

Tapping into Sustainability

How Local Craft Breweries Foster an Ethic of Sustainability through Community Building and Development of Place-Based Identity

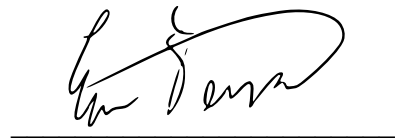
By Mayte Aldrett, Emma Dempsey, and James Harren
Senior Comprehensive Exercise

Advised by Professor Constanza Ocampo-Raeder and Professor George Vrtis
Environmental Studies
Carleton College
March 13, 2019

We hereby give permission for the Carleton Environmental Studies program to use and reproduce this paper for educational purposes, citing us as the author. (The authors do not forego copyright protection.)



(sign here)



(sign here)



(sign here)

Acknowledgements

There are so many people that we would like to thank for helping us with our project. We would like to begin by thanking our advisors Professor Constanza Ocampo-Raeder and Professor George Vrtis for their patience, guidance, and thoughtful feedback throughout this project. We would also like to thank ENTS faculty for enriching us with knowledge throughout our college experience and for their interest in our project. We would also like to thank everyone we interviewed for welcoming us into their business, generously giving up their time to speak with us, and allowing us to peek into their lives. Finally, we would like to thank our friends, family, and fellow ENTS majors for supporting us throughout this journey of COMPs.

Table of Contents

Acknowledgements	1
Abstract	3
Preface	4
Introduction	5
Literature Review	6
Local as Economically Just	6
Local as Higher in Quality	7
Local as Environmentally Responsible	8
Local as Fostering a Sense of Place	10
Study Area	11
Methodologies: Finding Locality	13
Brewer Interviews	14
Supply Chain Analysis	14
Customer Surveying and Informal Interviewing Process	15
Ethnographic Observations	16
Website Review	16
Results and Observations: “All That Good Stuff”	17
Economic Justice: Money is a Means to an End	17
High-Quality: Beer is Non-Industrialized and Place-Based	18
Environmentally Responsible: Energy Efficiency through Economies of Scale and Minimal Transportation	21
Sense of Place: Expanding Community, Connecting to Nature and History	22
Discussion: Interpreting Paradoxes	26
Paradox 1: Local is Inseparable from Global	27
Paradox 2: Sustainability Is Big and Small, Efficient and Place-Based	29
Paradox 3: Community Is Exclusive	32
Implications and Further Study	34
Concluding Thoughts	35
Bibliography	36
Appendixes	41
Appendix A: Brewer’s Interview Guide	41
Appendix B: Customer Survey	42
Appendix C: Interview Consent Form	44
Appendix D: Survey Results – Tables 2, 3, and 4	46

Abstract

The demand for local products has grown dramatically over the past two decades. Over the same period, microbreweries that advertise their localism have expanded in popularity. Of the 731 microbreweries that opened nationally in 2017, three launched in Rice County, MN: Chapel Brewing, Imminent Brewing, and Tanzenwald Brewing Company. In this case study, we explore the motivations of brewers and brewery customers for creating and consuming local beer at these three breweries. By using a mixed methods approach that includes surveys, interviews, ethnographic observations, and website analysis, we find that, as indicated by the literature on alternative food movements, local beer producers and consumers are motivated by notions of economic justice, high-quality goods, environmental responsibility, and sense of place. We found high-quality goods and sense of place to be the most important motivators. In addition, we identify three paradoxes that problematize the terms “local” and “sustainable”. First, local breweries can only exist because of the globalized industry that provides nonlocal ingredients and equipment. Second, sustainability both increases and decreases based on the size of the business and the type of sustainability considered. Third, brewery efforts to build community produce spaces that are homogenous in terms of class and race, perhaps inadvertently facilitating further division in an already highly segregated county. Through recognizing these paradoxes, we establish a need to expand conceptions of sustainability to include a socio-environmental dimension in order to promote a more realistic and inclusive environmentalism.

Preface

We walked up to Imminent Brewing on a snowy, Thursday afternoon in February. The wall to wall windows that constitute the building's facade, a remnant of the armory that previously filled the space, revealed a bustling interior that promised a fruitful data collecting session. We ordered a round of Wolf Creek IPAs, a citrusy beer named for a town landmark, then walked past the tables of mostly white, middle-aged clusters of friends sporting a higher proportion of flannels and facial hair than can be found in most settings. The brewery was loud with chatter and folk music, and groups in every direction chatted animatedly while enjoying their beer and a variety of snacks they brought from home. We sat down at a large wooden table engraved with donor names and wholesome phrases like "think globally, act locally." A painting of prairie grass and the rustic wooden tables together evoked a sense of the town's native oak savanna ecosystem. Industrial features like the exposed metal brewing equipment and visible air ducts coexisted alongside homier accents like a patterned carpet on which a band was setting up instruments. A poster in the bathroom displayed Robert Frost's poem "The Pasture" and advertised a movie screening hosted by the Cannon River Watershed Partnership, a non-profit dedicated to improving water quality in the region.¹ A woven basket below the sink offered a selection of complimentary personal products. As we settled into our seats, one of the brewers we met several weeks prior walked through the door. We tried to catch her eye, but she was busy greeting several tables of regulars and petting their dogs. She eventually made it over to us to warmly wish us luck on our project.

