.

The craft beer industry is constrained by the occupational careers that are central to its operation. Each type of occupation constrains the production of craft beer in different ways. The craft beer culture has been directly shaped by the actions of several individuals comprising the different types of occupational careers. In order to examine the effects of careers on craft beer we must first locate
each type of career in the craft beer culture. In order to demonstrate the constraint of occupational careers I will focus on Fritz Maytag, Jim Koch, Jack McAuliffe, and the macro-producing firms who exhibit a highly bureaucratic structure. These individuals, who represent the four occupational career patterns, have had a great impact on the landscape of craft beer. By conducting a case study of each brewe...
A key figure in the craft brewing industry, and an excellent example of a showman is Jim Koch, the founder of The Boston Beer Company. Using Peterson’s (1990) definition of going to any lengths to please a paying audience is sort of contradictory to what craft brewers stand for. The idea behind craft beer is to produce a product that is well made, using the best ingredients, and meeting high standards set by both style of beer and the audience. Jim Koch pioneered the marketing and selling of craft beer. He went to great lengths to ensure the quality of his product and to market it. Koch represents the showman because of his unwavering passion for his brand and craft beer.

The entrepreneur is a very prominent figure in the craft beer industry. However, the role of the occupation has changed slightly form Peterson’s (1990) definition. Within the craft brewing industry, entrepreneurs are not simply individuals who “put the pieces together.” More often than not, entrepreneurs begin as craftsmen, and in keeping with Peterson’s (1990) model, these individuals can float in and out of different occupations. Jack McAuliffe, the founder of New Albion Brewery, is widely recognized as being one of the pioneers of the micro- and craft beer revolution. When McAuliffe was stationed in Europe as a submariner he developed a taste for European brews. Upon his return to the US he was unable to find similar beers to those he enjoyed in Europe. His frustration led him back to Europe where he learned how to brew old-world styles of beer. With his new-found knowledge, McAuliffe began to brew beer on his own, and opened the New Albion Brewery in 1977.

Finally, the bureaucratic functionary fulfills the tasks required to produce goods. As Peterson (1990) notes, the functionary is the most stable career in the production of cultural goods. They are the ones who shape the nature of cultural products. They lack the innovative vision of the entrepreneur, but
they are a necessary cog in the wheel of production. Larger macro-producing firms employ functionaries to complete tasks. The use of functionaries by macro-producing firms during a time of high industry concentration aided in the homogenization of American beer, and in doing so created an unmet need for more flavor beer.

2.2: Critiques of the Production of Culture: Reception Studies

Kaufman (2004) notes the POC perspective evolved out of a need to account for the supply-side dimensions of culture. When the perspective first emerged it challenged the dominant idea that culture mirrored social structure (Peterson and Anand, 2004). As noted earlier, the POC views culture and social structure as elements in “an ever-changing patchwork” (Peterson and Anand, 2004:312). Some of the main differences between the POC and other culture reception/consumption perspectives are: the POC’s focus on the “expressive aspects of culture rather than values; explore the processes of symbol production; use the tools of analysis developed in the study of organizations, occupations, networks, and communities; and make possible comparisons across the diverse sites of culture creation” (Peterson and Anand, 2004:312). The POC is primarily concerned with the analysis of structural factors that come together in certain times in history to produce cultural products.

Although the production system influences culture other conditions are at work as well such as: individual creativity (DiNora, 1995); social conditions (Liebes and Katz, 1990); and Kaufman (2004) suggests that culture changes and reproduces itself independent of the production system or society (Peterson and Anand, 2004). Peterson (2000) posits the notion of “auto-production” which highlights “the fact that mass production is not linked to mass consumption, but to a reception process in which people actively select and reinterpret symbols to produce culture for themselves” (230). In response to critics of the POC Hughes (2000) suggests, “adding symbolic interactionist ideas to the production of
culture approach provides a theoretical basis for understanding the emergence and change of meanings in the interactions between culture producers and culture consumers” (204). Goffman’s theory adds an emphasis on how meanings emerge and change in symbolic interactions.

Drawing further on Goffman, Hughes (2000) notes the “production of culture approach becomes a more complete theory of culture when it shows the linkages between culture consumption (what has recently been termed the auto-production of culture) and self-conscious culture creation” (186). Peterson (2000) showed how meanings embodied in country music have emerged from the interactions of consumers and producers and the specific settings of those interactions. The main critique of culture reception/consumption studies from the POC perspective is that reception studies focus primarily on meaning creation rather than the actual production of cultural products. The POC was not designed to analyze meaning of cultural symbols, only the production of symbols. The strengths of the POC lie in its ability to identify structural and social factors, within the six facets of the perspective that have aided in the production of cultural products.

Chaney (1994) asserts that “a key problem with structurally informed approaches to contemporary culture...is that they try to close off the processes of production of meaning” (48-49). This is addressed earlier by Mukerji and Schudson (1986) who note “the focus of the production of culture is on the set of constraints that limit the originality of and determine the form of the produced work” rather “than focusing on the unique meaning of art or the unique genius of art” (58). Some of the main critiques of the POC are rooted in endogenous explanations of culture.

According to Kaufman (2004) endogenous explanations focus on causal processes that occur within the cultural system. Some of these processes include: iteration, modulation, differentiation, and meaning making and semiotic manipulation (Kaufman, 2004). Griswold (1987) suggests that a “cultural
methodology concerned with meaning begins by focusing cultural analysis on the point at which individuals interact with a cultural object” (4). This analysis should be centered around the actions of: intention and reception (in terms of the social agent); and comprehension and explanation (in terms of the analysts) (Griswold, 1987). One of the biggest differences in the POC and endogenous approaches is the focus on reception. Griswold (1987) defines reception as how a cultural object is perceived or, an “object’s differential impact among different social categories or groups, its influence, its popularity, it’s meaning for those who appropriate it” (10). In other words, reception is what meanings are attached to a cultural object and how are those meaning established. In this sense cultural objects are viewed as dynamic and not fixed. Griswold (1987) notes “the dynamic nature of a cultural object is most obvious in its reception, i.e. its impact on a human agent” (13).

Following this notion of dynamism Kaufman (2004) suggests that cultural change can occur independently of social structural, technological, or material change. Scholars from this school of thought have adopted a post-hermeneutic approach which focuses on how consumers make meaning out of the cultural products they consume (Kaufman, 2004). Additionally, followers of the endogenous tradition believe they should “eschew analysis of social structure and the production of culture; in the search for internal mechanisms governing the cultural processes more generally” (Kaufman, 2004:337). Prominent scholars (Hughes, 2000; Peterson, 2000; and Swidler, 2001) have called for a more integrated focus on the interaction between producers and consumers rather than the traditional POC focus on producers alone.
Chapter 3: Review of the Literature

In the following sections I will provide a brief history of craft beer in America. I will also demonstrate how beer is a symbolic cultural product that has spawned a culture of consumption around it. Next, I will review the literature on the notion of food as art and a symbolic cultural product. Finally, I will review the literature on the notion of craft and what it means to the production of goods.

3.1: A Brief history of Craft Beer in the US

Picture yourself walking down a beverage aisle at your local grocery store or market. You hear the hum of refrigerators and coolers. Perhaps you feel the warm exhaust of the compressors at your feet. To one side of you there are frozen glass doors guarding their contents as if to say, “enter here only if ye dare.” Within the frozen confines of the cooler you see before you, stacked with military precision, large rectangular cases housing a rather limited variety of canned and bottled beer. Each case seems to blend in with the rest, perhaps not by accident, but also not quite intentionally. You look to your other side and see a completely different aisle and see an open cooler full of vibrant colors and variety, a virtual cornucopia of options. The harsh imagery of the industrial cooler and its generic contents are juxtaposed with the inviting openness of the opposite cooler which seems to be warmer to the eye and to the touch. You suddenly think to yourself, “what should I choose?” “Should I liberate myself from the grip of large industry and domesticity, or shall I remain a sheep that drinks at the prescribed time and drinks the company water?” Take a step back for a moment and consider this scenario. This conundrum is a rather recent phenomenon. Prior to 1978 this would not have been a problem faced by any American beer drinker. Only recently in our history have we had so many options and choices in our beer. What led us to this point? The answer we shall see may not be as simple as we expected.
Before we understand the story of craft beer in America we must first understand the story of beer. Beer has led a distinguished life. As Homer Simpson once said, “it is the cause and solution to all of life’s problems.” Historically speaking, the history of beer begins almost at the same time as the history of man. There are records of beer being produced by the Egyptians that was used as payments to slaves. This served several purposes. The first being beer was an acceptable form of payment because it was viewed as the drink of kings. So, for a slave to drink beer, even a small amount as payment for hard labor, it placed him/her on a similar level to the king. Additionally, the psychoactive effects of beer seemed to quell any potential for the slaves to become unruly and to rise up against their oppressors. The ancient Egyptians believed in the power of beer so fervently that pharaohs were buried with drinking vessels full of beer so that they would not be thirsty in the afterlife. Dogfish Head Craft Brewery has attempted to revive many of these ancient beers. They are well-known for a beer called “Midas Touch,” which was created using DNA samples from beer vessels found in the tomb of who is believed to be King Midas. Beer has also affected human beings in terms of their survival.

After humankind evolved into more stable agrarian societies the need for fresh water became paramount. One of the earliest functions of beer and other fermented liquids was that it offered a much more pure form of water. When water was boiled to brew beer it effectively killed off the harmful bacteria that were thriving in the water supplies of medieval Europe. This was especially significant in throughout the dark ages. Europe was growing at a rapid pace and land, much like today, was at a premium. This resulted in large groups of people living on top of each other in crowded cities with inadequate waste removal systems. Over time the water supplies of these towns and villages became so contaminated that the water was deemed unfit to drink. Beer, and its purification processes, became the drink that replaced water. Beer is over 90% water so in theory a medieval European could receive a proper amount of clean drinking water by consuming exclusively beer or wine.
Another example hits much closer to the American heart. The pilgrims aboard the Mayflower had approved a ration system for beer along their journey. Even children were rationed beer, although the styles of beer the pilgrims drank were much lower in alcohol than today’s stronger brews. It is rumored that the Pilgrims stopped at Plymouth Rock, not because it seemed like a good place to stop, but because they had run out of beer! Think about this: our country’s first settlers stopped in America because they needed a beer.

Now fast-forward a bit. We now find ourselves in the late 19th century. After several waves of immigration the blossoming city centers and metropolitan areas of the US are becoming homes to European brewing traditions and new styles of beer. At its peak the US brewing industry was comprised of over 1700 individual breweries. Each of which offered a unique style that reflected the beer that was common to the place of origin of the brewer. The US has had a troublesome relationship with immigrants and a troubled relationship with beer. As the end of the 19th century approached the number of breweries began to decline. Some of this due to the market and business practices of individual brewers, but some of the decline was due to the growing resentment of immigrant groups. Additionally, the temperance movement sought to bring an end to the “plagues” of alcoholism and drunkenness. These movements would eventually manifest themselves into the 18th Amendment, more commonly known as Prohibition.

This was a dark period for American brewing. For thirteen years the US brewing industry was at a standstill. Some of the breweries sold their buildings to other industries. Others simply went bankrupt and never poured another beer. However, some were more fortunate. The larger breweries such as: Pabst, Anheuser-Busch, and Schlitz to name a few, were able to stave off the effects of Prohibition. And upon the repeal of Prohibition in 1933, those lucky few breweries opened their doors to almost no competition. The effects of Prohibition on the brewing industry cannot be understated. It completely
devastated any form of competition among brewers and allowed for the monopolization of American brewing by, what we now refer to as, “the big three.”

In the wake of prohibition and the closing of hundreds of breweries, the Big Three took American beer down a road that it still has not returned from. During the 1950s, a time of wealth, prosperity, and post-war celebration, much technological advancement was affecting the household of the everyday American. Two of the more notable inventions were the advent of the domestic refrigerator and the television set. The impact of these inventions on the brewing industry and the life of the typical American is two-fold. On one hand it encouraged Americans to stay in their homes. If every home had a refrigerator there was no need to go to the local bar and have a few beers with some friends. Additionally, the TV eliminated the need for Americans to leave their households for entertainment. Now after a family meal, most likely spent in front of the television where watchers were beginning to be bombarded with advertisements, adults could sit in the comfort of their homes and drink an ice cold beer. This kept Americans out of the bar and provided an opportunity for the Big Three to capitalize on the domestic beer market.

During the 1960s a man named Fritz Maytag purchased a fledgling brewery called The Anchor Steam Brewing Company. His motivation was simple. He liked the “steam” beer that they produced and he had just inherited a large sum of money from the family fortune. Over the next decade Maytag and the Anchor Steam Brewing Company would struggle to turn a profit. They could not, and to some degree, did not want to implement new brewing technologies such as: advanced trans-national refrigeration, aluminum cans, advanced bottling techniques and equipment, and a new three-tier distribution system. Maytag felt that his beer was special. He wanted to distinguish it from others and stay true to his local roots. He produced Anchor Steam beer and distributed kegs within the San Francisco area. One function of this is that it began to create a taste for local and regional products.
Maytag would be heralded as a pioneer by localists and brewers alike. Also, unbeknownst to Maytag, he was laying down the foundation of a brewing revival that would rise from the underground home-brew clubs, such as the Maltose Falcons, and eventually reach Jimmy Carter in the White House. In 1978 President Carter passed a law legalizing home-brewing. What would follow next would be nothing short of revolutionary.

As word of Maytag’s model reached the east coast, and home-brewers from all over the US came out of their basements a movement began to gain momentum. Craft brewing was making a name for itself, much in the same way the immigrant brewers of the 19th century did. They returned to the old world and began producing styles of beer that were bold in flavor. They contrasted rather starkly against the pale; light pilsners that the Big Three were producing. Suddenly, Americans had a choice in which beer they would consume. Choice, independence, and freedom were flavors Americans had savored in the past, and they wanted more. After the passage of the home-brew act in 1978 the craft beer movement never looked back. As of 2012 the number of breweries in the US has exceeded the numbers from the 19th century, quite a remarkable feat for just a 35 year time frame.

Now, fast-forward back to present day and our grocery store analogy. You are standing on the precipice of your beer destiny. You have the ice-cold harshness of “American” beer which has come to represent the repression of individual expression and champions conformity; and you have the seemingly endless array of regional and local craft beers that represent ingenuity, craftsmanship, appreciation, and choice. What do you do? This question is not so easily answered, but it is one worthy of sociological inquiry. If we look back to history it is easy to see the cultural significance of beer. It is a cultural product born out of necessity and refined through the melding of mastery and skill with cultural taste and preference. To put it simply, beer is sociologically important. The legacy of the craft beer movement needs to be understood sociologically.
The craft beer movement in the US represents a finite moment in our history, one in which can better be understood through the constraints of the production of culture perspective: law and regulation, markets, occupational careers, industry structure, organizational structure, and technology. Additionally, questions of cultural taste may be raised throughout the relatively short history of the craft beer movement. For example, the recent increase in popularity of supremely-hopped India Pale Ales (IPAs) suggests that there is some sort of logic to the accumulation of cultural capital through the consumption of beer. What makes this beverage so special? How and why has it transformed itself from a vital necessity, to a commodity that fetches prices in the thousands of dollars? Has beer itself changed, or just the way we view beer? All of these questions deserve to be examined. In the following chapters I will examine the craft beer movement in the US using the production of culture perspective as a framework.

3.2: Food as Art and Cultural Product

Sociologists of culture have long been concerned with what can be classified as art and what cannot. Recently these studies have been extended to the culinary world (Telfer, 1999; Kuehn, 2005). Scholars such as Telfer (1996) and Kuehn (2005) have further refined the academic view of food as art. Telfer (1996) contextualizes food as art by using classification and evaluation. She suggests that food is a minor art in the sense that it is inherently temporal, nonrepresentational, and cannot move one emotionally (Telfer, 1996). Kuehn has suggested that if food is going to be seen as art it “needs a context in which significant experiences of the aesthetic can come in everyday life” (Kuehn, 194:2005). Kuehn bases his views on the artistic nature of food in the work of Dewey (1989). Dewey (1989) developed the notion of transformative aesthetic experience and further suggests that all experiences has the potential to be aesthetic. According to Dewey’s perspective, all food has the potential to be art “because its production, presentation, and manner of appreciation (i.e., eating) necessarily involve one
in an interactive engagement with the qualitative tensions that underlie experience” (Kuehn, 194:2005).

Kuehn (2005) views that a contextualization of food as art “is more productively contextualized in the aesthetic potentiality of experience” (Kuehn, 194:2005). Sociology in general, and the sociology of culture, in particular, is centrally suited to understand these, and related, phenomena.

In addition to contextualizing food as art scholars have also viewed wine as art. Fretter (1971) applies the notion of taste to his view on wine as art. He suggests “the idea of taste is only a metaphor and can be applied chiefly to choices one makes in the arts of sight and sound,” but further extends this view to wine. Stephen Pepper (1955) discusses works of art in terms of three objects: the vehicle, the object of immediate perception, and the object of criticism. Fretter uses these objects to bolster his argument about wine in several ways.

The vehicle is the “instrument for the production, preservation, and control of the object of aesthetic worth” (Fretter, 98:1971). In the example of a painting, an agreed upon art form, the vehicle is the canvas. The canvas holds the paint in place once it is dry; it displays the finished work, and preserves the work for an extended period of time. According to Fretter (1971), however, the vehicle itself has no inherent aesthetic worth. It’s worth is measured solely by its ability to display and preserve a particular work of art. In the case of wine the vehicle is the water, grapes, alcohol, complex chemical bonds, and even the bottle the wine is stored in. These elements help produce the character of the wine and help to preserve the wine for a period of time.

The second aspect is the object of immediate perception. This object is the “experience one has at any time when stimulated by the vehicle. This is the object we see and feel and fill with meaning” (Fretter, 98:1971). This experience employs many different senses to process. First, is the visual observation. An individual sees a bottle of wine or sees a glass of wine and begins to evaluate the
experience – drawing on familiar reservoirs of meaning. Second, is the wine’s smell and aroma, which can be dependent on the vehicle. Third, is taste in the simple form. Is this wine pleasing to drink or not? And last, what Pepper (1989) refers to as “funding,” which is “the fusion of meanings from past experiences into a present experience” (21:1989). Fretter (1971) notes that “past experience is essential, and the continual renewing of the experience is desirable, especially where the memory of subtle flavors, odors, and colors is not always reliable” (98:1971). The object of immediate perception is based on past experiences and an assessment of present experiences in relation to those past experiences.

The third aspect is the object of criticism. “The object of criticism is the totality of relevant material based on the perceptions stimulated by an aesthetic vehicle… it is the object perceived by a person who is a spectator” (Fretter, 99:1971). In other words, the object of criticism is what someone else agrees is the work of art. For a wine or painting to be considered art there must be an assessment based on experiences, both past and present, and there must be an agreement between individuals that the experience is similar.

The appreciation of wine dates back millennia, but only relatively recently has it been viewed as an artistic product. However, wine-makers have always been viewed as craftsmen that use knowledge to create aesthetically pleasing works. Additionally, beer has been produced, consumed, and appreciated in some form for almost as long as wine has. Yet we have not thought of conceptualizing beer as art. The goal of this paper is to conceptualize beer as art and to recognize the craft beer and microbrewery movement products of culture using the production of culture perspective.
3.3: The Notion of Craft

The American Brewer’s Association defines a craft brewery as “small, independent and traditional.” This definition could certainly fit the POC definition of a craftsman, but more explanation is needed to truly understand what is meant by “craft beer.” There is much debate about what can or cannot be considered craft. At the forefront of this debate is Becker (1978) who defines craft in several ways. In Becker’s (1978) view, craft conveys a shorthand “conception of a distinctive way of organizing work: the characteristic activities that make up the work, the typical settings in which it is done, and the cast of characters with whom one usually associates while doing it, the kinds of people who do it, their typical careers, the problems that ordinarily arise, and the moral evaluations those inside and outside the occupation make of the people and activities which compose it” (862). Becker is suggesting that the idea of craft encompasses not only the actions involved, but the processes, the individuals and the aesthetic discourse involved with any given craft product.

Kritzer (2007) offers a more simplified “folk” definition of craft as “a body of knowledge and skill which can be used to produce useful objects” (323). He suggests there are six dimensions to craftwork: 1) craftwork produces something that has utility; 2) craftwork has an identifiable customer or clientele; 3) craftwork involves producing a consistent product; 4) craftwork involves an internal aesthetic; 5) craftwork involves an identifiable set of skills and techniques; and 6) craftwork involves significant problem solving (Kritzer, 2007:324).

Becker (1978) suggests that there is a difference between art and craft. He notes, “art and craft are two contrasting kinds of aesthetic, work organization, and work ideology, differing in their emphases on the standards of utility, virtuoso skill and beauty” (1978:862). He defines the artist as a person “who gives the product its unique and expressive character” while the craftsman’s skills “contribute in a
supporting way” (1978:863). He extends this to his study of art worlds as well. In his work he notes that members of art worlds use the terms “craft” and “art” as shorthand folk terms that refer to “ambiguous conglomerations of organizational and stylistic traits” (1978:863). It would seem from his analysis that the world of art and the world of craft are distinct, but also overlap in meaningful ways. Becker (1978) contends that “activities organized as craft can become art when members of an established art world take over their media, techniques, and organizations” (862). Yet he also suggests that “as a work ideology, an aesthetic; and a form of work organization, craft can and does exist independent of art worlds, their practitioners, and their definitions” (Becker, 1978:864). Becker is hinting that the key difference between craft and art is the organization of the work and aesthetics. This is an area that the POC may be able to shed light on with its emphasis on work, organization, and the intersections of the remaining constraints of the POC.

In the next section I outline my methodology and list sources of data. In each sub-section I review the ways in which each constraint may affect the production of craft beer in the US. I also discuss what methods will be employed to effectively measure the constraint of each aspect. In doing so, I also provide a brief example from the craft beer culture for each constraint of the POC as an example of my analysis.
Chapter 4: Methodology

In order to examine the constraining and stimulating effects of law and regulation, industry and organizational structure, markets, technology, and occupational careers; I employ a content analysis of All About Beer, an industry trade publication. In order to conduct a thorough content analysis I examined every issue of All About Beer from 1979 to 2014. This included 210 individual issues of the publication. I analyzed each issue and coded for each facet of the POC. After my data collection I compiled my data into large notebooks and analyzed each facet individually. Additionally, I employ secondary data analysis of industry data regarding the production of beer, the role of technology in brewing, and the concentration of the brewing industry. In the following sections I briefly outline how I will measure the impact of each constraint of the POC on the craft beer culture. I demonstrate the relevance of each constraint in explaining the emergence of craft beer.

4.1: Law and Regulation

Laws and regulations can have direct effects on the production of symbolic cultural goods. They directly affect what can or cannot be produced, can affect the way in which products are produced, and even how and where products are consumed. In order to measure the constraining properties of laws and regulations on the rise of craft beer, I will look for mentions of relevant laws and regulations in the trade publication All About Beer, and federal and state legislation related the production, consumption, and distribution of beer since the repeal of Prohibition. Potential sources of data may include the Federal Register, The Library of Congress, and other sources of federal and state legislative records. In doing so, I will locate specific laws on a timeline of beer production in the US by state that have directly constrained the production of and emergence of craft beer. This will allow me construct a timeline to better demonstrate how the passing of laws and regulations at certain historical moments has greatly
affected the quality, quantity, and variety of the beer produced in each state. By looking at significant laws and regulations individually over time I will be able to show how certain laws have affected the production of craft beer. In order to analyze and better understand the constraining properties of the production of beer and the production of craft beer, I ask two basic research questions: 1) how have laws and regulations shaped the brewing industry and 2) how have federal and state-level laws and regulations constrained the production of craft beer.

4.2: Industry Structure

The structure of the brewing industry is such that it promotes the livelihood of larger breweries. I will measure the constraints of industry structure by focusing on the three aspects of industry structure separately. My analysis will address the following research questions dealing with each aspect of industry structure highlighted in the POC: 1) to what degree is the US brewing industry and oligopoly and what are the effects of oligopolistic control on domestic and craft beer, 2) to what degree are both domestic and craft breweries oligopolistic, and 3) does the level of horizontal integration affect the production of beer and craft beer.

First, oligopolistic control will be measured by the number of small firms owned and operated by larger firms. This data will be taken from several economic studies of the beer industry including The Brewer’s Almanac and Tremblay and Tremblay (2009). Additionally, I will compare the 4-firm concentration ratios to further examine the oligopolistic nature of the brewing industry. The level of oligopolistic control of large firms can directly affect the diversity of cultural products. My unit of analysis will be year.

Secondly, I will measure the degree of vertical integration of both macro- and micro-breweries. In order to measure vertical integration I will analyze industry data on the ownership and contracting of
brewing materials by both large and small firms. I will also examine the level of control of firms in the production process. For example, to what degree are the brewing ingredients owned by the producing firm, how much control over distribution firms have, and to what extent is the product made in house. In doing so, I will hypothesize that larger breweries will have much higher degrees of vertical integration and control more aspects of production and distribution than smaller craft breweries. Horizontal integration refers to the degree to which a firm produces products solely for the industry they are involved with. This is a much less relevant measure of the constraining ability of industry structure as most breweries simply produce beer and are therefore much less horizontally integrated than other industries.

Another factor to consider is mergers and acquisitions. Tremblay and Tremblay (2009) point to acquisitions as a means of reducing competition, lowering marketing and advertising costs, and ultimately raising revenues. The structure of the US brewing industry is of vital importance to further understanding the emergent craft beer culture. For a more detailed analysis please see the chapter on Industry Structure.

4.3: Organizational Structure

There are three aspects of organizational structure: the number of decision levels in the organization, the specialization of tasks, and vertical integration as it relates to organizational structure (Peterson, 1990). In order to measure the levels of organization I will examine employment data provided by The Brewer’s Association and The Brewer’s Almanac. I will measure the level of bureaucracy in a given firm by measuring the number of employees at a brewery and comparing that with the bureaucratic structure of larger domestic firms. I hypothesize that smaller firms, such as microbreweries, will have fewer employees and therefore much lower levels of bureaucracy than larger
macro-producing firms. Additionally, I hypothesize that smaller firms will have lower levels of specialization than larger firms. In order to measure this I will again measure the number of employees at a given brewery and the number of tasks each employee completes in the production process.