¹ Cannon River Watershed Partnership is a community focused advocacy group that works on water quality issues in the Cannon River Watershed. The group is based in Northfield. See their website at <https://crwp.net/about-crwp/>.

Introduction

Imminent Brewing is full of small features that coalesce to express a sense of “localness.” Imminent shares this quality with Chapel Brewing and Tanzenwald Brewing Company, all of which opened in Rice County in 2017. Chapel is the smallest of the three. Its owners preserved the building’s history by maintaining the features of the old town chapel. Tanzenwald (“dancing forest” in German) is a restaurant in addition to a brewery, an amalgamation of the passions of the husband and wife team that runs it. Though each brewery has its own unique character, they all go to great lengths to construct a sense of place. They are rewarded for their efforts by a loyal base of customers that they call family, and a steady stream of craft beer tourists from the greater region. These three Rice County breweries, Imminent, Chapel, and Tanzenwald, make up our study area.

These establishments contribute to a trend of growing interest in breweries and local products across the United States. The number of microbrewery openings nationally has increased yearly since 2010, reaching 731 in 2017 (Brewers Association 2019). This growth represents a stark contrast to trends in business across the country; Seventy-five percent of industries became concentrated into fewer, larger companies over the past two decades (Grullon et al. 2018). The rise in breweries also represents a broader and growing interest in local products, particularly in food. According to the United States Department of Agriculture (USDA), food purchased directly from farmers by consumers increased by a factor of three from 1992 to 2007, a growth rate twice as fast as the total agricultural sales growth rate (Tropp 2014).

Perceived environmental benefits of local food have led the public to understand the term “local” as a mark of sustainability. Buying local is a trend among environmentalists, who associate local products with measurable environmental benefits like reduced transportation requirements that reduce carbon emissions. Some consumers also associate local food with a more conceptual sustainability: a return to a time when small farms owned by community members avoided the environmental pitfalls of modern day agriculture. This version of sustainability relies less on measuring ecological phenomena and more on understanding the social and cultural components of how humans relate to the environment. Even though people most often think of sustainability by its measurable qualities, both quantitative and qualitative forms are important to the future of the environment. Because local seems to encompass both forms of sustainability, some environmentalists have even begun to perceive the “local” label as a better indicator of sustainability than “organic” (Adams and Salois 2010; Kaiser et al. 2014). Words like “local,” “organic,” and “sustainable” play key roles in food movements, acting as indicators to consumers that their fears (e.g. about health or the environment) have been quelled (Finn 2011). These terms, however, are difficult to define, as they take on different meanings and significance to different people.

The conflation of the terms “local” and “sustainable” is problematic because neither term is operationalized clearly, nor does their use in product marketing necessarily imply that the suppliers prioritize the environment. The geographic extent within which a product can be produced to be considered local may be the bounds of a neighborhood, a 100-mile radius, the state, or the country (Onozaka et al. 2010). Consumer expectations for geographic extent can vary by individual, by product, and by production characteristics (e.g. who is employed). Individuals have a range opinions of how much of a supply chain must be within the defined geographic region for the final output to be considered local. Individuals also differ in the values

that inform their desire to buy local. A farmer who fosters a local reputation by hosting community events, but pollutes waterways by applying excess nitrogen fertilizer may satisfy community-oriented, but not environmentally-oriented consumers looking for local products. Consumer motivations and expectations for buying local therefore may not be represented in every product advertised as local (Schrank and Running 2018).

Like locality, the implementation of sustainability in commodity chains takes many forms. Sustainability is often represented by a triangle with each vertex representing one of the three pillars of sustainability: environment, economy, and society. The degree to which each pillar is considered and implemented varies by the project (Klein and von Hauff 2009). Therefore, producers may consider their products sustainable, but prioritize a different point of the triangle than consumers desire.

Given that localness and sustainability are difficult to define separately, the relationship between them is certainly more complicated than perceived by local food fans who conflate the two. Studying the relationship between localness and sustainability revealed several strategies that the environmental movement can learn from the local movement, exposed the value of a qualitative, socio-environmental sustainability, and highlighted ways that both the local and environmental movements may not be fully accomplishing their goals. We ask these overarching questions: How is localness constructed by microbreweries in Rice County, and how does localness influence brewery and regional sustainability? In the process of finding an answer, we consider the subsidiary questions: What motivates brewers and brewery customers to produce and consume local beer? How do brewers and breweries customers understand localness? How does paradox illuminate the complexity of the concepts of localness, sustainability, and community?