Vertical integration in organizational structure will be measured by analyzing the amount of production, promotion, and distribution are completed “in house.” Micro-breweries are smaller than macro-breweries by nature and have less capacity to perform multiple tasks in house. Micro-breweries will be viewed as having low levels of vertical integration. I hypothesize that larger firms will perform many of these tasks in house. Firms such as these will be viewed as having a high level of vertical integration. For the purpose of this dissertation I will focus on the relative size of several breweries, the number of employees, and the amount of beer produced by each brewery. By analyzing this data I will show how the structure of a given organization constrains the production of craft beer.

4.4: Markets

According to Peterson (1990) the market is not the preferences of the consumer, but the preferences as they are perceived by the decision makers in the production industry. Drawing from Peterson’s (1990) example of the record industry, the beer industry after Prohibition could be viewed as a homogenous market in which a few firms dominated the industry. I will highlight these similarities by examining industry data on the production of beer by style over a relevant period of time. In doing so, I will also illuminate the emergence of craft beer and an increase in diversity in the beer industry.

In order to measure the markets effect on craft beer culture I will draw comparisons between the constraints of markets on the music industry and the craft beer industry. I will compare data on the consumption of craft beer and domestic beer using music industry data as a model. I propose that much in the same way the music industry has produced popular music hits so too has the domestic beer
industry. The craft beer industry can then be compared to the independent record labels that offered a much less homogenized product based on the perceived tastes of the craft consumer. This can be measured by tracking the increase in production and consumption of different styles of beer across time. If markets do in fact constrain the production of craft beer it could be seen in a lack of diversity in product offering from large domestic breweries.

The craft beer market is always changing. Small breweries are offering an increasing larger number of styles of beer for their consumers. Measuring this increase in could show how markets have affected the craft industry and its consumer’s tastes. Beer blogs and forums also provide an excellent site to analyze the tastes of craft beer consumers. The craft beer industry offers much more diversity in product selection than its macro-producing counterparts. If we think of the market as the perception of consumer’s tastes I propose that the craft beer consumer’s tastes are constantly changing. If markets do constrain the production of craft beer we should see that reflected in an increasing array of styles and varieties of craft beer.

4.5: Technology

Advances in technology have greatly affected the way in which beer is produced, packaged, and marketed. In order to examine the effects of technology on the production of craft beer I will focus on several key technological advances that have left the biggest impression on the brewing industry. First I highlight the overall effects of technology on economies of scale and minimum efficiency scales. Using industry data compiled by Tremblay and Tremblay (2009) I show how advances in canning technology and the advent of the television gave macro-firms a competitive advantage which led to the highly concentrated oligopolistic brewing industry of the 1960s to present. Secondly, I discuss the role of
pasteurization in the production of beer. The pasteurization process allowed beer to be stored longer, which in turn meant it could be transported. This process changed the brewing industry dramatically.

Third, I discuss the advances in packaging technology. The standardization of the glass bottle changed the way beer could be shipped. The crown crimp cap provided a tighter, and more consistent seal that helped make the glass bottle one of the most effective methods of packaging beer. The beer can has undergone many changes in its history. Upon its introduction in 1935, the can quickly became the most popular packaging for beer in the US. The affordable and reliable aluminum can helped macro-producers increase production tremendously. The effects of packaging technology will be shown using industry data from the Brewer’s Almanac, All About Beer Magazine, and web-based cultural media. Lastly, I discuss the effects of digital technologies such as automation software and social media. Web-based cultural media and the trade publication All About Beer provide evidence.

4.6: Occupational Careers

In this section I draw comparisons between the music industry and the brewing industry. Peterson and Anand (2004) contend that the structure of organizations within a cultural field dictate the patterns of occupational careers. The career patterns are: the craftsman, the showman, the entrepreneur, and the bureaucratic functionary. Using biographical, industry, and cultural data, I show how these careers have shaped the production of craft beer through case studies of key figures in the brewing industry. Overtime there was a shift in the industry. Large macro-firms dominated the industry. This industry boom created the need for jobs. Functionaries filled these positions and helped the macro-firms grow even larger which led to the oligopolistic structure of today. In response to the homogenization of beer, individuals who wanted more from their beer began to brew their own. I use
the home-brewer as an example of the craftsman. The home-brewer brews beer for the joy of making beer; he/she does not brew for a profit.

Another shift occurs when the home-brewer decides to start a brewery. Using Peterson's (1990) study of the radio industry in the 1950s as a model I show how the nature of careers shifted when home-brewers began open breweries. Jim Koch is an example of a showman. He is a salesman of the self who used clever marketing and a family recipe to change craft beer forever. Jack McAuliffe returned from Scotland with a taste for flavorful beer. Much to his chagrin, he found none in America. His solution was to brew his own beer and open the New Albion Brewery. After only a few short years, the brewery failed and McAuliffe became a recluse. His failure provided a blue print for other home-brewers to come. McAuliffe is remembered as one of the pioneers of the micro-brewery revolution.

In this chapter I will outline the ways in which various types of laws have affected the production of craft beer. Laws and regulations have the strongest constraining force and historically have shaped the craft beer over longer periods of time than the other constraints. I begin my analysis with an overview of Prohibition and its repeal and then focus on other laws that have shaped craft beer after the ratification of the 21st Amendment. These laws include: H.R. 1337, or what is affectionately referred to as the Home Brew Act of 1978; excise and other taxes, advertising and label laws, and laws affecting the alcohol content of craft and other beers.

5.1: Prohibition and its Repeal

The most important laws to affect the production and consumption of alcohol are the 18th and 21st Amendments. Passed in 1920, The 18th Amendment, infamously known as Prohibition, had immediate effects on the brewing industry, most notably the shutting down of almost all of the nation’s breweries. The Prohibition movement began in the early 1800s. It started at the local level with organizations “were alarmed at the drinking behavior of Americans, and they were concerned that there was a culture of drink among some sectors of the population that, with continuing immigration from Europe, was spreading” (The Ohio State University, 2014). As these sentiments continued to grow the movement began to gain momentum and reached a peak in 1893 when the Anti-Saloon League and the Women’s Christian Temperance Union began to enact local prohibition laws. During this period the US brewing industry was the most prosperous of the alcohol production industries (The Ohio State University, 2014). In order to keep businesses booming there needed to be more places to sell the beer once it was produced. The solution was to open more saloons. At the time saloons were considered to be an establishment that sold alcohol by the glass. Saloons began to proliferate and many Americans
considered them to be a nuisance. As Americans drank more, more supporters joined the Prohibition movement. Movement leaders “believed that once license to do business was removed from the liquor traffic, the churches and reform organizations would enjoy an opportunity to persuade Americans to give up drink” (The Ohio State University, 2014). As history shows us, Prohibition had many unintended consequences.

At the time of Prohibition there were around 1200 independent breweries operating in the US. Overnight that number dropped to zero. During the time between Prohibition and its repeal in 1933, several breweries were able to outsource their facilities for other uses such as re-tooling breweries into manufacturing facilities. Upon repeal of the 18th Amendment, The Great Depression was the final nail in the coffin for many breweries. There was a steady decrease in the number of breweries in operation from the time of repeal up through the Great Depression. Of the remaining breweries, some were able to serve their country during wartime by converting their facilities to manufacture weapons and domestic goods. However, many of these breweries were not able to support themselves in this manner after the end of WWII and never opened their doors as a brewery again. Additionally, many breweries were consolidated and acquired, at wholesale prices, by larger competitors such as Anheuser-Busch and Miller. The period following prohibition was one of mergers, acquisitions, and shutdowns. This is evidenced by Fig. 1 below (Brewer’s Association) which shows the number of breweries operating in the US by year (2012). For a more in depth discussion of mergers and acquisitions see the chapter on industry structure.
The repeal of Prohibition had other more far-reaching effects on the brewing industry. Immediately upon repeal the right and responsibility to regulate, control, and most importantly, to tax alcohol was given to each state. This was achieved through the implementation of a three-tier distribution system. Under this system alcohol cannot be sold directly to the consumer from the brewer, distiller, or winemaker. The first tier is the producer of the alcoholic beverage. The producer must then sell his/her product to a wholesaler, who represents the second tier of distribution. The wholesaler fulfills a middleman role in the system. They are not able to sell directly to the consumer so they sell the products to a retailer such as a bottle shop. At each step in the process new taxes and markups are applied. When the product finally reaches the consumer it has been taxed and the price marked up twice. Another function of the three-tier distribution system was to prevent the practice of “tied-houses.” Tied-houses are those establishments that were directly tied to a specific brewery or brewer that received incentivized benefits for buying and selling particular brands over other brands. Now, under the three-tier system beer had to be sold to an independent distributor that had no ties to a
particular retailer or brewer. There is one exception to the three-tier distribution system. Brewpubs operate as both producer and retailer, but as such they are not afforded any wide-distribution. They may only sell their beer on premises at their facility. I will discuss the three-tier distribution system in greater depth in the chapter on industry structure.

The effects of Prohibition were immediate and enduring. The so-called “great experiment” nearly wiped out the US brewing industry. Those that were left would be subject to buyouts and closings. Only a few, would survive and in the 1970s the number of breweries in operation was under 50, a far cry from the more than 2,000 that were operating in the 1880s. The brewing industry in the wake of Prohibition would come to be defined by the bland, pale lagers that were produced on a massive scale. These beers sacrificed many ingredients such as hops and malt, and substituted them with inexpensive adjuncts such as corn and rice. The result was a pale lager that loosely resembled a pilsner style. Generally speaking, there are two types of beer: lager and ale. Lager beers are that utilize bottom-fermenting yeast and are fermented at cooler temperatures. The result is a crisp, light, and clean beer that is refreshing and typically of lower alcohol content than most ales. Some popular styles of lagers include: pilsner, marzen, and bocks and doppelbocks. Ales, on the other hand, require top-fermenting yeast. They are brewed at warmer temperatures than lagers and are typically more robust and flavorful than lagers. There are several styles of ales, but some of the more common are: stout, porter, pale ale, india pale ale, and a host of others. After WWII most American breweries produced only lagers. These beers came to define American beer and American tastes. However, there were small groups of individuals that demanded more from their beer. Many of these individuals were soldiers who had grown accustomed to European style ales and lagers while serving abroad. When they returned they found that the beer their fathers drank was a poor substitute for the brews they enjoyed while
overseas. These soldiers, along with others who demanded more flavor in their beer began to brew in their homes illegally.


In 1978, President Jimmy Carter signed into law H.R. 1337 which would affectionately be referred to as the Home Brew Act by the growing craft beer culture. This law was originally intended to decrease excise taxes on trucks, tractors, distributions from retirement plans, and allow for permissions for food stamps in California (Matzen 1979). The bill was proposed by Rep. William A. Steiger (R-WI) a republican who supported tax breaks as a form of economic stimulus. Before it was passed, Senators Cranston (D-CA), Schmitt (D-MN), Bumpers (D-AR), and Gravel (D-AK) proposed an amendment to the bill known as Amendment No. 3534. Amendment No. 3534 called for equal treatment under the new law for winemakers and home brewers alike. Prior to the passage of H.R. 1337 winemakers were allowed to ferment wine for personal use, but beer and distilled spirits were prohibited by law. H.R. 1337 “allows any adult (formerly only heads of families) to produce wine and beer for personal and family use and not for sale without incurring the wine or beer excise taxes or any penalties for quantities per calendar year of: (1) 200 gallons if there are two or more adults in the household and (2) 100 gallons if there is only one adult in the household” (Congress, 2015). The result of the passage of H.R. 1337 and Amendment 3534 was that home brewers were now free to legally brew beer that suited their personal tastes.

Prior to the passage of these laws home brewers were limited, not only by the quantity of beer they could brew, but also the quality and style. H.R. 1337 and Amendment No. 3534 also removed the federal limit on alcohol content in home brewed beer. The alcohol content before these laws were passed was 0.4% alcohol by volume (ABV). Before these bills were enacted it was not technically illegal
to homebrew, but any beer produced in the home could not exceed a maximum alcohol by volume of 0.4%, which is equivalent to a mass-produced non-alcoholic beer such as O’Douls. Additionally this beer was taxed while homemade wine was not. Typically, beer has a lower ABV than wine, and wine a lower ABV than distilled spirits. However, different styles of beer have different ABV amounts. Lagers, which were the predominant style during the period after Prohibition and up to today, typically have an ABV in the 4%-6% range. Ales, which reflect more traditional and European brewing styles are more robust and flavorful than lagers and typically are much higher in alcohol content. Ales can range from 5% ABV up to over 10% ABV. Limiting the ABV of home brewed beer to 0.4% had dramatic effects on the beer produced by home brewers. After the passage of Amendment No. 3534 home brewers were able to brew beer with higher alcohol contents. This opened the door to new brewing possibilities and the ability to brew more traditional and flavorful beers. This law also helped to make the distinction between home brewers and regular brewers. The term brewer, which was used in federal regulations and taxation was “clarified to mean a person who brews beer for sale or who brews more than the legal amount” (Matzen, 1979:14). With the new amendment in place home brewers were now allowed to brew up to 100 gallons of beer for personal use.

In addition to changing the amount of beer one could brew, the amendment also changed an earlier provision which limited the legal amount of on-hand supply to 30 gallons (Matzen, 1979). Home Brewers and Senator Alan Cranston (D-Calif.) called for an increase in the legal on-hand amount, citing “beer must be aged to acquire an acceptable taste. Home brew should be aged at least two months – meaning it should not even be tasted until two months form the day the yeast was pitched. And three months is better” (Matzen, 1979:14). This was an important provision because many home brewers would often have several batches of beer aging at any given time. With each style of beer requiring different aging times and conditions the 30 gallon limit was quickly reached. As Senator Cranston notes,
“home brewers brew home beer because domestic beer lacks the rich, malty taste they like. Home brewers share a creative desire to concoct beer to their own personal taste” (Matzen, 1979:14). Now home brewers were afforded the same privileges as wine makers.

5.3: Excise and other taxes

Since the repeal of Prohibition the US has levied harsh taxes on the brewing industry and beer. It is estimated that if you were to purchase a $1.00 12oz bottle of beer that $0.46 of that price would be taxes. The remaining $0.54 represents the ingredients used to make the beer, the advertising and marketing, the wages of the employees and other business costs and other miscellaneous costs. This means that taxes are effectively the most expensive ingredient in beer. Excise taxes are essentially consumer sales taxes placed on specific goods and services such as gasoline, alcohol, and tobacco. However, these taxes are unevenly spread across social class (Sarasin, 1990). Taxes affecting alcohol, especially beer, which is typically consumed by lower class individuals, become one of the most regressive forms of taxes, specifically targeting the blue collar worker, affectionately known to the beer industry as Joe Sixpack. Craft beer insiders suggest that “a consumer earning minimum wage and buys a six-pack of beer must spend a greater share of income on the taxes than a wealthy consumer” (Sarasin, 1990:4). Opponents of excise taxes, including the craft beer industry, view increases in excise taxes as a direct tax on the blue-collar consumer. Sarasin (1990) contends that any tax adjustments “must spare the low middle-income Americans” (4). According to reports, in 1989 consumers paid nearly $50 billion in excise taxes on beer, wine, cigarettes, distilled spirits and gasoline (Sarasin, 1990). Excise taxes go to the general tax fund of each state and can be used at their discretion. One common use is for highway maintenance and upkeep. Becker (1999) notes that in addition to federal and state excise taxes, “most states also levy a general sales tax that further compounds the total consumption taxation of beer” (38).
In 1976, a year before the Home Brew Act was passed; Congress passed a law lowering the federal excise tax on brewers producing fewer than 60,000 barrels per year to $7.00 per barrel from the previous $9.00 per barrel. Breweries that produced more than 60,000 barrels were still subject to the $9.00 per barrel tax rate. This was an attempt to keep smaller breweries such as Olympia Brewing Company and the Pittsburgh Brewing Company from filing for bankruptcy (Hindy, 2014). Lowering the federal excise tax would have much larger implications in the years to come. In 1991 Congress passed legislation that doubled the federal excise tax from $9.00 per barrel to $18.00 per barrel. This new bill left in place the $7.00 per barrel rate for producers of 60,000 barrels or less. These taxes were proposed by George H. W. Bush and packaged with several luxury taxes that including taxes on yachts and private jets. It is interesting to note that when the luxury taxes were rescinded the increased excise on beer remained. As Hindy (2014) contends “beer the drink of the working man [is] hardly a luxury” (29).

Former Director of public affairs for the National Beer Wholesalers Association (NBWA) the governing body of beer distributors, Tamara Tyrell (1999), reported that the doubling of the tax rate in 1991 “caused the single largest drop in sales in 30 years” (32). Tyrell (1999) further contends that neo-prohibitionists are seeking to “increase the cost of beer so much that working men and women can’t afford to drink it” (32).

Proponents of higher taxes were not shy in their disdain for beer and beer drinkers. Some members of Congress that supported higher excise taxes attacked the perceived negative health effects of consuming alcohol. McNeirney (1993) suggests that higher excise taxes on beer could help fund a more efficient healthcare system. Supporters of these tax hikes, according to McNeirney (1993), felt that it was appropriate to “sock it to those who buy and consume such products—even the vast majority who drink responsibly and moderately” (44). Many of these taxes and laws are proposed and lobbied for by neo-prohibitionists. The neo-prohibitionist movement is similar to the original Prohibitionist
movement and sought to ban the consumption of alcohol. The movement was comprised of several members of Congress and other lobbying groups such as Mothers Against Drunk Driving (MADD) and start gaining political traction in the mid-1980s. These groups worked together to pass legislation that severely limited the production and consumption of all types alcoholic beverages, but was most specifically targeted at beer and those who drink it. The neo-prohibitionists believed that if you taxed beer enough it would become too expensive to drink. Typically, these new taxes affected the middle to lower income households.

Frank McNeirney (1991), a former industry insider for the National Beer Wholesalers Association (NBWA), reported that in addition to the increase in tax per barrel lawmakers were also calling for the equalization of taxes on wine, beer, distilled spirits. These taxes proposed that alcoholic beverages be taxed on the basis of a standard rate per ounce of alcohol. McNeirney (1991) notes, “since beer is most popular among working men and women, any tax proposal that would raise its price relative to hard liquor would be highly regressive. It would place an unfair burden on the people who are already paying their fair share” (50). These taxes are able to target beer which has a much lower alcohol content and therefore much more susceptible to regressive tax rates. Becker (1999) contends that these taxes are “highly regressive taxes on low- to middle-income consumers, which create revenue loss and discourage moderate consumption” (38). Taxes have also affected the content and quality of beer. Higher tax rates impose serious limits on the amount of alcohol a beer or other alcoholic beverage may contain. The Campaign for Real Ale (CAMRA), founded in 1971 to protect the integrity of craft beer, suggests that increased excise taxes are an assault on real ales (Hieronymous, 1995). “Real” ales, meaning traditional and contemporary ales typical of micro- and craft breweries, contain more alcohol than other types of beer such as lager. Ales are also characterized by much more robust flavors and
encompass many styles. By placing a tax on the standard alcohol by content, Congress would effectively be taxing craft and micro-brewed beer disproportionately.

Despite the long and sordid history between taxes and beer there seems to be hope in the future. When the federal excise tax bill was signed in 1976 and then doubled in 1991, it left in place the $7.00 rate for breweries producing less than 60,000 barrels annually. Since the 1980s there has been a meteoric rise in the number of breweries in the US. At present there are over 3,000 breweries operating in some capacity. This number eclipses the number of breweries from the peak of American brewing in the 1880s. At that time there were over 2,100 breweries in operation. Many of these new breweries produce less than 60,000 barrels annually. They are able to benefit from the lower tax rate per barrel by operating at a lower production rate. And as Bradford (2011) reports legislation has been proposed to offer tax breaks on excise taxes for craft breweries. Legislation such as this allows for more growth in the craft beer industry and effectively allows for more choice.

5.4: Advertising Law and the Label Wars

Laws restricting advertising have greatly constrained the production and consumption of craft beer. As the Beer Institute (2011) notes “in the United States, beer is a mature product category with broad cultural acceptance and a history of memorable and distinctive advertising that, because of its humor and creativity, has long been a favorite among American adult consumers” (1). Some of the first such laws were proposed by the Food and Drug Administration (FDA). In 1967, the FDA took issue with “light” beer being marketed as a weight-loss tool (Robertson, 1992). At the same time, the Federal Alcoholic Administration Act forbade “alcoholic beverage labeling that disclosed any information” (Robertson, 1992:30). This law would later be challenged and new requirements for labeling would be put into place. In 1993, the Senate passed Bill 674 which required markets of beer, wine, and liquor to
include health warnings as major parts of their promotional and advertising materials (McNeirney, 1993b). McNeirney (1993c) reported that Congress was pushing brewers to require much more information on labels.

H.R. 1420 proposed a requirement that all brewers would have to list the alcohol content of their product (by volume, expressed as ABV). At the time there were already laws in place that required wine and distilled spirits producers to provide this information on product labels. Additionally, the proposal required that this information be presented in a “non-promotional manner” (McNeirney, 1993c:40). This was included in the proposal to quell the fear shared by prohibitionists and neo-prohibitionists alike. The fear was that if brewers began including the ABV of a particular product that it could lead to “strength wars,” where breweries would compete with each other to produce the strongest beer. In 1995, legislators started to think differently and considered the inclusion of ABV on beer labels as an aid for those trying to drink more responsibly (McNeirney, 1995a). There was also a fear that consumers would begin to purchase beer based solely on the ABV. This proposal also called for the inclusion of health warnings on beer labels and advertisements. After much debate, McNeirney (1995a; 1995b) reported that Section 5(e)(2) of the Federal Alcohol Administration Act was declared unconstitutional. This provision had prevented brewers from listing the alcohol content on beer labels. One possible drawback was that this provision now provided ammunition for the proposed equalization taxes that called for the standardization of taxes on alcohol regardless of beverage type.

The so-called “label wars” did not just involve Congress and the Microbrewers. Some of the label wars also took place between fellow brewers. Sholley (1996) reported that Anheuser Busch, the Oregon Brewer’s Guild, and 35 independent microbreweries filed a complaint with the Bureau of Alcohol, Tobacco, and Firearms (ATF). The complaint asked that all beer labels provide the real name of the brewer of the beer. This was done in an effort to identify contract brewers and urge the ATF to more
clearly define the term microbrewery, which was being used as a catchall for “flavorful beer” (Sholley, 1996). Since the craft beer phenomenon began in the 1970s there have been a host of contract brewers. A contract brewer is one who enlists the help of another brewery or brewer to produce his/her beer. For example, Samuel Adams Boston Lager is labeled as a product of the Boston Beer Company. However, the beer is not made in Boston, but rather in several locations across the US. Traditional microbrewers viewed this as problematic. They felt that it took advantage of the consumer and allowed for a less than level playing field. Additionally, during this time and still today through acquisition and consolidation, macrobreweries have been brewing “craft styles” in an attempt to regain lost market share. These factors led microbrewers to petition the ATF to ensure that the consumer is not left in the dark about where his/her beer comes from. This also prevents larger breweries from disguising themselves as craft or microbreweries.

In addition to federal laws regulating alcohol labeling, All About Beer (1985) reported that state level laws would be directly targeting beer by placing restrictions on advertisements. One of the first steps was to eliminate electronic media advertising. Lobbyists and other interests groups had successfully banned electronic media advertising for the distilled spirits industry with no ill effects. While these laws did not go into effect they were still on the table several years later. McNeirney (1991) reports, the 102nd Congress, the same Congress that doubled the excise taxes on beer, were also pushing to ban all alcohol TV ads. This type of legislation was vehemently opposed and brewers and other interest groups frequently cited the 1st amendment, declaring that restrictions on advertising were a violation of the right to free speech.

McNeirney (1994) notes that this “new form of prohibition is one that focuses on speech accompanying the sale of goods and services” (38). One group that supported these types of legislation is the neo-prohibitionists. They recommended that there be a ban on all alcoholic beverage advertising,
not just beer. The goal of this legislation was to ban all alcoholic beverage advertising. Neo-prohibitionist groups blamed alcohol advertising for alcohol abuse (Guldan, 1991). Additionally, they called for a ban that would prevent the alcoholic beverage industry from donating money to public health and community action groups (Guldan, 1991). Neo-prohibitionists believed that these measures would end the “culture of consumerism” that promotes the abuse of alcohol (Guldan, 1991:50). In 1996, the neo-prohibitionists were successful in passing some of the legislation they had lobbied for. H.R. 3479 called for the mandatory inclusion of rotating warning labels and all alcoholic beverage advertisements on TV between 7:00-9:00PM would be limited to pictures of the product with “objective audio information” (McNeirney, 1996:30).

So just what exactly goes on a beer label? According to a report by Julie Bradford (1999), every label on every beer for sale in the US must be approved by the ATF. The labeling approval process involves less than ten specialists who review each and every label that is proposed for a particular beverage. Many brewers are critical of this process and feel that it may be arbitrary as a label may be rejected for a punctuation error or a gray area of moral judgment (Bradford, 1999). Some of the things that fit into the gray area are: sex and/or nudity, depictions of drug use, suggestive or offensive language, and any other content deemed morally inappropriate. The ATF has several requirements for what a successful label must include. These include: in two millimeter print, a government warning label; volume expressed in pints and ounces (e.g. 1pt 0.9oz rather than 16.9oz); the brand name; the class and type designation of the beverage (e.g. beer, ale, stout, malt beverage, etc.); explanatory phrase for any special products (Bradford, 1999). Labels are not allowed to include any references to health benefits, illustrations that are overly whimsical or cute, or use the word strong. These images were thought to encourage drinking, market alcohol to underage drinkers, and encourage alcohol abuse.
In 2002, the agency formerly known as the ATF was dissolved under the new Homeland Security Act. As a result of this dissolve, the law enforcement functions of the ATF were transferred to the US Justice Department. Taxation, however, would remain “under the purview of the US Treasury Department to be handled by a new agency called the Tax and Trade Bureau” (Kitsock, 2002:32). Kitsock (2002) further reported that the restructuring of the agency would not affect its routine label approval and licensing processes. From this restructuring was born a new agency, the Alcohol and Tobacco Tax and Trade Bureau (TTB). This new agency was established to take over the ATF’s regulatory functions. One of the first acts of this new agency was to allow brewers to include information regarding health benefits related to moderate drinking. Kitsock (2003) outlines the parameters for including health information, noting that labels must have all claims verified by the TTB and the FDA, must disclose the health risks associated with moderate and severe drinking, must outline “categories of individuals for whom any alcoholic consumption poses risks,” and must include the surgeon general’s warning that appears on every alcoholic beverage (38). It should also be noted that while the TTB did make concessions allowing the printing of health benefits, it still required all previously listed information to remain on the label. So, while new information was allowed Kitsock (2003) notes that “the caveat is that most labels will not have enough space to include the fine print” and the required information on a label (38).