Literature Review

Localism is a reaction against globalization. Elgin (2006) theorizes that developing a local sensibility through “living simply” is part of a broader cultural transition to an ecological society, from our current industrial culture. Extensive research exploring the meanings and perceived benefits of localism or simple living exists for Alternative Food Networks (AFNs), such as Community Supported Agriculture (CSA) or farmers markets. People search for different things when they aim to consume or take part in a local product or activity, but the different perceived benefits of localism often overlap and are multifaceted (Pratt 2008). Schnell (2013) identifies eight definitions of local whereas Pratt (2008) identifies five. These definitions can be broken into four distinct categories of motivations for why individuals seek out localness. People see localism as (1) economically just, (2) higher in quality, (3) environmentally responsible, or (4) fostering a sense of place. These conceptions of locality informed our research on the locality of microbreweries in Rice County.

Local as Economically Just

Research of AFNs has found that people are interested in fostering a local economy in which producers and consumers are well connected and producers earn a fair living. A national survey of customers of farmers markets revealed that customers were interested in the local food system for economic reasons such as supporting the local economy and ensuring that farmers

received fair payment (Onozaka et al. 2010). Furthermore, a survey conducted in San Luis Obispo, California found that customers favored farmers markets over supermarkets because produce at farmers markets had been grown by a local farmer and could be traced to the processor and grower (Wolf et al. 2005). Consumers want to know their producer, as opposed to buying from impersonal corporations, and want to give money back to their community. Support for a local economy though is not shared among all customers of farmers markets. Andreatta and Wickliffe (2002) found that only 26 percent were interested in the local market in order to support a local farm economy.

Not only are customers interested in connectedness and fair compensation for farmers, but so are the farmers themselves. Hunt (2007) also found that 62 percent of vendors of Maine farmers markets were interested in participating in the markets in order to have a direct relationship with the customer. Thirty-six percent of them were also interested in higher profits, and 27 percent were interested in the independence that participation afforded them. Producers also want to have a personal connection in their business transactions, and some seek higher profit margins from farmer's markets. Both producers and consumers of AFNs perceive economic justice as a benefit of participating in local farmers markets, but no literature that we are familiar with explores the perceived economic benefits of local breweries.

Local as Higher in Quality

Food is indeed a human need, but cuisines and what constitutes good food are cultural constructs. Sutton asserts that food is experienced through several senses as well as through a social context rather than only tasted (2005). The experience of food is therefore emotional and symbolic as it can recall sensations of home (see Sutton 2005) as well as to individual identity. Therefore, culture informs taste. Food and other products are crafted in order to have symbolic meaning as well as its material qualities to please the consumer's cultural expectations. For example, West describes these symbols in the coffee trade between Papua New Guinea and coffee consuming countries. She describes how consuming countries add value to the coffee by creating a primitive image of the coffee (2012). For our purposes, localness can manifest itself as non-industrial, historical or traditional, and even innovative in order to foster a high-quality perception.

Attraction to farmers market produce as fresh may suggest that the produce is perceived as nonindustrial and therefore superior in quality. Much of the literature of local food markets indicates that customer preferences for local food initiatives originate from the desire for high-quality produce (Onozaka et al. 2010). A survey conducted in San Luis Obispo, California found that farmer's markets were able to attract customers as opposed to the supermarket because their products were perceived as fresher in appearance and taste and overall higher in quality (Wolf 1997). Interestingly, Andreatta and Wickliffe (2002) note that farmers markets often maintain guidelines for their vendors in order to maintain the quality of produce found at the market; their study of the Piedmont Triad Farmers Market in North Carolina found that 88 percent of customers were interested in the market because of the perceived freshness of the products. The perceived freshness of the produce is constructed and reasserted by the quality "guidelines" put in place by the farmers markets. Friedberg argues that freshness is often perceived in foods that are antagonistic to industrial capitalism; she further argues that in

consuming what people perceive as fresh food, people try to reconnect themselves with nature, community, authenticity, and healthfulness (2009).

Perceived quality or deliciousness of a food also can originate from its connection to a nostalgic production process or regional culture. Pratt (2008) argues that authentic food is food that either has a connection to a particular location or is created through craft processes. Trubek articulates the way that high-quality French food is constructed through its affiliation to traditional regional foods of rural France (2008). Food producers can also reappropriate conceptions of traditional food in entirely new contexts. For example, cheese producers in Vermont have constructed traditional European processes of cheese making in order to create a value-added cheese product for American consumers (Paxson 2006).

While traditionally crafted cuisine reconnects the consumer to a nostalgic past, innovation and the global food system also contribute to the quality of a food. Knerr articulates how the growth in popularity of cocktails originated from the growing affiliation with an imperial class that sought to enjoy the exotic flavors of the colonized world (2015). Allison James describes this “creolization” of food, recounting how French Provencal food is mixed with traditional English cuisine to create new innovative tastes without the need for cultural understanding of the food (2005). On the other hand, James describes how travel and multiculturalism can lead to a cosmopolitan understanding of world cuisines. James recounts that one Englishman began to anticipate Provencal cuisine as homely after living in the French countryside (2005). Finally, even freshness of produce can be cultivated through the globalized system. For example, in New York’s Chinatown, business owners create supply chains that bring Chinese vegetables, grown in Florida and elsewhere in the Americas, that appear traditional and fresh by consumer standards (Imbruce 2006).

Food and taste is therefore highly symbolic and elevates an experience beyond the sensation of its consumption. Lupton argues that the symbolism of alcohol consumption, as a jovial escape from the mundane routine of daily life, can have an effect that precedes the effects of the alcohol itself (2005). Understanding what makes beer delicious then can originate from the ingredients but also from its symbolic meaning and what histories the beer represents. We aim to understand how locality creates stories or understandings that uplift the quality of the beer that these small breweries serve.

Local as Environmentally Responsible

Sustainability has been found to be important to AFNs and microbrewery producers and consumers, but the particular sustainability benefits of localism are difficult to conceptualize. Most obvious to proponents of localism is that food and other local products have less transportation needs and therefore release less carbon dioxide; this concept defines “food miles” (Schnell 2013). Research on AFNs has found that environmental values influence people to participate in localism. The same body of literature has found that the connection between farmers and customers can spread environmental values. Finally, sustainability values and practices, such as reducing waste and water or energy use, has been shown to be important for both brewers and consumers of microbreweries but again these values have not been understood as a manifestation of localism. The connection between localism and environmental sustainability is then complicated.

Researchers have theorized that participating in localism, such as AFNs, can be a means of practicing environmental values. Seyfang (2006) illustrates this connection through the theory of ecological citizenship. He defines an ecological citizen as one who “will feel a sense of environmental responsibility on a planetary scale, and will take action in their daily lives to reduce unjust impacts on others, for instance by considering the implications of their routine purchasing decisions and changing behavior accordingly” (384). Ecological citizenship echoes the sentiments of Elgin (2006), that simple living originates from an understanding of global problems, which includes environmental issues. Concretely, people who participate in AFNs believe that the practice reduces the amount of transportation and packaging necessary in the product’s supply chain (Seyfang 2006). Environmental values have been found to be consistently important for customers who participate in AFNs, but the concrete environmental benefits of local products are harder to conceptualize linearly. Adams and Adams (2007) found that customers of two farmers markets in Gainesville, Florida agreed with the statement that “the production of local fruits and vegetables is great for the environment” more strongly than statements about specific production techniques such as, “local produce is most often produced without pesticides or genetically modified organisms” (84). Furthermore, almost 40% of farmer’s market customers do not know how shopping at the market may affect their carbon footprint (Onozaka et al. 2010).

Interestingly, connection between many stakeholders in a place may spread sustainability values. On the production side of AFNs, farmers often alter their production methods in order to add value to their products, maintain their authenticity, and respond to consumer desires. For example, in order to add value to their products, 44% of farmers who participate in farmers markets in Maine grew heirloom varieties, 36% spray sparsely or do not spray pesticides, 34% were certified organic, and another 34% implemented organic practices without formal certification (Hunt 2007). Hunt (2007) found that these farmers made these changes in response to consumer desire; he also found the farmers who used environmental imagery as a marketing technique for their produce altered their production techniques to maintain the image of environmentally conscious.

The brewing industry has seen some exploration of sustainability in the business but has not thoroughly explored how localism influences that connection. First, Olajire (2012) reviewed the industry and suggests many best practices that breweries could implement that could reduce their waste and energy consumption. These industry best practices have been used in studying the implementation of sustainable values. Hoalst-Pullen et al. (2014) conducted a survey sent to microbreweries in the United States that found that the majority of the breweries were implementing sustainable best practices or had intentions to become more sustainable. Graefe et al. (2018) found that consumers of craft beer cared about the practices of the breweries from which they bought beer, as well as environmental sustainability in a broad sense, but did not actively practice pro-environmental behavior, such as donating to environmental protection. We aim to understand then, if people perceive microbreweries as sustainable, and if so, what particularly is more sustainable about them. Finally, we also expect to uncover if the localness of microbreweries is important for their perception of sustainability.