5.5: Summary

Laws have both constrained and stimulated the production of craft beer in the US. Prohibition had lasting effects on the brewing industry in the US and allowed for a handful of breweries to dominate the industry after its repeal. The remaining breweries were subject to the economic hardships of the Great Depression and WWII. Those breweries that survived were gobbled up and consolidated by brewery titans such as Anheuser-Busch and Miller.
H.R. 1337 is most important because many of the pioneering craft brewers started out as home brewers. Ken Grossman of Sierra Nevada, Sam Calgione of Dogfish Head, and Jim Koch of Boston Beer Company all started out brewing beer at home. Curious home brewers experimented with new recipes and styles and perfected their crafts. Once their craft was perfected they began opening small microbreweries and later brewpubs that featured their new flavorful offerings. Tremblay and Tremblay (2009) suggest that “at the same time, consumers’ income rose, stimulating demand for variety and high-status goods...specialty brewers offered a diverse array of full-bodied products and high-status labels, appealing to consumer’s desires” (133).

As noted earlier, Taxes have had an important effect on the production and consumption of alcoholic beverages. H.R. 1337 was originally introduced as a tax bill, but an amendment was added to allow individuals to brew beer in their homes. It is has long been understood that taxes are the most expensive ingredient in beer. Taxes such as excise taxes have proven to be highly regressive forms of taxes that target the lower and working classes. Additionally, taxes that call for equalization among alcoholic beverage would tax higher alcohol content beer disproportionately. Craft beer would no doubt be affected by this increase as well, as craft beer generally has a much higher ABV than domestic style lagers. However, Congress is currently approving legislation that would lower the federal excise rate for any brewery producing less than 60,000 barrels annually. This would allow many upstart breweries to remain in business and allows for some ease of entrance into the industry.

Neo-Prohibitionists and other lobbyists groups have challenged the labeling, marketing, and advertising of beer since the repeal of Prohibition. This movement came to a head in the early-1980s and continued to gain momentum up into the mid-1990s. During this time, several laws were passed that regulated what content could appear on beer labels. Some of the things prohibited were offensive or suggestive language, words such as “strong” that may encourage over-indulgence or encourage
against moderation, and any perceived health benefits and the alcohol content of a particular beer.

While much of the legislation concerning the subject matter of labels is still in place, there has been some compromise. Labels are now required to include a warning from the surgeon general about the potential hazards of drinking alcohol, but are now allowed to list the ABV of the beverage and can promote some of the positive health effects of moderate drinking.
Chapter 6: Crafting an Industry: Organizations and Structure within the US Brewing Industry

6.1: The Structure of the US Brewing Industry

An industry structure can vary in degree of oligopoly, as well as vertical, and horizontal integration. An oligopolistic industry is one in which a few firms dominate a given market and produce a very similar homogenized product for consumers. Peterson (1990) contends that another industry structure can emerge. The other possibility is when a few firms “interact like an oligopoly, but in which there is also a large number of small firms that survive and prosper by serving small special segments of the total potential market not served by the oligopolists” (Peterson, 1990:103). Peterson (1990) points to the music industry as an example. From 1948 to 1958 there were four major radio networks and several newly licensed independent radio stations (Peterson, 1990). The four major firms competed with each other in what Peterson (1990) refers to as a “slice strategy” (103). Peterson (1990) notes that “in such conditions, each network tried to increase the size of its slice of the total American radio audience. Programs which drew large audiences to one of the networks stimulated the other networks to create similar programs to capture back the lost 'market share'. In just a few seasons this strategy made for a daily and weekly cycle of programs that was virtually the same from network to network” (103). The result is a homogenized musical product.

Another result of low competition and homogenization is that new producers will spring up to satisfy the unmet need of consumers who have been alienated. Peterson and Berger (1975) identified a “diachronic dialectic between small and large organizations in the music industry in which the bland homogenization of music resulting from the consolidation of large generalist firms was broken by the innovative sounds produced by numerous specialists firms in the 1950s” (Peterson and Anand, 2004:323). Further, Peterson and Berger (1975) contend that “in the process, market niches were
created, refined, re-conceptualized, and ignored depending on how firms in an industry organized themselves to tackle unsated customer demand” (Peterson and Anand, 2004:323). While the dominant firms were moving towards standardization and homogenization, the small independent radio stations were widely varying their programming and playing music that did not get played on the mainstream radio stations. The independent radio stations were operating in a niche market that provided alternatives to the mainstream programs of the larger broadcasting firms. This model can apply to the US brewing industry as well. Today, the US brewing industry has a structure where large firms operate as an oligopoly and many smaller firms serve a portion of the market not reached by the larger firms. Additionally, the oligopolistic control of a few major breweries created a homogenized product that lacked in flavor and complexity. This product would come to be known as American adjunct lager and would dominate American’s tastes for decades. The craft beer movement is an excellent example of how small firms emerge to fill a niche in a given market. None of this, however, would be possible if Congress had not passed a law allowing individuals to brew beer in their homes.

Carroll and Swaminathan (2000) contend that most economists and sociologists predicted that the US brewing industry would become increasingly concentrated and would not support the emergence of smaller firms. Organizational sociologists have suggested that there may be “organizational tensions driving different types of industries in the other direction” (716). Using statistical analysis of the founding and mortality rates of “all breweries to ever make or sell malt beverages in the US from 1938 to 1997” the authors use a resource partitioning model to explain how the microbrewery movement was able to emerge as a specialist producer in a highly concentrated industry (Carroll and Swaminathan, 2000:717). Additionally, the authors conducted interviews with industry participants, attended industry events, conducted site visits to production facilities, inspected
company promotional materials and advertisements, regularly monitored industry periodicals, and
developed several case studies for instructional purposes (Carroll and Swaminathan, 2000).

According to Carroll and Swaminathan (2000) a resource partitioning model “explains the rise of
late-stage specialist segments within an industry as an (unexpected) outcome of the consolidation
occurring among large generalist organizations as they compete for the largest consumer resource bases of the mass market” (717). Additionally, Carroll and Swaminathan (2000) propose that organizational form identity plays a major role in creating the specialist niche. This contributes to the discipline of sociology by adding cultural elements to the study of organizations. Under the resource partitioning model specialist organizations choose narrow homogenous targets while generalist organizations choose targets made up of many heterogeneous segments (Carroll and Swaminathan, 2000). Resource partitioning, when applied to the brewing industry, suggests that competition among generalists occurs as an escalating war for resources. Carroll and Swaminathan (2000) note that, as returns to scale increase, competition will occur in the densest resource areas (719). Whichever generalist can secure a position in the densest market region will gain an advantage over other firms competing in the area. The generalists competing in a given area may come from different locations which lead to some degree of differentiation among producers (Carroll and Swaminathan, 2000). In such a scenario, larger generalists will out compete smaller generalist which creates free resources as target markets become open. These newly freed resources are typically secured by adjacent and more closely positioned generalist producers. The surviving generalist firms become larger and more homogenized. However, as a generalist increases its target area it can create open market spaces that become too costly to secure (Carroll and Swaminathan, 2000).

Carroll and Swaminathan (2000) argue that, the “main theoretical mechanism for explaining the rise of specialist firms involves the resource space that lies outside the generalist target areas” (719).
Carroll (1985) contends that in these areas, which are farther away from the intense competitive pressure of larger firms, specialists organizations can find viable locations to open. Resources in these areas are typically rather thin; therefore, specialist organizations tend to be small in nature (Carroll and Swaminathan, 2000). These small target areas are less-likely to be invaded by larger generalist organizations due to the cost and risk of giving up more of a target area. A market can be said to be partitioned when “it appears that generalist and specialist organizations do not compete; they depend on different parts of the resource base” (Carroll and Swaminathan, 2000:719).

In addition to the resource partitioning model, Carroll and Swaminathan (2000) believe that in some industries, such as the US brewing industry, cultural factors often take on greater importance than the sheer location of products in a resources space. Organizational form identity may also constrain the production of goods. Carroll and Swaminathan (2000) posit that one reason large producers are unable to reclaim the lost market is their identity as large mass producers. Contract brewers are plagued by this problem as well. Craft beer consumers view macro-producers and contract brewers as not being authentic, and therefore, reject their products. According to Carroll and Swaminathan (2000) identity problems of both mass production and contract brewers emanate from their organizational form and revolve around questions of tradition and authenticity. But what drives consumers to purchase a product on the basis of form identity and the characteristics of the product itself? Carroll and Swaminathan (2000) point to four factors. First, consumers may place great faith in the ability of smaller organizations to produce and deliver high-quality specialty products (Carroll and Swaminathan, 2000:729). Secondly, consumers may be rejecting mass society by choosing products that are produced using more traditional methods (Carroll and Swaminathan, 2000:729). Third, consumers may be enacting a form of self-expression in purchasing products from small and obscure producers (Carroll and Swaminathan, 2000:729-730). Lastly, consumers may be using the consumption of specialty beer as a
way to generate status (Carroll and Swaminathan, 2000:730). Small specialist organizations strategically
differentiate themselves from generalist organizations which draws some consumers to purchase their
goods.

Industry structure is also characterized by the degree of vertical integration, which refers to the
degree which a firm controls all the production processes from securing raw materials to selling the
final product (Peterson, 1990). Peterson (1990) suggests that the major firms were able to dominate the
radio market because of their ability to vertically and horizontally integrate themselves in the radio
industry. These firms were able to do so by controlling the distribution of their music through a superior
platform, keeping close ties with key decision-makers such as network executives who controlled what
was played on the air, and by securing the labor of key figures such as songwriters and producers
through long-term contracts and name recognition (Peterson, 1990). Similarly, the US brewing industry
has been controlled by several large firms since the repeal of Prohibition. Anheuser-Busch, Schlitz,
Falstaff, Carling, Pabst, and Ballantine produced almost 40% of the nation’s beer. It should also be noted
that Anheuser-Busch, the number one producer, produced nearly double the amount of the sixth largest
producer. These firms vertically integrated themselves by controlling distribution of their product
through relationships with wholesalers and industrial-scale production. By controlling the production
and distribution of their products, firms were able to dominate the market.

Finally, horizontal integration refers to the degree to which firms produce products solely for
the industry they are involved, and to what degree are conglomerates linked to other industries
(Peterson, 1990). Network radio stations were able to horizontally integrate by controlling other outlets
of musical consumption. The dominant firms established relationships with television and film
executives that would ensure that only their artists and music were played during Broadway musicals
and films (Peterson, 1990:104). This allowed for networks to control what music people were able to
listen to and in what context. A few firms in the US brewing industry have been able to horizontally integrate in this way. Anheuser-Busch is one of the most horizontally integrated breweries. The firm owns the St. Louis Cardinals, who serve only Anheuser-Busch brands in the stadium. They own several theme parks that exclusively sell their brands. They also own their own media communication group which handles their advertising and marketing. Smaller firms, such as micro-breweries, are less horizontally integrated and operate similarly to the independent radio stations of the 1940s and 1950s. They serve a niche market that offers alternatives to mainstream fare.

The constraining effects of industry structure can be seen as limiting and shaping the tastes of consumers through promotion of homogenous products. When there is little competition in an industry there is much less product diversity. The structure of the American brewing industry is dominated by a few very large firms which produce a very similar product. The emergence of craft beer is a response to the oligopolistic and homogenous beer industry. In this chapter I will examine the structure of the brewing industry in terms of oligopolistic control, vertical integration, and horizontal integration. Additionally, I will show how this structure both constrained and stimulated the production of craft beer in the US.

**Oligopolistic Control**

The structure of the brewing industry has also constrained the production of craft beer. As Peterson (1990) notes, “Industry structure is oligopolistic when a few firms effectively control the style, amount and price of products produced. Perfect competition is when the actions of no firms significantly influence any of these factors. While an industry may vary from perfect competition to perfect oligopoly (that is monopoly), another structure is possible as well” (103). This alternative structure more closely resembles the US brewing industry after WWII. After WWII, breweries such as Anheuser-Busch, Schlitz,
Falstaff, Carling, Pabst, and Ballantine who would become known as “The Big Six,” began to dominate the American brewing industry. The “Big Six” are now the “Big Three,” and through several mergers and acquisitions, Anheuser-Busch, MillerCoors, and Pabst now control the American beer market. They did so through acquisition and consolidation of smaller breweries. In the sections that follow I will examine the effects of acquisitions and mergers, and explain how they relate to increased oligopolistic control of the industry. Also, I will examine the alternative industry structure that currently exists, in which many smaller firms are able to survive by filling a niche-type role.

**Vertical Integration**

Industry structure can vary by level of vertical and horizontal integration. Vertical integration refers to “the degree to which all production processes from securing raw materials to retail sales are performed by single firms” (Peterson, 1990:103). This is complicated when it comes to the US brewing industry. After the repeal of Prohibition, the US government gave the states the right and ability to tax and control their own alcohol production and consumption. The way in which this was achieved was through the implementation of a three-tier distribution system. In this system the brewer produces the beer then must sell the beer to a wholesaler. Brewers are not allowed to sell their products directly to the consumer except in special circumstances such as brewpubs and brewery stores. The wholesaler represents the second tier of distribution. Wholesalers are essentially middlemen whose sole function is to act as the go-between for brewers and consumers. The last tier of distribution is the retailer. Retailers buy beer from a wholesaler, who adds a markup to the price, and then markup the price up for retail purchase. At each tier there are new costs added to the beer such as taxes and distributor markups. If the system were to truly benefit the consumer one would think the wholesalers would be eliminated from the equation. Due to the nature of the three-tier distribution system it is difficult for any brewery to have a very high level of vertical integration because they have little control over the beer once it
changes hands to a wholesaler. I will discuss the degree of vertical integration and the three-tier distribution system in greater detail in the coming sections. Additionally, contract brewing has further complicated the craft brewing landscape. Contract brewing, according to Crowder (2013) is “exactly what it sounds like: a brewery does not have enough space, manpower or money to brew its own beer, so it contracts another brewery to do it for them.” This occurs most often with startup microbreweries and smaller operations that do not have the capital purchase brewing equipment or facilities.

In today’s beer industry the degree to which breweries are vertically integrated is increasing. This is evidenced by the current trends of regional- and localism and the farm-to-table movement. Many small craft breweries are beginning to grow their own ingredients such as hops and barley, and have even begin to process these ingredients on site. In this sense breweries operate at higher levels of vertical integration because they are producing products solely for the brewing industry. There are, however, some goods the breweries cannot produce. Breweries of all sizes use the same basic technologies. Brewing operations vary in scale and size, but the basic production materials remain the same. Once beer is produced it must be stored. The most common methods for storing, shipping, and distributing beer are: kegs for draft systems in bars and restaurants; and aluminum cans and glass bottles for retail purchase. Very few breweries own the means to produce these storage and containment devices. The keg, aluminum can, and glass bottle industry services more than just the brewing industry. Most breweries do not possess the means to produce these containers and purchase them from a different company. Some smaller firms have begun producing their own barrels for barrel aging beers, a practice known as coopering, but have yet to produce these on a large scale.
Horizontal Integration

The last aspect of industry structure is horizontal integration. As Peterson (1990) notes, industry structure has to do with the degree to which firms in an industry produce products only for that industry, or alternatively are conglomerates linked financially and functionally to other industries, that is, the degree of horizontal integration” (103). Horizontal integration has a stronger constraining effect than vertical integration. During Prohibition and up through WWII, breweries that were able to outsource their facilities operated with very little horizontal integration. Many breweries produced domestic and military goods, or other goods from industries far outside the brewing industry. Another way in which firms are able to horizontally integrate is to control the distribution of their product. Small firms, such as micro-breweries, typically are not tied to other industries outside of the brewing industry. Larger firms, such as Anheuser-Busch, are more financially able to horizontally integrate and control more aspects of distribution. Anheuser-Busch owns a professional sports team, several entertainment venues, amusement and theme parks, a labeling and marketing firm, and even a snack food company. By owning these other ventures, Anheuser-Busch is able to control when and where their product is consumed. They can disallow other beers to be sold at their stadiums, venues, and theme parks. This is similar to the radio networks that established relationships with television and film producers to ensure that their particular artists were the only ones that received airtime.

6.2: Organizational Structure

According to Peterson and Anand (2004) there are three predominant forms that an organization may take. The first is the bureaucratic form in which there is a “clear-cut” division of labor and a many-layered authority system committed to organizational continuity” (Peterson and Anand, 2004:316). Secondly, there is the entrepreneurial form which has “neither a clear-cut division of labor
nor a many-layered hierarchy committed to short-term success” (Peterson and Anand, 2004:316). Lastly, Peterson and Anand (2004) identify a variegated form of a large firm “that tries to take advantage of the potential flexibility of the bureaucratic form without giving up central control by acquiring creative services through short-term contracts” (316). Within the US brewing industry, these organizational forms take on much the same shape. Large macro-producing firms operate under the bureaucratic form, and smaller micro-producing firms more closely resemble the entrepreneurial form. Macro-producers follow the bureaucratic form in order to maintain the most control over their products. Coser et al. (1982) suggests that “large firms are better at exploiting the commercial potential of predictable routines and large-scale distribution channels” (Peterson and Anand, 2004:316).

Micro-producers follow the entrepreneurial model that does not have a clear-cut hierarchy or division of labor. These firms are able to adapt much more easily than larger firms and can identify changing tastes more acutely. Peterson and Berger (1971) contend that “small and simple structures tend to foster entrepreneurial leadership and informal interaction that allow for the rapid decision making and rich communication required to facilitate innovative production” (Peterson and Anand, 2004:316). Crane (1997) further asserts that “small organizations are better at scanning and exploring new fads and fashions” (Peterson and Anand, 2004:316). Additionally, through mergers, acquisitions, and contract brewing, many larger producers operate under the variegated form. In these cases, large firms, such as Anheuser-Busch, have acquired smaller regional and micro-breweries and have begun to produce craft-style beers under a different name. They are still in control of production, but are producing products under a name that suggests the product is an authentic craft beer.

Each of these organizational types also varies by structure. According to DiMaggio and Hirsch (1976) organizational structure can be thought of as the ways in which a group of people coordinate efforts to create a cultural product. Organizational structure has three dimensions: the number of
decision levels in the organization, or the level of bureaucracy; functional differentiation, or specialization of tasks; and the degree of vertical integration (Peterson, 1990). As the number of decision levels increases so too does the level of bureaucracy within the organization. Peterson (1990) suggests that as an organization increases the number of levels of bureaucracy it lowers the organizations “ability to adapt to changes coming from the environment” (106). Larger firms, such as AB Inbev, tend to have more levels of bureaucracy than smaller micro-producing firms. The degree of functional differentiation in a firm refers to “the degree to which tasks are performed by specialized departments” (Peterson, 1990:106). Larger firms can tend to have specialized departments for things like advertising, merchandising, securing ingredients, and brewing.

Peterson (1990) also notes, “alternatively, a firm might have several independent divisions each with its own group of specialists working together on related [brewing] projects that are released under a distinctive regional label” (106). Lastly, organizational structure can vary in degrees of vertical integration. According to Peterson (1990) vertical integration within organizations refers to “what degree all stages in the production, promotion and distribution processes are performed ‘in-house’ by divisions of the company or, alternatively, are performed by a series of firms that specialize in just one aspect or stage of the process” (106). Peterson (1990) also identifies another organizational form which he refers to as “solo-production” (106). Under this form of organization all of the creative aspects of production are performed by one direct supervisor. In this chapter I will show how the structure of individual organizations can vary in terms of the number of decision levels, functional differentiation, and vertical integration and the effects of these structures on the production of craft beer.
**Decision Levels and Bureaucracy**

Organizations vary by size and by levels of bureaucracy. A bureaucracy is an organizational structure in which specialized tasks are divided amongst individuals that exist in a hierarchy. Larger firms typically have a heavily corporatized structure with many decision levels. As Peterson (1990) contends, this ultimately affects the firm’s ability to adapt to changes in the market. Micro-breweries on the other hand, can have few levels of decision making and can adapt much more easily to the demands of the consumer. By limiting the amount of decision levels and bureaucracy, firms are able to adapt production to fit changing consumer tastes. In contrast, larger firms take much longer to approve decisions and are therefore unable to easily adapt to changes in taste. Generally, the larger the firm, the more levels of bureaucracy there will be. For example, AB InBev maintains a corporate structure with a CEO at the top, six members of an executive board of management, and four zone presidents who act as regional presidents all over the world (AB InBev, 2014).

In contrast, craft breweries are by law are very small and are often owned and operated by a small group of people. Micro-breweries take on a much less bureaucratic structure than the large macro-producing firms that dominate the beer industry. When a small group owns and operates a brewery there are fewer levels of decision making and less specialization of tasks. Ken Grossman, the founder of Sierra Nevada Brewing Co., created a business model with “a very flat organizational structure” that was characterized by “little emphasis on titles and management positions” (Griswold, 2013). After Sierra Nevada began to expand Grossman promoted employees from within, but notes that employees “still spent most of the day with their boots on,” which suggests that hierarchy and job titles are far less important in smaller firms and that ultimately, they are much less specialized (Griswold, 2013). Sierra Nevada is one of the most recognizable and oldest craft producers in the US; therefore, we can view their organizational model as an exemplar for others in the craft industry.
**Functional Differentiation**

The degree of functional differentiation is crucial to understanding the structure of organizations. Functional differentiation refers to “the degree to which tasks are performed by specialized departments” (Peterson, 1990:106). Micro-breweries typically have far less employees than large macro-producing breweries. According to the Beer Institute (2012) there were an estimated two million employees in the brewing industry. This number includes employees of macro- and micro-breweries, as well as, wholesalers, distributors, bartenders and restaurant servers, and retailers. The Brewer’s Association (2012) reported that the craft industry employs 360,000 employees with 104,440 of those jobs coming directly from breweries and brewpubs. This means that the roughly 1.64 million other individuals are employed by macro-producing firms. Currently, there are around 3,200 craft breweries in operation which means that on average each craft brewery employs roughly 30 people. As a result, many employees must perform more than one duty which decreases the level of functional differentiation within a brewery. Ken Grossman, recalls that when Sierra Nevada was beginning to grow he chose an “everyone pitches in model” where all employees performed multiple tasks in the production process (Griswold, 2013). There was little specialization of tasks due to the small amount of employees and the large amount of work that a brewery requires.

Larger firms hire employees to specialize in one area of the production process and therefore have a higher level of functional differentiation. MillerCoors, the second largest producer in the US, recently opened a facility in Trenton, New Jersey that operates 24 hours a day, seven days a week. T.A. Cook, a consulting firm, conducted a case study of MillerCoors and examined their team structure. At the brewery each shift is handled by an organized team of 6-19 individuals, with a total of 33 teams at the facility (Cook, 2014). Cook (2014) found that the teams were highly organized, highly specialized, and efficient, noting that, “the members of each team interface with the production process at different
stages, e.g. maintenance, procurement, logistics” (Cook, 2014). To better ensure the productivity of each team and to maximize production, MillerCoors implemented a system known as the “Star System” (Cook, 2014). Under this system, “one team member is responsible for each area [of production]. The system’s symbolic name stands for clearly-defined responsibilities for each individual and the optimal coordination of all work processes within a team” (Cook, 2014). Carroll and Swaminathan (2000) note that “some breweries encountered organizational problems that precluded adequate customer focus, needed re-engineering of production facilities, and required development of intense employee incentives” (726). Larger firms rely on bureaucratic structures to ensure productivity, efficiency, and calculability. If a firm operates with a high level of functional differentiation they are much less likely to be able to adapt to changes in the market.

Functional differentiation can also be measured by the number of independent divisions working on related products that are released under a different label. Most micro-breweries, with the exception of a few that have built east and west coast breweries, do not own other divisions that produce independent products. Breweries such as Sierra Nevada, Oskar Blues, Stone Brewing, Green Flash, and a few others have expanded their operations and opened breweries on the east coast. These new breweries still operate under the same organizational structure as the original brewery, but are located in another area. This also allows for greater distribution for breweries, and they are now able to reach a much wider consumer base. These small firms rarely purchase other breweries through acquisition and rely on expansion as a means for growth. It should also be noted that many micro-breweries have no intention of growing larger and several brewery owners have said they have no desire to grow larger. However, large firms such as AB InBev, through acquisition have been able to produce beer under independent labels with regional and national distribution. AB InBev is able to reach
much broader consumer bases with its flagship brands and the brands they have acquired. As a firm increases its holdings through acquisition; the level of functional differentiation increases.

*Vertical Integration*

Similar to vertical integration within the industry structure, organizations can also vary by degree of vertical integration. Vertical integration within organizations is a measure of the degree to which tasks are performed in-house. This includes the production, promotion, and distribution of beer by a given firm. As noted previously, the three-tier distribution system prohibits a producer from distributing his/her product directly to the consumer. Additionally, as required by law, a producer of alcohol may not own a distribution company and a distribution company may not own a retail shop. There are, however, a few exceptions such as brewpubs that I will examine in the following sections. Peterson (1990) suggests that some organizations may take on another form in which they employ a “solo-production” model (106). In this model, producers operate autonomously to create products. The home-brewer is an excellent example of this type of organizational structure. In the following sections I will further analyze the effects of organizational structure on the production of craft beer.

**6.3: The Three-Tier Distribution System**

The structure of the brewing industry was also in part shaped by laws and regulations. After the repeal of Prohibition the federal government gave states the right to control their own alcohol production and consumption. If a state chose to allow alcohol (currently every state allows the production and consumption of alcohol) to be produced and consumed it had to regulate it through a three-tier distribution system. In this system beer is produced by a brewer, and then sold to a wholesale distributor, who then sells the beer to a retailer for purchase by the consumer. At each tier of the system new markups and taxes are added, causing the beer to become more and more expensive.
before it reaches the consumer. This directly affects craft beer as it typically is much more expensive than industrial beer. With the implementation of the three-tier system the traditional notion of the regional brewer became a thing of the past. Hartfiel (1991) notes, that “depending on which distributor gets a hold of the product, a beer can be introduced to major market centers like Chicago, New York, and Los Angeles, yet meet the definition of a regional brewery” (47). Many microbreweries still retain only regional distribution, but as the industry grows in size, more and more breweries are distributing more widely.