Local as Fostering a Sense of Place

Localism has been shown to create a sense of place through anthropological and human geography studies. The literature on breweries and AFNs finds substantial evidence that they foster a sense of place. Stedman defines sense of place as “the meanings and attachment to a setting held by an individual or group” (2002, 561). He further defines place as “the physical setting, human activities, and human social and psychological processes rooted in [a] setting” (562). Sense of place, therefore, influences not only the social and cultural identity of a group within a setting but also the community’s value of their physical setting. Stedman has found that when people have an attachment to a place and become dissatisfied with its condition, they can become motivated to organize and act against environmental degradation of that place (2002). Thus, sense of place is a promising avenue of exploration to understanding how fostering localism feeds motivation for environmental action.

There is a thorough body of literature studying and interpreting how breweries consciously create a sense of place. James Shortridge defined this “deliberate seeking out of regional lore and local attachment by residents (new and old)” as neolocalism (1996, 10). Wes Flack was the first to recognize the phenomenon of neolocalism in breweries in 1997. Flack posited that the local imagery of breweries is intended to attract tourists, but he asserted that most microbreweries of the time were too young to develop a local identity (1997). Since Flack’s work in 1997, neolocalism has been described in many microbreweries (See Schnell and Reese 2003, Schnell and Reese 2014, Eberts 2014, Fletchall 2016). Studies on neolocalism have analyzed the use of branding and product design that refer to the microbrewery’s physical surroundings as a method of creating a local identity (Schnell and Reese 2014, Eberts 2014, Fletchall 2016). Developing a sense of place in microbreweries is distinct from the branding practices of larger brewing companies who often associate their products to an entire nation, like Budweiser to the United States, Heineken to Germany, or Modelo to Mexico. For example, a study that compared the branding of national brewing companies to microbreweries in Canada found that microbreweries evoke more place-specific imagery to develop the local identity of their beer, such as the local physical environment, local history, and place specific names (Eberts 2014). Other studies have replicated the examination of beer branding and brewery names to deconstruct how a local identity can be created through branding of beer at more specific geographical scales (See Fletchall 2016 for an examination of neolocalism in microbreweries in Montana).

Sense of place is also created through social connections and vice versa. These interactions foster the development of local connections and networks. Hunt (2007) found that 82 percent of farmers market customers in Maine desired to strengthen social relationships with the vendors through visits to their farms. Furthermore, individual identities are shaped by their knowledge of places. Frake, through his study of East Anglia in England, asserts that knowledge of specific places automatically connects people (2008). Frake argues that sharing a sense of place in the same geographic location can influence whether individuals become strangers or friends, decidedly based on the other person’s knowledge of that place (2008). He even extends his argument to claim that social status can be easily discerned once it has been revealed where an individual grew up in England (Frake 2008). Still, while a person’s origin may determine with whom they associate, people can move to new places and learn another about regional culture. Griswold and Wright argue that knowledge and exposure to regional literature helps people

moving to the associated region gain an understanding of regional cultures that exist amongst the people already living there (2004).

As stated above, the development of a sense of place and connection to community has been recognized as a means to fostering environmental sustainability. Schnell (2007) notes that, while people are initially drawn to CSAs for the perceived quality of their produce, people “often come to a broader understanding of the web of connections maintained for local economies, food, community, and the environment” (562). For example, Delta farmers in Louisiana implemented land conservation techniques without being imposed by federal regulation, as local elites promoted land conservation due to a shared historical distrust for agricultural federal regulation (Shoreman-Ouimet 2011). Therefore, associating products to specific geographies and their histories serves as a useful tool for organizing community action and accelerating awareness and environmental concern for an area.

Similarly, other studies on breweries have found that developing sense of place helps to promote sustainability values. Both Lorr (2018) and Gatrell et al. (2018) argue that the presence of fresh water in a local environment has encouraged breweries to support water conservation, either through limiting their water use or supporting local conservation initiatives aimed at improving water quality. Gatrell et al. (2018) argue that implementing sustainable practices and financially supporting local conservation initiatives are ways that breweries maintain their authenticity as local beer producers. Lorr (2018) argues similarly, claiming that sustainable practices are a way of connecting to the local environment. He further argues that additional geographic locations should be examined to understand the various ways that breweries connect to a locale through sustainable practices.

While research indicates that sustainability practices are a way to maintain a local image and to connect to the environment for breweries, we aim to uncover more deeply how localism and sustainability are connected through study of Rice County breweries. We examined each aspect of locality, economic justice, increased quality, environmental sustainability, and sense of place, to understand how they manifest themselves in these breweries. Then, we interpret the breweries’ expressions of localism, translating how they serve to strengthen a community's environmental values. Through ethnographic study, we will extract the symbols, stories, and ideas that create these connections.