There are several other ways in which the three-tier system constrains the production of craft beer. In order to better understand this relationship we must first better understand the role of the wholesaler in the distribution system. The roles of the brewer and the retailer are fairly self-explanatory. The brewer produces the beer and the retailer sells the beer. But how does the beer get from the brewery to the retailer? Wholesalers are essentially middlemen, who in the opinion of industry insider Peter Reid (1997) are the “independent distributors who have done much to shape the American Beer Industry” (12). They have no control of the production of the beer but do have a little control over the actual point of sale of alcoholic beverages. Wholesalers are the ones who set up the in-store displays, drive the beer trucks, pitch the beer to retailers; they handle the marketing and advertising, and many other services. As Reid (1997) asserts, that “while distribution may not be the most romantic aspect of the brewing industry, wholesalers are crucial in providing consumers with the widest selection of the finest possible beer” (12). Wholesalers decrease the level of vertical integration of the brewing industry because they perform the tasks that the brewery cannot perform. By law breweries are not allowed to perform these tasks. The original intention of the three-tier distribution system was to do away with the tied-houses of the pre-prohibition era. Therefore, a brewery cannot market or sell beer directly to a consumer (except on special circumstance that vary by state) and cannot own a distribution or
wholesale company. In a sense the wholesaler helps provide checks and balances in the system. Jim Koch, the president of the Boston Beer Company, contends that, “the key benefit [of the three-tier system] is fundamental...the retailer gets frequent and efficient deliveries...a good distributor with strong brands will be replenishing retailer supply every week” (Reid, 1997:12). But the relationship between brewer and distributor is not always so beneficial.

By law, wholesalers are only allowed to operate in a specific region. Within a given region there may be several distributors, each of which distributes different products. Each distributor may carry any number of brands that are available. This includes domestic, specialty, and import brands. However, no two distributors are allowed to carry the same brand. For example, a distributor may carry Anheuser-Busch products, Heineken, and Sierra Nevada. Another distributor in the area may carry a large domestic such as MillerCoors, an import such as Bass, and a specialty such as Dogfish Head. This allows for competition and product diversity within a given region. Distribution also depends on production. Smaller specialty and micro-breweries cannot produce enough products to distribute nationally; therefore the products are only available in certain regions. Products such as Budweiser and Pabst Blue Ribbon, however, are produced at multiple plants in multiple states and are distributed nationwide. The distribution of beer is one of the key factors affecting consumption. Simply put, if the beer is not available one cannot drink it.

In addition to selling beer to a retailer, a distributor is in charge of stocking the local stores, shops, bars and restaurants that carry his/her brands. One key issue with this system is there is only a finite amount of space on shelves and number of taps in a bar. This leads to a highly competitive situation where distributors lobby with shop and bar owners to stock their brands. The result is a territorialness that ultimately limits the options for the consumer. If a bar has ten taps available and works with three different distributors, the tap space will be unequally distributed. This limits the
options available to the consumer. Much like the tied-houses of pre-prohibition, distributors can develop relationships with retailers that can lead to unfair business practices. For example, distributor A carries brand X and distributor B carries brand Y. Now suppose that A does more business with a retailer than B does. When it comes time to order beers for tap vacancy, the retailer may give that tap space to A rather than B because of their stronger relationship. Additionally, when specialty beers become available in small quantities, distributors can decide which account will receive the beer. Typically, a distributor will reward a retailer that sells more of his/her brands than a retailer who sells less.

While wholesalers do bring a diverse selection of products to the market, there are political processes and structures that also constrain the proliferation of diverse styles and brands. This is especially true of the larger, macro-producing firms. Jack Kenny (1995) writes about the beer industry and contends that “the big guys [macro-producing firms] control the lines of distribution and the loyalties of thousands of retailers and saloon keepers” (13). Mark Rodman, a wholesaler from Massachusetts, asserts that, “the hardest criticism you can make of regulations that support the three-tier system is that they mandate a single structure for the beer industry and prohibit innovative approaches” (Reid, 1997:14). Wholesalers have proven they are vital to the system, but many brewers blame them when their product is not successful. Rodman (1997) further notes, “the small producers believe that their product is good enough to sell itself, so they don’t take merchandising responsibility, and they blame the wholesaler” when their product is unsuccessful (Reid, 1997:14).

The loyalties of a particular distributor can have great effects on a beer and brewery. If no one will distribute your product then you cannot sell that product. Distribution can make or break a beer’s success in the market. It is an absolutely crucial step in the retail process. If there were no distributors it would be up the breweries themselves to get their products to market. When a brewery is just starting out funds are hard to come by to brew the beer itself, let alone marketing the beer. The craft beer
movement might not have happened if it were not for pioneers like Jim Koch traveling store to store and bar to bar pitching his beer Samuel Adams Boston Lager. Because the craft movement was in its infancy and there were so few microbreweries at the time, many distributors were hesitant to widely distribute these new beers. Additionally, many of the first microbreweries barely produced enough beer to distribute outside of their locality. In the next section I will discuss contract brewing and how it has stimulated the production of craft beer in the US.

6.4: Mergers, Acquisitions, and the Decline of the Regional Brewery

One way in which economists measure oligopolistic control of an industry is with concentration ratios. Concentration ratios are used by economists to determine the degree to which a particular industry is oligopolistic. These ratios are a measure of the total market share of a given number of firms. Typically, they are expressed as four-firm concentration ratios (CR₄). While other measures are used to measure industry concentration, for the purpose of my research I will be reporting only four-firm concentration ratios. As Tremblay and Tremblay (2009) note, “the concentration ratio measures the market share of the four largest firms in the industry, giving equal weight to the share of each of the four largest firms and no weight to the shares of other firms” (43). Four-firm concentration ratios can range from 0 to 1 and economists suggest that a high concentration ratio indicates that an industry is oligopolistic.

Tremblay and Tremblay (2009) report that from 1947-2000 the US brewing industry’s four-firm concentration ratio increased from just below 0.20 to 0.95 (44). This suggests that the concentration and oligopolistic control of the four major firms; Anheuser-Busch (now known as AB-InBev), Miller and Coors (who formed a joint venture in 2008, but still produce independent brands), and Pabst Brewing Company; has increased drastically over the last fifty years. Scherer and Ross (1990) and Shepherd
(1997) contend that “once CR4 exceeds 40 percent, the level of effective competition diminishes and an industry can be classified as an oligopoly” (Tremblay and Tremblay, 2009:45). As Tremblay and Tremblay (2009) note the US “brewing industry has been oligopolistic since 1968” if we use this measure of concentration (2009:45). Over the next several years the brewing industry would become more concentrated. The Department of Justice classified the brewing industry as “moderately concentrated” beginning in 1972 and “highly concentrated” in 1982 (Tremblay and Tremblay, 2009:45). And then by the late 1990s the brewing industry was described by Greer (1998) as a “tight-knit oligopoly” (32). As we can see the concentration of the US brewing industry has increased dramatically over time. But what are the causes and how did it constrain and stimulate the production of craft beer?

The key factor in concentration is mergers and acquisitions. Greer (2002), reports that there were “more than 600 horizontal mergers and acquisitions of facilities and/or brands in the US brewing industry since 1950” (32). A horizontal merger is a form of consolidation that occurs between two firms who operate in the same space, produce similar products, and are often in competition with each other. Many of these acquisitions and mergers were the result of smaller firm’s inability to compete in the market. Rather than closing their facilities, they consolidated with other breweries. Tremblay and Tremblay (2009) contend that “available evidence indicates that most of the brewers that exited the industry during this time did so by combining with another beer producer” (187). However, consolidation and mergers can take on another form as well.

According to Tremblay and Tremblay (2009), “for several brewers, the acquisition of another firm’s brands, plants, and equipment became an important means of expansion” (187). Most of these breweries were classified as regional breweries, meaning they distributed in a very limited geographic region. By acquiring these smaller regional firms, large firms were able to reach new markets through increased distribution and a wider variety of brands. It should be noted that while large firms were
acquiring smaller firms and their brands, most of these brands produced “traditional American-style pale lagers,” or what some refer to as industrial lager. Patrick Baker (1983), an industry insider, laments that “with the closing of breweries, the drinker lost regional character in his beer and a choice in styles” (17). Another function of these regional acquisitions is that it allowed macro-producing breweries “to ship long distances, and gain maximum benefit from their advertising, they standardized their beers, eliminating styles and regional tastes” and what has resulted “is a plastic beer, very efficient and economical to produce, but lacking in character. Hence the void being filled by imports and the real beer microbreweries” (Baker, 1983:14). As more and more regional breweries were closing the level of competition in the brewing industry was also decreasing. Larger firms bought the facilities of small breweries and began producing their own brand of beer, rather than what the original regional brewery was producing. The result was a more industrialized, de-localized, and most importantly, more homogenized beer that was quickly coming to dominate public perception of what beer should taste like.

As competition decreases, the level of homogenization increases. During the 1960s the larger firms began to dominate the market. This resulted in fierce competition between firms. Using the “slice strategy,” firms tried to control larger and larger slices of the brewing industry. As Peterson (1990) suggests, this led other firms to simulate the products produced by the more successful firms. This leads to a cycle of production and simulation that resulted in a mass-produced and homogenized beer. In an attempt to compete, the “Big Six” effectively copied the product being produced by Anheuser-Busch. There was very little variation in the beer produced by these firms. At the time, Anheuser-Busch was producing a pale and light adjunct lager that vaguely resembled a pilsner style beer. Fearful of being shut out of the market, other firms began producing similar beers. They followed Anheuser-Busch’s lead and began to use less expensive ingredients and brewed on a much larger industrial scale to ensure
wider product distribution. Prior to this, breweries were known for their regional flavor and were expressive of a particular region or locale. Now all of sudden, beer from Milwaukee tasted like beer from St. Louis. Meanwhile, there were a few independent brewers and home-brewers who were adopting a different model.

It is interesting to note that during the time between the mid-1960s and early 1980s, a time of increasing industry concentration that the micro-brewery and craft beer movement began. As I previously mentioned, Peterson (1990) notes that an alternative industry structure may exist, rather than a strictly oligopolistic structure. In this structure several smaller firms begin producing a distinctly different product that fulfills the needs of a niche market. After WWII, many veterans stationed overseas had developed a taste for European style ales. Upon their return, they found that no such beer existed in the US. Taking matters into their own hands they became some of the first home-brewers and micro-brewers. I will more closely examine these early home-brewers in the chapter on occupational careers. Early homebrew clubs, such as The Maltose Falcons, were formed by like-minded individuals who were unsatisfied with the macro-produced beer available.

In the previous chapter I highlighted the relationship between laws such as H.R. 1337 and home brewing as having been pivotal in the success of the craft beer movement. Another factor to consider here is how the rapidly changing structure of the US brewing industry created a set of circumstances that allowed craft beer to emerge as a new alternative to mainstream industrial lagers. As Tremblay and Tremblay (2009) suggest the emergence of the micro- and craft beer movements are interesting because “these small brewers have returned to the brewing practices of Europe, a strategy that has proven successful and changed the behavior of many mass producers” (14). Mergers and acquisitions did have an effect on the concentration of the US brewing industry, but as Tremblay and Tremblay (1988) find, most of the large brewers gained little of their size through mergers from 1947-1983 and
thus “the extensive merger activity in brewing involved primarily small or failing firms and had little
effect on CR₄” (Tremblay and Tremblay 1988; Tremblay and Tremblay, 2009:45-46). When considering
that most of these major firms, perhaps all of them, produced the same pale light lager-style beers, one
could surmise that perhaps the industry was concentrated by style and by a small number of producers.
The craft and microbrew movement emerged as an alternative to this and produced a different product
using more traditional means of production. Consolidation and market concentration have no doubt
affected the type of beer produced, and in the late 1970s many new players were ready to get their feet
wet in a newly formed market, the regional-specialty, or more commonly known craft market.

6.5: Macros that Look Like Micros: AB InBev and Goose Island

During the mid-1980s, when the acquisition boom had finally begun to slow down, several
macro-breweries were trying to find other ways of tapping into the craft market share. One way in
which this was achieved was by buying large shares of micro-breweries across the country. In order to
remain a craft brewery by definition a micro-brewery or brew-pub must not be majority owned by
anyone who is him/herself not a craft brewer. At the time AB InBev was purchasing these smaller
breweries the Brewer’s Association recognized a craft brewery as one that was no more than 49%
owned by a firm or individual who was not a craft beer. This changed when the definition was revised to
only allow for 25% of a brewery to be owned by someone outside of the craft industry. The result of this
was that many of the brands AB InBev and others bought up were now no longer considered to be craft
brands. These purchases were an attempt by the large brewers to increase their functional
differentiation. By purchasing small craft breweries they were able to release products into markets that
would normally be closed off to them. Additionally, it allowed for these macro-producers to sell
products under a different name that was only available in certain regions. Lastly, it challenges the
notion of craft which was up until recently almost exclusively understood by the consumer as “craft styles” rather than craft production.

One example that has caused major waves in the craft beer world was the purchase of Goose Island Beer Company (legally known as Fulton Street Brewery LLC). In 2011, AB InBev made waves when it purchased 100% of the shares of the 16 year old brewery that was quickly becoming a Chicago area staple. Goose Island produces many styles that are available year round and offers several seasonal offerings. In addition to these seasonal offerings they also produce a limited distribution high-end line of beers under the label Bourbon County. These beers are released once a year, are very rare, and are highly sought after. Upon the acquisition of Goose Island many craft beer drinkers were torn between whether or not to drink Bourbon County beer. On one side there are craft beer drinkers that will drink any beer as long as it is of a certain quality. Others craft beer drinkers will not drink any beer that is produced under a label or brand that is owned by a macro-producer such as AB InBev. By increasing its functional differentiation AB InBev has successfully blurred the lines between what is craft beer and what is not. While there is a standard industry definition of what craft beer can or cannot be, that is not always clear to the consumer. Carroll and Swaminathan (2000) note that, “the identity problems of both mass production and contract brewers emanate from their organizational form and revolve around questions of tradition and authenticity” (728). Further, Carroll and Swaminathan (2000) contend that, “consumers buying specialty beers seek simply a malt beverage brewed in a small craftlike firm according to traditional methods and using natural ingredients. This causes many of them to balk at beverages brewed by large corporations using modern methods of mass production and to reject outright those beverages sold deceptively by a business corporation” (728-729). The savvier craft beer drinkers are aware of these acquisitions and read labels more closely. However, there are many would-be craft drinkers that do not know the difference and may purchase a product thinking it is craft when in
fact it is not. This further explains why a firm would choose to conceal its true organizational identity either via a subsidiary or specialty division, or through contract brewing (Carroll and Swaminathan, 2000).

6.6: Contract Brewing

The effect of contract brewing on craft beer is twofold. First, it stimulates the production of craft beer by allowing small breweries to brew their beer on a much larger scale and reach a much broader audience. Secondly, it hurts the authenticity of craft brews because they can fool the consumer into drinking macro-produced beer that is hiding under a contract label. Contract brewing is when a small, usually upstart brewery, does not possess the means to brew his/her own beer. This may be due to a lack of equipment, or size of facilities, or even a lack of sufficient manpower to run a brewery. Contract brewing can also be used to increase the distribution of a particular brand. Several micro-breweries attempt to tie their beer to a particular region. This is complicated when a beer is contract brewed. When beer is contract brewed it is brewed in a completely different region than where the name would suggest. This can become confusing and can suggest to the consumer that a product is local or regional, when in fact it may have been produced in a completely different state. This highlights some of the flaws in the contract brewing arrangement. Under these types of arrangements brewers can brew beer all the way across the country and claim that it is brewed somewhere else. This challenges notions of authenticity within the craft beer movement, especially when Sam Adams and its founder, Jim Koch, are such notable figures in the early days of the craft beer movement.

Also, large macro-producing breweries such as Anheuser-Busch can brew beer under a “craft-style” label and market it to craft consumers. One example of this would be Killian’s Irish Red and Blue Moon. Killian’s Irish Red and Blue Moon beer are produced by Coors under their Unibev Division, which
is not a craft brewery. However, Coors have cleverly developed and marketed a brand that appears to be an independent craft brewery on the outside. Blue Moon and other labels are completely made up to look like craft style offerings. A manager for Coors asserts that, “Management had the foresight to see that there was greater potential for the brand with greater focus and therefore created Unibev. It allows us the freedom and the autonomy to address these opportunities in the specialty segment” (Kenny 1995, p. 14). When big breweries merge with smaller breweries they will often keep the brand intact. But what they are really doing is cleverly packaging a non-craft beer as a craft beer. This leads the consumer to believe that all craft beer is created equally and that any colorful six-pack on a shelf is a craft beer.

As mentioned previously, a craft beer is defined by The Brewer’s Association as small, independent, and traditional. A large firm such as MillerCoors does not meet any of these standards and as Fred Eckhardt (1995), a long-time home brewer and beer writer notes “a few industrial brewers have been producing some interesting (if not particularly tasty) new beers,” however, “the real significance here is that these experiments by the industrials will show them that they really cannot compete in the good taste marketplace” (36). Eckhardt (1995) adds, saying “they [industrial brewers] are too big for that. They have to please millions of drinkers, whereas most of our favorite brewers [craft brewers] must please only thousands at most” (36). Contract brewing allows smaller breweries to reach a broader market, but it also allows industrials to brew “craft-style” beer.

Contract brewing is seen as a necessary evil in the craft brewing industry. Edgar (1991) notes “the growth of micro-brewed brands has been shadowed and in some areas overshadowed by the rise of contract brewed brands” (22). Contract brewing companies are able to develop and market a brand and never actually brew the beer. This task is taken up by another facility that receives compensation for brewing the beer. Often times, brews are contracted out to regional brewers. These breweries are
typically well equipped, but underutilized. One example is Genesee, a once prominent brewery that is now known as North American Brewers, is almost strictly a contract facility. Many of these breweries were once great regional producers that catered to the needs of a regional and local customer base. Now these breweries are used to produce beer for other breweries that is shipped to a market outside of the contracted brewery’s region.

6.7: Brewpubs and the New Independent Regionals

As the popularity of craft beer spread from the west coast to the east coast brewing operations began to get smaller and smaller. James D. Robertson (1991) suggests that this progression led to the advent of the brewpub. A brew-pub is simply that, a pub that also brews beer. In these establishments customers may select from a variety of house-made beers and enjoy pub-style fare. The main difference between a brew-pub and a micro-brewery is that a micro-brewery does not produce food on site and they cannot sell their beer directly to the consumer without special licensing. Special licensing must be acquired in order for a brew-pub to operate legally since they are selling alcohol directly to the consumer. Brew-pubs have appeared in states which allow them to sell their beer directly to the consumer. They are the exception to the three-tier distribution system. Typically, brew-pubs produce less beer than microbreweries, but this is not always the case. One of the main similarities between the two, however, is that both operate with a very low degree of bureaucracy. This contrasts the organizational model of the larger macro-breweries that operate with very high levels of bureaucracy in which decisions are not made as easily.

As Peterson (1990) notes the level of bureaucracy can have effects on the ability of firms to adapt to market changes. Brew-pubs, due to their lower levels of bureaucracy, are much better equipped to handle these changes. At a brew-pub beer is produced in much smaller batches than at
other types of breweries. This can affect production in several ways. Robertson (1991) points out that brewing smaller batches helps the brew-pub to maintain the freshness of the beer and to better control the quality of the brew. Therefore, brew-pubs can be very flexible in their brewing schedules. They are able to cater to not only local and regional tastes, but can also produce seasonal offerings that are only available during certain times of the year. Robertson (1991) notes that at a brew-pub the brewmaster has “maximum flexibility to make whatever kind of beer he wants, responding to the demand for seasonal and holiday brews” (18). This flexibility allows brew-pubs to constantly adjust to the taste of the consumer. In contrast, macro-producing firms such as AB Inbev, lack this flexibility because of the high level of bureaucracy. It is much easier to make decisions about production and products when there are only a few people involved with the production process (i.e. a brew-pub).

Another type of brewery that exhibits lower levels of bureaucracy is the “new independents” (Harper and Mierswa, 1999:15). These breweries “confine their sales to their local markets, though some ship limited quantities to selected outlets in other states” and typically operate within a specific region (Harper and Mierswa, 1999:15). According to Hartfiel (1991) these breweries are called the new independent regionals because they follow a similar model to the pre-prohibition regional brewery that was defined as regional due to its “inability to transport or mass-market a beer beyond an immediate geographic location” (18). Many of these breweries were started by “one or two individuals or by a small group of friends in the mid- to late-1980s” which means they typically have lower levels of bureaucracy than the pre-prohibition regional brewers (Harper and Mierswa, 1999:15). After prohibition regional breweries that were not bought out or out of business, were able to distribute their beer much more widely under the three-tier distribution system. Regional breweries benefitted from the three-tier distribution system as they were able to reach larger markets and many of the tasks such as, distribution
and promotion, were now performed by wholesale distributors. The result is a much more vertically integrated organization that relies on others to increase production.

The new independent regional brewers face a new set of challenges that the pre-prohibition regionals did not have to face. After the repeal of Prohibition and up into the mid-1970s, American tastes for beer had become homogenized. Americans were used to drinking pale adjunct lagers such as Budweiser. Once the craft beer movement took hold the tastes of beer drinkers began to change as well. Changing tastes are both a cause and an effect of the craft beer movement. These new independent regional breweries were able to produce styles of beer that were previously not available, and some styles had yet to be produced in the US. Harper and Mierswa (1999) suggest that “new regional independents are in some ways throwbacks to the pre-prohibition era, when cities and towns had competing local and regional breweries” that were often steeped in tradition. Harper and Mierswa (1999) further contend that “one advantage that the new independents have over the old pre-prohibition regional breweries is that they are not locked into anything by tradition,” they were able to brew whatever they wanted (17). This is echoed by Rich Doyle, the founder of Harpoon Brewing Company, who said “we do what we do and hope people like it...we serve the consumers because we are not rooted in a family tradition or brewing style...each brewery becomes its own tradition” (Harper and Mierswa, 1999:17). The structure of these organizations allows brewers to adapt to whatever the consumer’s tastes may be, or in the case of Harpoon, whatever the brewer wants.

6.8: Solo-production and the Rise of the Nano-brewery

As the craft brewery movement progressed from the west coast to the east coast brew-pubs and other small craft breweries began to open all around the US. Micro- and craft breweries are by definition small, independent, and traditional, but was is there a limit on how small a brewery could be?
First take the home-brewer as an example. By law a home-brewer is only allowed to produce up to 100 gallons per adult per year with a 200 gallon limit per household. But how is the beer produced? In terms of vertical integration the home-brew is most vertically integrated type of brewer. He/she controls all aspects of the brewing process including: gathering ingredients, sanitizing the equipment, brewing the beer, packaging the beer (bottles, cans, kegs, or growlers), ages the beer, and consumes the beer.

The practice of home-brewing could be viewed as the alternative structure Peterson (1990) refers to as “solo-production” (106). In this process an individual, or very small group of individuals, complete all the tasks required to produce a particular product. Additionally, they promote, market, and often times distribute these products themselves. All of these tasks are completed by the home-brewer except for the distribution for two reasons. First, home-brewers are not allowed to sell their beer for a profit. They may consume their wares with others or even enter their beer in a home-brew competition to be adjudicated, but they may not sell their beer to consumers. Secondly, home-brewers are not allowed to sell their beer without going through the three-tier distribution system. One important note is that most home-brewers do not become micro-brewers and simply brew beer for the love of the craft. There are however, an increasing number of smaller breweries that are beginning to emerge across the country.

The next step up from home-brewing is nano-brewing. A nano-brewery is a small independent brewery that produces very small limited batches of beer and does not exceed a four-barrel brewing setup. Most nano-breweries start out as home-brew operations. The key difference between home-brewing and nano-brewing is the commercial aspect. As mentioned previously, home-brewers are not allowed to sell their beer to consumers. Nano-breweries, because they exceed the legal limit of beer one may produce in a given year, take the next step and are able to receive special licensing that allows them to sell their beer. Much like a brew-pub, a nano-brewery does not have to go through a distributor
depending on the location of the brewery. Many nano-brewers do not wish to widely market their beers. Just like the home-brewer the nano-brewer is content with a small local following and sense of regionalism that echoes current trends in the food world. But why are these breweries springing up at such a fast rate?

Harper and Mierswa (1999) suggest that the rise in the nano-breweries is increasing due to several factors. The first is economics. Simply put, it is cheaper to make beer in the home than it is to buy it. Just like the home-brew pioneers before them, nano-brewers seek to create styles that fit their ever-changing tastes and the tastes of a local consumer base. Secondly, there is the shared love of drinking beer with friends and sharing one’s wares with other craft beer drinkers. Lastly, nano-breweries give the owner/operator complete control over the brewing process. These operations are typically run by individuals or small groups; therefore they operate with a very low level of bureaucracy. This is echoed in sentiments from an unnamed nano-brewer after recently automating his/her brewing system. The brewer said, “we’re now making better beer because everything’s better controlled...it’s laid out in a logical line of operations and we’ve built up a command central to run everything – one person can drive the whole system and from there the brewery can do things on its own” (Baltazar, Amanda, 2009:29).

6.9: Summary

The three-tier distribution system has both constrained and stimulated the craft beer movement. After Prohibition, states were granted the right to tax and control the production and consumption of alcohol. The way in which this was carried out was through the implementation of a three-tiered system of distribution. Under this system alcohol is not allowed to change hands from the producer directly to the consumer. Instead, it must go through a wholesale distributor. The system was
put in place to abolish the practice of “tied-houses” in which breweries worked with bar owners to monopolize a region. This system stimulated the craft beer movement because wholesalers are able to place products in stores and market the beers of smaller firms that may be financially incapable. And, in theory, the system ensures a diverse product selection is available at local retailers. However, the system is highly territorial and often times distributors work out agreements with larger firms to prevent the proliferation of smaller craft brands. While it is unfortunately a necessary evil, the three-tier distribution system continues to affect the craft industry in these ways.

Another way in which the industry became so highly concentrated was through mergers and acquisitions. Following WWII many breweries were unable to stay in business and were either forced to close or were simply bought up by larger firms. One effect of the merger and consolidation frenzy of the 1960s was the decline of the regional brewery. As small breweries were bought up by larger firms they were re tooled to brew the beer of the parent company. This means that many regional breweries were now producing a different beer under a new brand name. While this diminished the number of regional breweries in the US it also aided in the proliferation of several macro-produced brands such as Anheuser-Busch. These breweries were now located in several regions throughout the US and were able to reach much wider markets than before. Mergers and acquisitions discouraged diversity of products and further pushed toward the homogenization of American beer.

The success of the craft beer movement owes much to the practice of contract brewing. This practice allows for small firms to contract out the facilities of larger breweries to produce beer. Many craft breweries operate on such a small scale that it is impossible to brew all of their beer. When this occurs many of these breweries will contract brew with another brewery. This affects vertical integration as small firms lose some control over the brewing process. Another effect of contract brewing is that it challenges the authenticity of craft brands. Many large firms, including the craft beer
pioneering Boston Beer Company, brew their beer under contract. When beer is brewed in one location but marketed as being made in a different location, the authenticity of craft beer is challenged. Larger firms have further complicated the matter by contract brewing many craft-style beers and marketed them under “crafty” names. The result of these forms of contract brewing is that a consumer may be seeking a small, traditional, independent craft beer and actually be purchasing a craft-like offering from a macro-producing firm such as Anheuser-Busch.

Within the brewing industry there are several different types of breweries. Breweries are not only defined by size, but also by other characteristics such as ownership and tradition. The structure of these organizations can have both constraining and stimulating effects on the production of craft beer. Organizational structure can vary in degree of level of bureaucracy, functional differentiation, and vertical integration. As the beer industry has grown over the last several decades the structure of breweries has also changed. As breweries begin to grow they increase in level of bureaucracy. This limits their ability to adjust to changes in the market environment and consumer tastes. Macro-producing firms such as AB InBev, operate at a very high level of bureaucracy. These organizations have so many levels of decision making that it is often very difficult to make small changes as the needs arise. In contrast, micro-breweries typically have far less employees and operate at a much lower level of bureaucracy. This has helped the craft beer movement continue its upward trend as smaller firms are most able to deliver diverse products and can adapt to market demands and changing tastes.

Another effect of the small employee base of micro-breweries is that they have much less functional differentiation. In larger firms there are many specialty departments that deal with specific tasks in the production process. Micro-breweries have far less employees who will often work to complete several tasks rather than a specific one. Functional differentiation can also be measured by the number of divisions and regional producers that produce goods under different labels but are owned by
same parent company. Most micro-breweries are too small to expand out of their region or locality, however, a few have begun to contract brew their beer. Large firms, such as AB InBev, have successfully acquired many small craft breweries and produce “craft style” beers under unique labels. This helps these firms reach a larger customer base and allows them to tap into the growing craft beer market share. A latent effect of these acquisitions is the blurring of lines between what is authentic craft beer (i.e. legally defined as such by the Brewer’s Association) and mass-produced regional “craft style” beer.

The shape and size of craft breweries has been changing dramatically over the last two decades. Breweries are returning to their home-brewing roots and producing smaller limited batch beers. One form of new organization formed under this strategy is the brew-pub. These breweries seek to increase the number of services provided by a brewery and combine the local charm and aesthetics of a traditional pub with a small brewery. Brew-pubs are able to produce and sell their beer directly to consumers in those states where the three-tier distribution system allows for it. They are typically smaller than traditional micro-breweries and much more equipped to handle market changes. Another form of brewery to emerge is the nano-brewery. These breweries are the next step up from a home-brew operation. They typically brew very small and very limited batches of beer that cater to the whims of their local and regional clientele. Nano-breweries and, to some degree brew-pubs, provide craft beer to much more local and regional consumers. Most of them do not desire to expand their operations to include wider distribution or branding and stylized advertising. Organizational structure can constrain the production of craft beer in similar ways to the production of popular music. Home-brewing craft beer may be viewed as taking links out of the decision chain. Nano- and micro-breweries seek to have the highest level of control over their product. They do so by limiting the level of bureaucracy, operating at lower levels of functional differentiation, and much more vertically integrated than their macro-producing counterparts.
Chapter 7: Creating a Demand: Market Changes and the Proliferation of Craft Beer

Markets have greatly affected the production of beer in the US. Peterson (1990) notes that, “in a market economy like that of the US, the audience finances popular culture though its selections among what is on offer, the audience is every bit as important in shaping popular culture as is law, technology, and the other constraints [of the production of culture perspective] (111). Peterson (1990) further argues that, “what is most important in shaping the decisions of those in the culture industry is not the preferences of the population of actual or potential consumers, but rather their preferences as these are understood by decision-makers in the culture industry” (111). The assertion here is that consumer tastes do not necessarily drive market change. Instead, producers in the culture industry interpret what they perceive consumer’s tastes to be and produce cultural products according to this interpretation. Therefore, we can use market “to designate the audience as it is conceptualized by the culture industry” (Peterson, 1990:112). In other words, we can understand that “markets are construed by producers to render the welter of consumer tastes comprehensible” (Peterson and Anand, 2004:317). White (1981) describes a market as the result of interactive processes between groups of producers who compete with each other by observing other’s attempts to satisfy customer tastes. This means that once a market is established cultural producers will attempt to recreate the most popular versions of a cultural product in order to be successful (Peterson and Anand, 2004).

In order to better understand how markets shape the production of culture I shall point to similarities in the music industry. Peterson and Anand (2004) note that, “in the swing/crooner era, the market for popular music was identified as a homogenous mass, and the oligarchs competed for a larger piece of the pie. Beginning with the rock era, the market became defined as an ever-expanding set of heterogeneous niches” (314). In 1948, the four major radio networks competed with each other and viewed the radio audience as one vast homogenous market (Peterson, 1990). In this type of structure
firms compete with each other to increase their own "slice" of the homogenous market pie" (Peterson, 1990:112). As the major firms competed they tried to improve, or emulate the existing radio programming of their competitors, rather than creating new programs. This lack of innovation increased the level of homogeneity in the market. There are several similarities between the radio broadcasting industry and the US brewing industry. The US brewing industry was also dominated by a few large firms that competed with each other with little innovation.

The radio market had been dominated by four major firms that all played the same styles of music. One day a music director for an independent radio station noticed a waitress playing the same songs over and over again. The music director reasoned that consumers select music that they want to listen to rather than what is played on the radio. He then decided to reformat his radio station and began playing music from the sales charts. These charts were based not only on radio play, which was dominated by the big band and crooner artists of the major networks, but it also included jukebox and record sales. The billboard charts showed everything from big band to R&B and country music. The director then began changing the list of songs each week as the charts were updated. Ultimately, the music director was offering a new product that was not being heard widely. He called his new format "Top 40" because the charts showed the forty top sellers each week. Peterson (1990) contends that the introduction of the Top 40 radio format "led to the view of the radio market as a set of distinct segments" (113). It was, perhaps, one of the biggest innovations in radio before or since. Now, radio listeners had a much broader range of music to listen to. Peterson (1990) further notes, that "now the market was conceived of as a mosaic of distinct segments, each with its own aesthetic" and that "rather than seeking the sound that would offend no one, now the innovative programmers sought out music that might offend, shock or bore many people but would capture the devoted attention of the targeted segment of the audience" (113). Radio stations could now play a wider variety of music rather than
trying to compete with the larger networks. The Top 40 format was a response to the homogenous radio market during the 1950s. It also opened the doors to many styles of music that were not widely played. We can see this model in the beer industry as well. Through innovation and the creation of new markets, the craft beer movement was able to take hold amongst the homogenous beer market of the day.

The market for beer in the US has seen drastic changes over the last several decades. Prior to Prohibition, regional breweries flourished and defined the tastes of a given area. After Prohibition, during a time of consolidation, mergers, and acquisitions, the market for American beer became homogenized and a few dominant breweries competed to produce a cheap form of beer known as American adjunct lager. This trend continued throughout the 1960s and into the mid-1970s when the craft beer movement was born. In the mid-1980s, a time of high industry concentration, the craft beer movement began to gain traction. Micro-breweries were popping up all over the country at incredible rates and were producing innovative new products. Miller (1985) points out that “the significance of a viable microbrewery scene goes way beyond economic impact” and “the proliferation of these enterprises reflect a growing interest in beer as a classic beverage, and a growing reluctance to accept the blander, domestic, national brands” (33). In the same way the rock n’ roll met the unmet needs of a teen audience (Peterson, 1990)), the craft beer movement was fulfilling an unmet need for a growing population of beer drinkers and a new market was being created. Carroll (2000) notes that, “collectively, these breweries have introduced and reintroduced to the American market a wide variety of new malt beverage products. Individually, the breweries tend to be small and specialized in their product offerings and target markets” (716). One way in which Carroll explains this phenomenon is resource-partitioning theory.
Carroll (2000) suggests that, “resource-partitioning theory explains the rise of late-stage specialist segments within an industry as an (unexpected) outcome of the consolidation occurring among generalist organizations as they compete for the largest consumer resource bases of the mass market” (717). Resource-partitioning addresses the interrelationship between two organizational trends. The first trend is the increasing market concentration found in many industries that occur gradually over time (Carroll, 2000:716-720). As noted in Chapters 6, the US brewing industry was highly concentrated and oligopolistic. This occurred through consolidation, mergers and acquisitions, and the lasting effects of Prohibition. Market concentration increased over time and the industry was eventually dominated by four major firms. The second organizational trend is the increasingly common appearance of many small specialist organizations in certain mature industries (Carroll, 2000:716-720). During the mid- to late-1970s several home-brewers began opening breweries on the West Coast. Throughout the 1980s micro-breweries were springing in many different regions of the US. They were able to survive because they offered innovative new products that were distinctly different than the homogenized beer produced by the dominant firms of the US brewing industry. The relationship between these trends in the US brewing industry suggests that the industry is “partitioned.” Carroll (2000) contends that, when resources are “sufficient to sustain a specialist segment, the market can be said to be ‘partitioned’ in that it appears that generalist and specialist organizations do not compete; they depend on different parts of the resource base” (720). In the following sections I will further analyze the craft beer market.

7.1: Light Beer

In the 1960s, American beer was becoming more tasteless, colorless, and flavorless. As the major firms in the industry competed with each other very little innovation took place. One of the few innovations offered by the macro-producing firms came in the form of “light” beer. Robertson (1984) describes light beer as beer that is “brewed with more water relative to grains and hops and with an
enzyme called amylogucosidase, which is added during fermentation” (34). The resulting beverage is a “much milder beer with less alcohol, calories, and carbohydrates” (Tremblay and Tremblay, 2009:140). The light beer craze began in the midst of a healthy living and exercise boom in the US (Hicks, 1979a, Tremblay and Tremblay, 2009) and the style has dominated American tastes for beer ever since. The first successful light beer was Miller Lite. As Tremblay and Tremblay (2009) note that, “it was so successful that it established the light-beer category, the most popular beer category since 1992” (76).

One of the ways in which Miller Lite was able to be successful was that it avoided the “diet-beer” label that was being applied to other lighter brews from the 1960s. Hicks (1979a) notes that, “Miller liked its Lite beer so much it tried to keep the business all to itself and in its exuberance brought suit against ten other principal brewers, to prevent them from using the word ‘light’ in selling reduced calorie beer” (3). Hicks (1979a) points out that, “eventually Heileman Brewing Co. obtained a ruling from the 7th US Circuit of Appeals that ‘light’ is a common descriptive word and neither it ‘nor it phonetic equivalent (Lite) may be appropriated as a trademark for beer’” (3). After this hearing, many new players entered into the light beer arena. In fact, one of the most popular beers in the world today is a light beer, Bud Light. Now, every major brewery produces a light beer. Much like the record industry in the 1950s, the brewing industry began to copy one another and further homogenized the product.

Hicks (1979a), attributes the success of light beer to several factors. First, the new diet-conscious beer drinking market liked light beers because they were less filling. A fact not lost on the Miller Brewing Co. when they developed the slogan “great taste, less filling” to describe Miller Lite. As Hicks (1979a) contends, the idea was to convince drinkers that “the important ingredients of flavor, color and quality have all been retained for their pleasure in the consumption of new, light beers” (3). In addition to the health conscious drinkers, many heavy drinkers preferred light beer due to its lower alcohol content. Heavy drinkers were now able to drink more beer without feeling the effects of alcohol.
as strongly. Lastly, Hicks (1979a) points out that beer producers like light beer because they are more profitable, noting that “they sell for 10% to 15% more than premiums, yet cost less to make” (3). Light beer quickly became the most popular style of beer in the US and remains so to this day. Tremblay and Tremblay (2009) point out that 44% of the total beer consumed in the US is light beer.

7.2: Imported Beer

While light beer was cementing its place in the US drinking culture, another type of beer was also rising in popularity. During the 1960s and the 1970s, imported beer was becoming increasingly popular among American drinkers. Imported beer is beer that is purchased from international producers and sold in the US or another country. Hicks (1979b), contends that, “the gradual swing by Americans to imported beers has probably been a delayed reaction triggered by many things” (2). First, Hicks (1979b) suggests that “the disappearance of countless small breweries” has led to fewer options for the consumer (2). As mentioned in the previous chapters, the US brewing industry underwent massive consolidation during the period following the repeal of Prohibition. The result of this was a highly concentrated market that was dominated by a small group of large firms. As breweries were acquired or merged with other companies, they began to brew a different brand of beer than the local and regional offerings that were produced prior to consolidation. As the large macro-breweries began to grow they competed with each other and effectively homogenized the American beer market. This is supported by the homogeneous production model outlined in the production of culture (for a more detailed discussion of the homogenization of American beer see Chapter 6). Tremblay and Tremblay (2009) further contend that, “imported brands are far from homogenous...many of the brands from Canada and Mexico are similar to regular domestic beer, while most brands from England and Ireland are more like domestic specialty (craft beer)” (12). This means that many imported brands are “darker, more bitter in flavor, and higher in alcohol and calories than regular domestic beer. Imported brands are
generally shipped longer distances, which also increase their cost and reduces their freshness” (Tremblay and Tremblay, 2009:107). McGovern (1980) notes that “the majority of imports have what most domestic beers do not; pure ingredients, complex flavor, smooth body, and robust aroma” (4).

American beer was becoming increasingly more uniform and the economic prosperity of Americans in the 1960s led to an increase in demand for higher-status products (Silberberg, 1985). Hicks (1979b) points to international travel as another factor contributing to the rise of imported beer. American tourists helped sparked a change in taste by sampling beers from all over Europe during their travels. Additionally, as Hicks (1979b) notes, the “vast number of G.I.s who spent month or years abroad drinking the native brews of many lands” further aided in the shift in taste. Upon returning home, tourists and soldiers alike, found that most American producers of darker and more traditional beers had gone out of business and left the door open for foreign brewers to “fill this void, as they already produced quality brands of darker beer for consumption in their homelands in large enough quantities to realize scale efficiency” (Tremblay and Tremblay, 2009:107). Additionally, imports “came in a variety of styles and sold for a premium price, fulfilling the new desires of US beer consumers” and limited the growth of craft and domestic specialty brands (Tremblay and Tremblay, 2009:107,114).

Secondly, Hicks (1979b) notes that major breweries such as Anheuser-Busch, Pabst, and Miller dominated the market which further limited the choices of the consumer. As these breweries rose to prominence the smaller regional breweries were closing or being acquired by large macro-producers. Hicks (1979b) posits that the loss of regional beer has led some to become more adventurous and to “switch either to exotic brands of brew from across the seas, or from the sunny climes of Mexico” (2). According to Tremblay and Tremblay (2009), Heineken was the leading import beer from 1980 until 2000. In 1980, Heineken accounted for 37% of the import market share (Tremblay and Tremblay, 2009:110). In 2000, they were surpassed by Corona who held a 27.8% market share which made Mexico
the leading exporter of beer to the US (Tremblay and Tremblay, 2009:110). These beers were lighter and more flavorful and offered an alternative to American adjunct lagers. McDonald (1982) agrees stating, “one reason for the rise in popularity of imports is that large macro-producers have moved to a much more standardized and bland product” which has caused beer drinkers to experiment (42). Baker (1986) asserts that, “the drinking public is growing tired of what ‘American beer’ has become, and the increase in imports and the lethargy of American beer production shows that they are voting to that effect at the beer stores” (62). According to the Beer Institute (2013) the market share of imported beer has risen from 3% to 13% since 1980. Import beer sales have declined during the recession; however, their impact on the tastes of American beer drinkers is still reflected today in the micro-brewery movement.

7.3: Crafting Taste and a New Market

Gregg Smith (2000), a long-time judge at the Great American Beer Festival (GABF), notes, “craft beer was part of the response” to the homogenized tastes of American beer, he further contends that, “it was a logical extension of the same consumer demand that created markets for bottled water, specialty bread, custom-roasted coffee, and exotic ice cream” (24). In other words, craft beer emerged in part due to the sheer demand for specialty products. Consumers wanted better quality beer just as they wanted better quality coffee or bread. But how did the movement gain momentum? How was it able to survive when only a small variety of craft beer was available?

As imports began to rise in favor, so too, did the rapidly growing “domestic specialty” market segment. The craft beer segment is also referred to as the domestic specialty segment. Baker (1986) notes that, “increased interest in the taste of real beer was shown in 1985 by the birth of more microbreweries and the conversion of regional breweries to the production of specialty beer” (62). Both imported beers and domestically produced craft beers are often traditional interpretations of classic
European styles. Because of the similarity in the types of beers produced, the craft market needed to distinguish itself from imported beer. Linda Rowe, a manager at Anchor Brewing Co., notes that “our price and flavor are more comparable to imports” (McDonald, 1982:42). However, McDonald (1982) contends that microbrewers products must be different than imports in order to compete and distinguish themselves. This is echoed by Ken Grossman, who said “we realized when we started that we really can’t compete with the known brands of American beer, we have to be distinctive” (McDonald, 1982:42). In order to carve out a viable niche in the beer industry craft producers needed to identify who their market was.

Craft producers needed to distinguish their product from the domestically produced macro- and light beers that crowded gas station coolers and grocery store refrigerators. Ken Grossman asserted that “our [Sierra Nevada Brewing Company] beer appeals only to a certain type of beer drinker, and it can be found only in higher-class liquor stores, bars, and restaurants” (McDonald, 1982:41). The craft drinker is, at least according to Grossman, a savvy beer drinker who enjoys beer for the sake of beer and demands more of his/her beverage claiming, “ours [Sierra Nevada Brewing Company] isn’t the type of beer for the guy who drinks two six-packs every Saturday night…it’s a connoisseur’s beer” (McDonald, 1982:42). Craft beer drinkers are typically in their mid- to late-twenties and typically have greater amounts of disposable income than domestic beer drinkers. They seek beer that has more flavor and will afford them more status. Craft drinkers distinguish themselves from other beer drinkers by the styles of beer that they choose to consume. The craft drinker is a savvy drinker who understands where his/her product comes from and how it was produced. Additionally, craft beer drinkers attain certain amounts of cultural capital and exchange capital with other craft drinkers in a variety of scenes and spaces. Craft brewers conceive of their audience as connoisseurs and create products to meet their anticipated market needs. Eckhardt (1997) notes that, “craft brewing is such an undertaking...the brewer wants to
create the perfect beer, the customers want the perfect beer, and the business manager wants the brewer to make the perfect beer” (26). Grossman, and other pioneering craft brewers, were trying to create a market for quality, small batch, and high-end American beers.

In 1988, acclaimed beer writer Michael Jackson, wrote about the future of craft beer in America. Jackson (1988) asserted that, no small brewery “can succeed for long unless the whole idea of small breweries is understood and appreciated by the consumer” (15). Jackson (1988) further contended that, “this can only happen if the consumer is encouraged to realize that there is variety in American beer...demonstrate variety and it will soon be appreciated” (15). In order for craft beer to have succeeded the consumers needed to be made aware that alternatives to macro-produced beer were available. Bosack (1990) notes that, “the interest of American consumers in specialty beers continues to grow...small-scale brewers need to capitalize on that interest, and, hopefully restore at least some small semblance of the great American brewing heritage that was lost during Prohibition...small brewers have found a niche...now they need to develop it” (4). The craft beer movement reached a peak in the mid-1990s during a period of decline in micro-brewery openings and the so-called “shelf wars,” during which retail space was highly contested between macro- and micro-producing firms. Daniel Bradford (1997), editor of All About Beer and co-founder of the Great American Beer Festival, contends that, “the [specialty] category is here to stay. There are too many of us who like too many of them. Consumers actually may have a chance to determine what beers are available for their drinking pleasure” (6). This further evidences the notion that craft beer production is driven by the market and desire for better beer.

So how do craft brewers keep consumers interested? Eckhardt (1998) notes that, craft beer drinkers tastes are more refined and always changing and “with the advent of the craft beer revolution in the country, American brewers began turning their hand to some of the world’s great beer styles that
had been long neglected” (20). Craft brewers interpret their consumer’s tastes as broad and ever-changing. Therefore, brewers are constantly looking to new and old styles that have not been widely available. American craft breweries have been trend setters in the brewing industry, both domestically and worldwide. Many craft breweries produce a successful flagship beer, but choose to brew other styles as well. Julie Johnson Bradford (2005), former editor of All About Beer, notes that, “nearly all the new specialty breweries make several styles, because demand exists for a variety of flavors” (22). The craft drinker’s tastes are constantly changing and craft brewers must be ahead of the trends in order to be successful. These brewers brew beer that they think their customers will enjoy and are doing so based on a conceptualization of their customers as a craft market.

One of the more current trends in craft beer is the push towards “extreme” beers. Bradford (2005) notes that, “like the extreme sports movement, extreme beer suggests stretching boundaries just for the sake of it, conquering the next peak of alcohol strength or hops bitterness because it’s there” (22). This is evidence that the American craft beer industry is constantly innovating and attempting to create new unique products rather becoming satisfied with the status quo. One example of this rogue spirit in brewing is the Stone Brewing Company. Bradford (2005) asserts that, “Stone does brew a pale ale – the rent paying flagship, again – but their reputation among beer lovers relies on expressions of excess: beers that are over-the-top, in-your-face, testosterone driven and just plain fun” (26). Craft beer drinkers, and fans of Stone Brewing, have come to expect this from craft brewers. They expect craft breweries to reinvent styles and to push the boundaries of conventional and traditional brewing. However, we must not forget that craft brewers are in fact craft beer drinkers as well. Further evidence comes from Stone’s rogue attitude towards the consumer. Beers such as Arrogant Bastard, an American strong ale, tout the brewery slogan “you’re not worthy,” which suggests that Stone will brew whatever it wants whether the consumer likes it or not. More often than not, the consumer loves it. Stone is one
of the largest craft producers in the country and just recently broke ground on an East coast facility in Richmond, Virginia.

However, Stone is not alone. Specialty beers are still increasing their presence. Bradford (2012) asserts that, “this segment of beers continues to alter the old guard, pushing the standard definitions of style and convention, creating a new standard of brewers and beers alike” (50). Bradford (2012) further notes that, “with the increase of brewers brewing specialty beers, many of the once ‘special’ beer styles have become new standards for not just brewers, but drinkers as well” (50). One example of this is the India Pale Ale craze of the early 2000s. An India Pale Ale (IPA) is a traditional English style pale ale that has an extra addition of hops added. The story of the IPA is tied to colonialism and it was brewed with more hops to ensure that it would travel long distances without spoiling. The style was revived in the US in the late 1990s and many brewers began brewing the style. In typical American fashion, brewers began to see how far they could push the limits of the style and eventually the Double IPA was born. This version had a much larger hop addition, higher alcohol content, and much more intense flavor.

Similar to the extreme beer trend, the IPA has undergone many changes. The style remains popular and has seen many innovations over the last few years. Brewers have been experimenting with different kinds of hops, different methods of extracting hop flavors, different amounts of hops, and have succeeded in pushing the boundaries of what was once traditional ale and turning into a new American tradition. Another testament to the ingenuity of American craft brewers is the official recognition of the American Pale Ale, American IPA, and American Double IPA as distinct styles of beer. This is one of the first times that American brewers were recognized on the global beer stage as being innovators of brewing. Americans effectively created a style of beer that represents the US and its tastes in craft beer.

Changes in tastes are pushed forward by innovation. Brewers brew beer they think the customer wants
to drink. By pushing the envelope of brewing, craft brewers have solidified the market for craft beer in the US.

**7.4: Macros Miss the Mark(et)**

Macro-producers have been attempting to tap into the craft beer market since the mid-1980s. The new craft beer segment provided a new market arena for the macro-producers to try and compete in. Jack Kenny (1995), an industry insider, notes that, “big beer company executives will talk all day about the new opportunities presented by consumer interest in specialty beers” (13). Kenny (1995) further contends that, “when big companies see changes in the wind, the react in big ways...the major brewers are setting up specialty divisions to brew micro-style beers, creating ‘alliances’ with smaller breweries involving distribution and expansion, and acquiring equity interests in small or regional breweries” (13).

Tremblay and Tremblay (2009) note that, “the sustained success of the micro and imported brands eventually induced a strong response from the national macro-brewers” (128). Baker (1987) reported that Heileman Brewing Company, a major producer at the time, took notice of the craft movement and stated that, “the American beer drinker continues to be interested in sampling and drinking beers that are different from the traditional American style” (10). Shortly after, Heileman put into production a “full line” of beers which included several craft styles effectively making them the first macro to go micro (Baker, 1987). The other large firms soon followed suit and began acquiring partial and whole interest in craft breweries nationwide. Some of the more notable acquisitions were: Miller acquiring Leinenkugel Brewing Company in 1988 and partial interest in both the Celis Brewing Company and the Shipyard Brewing Company in 1995; and in 1994 Anheuser-Busch purchased interest in the Redhook Brewing Company and acquired interest Widmer Brewing Company in 1997 (Tremblay and
Tremblay, 2009:128). Carroll and Swaminathan (2000) note that, “after watching the size of the specialist market double annually while the overall beer market remained fairly flat, the major breweries decided to create and market their own specialty beers” (725-726).

Just like with the radio networks in the 1950s, macro-producing firms attempted to copy “craft style” beers, rather than innovating and bringing new and different products to market. Peterson and Anand (2004) note that, “once consumer tastes are reified as a market, those in that field tailor their actions to create cultural goods like those that are currently most popular” (317). Tremblay and Tremblay (2009) note that, “the national brewers began to mimic the micros in the mid-1990s by introducing mass-produced versions of specialty beer – Anheuser-Busch under the names Elk Mountain and Red Wolf, Coors under the name Blue Moon, and Miller under the names Red Dog and Plank Road” (129). In order to maintain the façade of a micro-brewery many of the major producers omitted the controlling company’s name from the label so that it would appear as though an independent craft brewery had brewed the beer (Tremblay and Tremblay, 2009). Similar to the issues surrounding contract brewing, these faux-craft labels became problematic for craft beer as they created concerns surrounding the authenticity of specialty and craft beer. In an article on the state of craft beer (Crouch, 2015), Michelle Snodgrass of Vizeum, a strategic marketing agency that works with global brands such as Anheuser-Busch notes that, “authenticity is extremely important to millennials, more so than any other generation that we’ve seen before,” further she asserts that, “Millennials can see right through insincerity, and they’re actually looking for it.” Today’s craft beer drinker expects authenticity and will dismiss brands that he/she does not feel accurately represent craft beer.