Study Area

Our case study examines the three microbreweries located in Rice County, Minnesota (see Figure 1): Chapel, Imminent, and Tanzenwald. Imminent and Tanzenwald are both located in the town of Northfield, while Chapel is located in Dundas. Table 1 provides a general description of each brewery. We chose Rice County as our study area because of the high concentration of new, locally-motivated microbreweries in the area, and because it is prototypical of towns across the country that have experienced a surge of new breweries over the past decade.

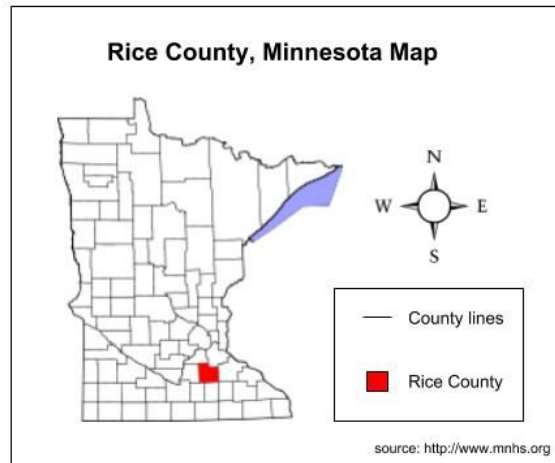


Figure 1. Minnesota County Map. Our study area is Rice County, Minnesota, is shaded red in the Southeastern part of the state.

Representatives from each of the breweries considers their brewery to be a local business producing local products, and intentionally conveys that idea to their customers. These qualities create the necessary conditions to explore the relationship between localness and sustainability.

The towns of Rice County reflect characteristics of those in which microbreweries tend to open. Brewery openings have been concentrated in what Schnell characterizes as “Boom Towns,” which are “fast-growing communit[ies] with rapidly diversifying populations” (2013, 78-9). Northfield and Dundas, the Rice County townships that contain the breweries, experienced population increases of 16.7 percent and 149.9 percent respectively from 2000 to 2010. The population of Rice County is also becoming increasingly diverse. Between 2000 and 2010, the Black population in Rice County increased by 179.6 percent, the American Indian and Alaska Native population increased by 23.0 percent, the Asian and Native Hawaiian population grew by 54.6 percent, the Hispanic and Latino population increased by 64.3 percent, and all other non-white races grew by 86.6 percent. Over the same period, the population of whites grew by a mere eight percent, still making up the vast majority of the county’s population at 89.3 percent (Pearson, 2013). The proportion of Latinos² is above average at 8.1 percent, compared to all of Minnesota Latinos making up only 5.4 percent of the total population. The proportion of Black³ residents is 5.1 percent, below the state’s total proportion at 6.5 percent. Meanwhile, the white population in Rice County is 82.7 percent, greater than the state’s proportion at 79.9 percent (U.S. Census Bureau, 2018). Rice County perfectly fits the description of a “Boom Town.” By conducting our case studies in Rice County, we are able to interpret how localism is perceived and promoted by community members, leaders, and visitors in a manner that can inform other growing sub-rural communities welcoming microbreweries across the nation.

² The term “Latino” is meant to include all those who identify as Latin-American, Latinx, Hispanic, including those who identify as White Hispanics in the U.S. Census.

³ The term “Black” is meant to include allo those who identified as African, African-American, Afrodescendente, or Caribbean in the U.S. Census.

Descriptor	Chapel	Imminent	Tanzenwald
Location	Dundas, MN; downtown; alongside the Cannon River	Northfield, MN; downtown	Northfield, MN; in between a highway and Northfield train racks
Building	Historically a country chapel; The smallest of the three: fits at most around thirty people; The brewing equipment is separate from the taproom, enclosed but visible from the parking lot; The deck overlooks the river and a rain garden; The parking lot fits up to four cars	Historically an armory; Entry through a gate to a sizeable outdoor seating area; storefront constructed of glass garage doors; Brewing equipment visible from outdoor and indoor seating	Historically a water processing plant and creamery; Front lawn is a prairie; Taproom has high ceilings and elevated tables; Taproom is separated from the brewing equipment with a glass wall but it remains visible from the inside and outside of the building
Food and Drink	Sells bar snacks: pretzels and locally sourced meat sticks; Serves kombucha and cold brew coffee; Approximately six beer options	Food trucks service the brewery on some weekends; Customers bring snacks from home or order delivery; Wide beer selection, up to twelve; serve soda from a nearby distillery	Full service food menu composed of classic bar snacks and globally inspired dishes; Serves sodas; Offers approximately eight beer options
Decor	Dim lighting from antique church lanterns; Religious theme throughout the brewery; In one bathroom there is photo of papal figures drinking beer; Blankets are available to customers; The logo is a small chapel	Dominant feature is light colored wood throughout Long tables with benches or mismatched chairs; Vents and pipes visible in ceiling; Persian-style rug signaling the stage space; Prairie grass paintings and wartime posters; Pamphlets for other Northfield businesses and events at tables and in bathrooms; Nutcrackers on a shelf above the bar; The logo is an hourglass	Taproom decorated with humanoid dancing trees; Furniture constructed from pipes; chandeliers hand crafted with intertwined branches; Long wooden tabletops; U-shaped bar to promote conversation; Kitchen and cooking is visible; Bathroom walls covered in mural of dancing forest creatures; The logo is a pair of black trees with human figures disguised as the trunk and branches

Table 1. Brewery descriptions. Each brewery presents itself differently, but similarly uses its features to craft a sense of place.