Macro-producers are not the only ones that are susceptible to shifts in the tastes of consumers. Jim Koch, founder of Sam Adams and pioneer of the craft beer movement, has publicly admitted that the craft beer movement has left him behind (Crouch, 2015). Upon visiting a popular beer bar in Boston,
Koch noticed that the bar did not carry any of his Sam Adams brand beer. According to Crouch (2015), many craft beer drinkers feel that Sam Adams has lost its edge and no longer produces top-quality beers. Crouch (2015) interviewed several craft beer producers like Max Toste, the co-owner of Deep Ellum, who said, “their [Sam Adams] beers are kind of middle of the road.” When asked why he does not stock Sam Adams in his bar, Toste replied, “I think what they are trying to do is make beer that is more flavorful than the fizzy yellow lager that was [once] popular everywhere. [But] they just don’t fit into what I am doing. For me, serving something that is mediocre is just really not what I do” (Crouch, 2015). Toste’s remarks about Sam Adams and Koch reflect the changing tastes of the craft consumer. One cannot deny the impact and importance of the Sam Adams brand to the craft beer movement, but one also cannot deny the inability of Sam Adams to remain popular with craft drinkers.

Crouch (2015) contends that, “today’s beer lover also engages in an unprecedented display of beer promiscuity—a lack of inhibition that places little value on loyalty to any single brand. This new breed of millennial craves beer that is organic, local, small-batch, authentic, cool, and new. And perhaps most troublingly, the species has developed an insatiable lust for bold-flavored American hops and India pale ales—not the sorts of beers for which Sam Adams is known.” IPAs are the most popular craft style today. The style represent one quarter of all craft beer produced in the US (Crouch, 2015). Clearly, the consumers have spoken, but Jim Koch has not listened. When asked what he thought of the current IPA craze, Koch who has said that he personally does not care for IPAs had this to say, “I don’t want to make something if everyone else is doing it…I am probably outside the mainstream on that. We don’t release a beer unless I like it.” It seems as though not even the most successful craft brands are immune to the changing tastes of the craft beer consumer.
7.5: Summary

Daniel Bradford (2012b) notes that, “as with every consumable good, the monolithic world of beer has exploded into a culture focused on variety, diversity, ingenuity, creativity, and unbridled excitement” (70). Further, Bradford (2012b) claims that, “the brewhouse has been turned upside down in a fruitful quest for new beer paradigms, beer lovers have created an infinite number of ways to engage with breweries and beers and the historical landscape has been reframed by beer zealots” (4).

The craft beer industry emerged as a response to the bland homogenous American beer of the 1960s and 1970s. Amidst an exercise boom, macro-producers further watered down their pale lagers in an effort to please the health-conscious drinker. These sparked the light beer craze and further homogenized American’s tastes for beer. Even today, light beer is the largest segment of the beer market in the US.

While most Americans were going “light,” other Americans were traveling the world and tasting different beers. American soldiers stationed overseas were developing tastes for traditional European style beers that were not readily available in the US. For those drinkers that wanted something more than the widely available adjunct lagers imports satisfied their cravings. The rise in imported beer in the late-1960s and throughout the 1970s reflected an unmet need for more flavorful beer. Imports offered more taste and flavor while also affording the drinker a higher status. Import beer is more expensive than domestic beer and provided a perfect way for those with disposable income to gain cultural capital and status. Imported beer peaked in popularity in the mid-1990s, but its legacy is still felt by the craft beer industry. It helped refine and change the tastes of American consumers. Essentially, it opened the door for craft beer.
Craft brewers have always sought to make high quality products that are targeted at a niche market segment. They brew beer for consumers whose tastes are constantly evolving and who demand more from their beer. Many craft breweries have adapted traditional beer styles and made them distinctly American. The craft consumer has come to expect this ingenuity from its craft brewers and demands a constantly changing array of beers. Craft brewers attempt to spot trends in beer and to cater to the needs of their consumers. By pushing the boundaries of what beer was thought to be, craft brewers have created a niche market that expects experimentation and constant innovation. As Smith (2000) notes, “evolution of consumer goods rarely occurs as an isolated, independent event. Rather, it is the product of various environmental factors – typically, world events and the steady march of progress. Industrialization, economic upheavals, wars, natural disasters and technological change all contributed to both beer and the public’s preference” (16).

Macro-producing firms have attempted to tap into the craft beer segment since the mid-1980s. Their first attempt was to purchase interest in larger craft breweries. During the late-1980s and the 1990s many craft breweries were bought by major firms and produced craft style beers. This led to a legal battle that resulted in large firms and contract brewing firms to include the controlling company’s name on the label in an attempt to not deceive the consumer. Additionally, major firms began producing their own craft style beers such as Elk Mountain and Blue Moon. These beers posed as craft beers but were not well received by the craft segment. Craft consumers crave authenticity in their beer and they find it in true craft beer. The market dictates what producers are going to produce and for now it seems the macro-producing firms will continue to be left out as will those craft producers such as Jim Koch who fail to adapt to the changing tastes of consumers.

The market for beer in the US is much different today than forty years ago. Fig. 2 below depicts the changes in the market since 1970. The graph is divided into four parts which represent (from top to
bottom) craft beer, imported beer, domestic beer, and light beer. For the purposes of this graph domestic beer includes any domestically produced beer that is not craft or specialty, or is not considered a light beer. In 1970, domestic beer had a firm hold on the beer market in the US. Light beer appears in 1975 with the introduction of Miller Lite and a host of other macro-produced light beers and began to take market share from domestic beer. We can see from the chart that light beer quickly rose to popularity and has become the single most popular category of beer in the US. Additionally, we can see that the light beer craze began to rapidly tap into the domestic market and eventually overtook the category in the late-1980s. This is less problematic for the macro-producers because each of them produces some brand, or several brands of light beer. The real threat to the macro-producers is imported beer and craft beer. Imported beer began gaining popularity in the early-1970s and has steadily increased its market share to become the third most popular category of beer in the US. The craft beer segment has seen its greatest increase in market share more recently than the other beer categories. Craft beer has been growing rather slowly since the early-1980s, but is now growing more rapidly than any other category (Brewer’s Association, 2014).
While the import and craft segments were growing domestic beer continued to produce the same American adjunct lagers and light beers that made their brands popular throughout the last several decades. Tastes began to change in the 1970s and the domestic producers did not innovate their products to account for the changing market. Craft and imported beer met an unmet need that was being ignored by the macro-producers. This is evidenced by the steady increase in market share of the craft and import segments compared to the rapid decline in domestic market share. Once the import and craft segments began to increase their market share, the macro-producing firms attempted to produce craft style beers in order to regain the lost market share. This was done by acquiring interest in
craft breweries, creating special “craft” divisions to produce craft style beer, and by using more traditional brewing ingredients and methods. The beers produced were brewed based on the macro-producers' perception of the growing craft market. Craft drinkers have historically rejected these faux craft beers and it appears as though the large domestic firms misunderstood their market. By trying to reclaim lost market share the large firms have further distanced themselves from the growing craft and specialty segments. As mentioned previously, craft beer producers brew beer to meet the unmet need created by the macro-producing firms.

Over time, domestic beer has become increasingly less popular, while craft beer and imported beer have become more popular. In 2014, the craft and import segments make up the same percentage of the market share as domestic beer does. The craft segment is expected to see its market share double by 2022, which given the trends of the last forty years, would make craft beer the second largest segment of the US beer market (Brewer’s Association, 2014). Light beer has been declining after hitting its peak in the mid-2000s and if the trend continues, will soon be overtaken by the craft and import segments. The market for craft beer continues to grow and reflects the changing tastes of the beer drinking population. Since the 1970s, beer drinkers have quested for more flavorful and innovative beers. It would appear now that perhaps there is a new heir to the throne of the king of beers.
Chapter 8: Technological Change in the US Brewing Industry

Over the last 110 years, the brewing industry has undergone much technological advancement. Tremblay and Tremblay (2009) contend that “on the production side of the market, all evidence indicates that there was a considerable technological change in brewing between 1950 and 2000” (39). During this time the real cost of production decreased and the efficient scale of production increased. Additionally, Tremblay and Tremblay (2009) suggest that, “most of the technological advances in brewing originated from outside the brewing industry” (212). Some of these advancements include pasteurization, faster canning lines, foam and beer stabilizers, and faster pumps and larger kettles for brewing, refrigeration and compressed gas cooling techniques, and the television (Tremblay and Tremblay, 2009:212). Similar to the constraint of law and regulation, technology has had a lasting impact on both the production and consumption of beer in the US. In the following sections I will highlight the effects of several technological advances of the last century on the rise of craft brewing. These advancements include: pasteurization and the transportation of beer; new packaging in the form of bottles, cans, and kegs; technologies of production; and television.

8.1: Rise of the Macros: Canning Lines and Minimum Efficiency Scales

Tremblay and Tremblay (2009) contend that, technological changes in the brewing industry and other horizontal industries have made large-scale production more efficient. The minimum efficient scale (MES) is a measure of the relationship between the average and marginal costs of producing a given product. In order to reach an efficient scale of production a firm must reduce its average cost per unit to less than or equal to the marginal costs of production. In order to achieve efficiency a firm must produce a minimum amount that would ensure the minimization of average costs. Once a firm operates in this manner it is said to be efficient (Tremblay and Tremblay, 2009:30-34). For example, according to
McGahan (1991) the estimated MES for a brewery in the US in 1935 was 0.1 million barrels. That means that in order to operate as an efficient firm a brewery had to produce at least 0.1 million barrels of beer annually. Elzinga (1990) found that in 1990 MES had increased to over 4.5 million barrels produced annually. Firms had to produce more to compete in the highly concentrated market. They had to increase production while still trying to minimize average cost per unit. This implies that as firms grow larger they must increase their minimum production in order to operate efficiently. Scholars have pointed to technological change as the leading factor in the increase in MES in the brewing industry.

Keithan (1978), Ornstein (1981), and Lynk (1984) argue that advancements in brewing technologies increased the efficient scale of operation in the brewing industry (Tremblay and Tremblay, 2009:31). Kerkvliet et al. (1998) used industry data to examine the relationship between technological change and changes in the efficient scale of operation in brewing. They found that the substantial changes in MES from 1960 to 1990 were due to technological change in the brewing industry (Tremblay and Tremblay, 2009). Tremblay and Tremblay (2009) also find that “on the production side of the market, all evidence indicates that there was a considerable technological change in brewing between 1950 and 2000” during which the real cost of production declined and the efficient scale of operation increased (39). Further, Tremblay and Tremblay (2009) note that “on the supply side, the state of technology has an important influence on production, as new technologies enable firms to produce the same quantity of output at lower costs” (17). Changes in technology allowed breweries to produce goods at a much more efficient rate.

Tremblay and Tremblay (2009) contend that, “technological change that causes MES to rise will reduce the number of firms that can survive in the industry and drive up concentration” (45). As I have discussed in the previous chapters, the 1960s saw the brewing industry become highly concentrated and oligopolistic. Scherer et al. (1975), Keithahn (1978), and Tremblay (1987) found that, “the massive exit of
firms in brewing during the 1960s and 1970s was motivated by rising scale economies” (Tremblay and Tremblay, 2009:284). Tremblay (1987) suggests that, “optimal firm size rose relative to the size of the market and reduced the number of firms required to produce industry output at minimum cost” (72) In order for a brewery to survive it would be required to “build additional capacity and sell enough beer to take advantage of the rising scale economies” (Tremblay, 1987). As breweries increased their production they also had to increase their market to avoid a surplus. Brewing on a large scale was an expensive endeavor, however, as production increased and firms became larger the economy of scale also increased. By producing more large firms could operate more efficiently by lowering their average cost per unit. Smaller firms, such as regional breweries, could not afford to compete on this scale of production and were effectively forced out of the market through acquisition or by simply going out of business.

One of the technologies that contributed to the increased industry concentration was the beer can and improved canning lines. The advent of the beer can coupled with its growing popularity among consumers and producers created a need to produce cans at a much higher and more efficient rate. In 1952, the maximum speed of a canning line was 300 twelve ounce cans per minute and in 2003 the maximum speed increased to 2,000 twelve ounce cans per minute (Tremblay and Tremblay, 2009). Cans were the most popular form of packaging and their production increased over a fifty year period. Additionally, the annual production of canning lines increased from 0.3 million barrels in 1952 to 2.2 million barrels in 1986 (Tremblay and Tremblay, 2009). During this time period the total beer production of the US also increased from 88.2 million barrels in 1953 to 202.1 million barrels in 1992 (Tremblay and Tremblay, 2009). This contributed to an increase in MES from 1 million barrels to over 4.5 million barrels in 1990. As the MES of the brewing industry increases firms are forced to increase production in order to operate efficiently. At the time, there were only a few firms that had the resources to produce on larger
scales. Through mergers and acquisitions, several large firms were able to increase their production capacity. Given the oligopolistic nature of the brewing industry at the time, four firms effectively controlled the market, and therefore, determined the MES. Essentially, the dominant firms dictated the minimum efficiency scale. They were able to produce at such high levels that any firm that could not produce as much was forced out of the market.

Given that micro-breweries by definition are small (i.e. producing less than 2 million barrels annually) and produce much less beer than macro-firms they are unable to operate at the MES for the brewing industry. Micro-breweries do not produce enough beer annually to compete with the large macro-producing firms that dominate the domestic beer market. While other domestic producers, such as regional brewers, were forced out of the market, craft producers have survived. Tremblay and Tremblay (2009) note that one technique used to identify an industry’s efficient scale of operation is a survivor test (30). This test assumes that “the largest share of industry output will be produced by firms that operate at the most efficient size” (Tremblay and Tremblay, 2009:30). The test can also identify the most successful size classes of firms over time. These classes are defined by annual production in barrels. Tremblay (1987) and Weinberg (2002) find that in 1950 those firms that produced less than 2 million barrels annually accounted for 66.9 percent of the total beer production in the US. The largest producer of 1950 produced less than 6 million barrels and accounted for 17.3 percent of total output (Tremblay, 1987). In 1975, just before the micro-brewery movement was started, firms producing less than 2 million barrels accounted for 10.1 percent of the total beer production (Tremblay, 1987). That same year 87.2 percent of the beer produced in the US was produced by firms producing more than 4 million barrels a year, with the majority of production coming from firms producing more than 10 million barrels a year (Tremblay, 1987). In the year 2000, firms producing less than 2 million barrels (e.g. micro- and craft breweries) accounted for 5.2 of the total beer production in the US and 88.9 percent of
the total production was produced by firms producing more than 18 million barrels per year (Weinberg, 2002).

Overall, the effects of technology have increased the concentration of the US brewing industry and thus stimulated the production of craft beer. As the industry became more concentrated a growing unmet need was identified by importers and pioneering home-brewers turned micro-brewers. The rise in industry concentration is due to several factors which have been discussed in the previous chapters (Chapter 6); however the role of technology cannot be ignored. The development of pasteurization, the advent of the glass bottle, beer can, and television are technologies that have affected all segments of the brewing industry. They have proven to be beneficial to both the craft and domestic brewer by offering more reliable and efficient storage and marketing opportunities. These technologies also helped large macro-producers further oligopolize the industry which created a niche market for specialty and imported beer. In the following sections I will highlight several technological advances that have increased efficiency and production in the US brewing industry.

8.2: Technologies of Production: The Micros vs. The Macros

As noted in the above section, many of the new brewing technologies were too expensive for smaller firms and they could not afford to compete in the highly concentrated market of the 1960s. But what about micro-breweries, how were they able to emerge and succeed when the scales of production were gradually increasing. The answer is three-fold. First, and most simply, as noted in the previous chapters on structure and markets, craft beer does not compete with domestic beer. It is a specialist product that emerged in response to an unmet need created by homogenized and standardized macro-produced adjunct lagers. However, this is only one reason why craft was able to carve out a niche in such a concentrated market. Secondly, craft beer has been relatively immune to changes in MES in the
brewing industry. Craft breweries produce significantly less beer than macro-breweries produce. By definition a craft brewery cannot produce more than 2 million barrels of beer annually and still remain “small” according to The Brewer’s Association (Brewer’s Association, 2014). In 1990, the MES of the brewing industry was over 4.5 million barrels. That is more than double the maximum output of what is definitionally allowed by The Brewer’s Association to be considered craft. Therefore, it is impossible for a micro-brewery to operate at a minimum level of efficiency and still be considered craft.

Lastly, due to their small operations and low annual output, craft and micro-breweries may not possess the capital to purchase the latest brewing and packaging technologies. The costs of starting a brewery include: the space, brewing equipment, brewing ingredients, packaging materials, marketing materials and advertising, employee labor costs, and many other start-up costs. This makes opening a brewery extremely difficult if you do not have the capital or investors. Jack McAuliffe, a pioneering micro-brewer, who scoured junkyards and old factories to find equipment that could be used to brew beer had the following to say about starting a brewery:

“you know, you have to either have a great deal of money – an unbounded amount of capital – or you have to be able to weld and do water chemistry and build the place and go get money and write business plans and do design, mechanical analysis, structural analysis, and all that stuff...and then run the brewery. There aren’t too many of them out there like that. You have to be totally committed. The only thing you think about is beer and brewing. You work 10 hours a day, eight days a week. That’s the way it is” (Acitelli, 2013:76-77).

Additionally, micro-breweries brew much smaller batches of beer than their macro-producing counterparts. As discussed in the previous chapters on structure and markets, craft brewers brew in small batches to maintain freshness, have flexibility in their production, and to remain cost effective.
Many of these brewers started out as home-brewers and relied on small home-brew kits and basic brewing equipment to brew their beer. One such home brewer was Jack McAuliffe, the founder of New Albion Brewery. In the mid-1970s, McAuliffe purchased used and antique brewing equipment that he used to start one of the first micro-breweries in the country in the (Ogle, 2006). This may have been due to his inability to afford the latest brewing technology of the time, but also may have be reflective of the desire to brew more traditionally. Craft beer emerged as a response to macro- and industrial beer. The craft movement is marked by a marked push back to traditional brewing and the use of traditional brewing ingredients. In this sense, craft brewing is a throwback to tradition and perhaps even a rejection of modern technology. McAuliffe embodies the spirit of craft brewing and was recognized by The Brewer’s Association as being one of the founding fathers of American craft brewing. He built the New Albion Brewery with salavaged equipment and his own engineering skills. His legacy continues to impact home-brewers and micro-brewers today. In the next sections I will discuss the technological advances that have directly affected the production of all beer, not just craft or macro-produced beer.

8.3: Pasteurization and the Preservation of Beer

Beer is made of four main ingredients: water, yeast, hops, and cereal grains. It is brewed by heating grains in water which converts the starches to sugars and carbohydrates. After the grains are removed, the leftover liquid, called the wort, is boiled with hops and other ingredients. Once the boil is complete (the length of the boil is dependent upon the type of beer being brewed and the ingredients used in the brewing process) and the wort has cooled, the brewer adds yeast to start the fermentation process. The fermentation process is where the yeast turns the sugars into alcohol and carbon dioxide. After beer is fermented it is aged before consumption. After the brewing and fermentation processes are complete, the beer is still technically “alive,” and as such, is a perishable product. During the latter half of the 19th century, beer was primarily stored in large wooden barrels and shipped to taverns and
bars that were relatively close to the brewery. Beer brewed during this time period was often prone to spoilage because wooden barrels were quite inefficient at keeping bacteria and wild yeasts out of contact with the beer. The tradition of putting beer into barrels for storage and shipment led to the standard measure of volume for beer in the US, called the US barrel, which is equal to 31 US gallons (Tremblay and Tremblay, 2009). These early barrels were much larger than the standard sizes we have today, and since the repeal of Prohibition, the largest containers of beer hold 15.5 US gallons and are often referred to as half-barrels, or kegs (Tremblay and Tremblay, 2009). This is important to note as industry data about the production of beer in the US is measured in barrels.

During the 1860s, French scientist Louis Pasteur was tasked with discovering a way to keep beer from spoiling so quickly. He discovered that heating beer would kill most of the unwanted bacteria that were likely to cause beer to spoil. Additionally, by heating the beer, Pasteur was able to rid the liquid of enough of the microbes that the beer was able to last much longer in storage. Shortly after its discovery, the process of pasteurization was being widely used by brewers to preserve their beer for longer. In 1870, Adolphus Busch of Anheuser-Busch became the first brewer to use the pasteurization process in brewing. In today’s brewing industry, pasteurization is still used to keep beer from spoiling in its packaging and during transport. After beer is brewed it will meet one of two fates. First, that beer may be placed in a keg (15.5 US gallons, or one half-barrel) and dispensed as draft beer. Draft beer is not pasteurized and is therefore, still living, because the micro-organisms and yeast have not been killed by heating the beer. Certain styles of beer are left unpasteurized in order to let the yeast continue to ferment the beer while it is being stored. If the beer is not placed into a keg for consumption and storage, it will be bottled or canned for consumption. Bottles and cans are the most popular forms of packaging and will be discussed in greater detail in the following sections. Pasteurization is one of the
greatest innovations in modern brewing. It helped beer stay fresh for longer and helped to ensure that beer would not spoil when stored.

In addition to pasteurization, major advancements in refrigeration were implemented in the brewing industry. C.P. Linde, perfected a compressed gas refrigeration technique that he quickly marketed to the brewing industry in the late 1800s (Smith, 1997). Anheuser-Busch was one of the first breweries to take advantage of this new technology and quickly outfitted rail cars with refrigeration units. Refrigerated rail cars allowed for beer to travel much greater distances without spoiling. These advancements in cooling would also help to promote the bottling of beer. Daniels (1999) notes that, developments in refrigeration and liquefied gas also helped to promote bottling by allowing the beer to be artificially carbonated before filling [a bottle], eliminating the reliance on fermentation in the bottle” (74). New refrigeration techniques helped to shape the beer industry by helping to maintain quality and freshness. Additionally, it allowed for beer to be shipped over large distances. This helped to bring about the demise of the regional brewery. Now beer could be available in a much wider distribution network.

8.4: From the Barrel to the Bottle

When I use the term packaging I am referring to what Daniels (1999) designates as “all the various containers used to transport beer from the brewery to the restaurants, bars, and retail stores where customers will buy it” (15). The goal of all beer packaging, according to Daniels (1999), is to “deliver a fresh, flavorful product to the consumer,” and in order to achieve this, “packaging must be ready to withstand the rigors of the broad and decentralized beer distribution network as well as the vagaries of consumer behavior” (16). In today’s market, beer is packaged primarily in kegs, glass bottles, and cans. Kegs are typically for retail settings such as bars, restaurants, and brewpubs. Bottles and cans are intended for more individual consumption and can are usually available in increments of six (6-pack,
12-pack, and 24-pack). According to The Brewer’s Almanac (2001), in the year 2000, 51 percent of the beer consumed in the US was packaged in cans, 40 percent in bottles, and 9 percent in kegs. While the advent of the steel and aluminum keg is important to the production of beer, for the purposes of this dissertation I will only be focusing on the bottle and the can as these package types have had a much larger impact on the industry.

Daniels (1999) notes that, “as a result of carbonation and convenient size, bottles evolved as a favorite package for ‘beer that was not to be drunk at once’” (17). When bottles were first used to store beer they were often hand blown using crude molds. Bottles were not uniformly manufactured and this affected their viability as means of storage and transport. According to Daniels (1999) the “mechanization of bottling began with improved molds and innovations such as the use of compressed air” (74). Once bottles were being manufactured more uniformly, a more practical and reliable method of sealing the bottles was needed. In 1892, the now ubiquitous, crimped metal “crown” cap was invented and bottles became even more popular and reliable. Prior to the advent of the crown seal cap, glass bottles were known to leak or allow beer-spoiling bacteria to enter through breaches in the seals. The crimped metal crown cap provided a much tighter seal in addition to being reliable and inexpensive to produce. Unfortunately, bottling is expensive and larger breweries spend 60 percent of their capital expenditures on packaging (Daniels, 1999:74). Bottles can also create unwanted problems such as litter. Many public areas such as beaches, golf courses, parks, and concert venues do not serve glass bottles for fear of broken glass injuries. Cans are much more versatile and can be easily compacted. Even though around 40 percent of America’s beer is stored in glass bottles, the can, and its many incarnations, is the most popular package for beer.
**8.5: The Industry Standard: The Beer Can**

Just like glass bottles, cans are also pasteurized after they are filled with beer (Daniel, 1999). The first canned beer was marketed by Gottfried Krueger Brewing Company in 1935 (Figgins, 1983). Many brewers were hesitant to adopt the can. Packaging by nature will impart its own flavors and can affect the beer’s overall taste. Daniels (1999) notes that, “some of the pitfalls of cans and their effects on flavor are lubricants and paints used on the can that could affect flavor” (74). This issue was resolved with the advent of a chemical liner that coated the inside of aluminum cans and by 1969, cans outsold bottles to become the most popular beer packaging. The beer can we know today has taken several forms. There are four basic types of beer can which will be discussed in chronological order. It should be noted that the beer can has been constructed of several different materials throughout its history; most notably, tin, steel, and aluminum.