Methodologies: Finding Locality

This study employs a combination of surveys, interviews, supply chain analysis, ethnographic observation, and website analysis to understand how locality is constructed by these microbreweries. Using this mixed ethnographic approach gave us a holistic understanding of the interaction between locality and sustainability in Rice County breweries.

Brewer Interviews

We conducted interviews with brewers and owners to develop a holistic view of how localness is constructed at each brewery. Semi-structured interviews allow the conversation to extend to all pertinent areas of conversation while still allowing themes of the study to guide it. Several similar studies utilize and endorse semi-structured interviews to gain a more holistic understanding of the intersection of localism and sustainable practices (Gatrell et al. 2018; Lorr 2018). We constructed our interview guide (Appendix A) in three parts. The first part involves questions about the establishment of the brewery, dissecting the history, goals, and motivations of the brewers. We learned about their motivations behind opening a microbrewery in Rice County, and how their past experiences are reflected in their breweries and beers. The second part of the guide is a supply chain analysis based on the methods of Maye (2012), discussed in more detail below.

For the third and final section of the interview, we asked brewers to look around the room and describe the purpose and origin of notable objects. We developed brewery-specific questions based off of prior observational visits. Recognizing that each brewery develops a unique identity through personal interests, decor, and space available, we shaped our questions to inquire about the specifics of light fixtures, woodwork, furniture, decorations, logos, labeling, menus, and websites of each brewery. We asked questions about how brewers identify locality in their products. These three sections of our interview guide came together to provide a holistic view of producer motivations behind local and sustainable behavior in the breweries.

Supply Chain Analysis

Part two of the interview guide is an examination of the brewery's supply chain, designed to reveal the motivations behind purchasing decisions and relationship building. We asked each brewer to draw a diagram of their brewery's supply chain, providing, as an example, the diagram used in the Maye (2012) study (Figure 2).

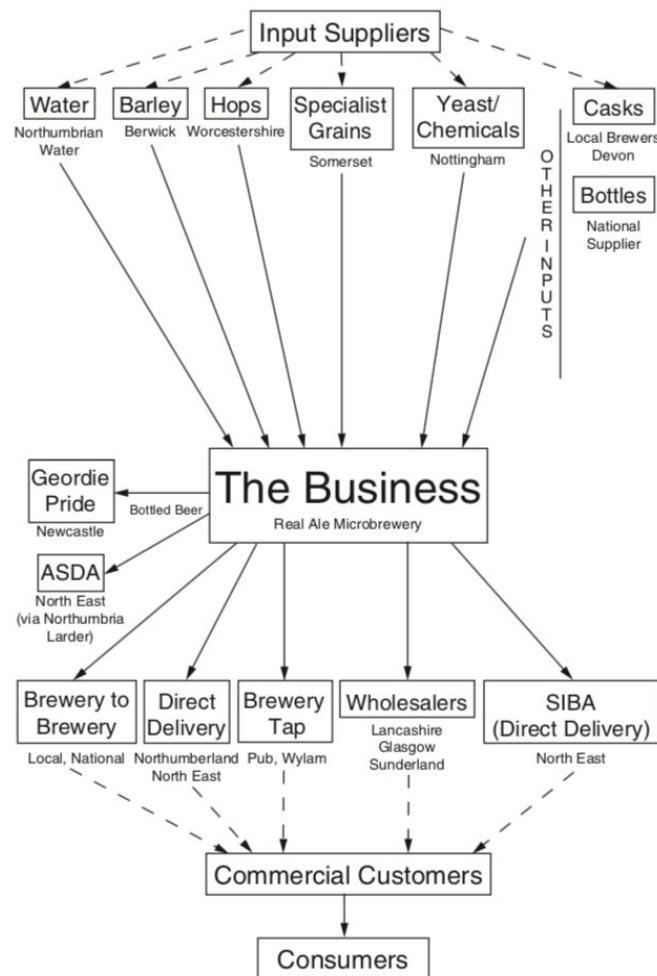


Figure 2. The Supply Chain of a Microbrewery (Maye 2012).