Aluminum proved to be the most cost efficient and effective means of packaging. The first beer can, introduced by Krueger in 1935, was a “flat top” style can that had to be punctured with a can opener, known as a church key, to release the contents (Brewery Collectibles Club of America, 2015). The flat top style can remained in use until around 1970 when it was discontinued and replaced with cheaper and more efficient alternatives. Around the same time as the flat top can was introduced in 1935, Schlitz introduced the cone-top can. The can got its namesake from the oil can-like shape. According to the Brewery Collectibles Club of America (BCCA, 2015), the cone top cans were preferred by smaller regional breweries because they could be filled using their existing bottling lines and technology. By the 1960s, the regional brewery was becoming extinct, and the cone top can along with it. The biggest innovation in beer cans was introduced by the Pittsburgh Brewing Company, the makers of Iron City beer.
In 1963, the company released Iron City beer in a self-opening pull-tab can that would later become known as the “pop top” (BCCA, 2015). The BCCA (2015) notes that the pull-tab can became so popular that by 1965 almost 75 percent of all cans were pull-tab style. Pull-tabs did have unintended consequences as well. After a beer was opened what was one to do with the now useless pull-tab? The answer is, create litter. One of the biggest issues facing the pull-tab can was the extra waste it created after the beer was opened. While the pull-tab can proved to be more popular than the cone top and flat top styles, another innovation would replace it and become the industry standard. In response to the environmental concerns surrounding the pull-tab can, in 1975 the Falls City Brewing Company introduced the first “stay tab” can (BCCA, 2015). The stay tab can opened in the same way as the pull tab, but the tab remained connected to the can and did not need to be discarded after use. The technology was so effective that today “virtually all carbonated beverages are marketed in cans with stay tabs” (BCCA, 2015).

In 1997, Oskar Blues Brewing Company became the first US microbrewery to operate a canning line (Kitsock, 2009). This opened the door for craft beer and cans. Prior to Oskar Blues using all cans for their beer, many craft brewers thought that cans were not suitable packaging for craft beer. As Kitsock (1998) notes, “the real problem with cans is their image. They evoke a vision of Homer Simpson guzzling Duff or Bluto Blutarsky smashing the empties against his forehead” (37). This sentiment is echoed by Pyramid Breweries CEO, a then micro-brewery that was acquired by Anheuser-Busch, who said “cans are far baked beans and soups, not fine beverages” (Kitsock, 1998:37). In a 1998 article titled “The Shape of Beer to Come,” Kitsock predicts that there is a specialty niche for craft beer in cans and that the next twenty years consumers will see a dramatic increase in the availability and variety of craft beer cans (1998:37). Opinions on canning craft beer soon changed after the success of Oskar Blues and according
to Craft Cans (2014), a website celebrating craft beer in cans, there are over 2400 craft beers available in cans.

8.6: Television: Macros Take Over the Tube

The television began to invade American homes in the late 1940s and by 1955 65 percent of American households a television set (Sterling and Haight, 1978). As soon as the television was introduced advertisers began adopting it as a new medium to reach consumers. Tremblay and Tremblay (2009) note that the invention of the television created new marketing opportunities for large advertisers. Advertising attracted more consumers, and the national brewers built new and more efficient plants to satisfy the growing demand for beer. Prior to advertising on television breweries were only advertised on the radio or in print. One way in which larger breweries tried to increase their brand’s awareness was to sponsor sports teams. Beer producers had been teaming up with sports teams for decades, but only with the advent of television did it really impact sales. Smith (2000) contends that, as television was becoming more common in the 1960s, “brewers viewed televised sporting events as an extension of advertising beyond the ballpark” (22). As a result television advertising budgets skyrocketed.

Tremblay and Tremblay (2009) note that, “the advent of television in the late 1940s raised the marginal benefit of advertising firms who were able to market and advertise nationally” (47). Additionally, Tremblay (1985) finds that national brewers have a much greater marginal benefit of advertising than regional brewers. Essentially, large macro-producers were the only ones who could afford to advertise on television and this gave them a significant competitive advantage. In 1954, the “Big Four” accounted for 84 percent of network television advertising (Modern Brewery Age, July 1953). Mueller (1978:98) agrees stating that “in an advertising war, all of the advantages go to the national
brewer.” The war in advertising greatly benefits the larger firms who can afford to compete. Peles (1971), Ackhoff and Emshoff (1975), and Tremblay (1985, 1993) found that national producers had a much greater advertising expenditure per barrel than regional producers and had greater marginal benefits of advertising. As Tremblay and Tremblay (2009) note, this suggests that “the advent of television advertising induced national brewers to increase their advertising efforts which in turn generated growth relative to the regional and local brewers” (48). The disparity was so great that it led William Coors, retired president of Coors, to claim that “the angel of death” of the small regional brewer was the “television tube” (Modern Brewery Age, 1999:19). In the next section I will discuss the effects of digital technology on the production and consumption of craft beer.

8.7: There’s an App for That: Digital Brewing and Digital Consumption

As mentioned previously in the section on micro- vs macro-production, advancements in technology are often expensive and not affordable for smaller output firms. Additionally, there may be a feeling amongst craft brewers that traditional brewing requires traditional equipment and techniques. In an effort to further distinguish itself from macro-produced beer, craft beer has embraced its small scale and traditional production. Now, with the digital revolution in full swing, craft producers and consumers are able to take advantage of much more affordable technologies. In the following paragraphs I will focus on the effects of the digital revolution on the production and consumption of craft beer respectively.

Just like in the music industry (Ryan and Hughes, 2006), digital technologies have democratized the production of beer in the home and the brewery. Similar to the digital revolution in music production, digital technologies have sought to make brewing more easy and efficient. Larger firms have been employing digital brewing technologies for the last several years. These technologies help to
regulate the many steps in the brewing process. For example, Red Hook Brewing which is owned by Anheuser-Busch has employed a digitized brewing system to help them manage over 17 different beers (American Craft Beer, 2015). These systems help brewers manage ingredients and recipes, control and regulate temperatures, and almost every other brewing process. Strauss (2013), reports that there are several companies creating apps that can be used by brewers to help manage their breweries. One such app has been developed by Monk’s Toolbox and is called “BatchIt” (Strauss, 2013). Strauss (2013) reports that BatchIt is a “cloud-based solution built with the brewer in mind and keeps track of all the logistics involved with managing a brewhouse like batches in fermentation, inventory stores, completed beers etc..” The advent of these apps is reflective of the push towards automation in the brewing industry. A major benefit of automation is consistency. Brewers can now dial in a recipe and replicate it to exact specifications with the push of a button. Apps such as BatchIt help the brewer to maintain control over the brewing operation and to ensure that each stage of the process is completed consistently and efficiently.

Some craft brewers have even begun to utilize these new digital technologies. John Trogner, co-founder of Troegs Brewery, recently implemented digital automation technology in Troeg’s newly expanded Pennsylvania brewery. Trogner consulted Braukon, an automated technologies developer, to tailor a system to fit the needs of his brewery (Henniger, 2014). In an interview in 2014 Trogner says he was “only looking for better control over the temperature of my boil. What I got was so much more. He [Markus Lohner, founder of Braukon] opened my eyes to the benefits of automation. This new system has actually allowed me to be more creative than ever” (Henniger, 2014). Automated brewing systems provide the brewer with more control over every aspect of the brewing process. Additionally, these systems can be programmed to brew specific recipes that will be consistent each time. This eliminates some of the human error in brewing, but as problems arise with the technology someone at the brewery
must be trained to troubleshoot it. Troeg’s brewery has embraced automation, but not all craft brewers think alike.

Henniger (2014), asked several brewers what they thought about automation and one replied saying, “that sounds kind of awful to be honest...an automated computer system? That takes all the romance out of brewing. It’s barely even ‘craft’ anymore.” To some craft brewers, it seems as though automation removes “the heart and soul of American craft beer” (Henniger, 2014). Not all brewers necessarily agree with these sentiments. Bill Covaleski, co-founder of Victory Brewing, refers to what he and other brewers who use automated systems call “artisanal manufacturing” (Henniger, 2014). The artisanal aspect, according to Covaleski, is the creative brewing mind who develops the recipe and ingredients for a beer and as Covaleski contends, “assuming you get all that right you want automation to assist you with the rest” (Henniger, 2014).

Automated systems are finding their way into home-brewing also. Early home-brewers relied on home-brew “kits” that could be easily purchased from a brewing supply store. At the time home-brew kits were inexpensive and unreliable. When coupled with the inexperience of a home-brewer it is no surprise that most of these early batches of beer turned out spoiled. Home-brew kits typically come with a basic recipe and a few key ingredients needed to produce one batch of beer. One issue with home-brew kits was the quality of the ingredients. Most kits included a packet of dry yeast, malt powder, hop extract, and some basic equipment. Home-brewers would purchase a kit that was specifically designed to brew one type of beer. These kits were essentially a brewery in a box. After the included ingredients were brewed the home-brewer could develop his/her own recipe or purchase and experiment with other recipes. The problem with home-brewing is that it is very labor intensive. Most of the work that a brewery hires teams to do must be completed by the home-brewer. This allows for inconsistency and human error. Apps such as BrewNanny “takes much of the guesswork out of brewing” by utilizing a
small piece of hardware that “replaces the fermentation lock with a small sensor that monitors temperature, fermentation, light and other factors that affect the quality of the wort” (Powell, 2014). If a problem occurs then the BrewNanny notifies the home-brewer via an app installed on a smart phone or similar device. The next step in automation is being used by experienced home-brewers. It is called BrewBot. According to Powell (2014), BrewBot is designed for experienced home-brewers who want to use technology to increase their consistency and to further automate their system. Technologies such as these could help home-brewers take the next step towards starting a small business by increasing consistency and efficiency (Powell, 2014).

Lastly, the digital and app revolutions have changed the way in which beer in consumed. There are several apps such as OnTap.Me that “allows restaurants, bars and brewhouses to let customers and beer lovers know which beers are on tap” (Strauss, 2013). Additionally, these apps can record “what customers prefer, how the menu drives traffic, how long certain kegs last, inventory management, and additionally, how customers review the beers” (Strauss, 2013). Apps such as these are becoming increasingly popular as they allow consumers to be more educated about selections at a particular establishment, but inform retailers with important market and sales data that informs future ordering or brewing. There are even apps that keep a detailed log of which beers a person has consumed. UnTappd is a free downloadable app that lets users catalog the beers they have tried and to connect with other craft beer drinkers. The future of this technology is uncertain, but it seems as though digital and social media will continue to be used in the craft beer industry.

8.8: Summary

Much like the television and the transistor radio aided in the proliferation of rock and roll music, so too did the advancements in packaging of beer in the 20th century. The technological advancements
in the brewing industry affected all beer, domestic and craft, and really did little to directly stimulate or constrain the production of craft beer. Pasteurization techniques helped to ensure the quality, freshness, and shelf life of beer after it was packaged. Additional advances in refrigeration also helped beer to maintain its quality. These advancements forever changed the brewing industry in the US and around the world.

After pasteurization techniques were implemented brewers began to store beer in glass bottles and kegs rather than wooden barrels. During the early 20th century much advancement were made in the packaging of beer. The glass bottle became standardized and the crimp crown top forever cemented its place atop the beer bottle. The beer can was also invented and quickly became the most popular form of packaging in the US. There are also several latent effects of these technological advancements. As discussed previously, during the 1960s the US brewing industry was becoming increasingly more concentrated as a result of the implementation of new technologies such as cans and canning lines. While the advent of the aluminum can did not constrain the production of craft beer it did allow for the homogenous and oligopolistic market to become more concentrated which created the need for specialist producers such as craft and micro-brewers. Advances in technology have pushed the brewing industry to become more efficient, concentrated, and homogenous. The craft movement, which no doubt benefitted from these technologies, could not exist without the industry conditions that were created by these technologies.

Digital technology has also aided in the production of craft beer. Automation technology has increased the consistency of craft beer and allows for a much more controlled brewing process. Several craft and home-brewers have adopted these new technologies, but it has yet to be seen what the long-term and widespread effects of this technology will be. Other digital technologies have aided in the consumption of craft beer. Apps help retailers better understand the market and keep more accurate
inventories of their products. Consumers can review beer and see what is available at a particular bar all with the touch of a few buttons. Digital technology is changing craft beer and making it easier to brew. However, there seems to be a divide amongst craft producers as to whether automation and digital technology are doing more harm than good. Only time will tell.
Chapter 9: Career Patterns in the US Brewing Industry

The last facet of the production of culture is occupational careers. Becker (1982) found that culture is produced through sustained collective activity in cultural fields, and that each of these fields develops a career system (Peterson and Anand, 2004). Peterson and Anand (2002) suggest that careers are shaped in two different ways. In relatively stable, normatively controlled fields, careers are created “top down” through regulative social forces that follow a predictable pattern (Peterson and Anand, 2004). The second way in which careers are shaped occurs in more competitive environments. Peterson and Anand (2004) state that, “in competitive environments, careers tend to be chaotic and foster cultural innovation, and career-building market-sensing entrepreneurs enact careers from the “bottom up” by starting from the margins of existing professions and conventions” (317). Peterson (1990) points to four different types of occupational careers: the craftsman, the showman, the entrepreneur, and the bureaucratic functionary. In the next paragraph I will briefly discuss each type of occupation and its characteristics.

The craftsman takes great pride in having the knowledge to produce a particular good, and in having just the right tools to solve technical problems. The craftsman produces a good because he/she enjoys the “craft” or the production and takes pride in his/her ability to do so. Peterson (1990) notes, the craftsman is “much more concerned about building a reputation for doing jobs in the way that will bring recognition among fellow-craftsmen than with the aesthetic or financial success of the final product on which he/she has worked” (108). Further, Bennett (1980) notes that many craftsmen practice extensively to perfect new ways of performing tasks and as they perfect their craft they also make incremental changes in the aesthetic. Essentially, the craftsman helps to shape the aesthetic as he/she innovates and produces a particular product.
The second career pattern is the showman. The showman is a salesman of the self who will do anything that is necessary to please a paying audience. According to Peterson (1990) the showman is continuously changing his/her product to “fit the particular audience and build to the best possible final roar of approval” (108). Peterson (1990) further contends that the showman often has difficulty separating his/her stage life from their normal life. The showman may exhibit entrepreneurial qualities and most certainly is a brilliant marketer and salesman. Peterson (1990) defines the entrepreneur as “person(s) who, sensing an unmet audience demand, bring together creative, financing, marketing and distributing factors in unique ways” (109). The entrepreneur is the true businessman. He/she produces good in order to generate profit. This is not to say that the entrepreneur is not attached to the product he/she is producing, but he/she does not produce a particular good for the sake of producing it like the craftsman.

The last career pattern is the bureaucratic functionary. These individuals “fill the ranks of bureaucratically structured organizations” (Peterson, 1990:109). Peterson (1990) suggests that the bureaucratic functionaries are “the opposite of the entrepreneurs because they are the source of continuity in the culture industry while entrepreneurs are a prime source of innovation,” he further contends that, “functionaries make many of the decisions that shape the cultural products that are produced” (109). A functionary is paid a salary to complete a given set of tasks. If the functionary completes the tasks to the satisfaction of his/her supervisor the functionary may be rewarded with a promotion or an increase in wages. This system of rewards leads functionaries to avoid taking risks and to value the rules (Peterson, 1990).

Just as Peterson (1990) suggests each of these careers does not necessarily have to exist in a given field of production. According to Peterson and Anand (2004) the distribution of “creative, craft, functionary, and entrepreneurial occupations in a field is determined largely by its structure” (317).
Peterson (1990) suggests that careers combine several of these patterns stating that, “they [cultural producer] may be one [career] in some situation and more of another in other situations. In addition they may move from more of one to more of another in the course of their careers” (Peterson, 1990:109). Take for example the radio broadcasting industry during the 1950s. Many organizations were rather small. Smaller organizations have fewer organizational levels; therefore, there are fewer positions for pure functionaries to fill (Peterson, 1990). In this analysis I draw a parallel between the music industry and the brewing industry in the US. During a time of great industry concentration a few small firms were able to carve out a niche and meet an unmet need by producing more flavorful and traditional beer. I compare the micro- and craft brewers to the independent radio stations of the 1950s and demonstrate the role of each occupation in the production of craft beer. Additionally, I highlight the trajectory from home-brewer/craftsman to showman/entrepreneur using case studies of prominent figures in the craft brewing industry.

9.1: The Craftsman: Fritz Maytag and the Home-Brewers

Home-brewers are craftsman much in the same way the song writers who worked for the large publishers of the 1940s and 1950s were viewed as craftsman. The key difference is that the song writers did not write music necessarily from their own personal experience, but rather attempted to produce what they thought would become a hit song, or what met the needs of the person who had commissioned the work (Peterson, 1990). Home-brewers on the other hand, seek to meet the unmet need for flavorful beer; however, they do so for their own personal satisfaction rather than at the whims of others. Additionally, this work is not paid, but performed out of the desire to brew high quality beer. In this sense, the home-brewer is the true craftsman. Another key difference between the two craftsmen is the notion of the ‘product image’.
The ‘product image’, according to Ryan and Peterson (1982), is the view of the producer that his/her product will be sufficient enough to move to the next level of the decision chain and eventually reach the consumer via the culture industry (111). The home-brewer is not concerned with the ‘product image’ as he/she, and perhaps a few friends, are the intended audience, rather than a large regional or national audience such as with radio. Gans (1957) refers to an ‘audience image’, which, unlike the product image, is focused not on the decision chain of producers, but on the consumers. Peterson (1990) points out those songwriters such as Chuck Berry, often used the ‘audience image’ to create songs that he could “sing convincingly” for his audience (111). Peterson (1990) further notes that these songs did not often gain favor with a national audience, but when they did become popular they did so because they “spoke directly to fans in ways that conventional ‘tune factory’ song could not duplicate” (111). This is more consistent with the craftsman view of the home-brewer. The home-brewer is not concerned with pleasing a large audience. Additionally, his/her products were celebrated because they offer an alternative to what is being offered in the culture industry. Fritz Maytag, owner of Anchor Brewing Company, can be viewed as a craftsman.

Maytag purchased the Anchor Brewing Company in 1965. The brewery was about to close, and seeing an opportunity, Maytag purchased the failing brewery. Anchor was producing its own brand of “steam” beer that used higher quality ingredients and a more traditional recipe than the macro-producers of the time. Essentially, this made him the first craft brewer in the country after the repeal of Prohibition. His brewery is considered by many to be the first micro-brewery in the US. While Maytag was busy running Anchor Steam, there was a small group of individuals who were continuing the Prohibition tradition of home-brewing. After many frustrating trials and batches of horrible beer, these budding home-brewers recognized that they needed help. As mentioned in the technology chapter, home-brew kits came with very basic equipment and instructions. It was almost a guarantee that the
first several batches of beer would turn out wrong. For those that did not become discouraged Maytag would prove to be a savior. On many occasions troubled home-brewers would call the brewery and ask if they could come down to get some tips on brewing. Maytag happily obliged them. Ogle (2006) contends that, “Maytag had good reason to assist home-brewers,” noting that, “what the nation, or at least the Bay Area, needed were serious, well-educated beer enthusiasts who could appreciate what Maytag had to offer. Home-brewers fit the bill” (278).

Many pioneering micro-brewers started out as home-brewers. One of the more notable examples is Ken Grossman of Sierra Nevada, who purchased his first brewery equipment from Maytag (Ogle, 2006). Given Maytag’s and Anchor Brewing’s location in San Francisco, it is no surprise that the west coast was at the forefront of the microbrewery revolution. Maytag continued to assist aspiring home-brewers throughout the 1970s. In 1978 home-brewing was legalized. The legalization of home-brewing opened the door to the exchange of information and knowledge. Home-brew clubs, such as the Maltose Falcons, were able to meet in public rather than behind a veil of secrecy or garage door. The Maltose Falcons were founded suburban Los Angeles by Merlin Elhardt, a war veteran and PhD candidate at UCLA (Ogle, 2006). As Ogle (2006) notes, “Elhardt was a home-brewer’s home-brewer: he ground his own malt and pitched a yeast smuggled out of the Tuborg brewery in Denmark” (279). The Maltose Falcons were the first home-brew club in America and according to Acitelli (2013), “it sought to reconnect enthusiasts with a hobby whose high-water mark had been mothered by necessity during Prohibition” (32). Elhardt approached home-brewing a bit differently. He moved away from the dubious, and often potent, home-brew styles of the Prohibition era and began creating brews that utilized all-grain recipes and yeast strains he developed from the one he allegedly stole from Tuborg in Denmark (Acitelli, 2013). This reflects the traits of the craftsman. Maytag and Elhardt shared their knowledge of brewing and inspired a generation of new home-brewers.
9.2: The Showman: Jim Koch

As noted above, the showman is a salesman of the self. They continuously try to create the best possible product and seek the approval of the consumer. As Peterson (1990) notes, the showman songwriters, such as Bob Dylan, created songs out of their own experience. They employed what Gans (1957) refers to as the ‘audience image’. Using the ‘audience image’ songwriters created songs for their audience, rather than for a long decision chain of producers and executives. When songwriters composed songs in this way they created alternatives to the mainstream hits of the day. Similar to the showman songwriters of the 1950s, micro-brewers brewed beer for a smaller audience and offered an alternative to macro-produced adjunct lagers. In the story of the craft beer revolution, there is no greater showman than Jim Koch.

Jim Koch was raised in a brewing family. His great-great-grandfather had been a successful brewer in the 1800s and his family was known for producing quality beer. At first, Koch did not want to enter into the family business. After the decline of the regional brewery in the 1960s and seeing his father constantly looking for work as a brewmaster, Koch decided to go to Harvard Business School. He graduated with degrees in business and law and was quickly rising to the top of his firm (Ogle, 2006). However, Koch was not happy with his life. He wanted to do something different. During the time, the microbrewery revolution was just beginning, and Koch being the businessman he was, saw an opportunity. Koch realized that most micro-brewed beer was of poor quality and often stale or spoiled. He had the benefit of learning from the struggles of Jack McAuliffe and Ken Grossman and he thought he could excel where others had failed. As Ogle (2006) notes, “the McAuliffe-Grossman model of micro-brewing became even less attractive once Koch had refined his vision: he wanted to brew from superior ingredients; he wanted to provide Americans with an alternative to skunky imports, bland corporate beer, and sour amateur micro-brews; and he wanted it to be lager” (312). The choice to brew lager was
an interesting one. Most craft and micro-brewers shunned the corporate image of lager and preferred to brew more flavorful ales (Ogle, 2006). Koch was different. He thought lagers could maintain freshness longer and still provide health amounts of traditional flavors such as hops and malt. In an interview with Daniel Bradford, publisher of *All About Beer*, Koch contends that, “what I had to do was make the best beer in the country” (63). Further, Bradford (1985) asserts that, “Jim embodies the breed of new brewers presently transforming the beer industry” (63). Now that he had a model in place it was time to start brewing beer.

Koch brewed his first test batch of beer at the struggling Pittsburg Brewing Company. In 1985 Koch was ready to start selling Samuel Adams Boston Lager, a family recipe that contained only four ingredients and no adjuncts (Ogle, 2006). Koch and his only employee, Rhonda Kallman, filled a briefcase with ice and a six-pack and “traveled from one Boston tavern and restaurant to another, carrying beer samples and wooing owners and managers. Distributors refused to touch the stuff, so the pair rented a truck and delivered the beer too” (Ogle, 2006:313). Distribution laws vary by state and Koch was selling his beer to retailers not directly to the consumer, and therefore, what he was doing was not illegal. Bradford (1987) notes that, “Americans had begun supporting products whose marketing strategy was to simply produce the best, where individuals were taking enough time and care to produce the finest product and then going out and personally presenting them” (63). Samuel Adams Boston Lager was quickly becoming one of the most popular brews on the east coast.

Samuel Adams Boston Lager won the Consumer Preference award during its first trip to the Great American Beer Festival (GABF). This award was given to the beer that received the most votes from the attendees of the festival. Many brewers were outraged when Sam Adams Boston Lager won the Consumer Preference Poll at the GABF three years in a row from 1985-1987 (Hindy, 2014). Brewers complained that Koch had been winning favor with voters by providing free merchandise if they voted
for Sam Adams as the fan favorite. Koch began to market Sam Adams as the “best beer in America” after winning the awards. The complaints and controversies became so heated that GABF co-founder Charlie Papazian announced that “brewers who used the festival’s awards in advertising would have to name the prize, the year it was won, and the category in which it was won” (Hindy, 2014:53-54). Whether the allegations were true or not, it did not change the fact that Sam Adams was quickly becoming the most popular micro-brew in the country. It’s no surprise when you consider that Koch has multiple business degrees from Harvard and a rich family brewing tradition (Bradford, 1985).

That was not Koch’s only keys to success. Koch relied on the history surrounding Sam Adams and connections to Boston’s rich history to build his brand. Acitelli (2013) notes that, “Koch was in the papers, on the radio, and sometimes even on the TV, talking in folksy tones about history’s Samuel Adams and his roots in Boston, and the city’s own roots in brewing” (239). Koch took some artistic license with his recounts of Samuel Adams brewing legacy in Boston. It should be noted that Adams himself was never a brewer, but rather a maltster. A maltster is one who converts the grains used in brewing to malt. Sam Adams never brewed beer himself and thus portraying him as such is historically inaccurate. This use of historical inaccuracy and promotion of patriotism grated on the nerves of other brewers (Acitelli, 2013). Koch’s strategy worked. According to David Geary, a respected micro-brewer, Koch had created a “mythology” by “ceaselessly recounting” the details of Sam Adams life and his own family legacy of brewing (Acitelli, 2013:239). His strategy worked. But there was another issue facing the Boston Beer Company.

Many other brewers were disdainful of Koch due to his use of contract brewing. A decade after the launch of Samuel Adams Boston Lager, more than 99 percent of the beer was produced outside the city of Boston. Koch was viewed as a contract brewer by his peers, not a craft brewer. Acitelli (2013) contends that, “the contract brewing particularly annoyed those brewers who had sunk thousands,
maybe even millions, into the start-up costs of a physical brewery: the rent on space, the kettles and tuns, the bottling line, the cooling systems, the labs, the insurance for all of it” (240). Contract brewers could avoid these costs and in the case of Jim Koch, could use that revenue for marketing. Bert Grant, the founder of the nation’s first brew-pub did not approve of Koch’s tactics and called him an “extremely aggressive salesman” (Acitelli, 2013:240). As Acitelli (2013) notes, this remark was “meant as a particularly stinging rebuke in an industry that traditionally prided itself on not advertising” (240). Koch used business and marketing tactics to build a successful brand. He used his showman-like qualities to educate people about craft beer, especially his products. He helped to create awareness of craft beer and increased the market for craft beer.

9.3: The Entrepreneur: Jack McAuliffe

Entrepreneurs are individuals who seek to fulfill an unmet need by bringing together “creative, financing, marketing and distributing factors in unique ways” (Peterson, 1990:109). Peterson (1990) points to shifts in the structure of the record industry and the structure of organizations within that industry as a major factor contributing to the shift from craftsman and functionary careers to showman and entrepreneurial forms. This pattern can be seen in the brewing industry as well. When the industry was highly concentrated in the 1960s home-brewers continued the craft tradition of brewing beer in the home. While this was occurring, the large macro-producing firms were becoming highly bureaucratic and growing larger and larger. As these firms grew they created more opportunities and jobs for functionaries to fill. Meanwhile, the craftsman home-brewers were awaiting the passage of laws to legalize their industry. Once the laws were in place allowing individuals to legally brew beer in the home, the next logical step was to start a business brewing beer. It is no surprise that so many of the pioneering craft and micro-brewers got their start as home-brewers. Here we can see the shift from craftsman to entrepreneur in the brewing industry.
Jack McAuliffe is widely considered to be one of the pioneers of the craft brewery movement. His New Albion Brewery in Sonoma California was the first start up craft brewery in the US after Prohibition (Acitelli, 2013). While McAuliffe was stationed in Scotland for the Navy he developed a taste for European ales. When he returned home from Scotland he pursued a degree in physics on the GI Bill and began a career as an engineer (Hindy, 2014). Upon his return he became distressed because he would no longer be able to drink the beer he had grown to love. That is unless, he brewed his own. Before leaving Scotland, McAuliffe collected books and recipes from all over so that he could learn how to make his beloved ales himself. He took this new found love of home-brewing and had an idea. What if he opened his own brewery? He felt opening his own brewery could help redeem American beer from being viewed as a “national disgrace” when compared to English ales (Hindy, 2014:13). In 1976, McAuliffe partnered with Suzy Denison and Jane Zimmerman, neither of which had any experience brewing, to form New Albion Brewing Company. Suzy and Jane each put up $1,500 and McAuliffe put up $5,000 of his own money to start the brewery (Hindy, 2014). With the little money they had they began scouring junk yards and old warehouses looking for materials that could be used as brewing equipment. Little did they know, but the three pioneers of craft beer would create a model for future craft brewers to follow (Acitelli, 2013).

Word of the New Albion Brewery spread quickly. So quickly in fact, that, the brewery was selling out of beer every week. As Acitelli (2013) contends, the brewery was generating a profit, but was not generating enough capital to expand the operation. Unfortunately, this was an issue that would plague New Albion and McAuliffe until their untimely demise in 1982. McAuliffe recognized the problem and tried to seek funding from investors, but after being denied over and over McAuliffe simply said, “they just didn’t understand what I was doing...they couldn’t comprehend the idea of a small brewery” (Hindy, 2014:15). Clearly, McAuliffe was ahead of his time. The trouble finding investors was reflective of a
larger problem facing budding micro-brewers and entrepreneurs; people simply did not know what they were investing in.

Even though New Albion was ultimately a failure, lasting only four years, McAuliffe had “spawned a revolution” (Hindy, 2014). He had inspired other home-brewers to start their own businesses. As Acitelli (2013) notes, McAuliffe’s idea to start a brewery “burned bright as a dream come true, inspiring others to follow in his footsteps and loosing the American craft beer movement as it would come to be understood” (334). New brewers were able to use the failure of New Albion as a model to help them along the way to success. McAuliffe brewed the hard way building his materials from used parts and whatever he could salvage. He did not enter the industry as Koch did riding a family legacy and large amounts of start-up capital.

9.4: The Bureaucratic Functionary: Miller Brewing

The last career pattern is the bureaucratic functionary. Functionaries are the workforce of a bureaucracy. They perform tasks needed to complete the production of a good. In the radio industry radio announcers were viewed as functionaries before being replaced by the personality-driven showman-entrepreneur DJs of the 1950s. These radio announcers were required to read the news and make announcements in “accent-free voices,” and strived to sound as emotionless as possible (Peterson, 1990). Contrast this with the DJ whose goal was to establish a persona and an image. Essentially, functionaries perform the productive labor and are not required to create or craft a product in the way the craftsman, showman, and entrepreneur use creativity. As mentioned previously, the distribution of careers is largely determined by the structure of the industry and organizations (Peterson and Anand, 2004). Peterson (1990) notes, during the 1950s organizations in the radio industry were rather small and had fewer organization levels and very few positions for pure functionaries. This
allowed the showman and the entrepreneurial career forms to emerge. Smaller organizational structures, such as independent radio stations and micro-breweries, have less decision levels and bureaucracy. Therefore, we observe fewer functionaries in these types of organizations. On the other hand, macro-producing firms are highly bureaucratized and have many decision levels. These organizations have many more positions that functionaries can fill.

Miller-Coors is one of the top producing firms in the US. Miller-Coors currently operates 10 macro-breweries in the US. Their organization is structured bureaucratically with a board of directors overseeing company operations. Each brewery employs approximately 450 employees on average (MillerCoors, 2015). They have a highly bureaucratic structure and utilize the labor of functionaries to produce beer. MillerCoors, much like other macro-producers, utilize highly-efficient automation technologies to produce beer in massive quantities. According to MillerCoors (2015) the total capacity of their breweries is over 75 million barrels annually.

As mentioned in chapter 6, MillerCoors utilizes a team system. These teams are comprised of functionaries that are required to perform some task in the brewing process. Each team is assigned a team manager who ensures that his/her team is performing their tasks satisfactorily. This involves following the rules and completing tasks in the specified amount of time. Peterson (1990) contends that, “a functionary is paid a specified salary and is rewarded with promotion for following the rules,” and according to Peterson, this system of rewards leads functionaries to avoid taking risks or being creative. MillerCoors (2015) also operates a small facility that purchased from Leinenkugel, a long-time craft brewery in Wisconsin. The Leinenkugel brewery serves as an R&D facility where a much smaller group of employees, approximately 100, develop new products and produce more “craft-style” beers (MillerCoors, 2015). A division such as this mirrors the structure of a micro-brewery and would most likely not employ functionaries on the scale of the macro-breweries. These jobs are filled by individuals
who are tasked with innovation and creating new products, which is essentially the opposite of the functionary. Functionaries provide continuity in the culture industry because it is not their role to innovate or create new products. They simply carry out tasks that a showman or entrepreneur has given them.

With the case of MillerCoors, functionaries aid in the homogenization of beer because their position limits the potential creative effects they may have on a product. By promoting workers who do not stray from their duties, large firms can ensure that the product will be produced consistently. Rewarding good work encourages functionaries to follow the rules. The impact of the functionary on the brewing industry is quite significant. As breweries began to grow and produced more and more, there was a greater need for functionaries to fill positions. Firms began to become much more bureaucratic in structure and the decision levels in each organization increased. According to the Beer Institute (2015), the US brewing industry employs nearly 2 million workers, most of whom fill the functionary role.

The craft beer industry is much different. One reason we do not see functionaries in the craft industry is due to the size of the organizations. Organizations are much smaller and have fewer organizational levels. Peterson (1990) contends that the radio industry saw a shift from craftsman and functionaries to showman and entrepreneurs. We can also think of craft beer in this way. As the large firms were dominating the industry, small micro-breweries were beginning to open all over the country. Many of them were being opened by seasoned home-brewers. As mentioned above, home-brewers typify the craftsman career pattern. Once those home-brewers decide to open a brewery or brew-pub, they transitioned into entrepreneurs and showman. These careers are much more creative than the functionary and, as mentioned previously, have direct effects on the production of craft beer. This is similar to the outspoken radio DJs who attempted to create a persona and image on the radio, rather than monotonously reading the news and announcements the same way every other radio announcer
did. Home-brewers attempted to create a distinct and unique product that was different from the
mainstream. The role of the functionary is not to create, but simply to produce to the specifications of
those situated higher in the bureaucracy. The shift from functionary to showman-entrepreneur can
easily be seen in the craft beer industry.

9.5: Summary of Effects of Occupational Careers on the Production of Craft Beer

The intersection of law and the structure of the brewing industry and individual organizations
allowed these careers to emerge. The highly concentrated brewing industry was highly bureaucratic in
nature and constrained the production of craft beer. As laws were passed that legalized home-brewing
new careers were created. Home-brewers had been operating as craftsman since Prohibition and
continued the tradition after its repeal. Initially, most of the beer brewed by home-brewers was prone
to spoiling and was generally of poor quality. One of the reasons was the lack of sufficient home-
brewing technology. The other reason was the lack of knowledge and skills needed to produce quality
beer. Many troubled home-brewers sought expert help from brewers such as Fritz Maytag. With the
help of Fritz Maytag, and other influential brewers, avid home-brewers were able to create businesses
brewing the beer they loved, effectively shifting the nature of careers in the industry from craftsman to
showman and entrepreneurial career patterns. This shift from craftsman to showman and entrepreneur
is crucial to understanding the micro- and craft beer movement.

The roles of the showman and entrepreneur are much more present in the craft beer industry
than they are in the macro-brewing industry. These are much rarer in larger organizational forms such as
macro-breweries. Each of these careers has shaped the industry by creating a model for home-brewers
who wish to start a brewery. Jim Koch, a true showman, provided the blueprints of how to successfully
turn a craft beer into a marketing juggernaut. He used his business savvy and marketing techniques to
promote Samuel Adams Boston Lager into becoming the most successful micro-brewery of the time. He is a true salesman of the self and has always relied on marketing and clever advertising to promote his beer as the “best beer in the country.” Jack McAuliffe displayed true entrepreneurial spirit, and even though his brewery ultimately failed, every craft brewer to come after owes him their gratitude. His struggles and failures provided a blueprint for craft brewers to learn from and to become successful. It is no surprise that some of the most successful micro-brewers all mention McAuliffe as a primary source of inspiration.

Lastly, the bureaucratic functionary has very few opportunities in the craft beer industry. The nature of these organizations is to be small and much less bureaucratic than larger macro-firms. These organizational forms have fewer opportunities and positions for functionaries to fill. Functionaries have played a large role in the homogenization of domestic beer, but have had little influence on the production of craft beer. As the industry became more concentrated and large firms expanded, there was a greater need for increased and specialized labor. These macro-firms used functionaries to produce large quantities of standardized and homogenous beer. Micro-breweries emerged as a response to large breweries and their organizational forms. They seek to innovate and create new products. Micro-breweries simply operate on a much smaller scale than larger firms. Because of this fact, they do not require the same labor force that a larger firm would. This is why the functionary is so rare in the craft beer industry. If micro- and craft breweries continue to grow and expand their operations, there may be need in the future for functionaries, but as long as the craft industry maintains its organizational structures the showman and entrepreneur will continue to be the most common career patterns in the industry.
Chapter 10: Conclusion

Previous explanations of the emergence of craft beer have typically focused on only one aspect: such as the structure of the brewing industry, biographical accounts of craft brewers, and the structure of organizations within the brewing industry. There is a need for a more sociological explanation. The POC provides a framework for understanding the emergence of craft beer in the US by examining the effects of law and regulation, industry and organizational structure, markets, technology, and occupational careers. The six facets of the perspective work in concert by simultaneously constraining and stimulating the production of craft beer. In the following sections I summarize the overall effects of each facet of the POC on craft beer production.

10.1: Laws and Regulations

Laws have both constrained and stimulated the production of craft beer in the US. Prior to Prohibition there were over 1200 breweries in operation in the US. During Prohibition this number dropped to zero. After the repeal of prohibition the number of breweries rose to above 700, but gradually declined until the microbrewery movement in the late 1970s and early 1980s. Prohibition had lasting effects on the brewing industry in the US and allowed for a handful of breweries to dominate the industry after its repeal. The remaining breweries were subject to the economic hardships of the Great Depression and WWII. Those breweries that survived were gobbled up and consolidated by brewery titans such as Anheuser-Busch and Miller.

The practice of home-brewing emerged during Prohibition. After the repeal of Prohibition making wine in the home was legalized, but it remained illegal to brew beer in the home. During the 1960s and 1970s small home-brew clubs were forming and other home-brewers were sharing information with each other. In 1978 H.R. 1337, also known as the Home-Brew Act, legalized the
practice of brewing beer for personal use. This law opened the door for would be home-brewers to enter into the craft. Many of the first micro-brewers were home-brewers who may not have started their breweries if it remained illegal to home-brew.

Taxes have greatly affected the production of beer in the US. When all of the ingredients are added up, taxes make up the majority of costs in a beer. Excise taxes were introduced as a regressive tax system that disproportionately targeted the beer drinker. Neo-Prohibitionists have called for an equalization tax that would place a standard tax on each unit of alcohol by volume. This tax would affect beer, and most certainly craft beer, more than wine or distilled spirits. Craft beer typically has higher alcohol content and would therefore be subject to greater taxes than domestic beer. In the years leading up to the micro-brewery movement excise taxes targeted beer unfairly. Smaller producers were forced to pay the same amount of taxes as macro-producers. Currently, legislation is being proposed to lower the excise taxes on small breweries. This would give upstart breweries a greater chance of survival.

The labeling, marketing, and advertising of alcoholic beverages have long been hotly debated issues. Neo-Prohibitionist groups, such as MADD, waged a war on the beer industry that impacted legislation from the 1980s up through the 1990s. Much of the legislation was directed towards the labeling of beer. Suggestive language, words touting the alcohol strength of the brew, and any perceived health benefits were not allowed on any beer labels. Prior to the passage of this legislation beer labels were able to list health benefits, regardless of their accuracy, and were not required to warn drinkers of the dangers of alcohol consumption. This led Congress to pass measures requiring producers to include a health warning form the surgeon general. Additionally, laws were passed that allowed producers to include the alcohol by volume on the label and to include health benefits that resulted from drinking in moderation.
10.2: Industry and Organizational Structure

Prior to Prohibition, the distribution and sale of alcohol was left in the hands of the producers. Often times, this led to the practice of tied-houses in which a producer would establish a relationship with a retailer that would ensure that his/her beer would be the only beer available for purchase at a particular retail location. After the repeal of Prohibition a three-tier distribution system was put in place at the state level. The three-tier distribution system was designed for states to effectively and efficiently tax the production and consumption of alcohol. When alcohol is produced it cannot be sold directly to the consumer, except in special cases such as brewpubs. Instead, the beer must be sold to a wholesale distributor who then sells the beer to a retailer who will ultimately sell it to the consumer. Wholesale distributors help to stimulate the production of craft beer because they can bring a wide variety of products to market. On the other hand, large macro-producers have colluded with distributors in attempts to control a particular distribution territory. The effects of the three-tier distribution system continue to affect the production of craft beer today.

In the years leading up to Prohibition the number of breweries in the US was steadily declining. However, the industry was not said to be oligopolistic. The US brewing industry became highly concentrated during the period after the repeal of Prohibition. Many breweries adapted their breweries into factories or produced other goods, but unfortunately after WWII there was little need for their services. The remaining breweries were consolidated by larger firms, such as Anheuser-Busch, at an incredible rate. Some of these breweries were once proud regional breweries that more traditional beer styles. After they were consolidated they were re-branded and began producing their parent company’s brands. This allowed larger producers to increase their distribution chain and reach a much larger consumer market. The mergers of the 1960s discouraged competition and led to the homogenization and standardization of American beer.
When a brewer does not have the funds to start a brick and mortar brewery, one solution is to contract brew. Contract brewing allows an individual, or firm, to rent out brewery space and labor from a larger brewery. Small firms who rely on contract brewing become less vertically integrated and must relinquish control over the brewing process. In the 1990s many craft brewers questioned the authenticity of contract brewing and legislation was passed that required producers to place the city and state of origin on all packaging. Additionally, larger firms were contract brewing “craft-style” beers that were intended to penetrate the budding craft market. This resulted in consumers purchasing macro-produced beer that was marketed as a craft product.

The size and structure of a brewery greatly affects the production of craft beer. The brewing industry has witnessed tremendous growth over the last several decades, and as a result, the structure of organizations has also shifted. Larger firms operate much more bureaucratically than their micro-brewing counterparts. As firms become more bureaucratic, they are less able to adapt to market changes. Decision levels in these organizations are often numerous which also affects the ability to adapt. Micro-breweries are much smaller and have very few decision levels. This allows them to adapt to changing consumer tastes with much more flexibility. Additionally, these firms produce smaller batches of beer and are much better equipped to handle changes in the product line.

Micro-breweries also have less functional differentiation than macro-firms. Large firms may have many specialty divisions that are assigned specific tasks in the brewing process. Micro-breweries do not have large numbers of employees, and often require employees to complete many different tasks that would normally be carried out by a specialty division in a larger brewery. Additionally, functional differentiation can be measured by the number of regional producers and specialty production divisions a company utilizes. Macro-producers have been acquiring interest in micro-
breweries and brewing beer under the guise of a craft brewery. Some regional breweries are now owned by large firms and produce beer craft-style beer that reaches a wide market.

Craft breweries are opening at incredible rates. The size and structure of these organizations has been changing over the last two decades. Many brewers are returning to the tradition of home-brewing and producing very limited and smaller batch beers. Brewpubs have emerged as local and regional watering holes that combine the aesthetics of a traditional pub with a microbrewery. Brewpubs may sell beer directly to the consumer without going through the three-tier distribution system. In an effort to create higher quality beer some brewers have been sizing down. The nano-brewery has emerged as a small scale step up from the traditional home-brewing operation. These breweries produce very small and limited batches of beer that cater to the tastes of a much more local clientele. Essentially, home-brewing, nano-brewing, and brewpubs have taken links out of the decision chain. By limiting their size, these firms have lowered the levels of bureaucracy and decision-making and are much more equipped to handle changes in the market.

10.3: Markets

After the repeal of Prohibition, the US brewing industry became highly concentrated and homogenized. There were little advances in brewing and the larger firms simply tried to recreate a competitor’s product, rather than innovating and creating new products. During an exercise boom in the 1970s, Miller introduced America to “light” beer. Light beer was introduced to appeal to the health-conscious drinker who wanted a “less-filling” beer. Light beer quickly became the most popular beer in the US. Every major producer began brewing their version of light beer which further increased the homogenization of American beer. Not everyone was drinking light beer. Many Americans were enjoying the economic boom and traveling abroad. American tourists and soldiers began developing a
taste for European style beers and were dissatisfied with the fizzy yellow domestic offerings. These drinkers turned to imported beer to satisfy their taste for flavor. Imported beer had more flavor and conveyed higher status. The imported beer craze peaked in the 1990s, but it continues to impact craft beer today. It helped to change the tastes of the American beer drinker, which effectively opened the door to the craft beer movement.

The craft beer market is constantly changing. Brewers must try new styles and produce new products to satisfy the changing tastes of the market. Craft beer is a high quality product that has carved out a niche market in the brewing industry. The craft brewer interprets his consumer’s tastes and produces beer that he/she thinks the consumer wants. The craft segment is growing each year and more and more breweries continue to open. Macro-producing firms have been attempting to tap into the craft market since the 1980s. This was first achieved by purchasing majority interest in larger craft breweries such as Red Hook and Widmer Brothers. The larger firms then began brewing craft-style beers based on their interpretation of the market. These firms also began contract brewing faux craft labels such as Blue Moon to enter the craft market. Craft consumers want authenticity in their beer and the savvy drinker knows exactly where his/her beer comes from. As long as this is true the macro-producers will be left out of the craft market.

The market segment for craft beer is increasing each year. Prior to the 1970s domestic beer represented 99 percent of all the beer sold in the US. After the advent of light beer, domestic beer’s share began to decline. Light beer quickly became the most popular beer in the US. During the 1970s Americans began to demand more from their beer. Many of these drinkers went to imports for the solution to their lack of taste problems. Others home-brewed and consumed craft beer. Since the 1970s the craft and import segments have been steadily growing. Import sales peaked in the 1990s, but the
craft segment continues to grow. Industry leaders predict that craft beer will overtake domestic beer in the coming years. It is clear that the US beer market has changed significantly.

10.4: Technology

During the 20th century there was much technological advancement that stimulated the production of beer in the US. These advances affected not only the production of domestic beer, but would also have direct and indirect effects on the production of craft beer. During the late 19th century, what was once the pinnacle of US brewing, beer was stored in large wooden barrels that were subject to spoilage and were not easily transferred. The development of pasteurization enabled beer to be stored longer, maintain its freshness, and improved the overall quality of beer. This was aided by advances in liquid gas cooling and other refrigeration technologies. Now, beer could be stored longer, stay fresh longer, and travel greater distances without spoiling.

Pasteurization also opened doors to alternatives in packaging. Glass bottles became standardized and were soon preferred over traditional wooden barrels. Bottles became more reliable after the advent of the crimp crown top. Beer could now be stored in a standardized and efficient way. In 1935, the beer can was put into production. It was inexpensive to produce and was a reliable method of packaging. Today, the aluminum can is the industry-wide favorite form of packaging. As cans became more popular there was a need to produce more canned beer. Canning line technologies were advanced and large-firms increased their output beyond what most firms could produce. Can technologies made beer less expensive and easier to produce. These technologies directly affected the push towards high industry concentration and homogenization. Although these advances helped domestic beer dominate the market, they also helped to create a need for more flavorful beer. If the market had not become concentrated there would have been little need for specialist firms to emerge.
Many breweries today are updating their breweries with digital brewing technology. Automation technology has improved the consistency of beer. This technology has been adapted for micro- and home-brewers to better control the brewing process. Digital technologies, such as apps and social media, are also changing the way in which we consume beer. Apps help retailers manage inventory and menus all while informing the consumer about the products. Social media is playing a larger role in the consumption of beer. There are several apps that log and track an individual’s beer drinking and also connects the user with other craft drinkers. The future of digital technology and brewing is bright, but some brewers think technology takes the “craft” out of craft beer.

### 10.5: Occupational Careers

Changes in the brewing industry have affected the pattern of occupational careers. The industry became highly concentrated and more bureaucratic. This constrained the production of beer because it increased the number of decision levels in an organization. Home-brewers became craftsman as they began to brew their own beer for personal consumption. At the time this was still illegal. As home-brew became legal, new careers began to emerge. The craftsman emerges as home-brewers began to brew beer in the home for personal use. Many of the early home-brewers did not know what they were doing and sought the advice of more experienced brewers. Fritz Maytag opened the doors to his brewery and welcomed in curious home-brewers. These home-brewers learned to perfect their craft and would become the pioneers of the micro-brew revolution. It is during this time that we see the shift from the craftsman to the showman/entrepreneur.

Showmen and entrepreneurs appear more frequently in the craft beer industry than they do in the macro-brewing industry. These career patterns have provided a model for future micro-brewery owners to follow. Jim Koch aggressively marketed his beer and showed that craft beer can make an
impact in the domestic market. He championed craft beer and is considered to be one of the pioneers of the craft revolution. Jack McAuliffe is the antithesis of Jim Koch. He began brewing beer at New Albion, a brewery he essentially built himself from scrapped parts, and focused on the production of his beer rather than the marketing. McAuliffe held the belief that if the beer was high quality it would not need advertising. Although his brewery ultimately failed, McAuliffe’s entrepreneurial spirit and the hardships he faced provided inspiration to the first generation of micro-brewers.

The bureaucratic functionary is much less common in the craft beer industry. These organizations are much smaller and have few positions that functionaries can fill. Functionaries, working for large macro-producing firms, have pushed the homogenization of American beer. By expanding operations and acquiring regional breweries, large firms created jobs for functionaries. Functionaries are used to complete specialized tasks in the production process. They are discouraged from being creative and provide continuity in the beer industry. Craft firms operate at lower organizational levels where employees often perform multiple tasks in the production process. Functionaries are almost non-existent in the craft beer industry. If the craft industry continues to grow, it may reach the scale that would require the employment of functionaries, but until then, the entrepreneur and showman will be the most common career patterns in the industry.

10.6: Critique, Limitations, and Opportunities for Future Research

One critique of the POC is that it is not equipped, nor intended to, to analyze the construction of meaning surrounding a particular good. The six facets of the POC are unable to measure the effects of reception and consumption of a product. In order to more fully explain the production of culture, I propose to add two constraints - reception and the production of meaning - to the existing POC framework. Further research should attempt to augment the existing theoretical framework by
additionally focusing on the reception of cultural goods and the production of meaning within the craft beer movement in the US.

In order to augment the POC with notions of reception of culture and the production of meaning, I propose analyzing the culture surrounding craft beer. Craft beer and home-brewing in particular, are excellent examples of what Peterson calls auto-production. Additionally, the ritualistic cultural events surrounding craft beer provide data to further analyze the relationship between producer and consumer. I argue that the POC can be augmented by adding constraints of reception and production of meaning and the craft beer movement in the US provides an excellent example. Research such as this would also contribute to the literature by examining craft beer from the perspective or reception studies and notions of cultural taste.

One way to research this would be to measure the number of home-brew organizations and beer festivals over time to highlight the gradual change in taste of beer drinkers. Home-brew clubs and organizations were very important in the rise of craft beer. These organizations represented a change in tastes and a preference for more full-bodied and traditional brews. They also served as an educational site where would-be home-brewers could learn how to brew or test their wares on a group of like-minded beer lovers. Most importantly, these clubs began to create a foundation for a craft beer culture that was producing its own symbolic cultural goods. By tracking the number of home-brew clubs one could measure the increase in cultural production surrounding the consumption of craft beer.

Additionally, by examining the increase in ritualistic settings of consumption (e.g. beer festivals), one could show how the culture surrounding craft beer has increased the production of symbolic meaning attached to beer. There are major beer festivals all over the world that celebrate anything and everything that is craft beer. At one of these festivals a patron may expect to sample any number of
craft beers from a wide range of breweries and localities. Beer festivals, much like other festivalized cultural practices, provide a ritualistic space that fellow beer lovers can exchange social and cultural capital. The production of meaning within craft beer may be measured by tracking the increase in number and variety of cultural beer events.

The Brewer’s Association and the Brewer’s Almanac, which is an industry data source, also provide sites for cultural analysis. The Brewer’s Association is the institutionalized governing body of craft beer. They developed an official industry definition of craft breweries as small, independent, and traditional. The existence of such an organization provides further evidence of a culture surrounding craft beer. They are the regulatory force that drives craft beer producers and consumers by regulating what can be considered craft beer. Using data from their resources one could show how there has been an increase in both the production of craft beer culture and the consumption of a craft beer culture. This will be measured by tracking the number of beer festivals and brewing competitions and measuring international representation of American craft beers at world-wide beer competitions over a relevant period of time.

The POC is a powerful framework that can help explain the production of cultural goods. However, it cannot explain the meaning attached to those goods. In order for the POC to remain a relevant framework it must be augmented to include facets such as reception and the production of meaning. One must understand that the original six facets of the POC work in concert to explain production of cultural goods, but also that new facets regarding consumption should be added to provide a much more holistic explanation of cultural production.
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