This methodology is based on Maye’s (2012) “whole chain” analysis. Maye applied this approach to an ale brewery in England to examine the relationship between business partners in the supply chain. This activity allowed us to ask questions about each decision and the motivations behind working with specific producers and distributors. It also allowed us to examine the origin of inputs and further investigate how these inputs contribute to the locality of the final product. We also learned the extent to which sustainability intentions influenced the supply chain, and what qualities constitute a local beer according to the brewers. We spoke with both brewers and some primary decision makers in the business to receive well-informed responses.

Customer Surveying and Informal Interviewing Process

Previous research on how environmentalism takes shape in microbreweries has used surveys to study a brewery’s production process and sustainable practices, and customers’ views on sustainability in breweries (Graefe et al. 2018; Patterson et al. 2016). Surveys allow

researchers to collect data that would produce statistically significant results. The survey approach also allows researchers to collect data from many customers under time constraints.

We constructed a survey with 39 statements designed to reveal how each of the four factors defined in the literature review as motivations for buying local influenced the decision of customers to spend time in breweries (Appendix B). The front of the survey asked customers to rate their beliefs about the truthfulness of 20 statements about the brewery. The back of the survey relisted 19 of those statements and asked customers to rate them based on how much their belief about each statement influenced their decision to spend time at the breweries. Customers were to write a number on the numerical scale:

1 = Strongly disagree, 2 = Agree, 3 = Neutral, 4 = Agree, 5 = Strongly Disagree

for each statement. Many customers asked us questions about our project after they filled out the survey, and we used those opportunities to conduct informal interviews. Speaking with customers allowed us to unpack the sentiments expressed in the surveys and gave the customer the opportunity to share motivations for spending time at the brewery that were left out of the survey. For each survey, we approached customers through convenience sampling and received consent to use responses in our study and indicated that all responses would remain anonymous. We analyzed the results using the statistical program, R. We calculated averages and variance to help uncover the motives behind customer visits to microbreweries. We also conducted T-tests to assess significance of differences between the front and back sides of the survey as well as between responses from Rice County residents and tourists.

Ethnographic Observations

More occurs in a microbrewery than crafting and serving beers. Our study seeks to interpret the unique behaviors, relationships, and ideas that emerge beyond beer-drinking. Through ethnographic observation, we interpret meaning by absorbing and analyzing conversations, table settings and placements, decor, networks in the community, feelings towards beer, and ingredients selection. We conducted observations before each surveying session, and during early evening taproom hours. We began by assuming the role of a customer and taking note of our individual experiences. We continued during casual conversations and inquiries about menus with employees. As researchers, we wonder about the significance of every object, sound, and smell, and clarify the symbolism of our surroundings through conversations with owners and observations of consumer behavior informed by Geertz's (1973) work on the interpretive theory of culture through thick descriptions, as well as many of the other ethnographies consulted and cited for this project. His work guides us in "drawing larger conclusions from small, but very densely textured facts." Our dense and textured facts require an observant and inquisitive approach to everything placed in front of us, and forces us to wonder how we each occupy the space.

Website Review

We include the website review component to our study, as we found supporting literature incorporating website analysis to better understand the image breweries attempt to portray. Other

studies have utilized website reviews when studying breweries to analyze the incorporation of words associated with nature into the titles of brewery beverages, to explore how breweries represent themselves as authentic, and to inform their interviews (Fletcher 2016; Gatrell et al. 2018; Holtkamp et al. 2016). We employ this methodology to undergo a similar analysis to gain a better sense of how breweries craft a local and sustainable image. This also aids our semi-structured interview with the brewer, as we are able to ask for explanations for their methods of informing their customers on the craft beer experience. We analyzed a total of three sites, each attributed to one of the microbreweries of interest.

Results and Observations: “All That Good Stuff”

“So, what is the reasoning behind operating locally as you do? What makes it more sustainable?” we ask. Immediately, a response: “...the reduced travel ... the carbon footprint there just makes sense. Food is fresher. I feel it's super important for people to be connected to their food – to where it's grown. I think it's more sustainable. I think it builds community connections. All that good stuff. All that good stuff...”

This response from a Tanzenwald manager to our question exemplifies a theme present throughout our study: localness attracts people for a variety of reasons that they struggle to fully express. We frequently heard generalizations about “all that good stuff” associated with localness. Through our interviews, ethnographic observations, and surveys, we were able to unpack generalizations like that to understand which facets of localism primarily motivate brewers and brewery customers to participate in the movement. We found each of the motivations for localism that are outlined in the literature review (economic justice, higher quality products, environmental responsibility, and building sense of place) to be present in Rice County breweries. We also found that brewers and brewery customers strongly viewed breweries as local places, with 96 percent of our survey respondents agreeing or strongly agreeing that the breweries served local products, and every representative that we spoke to from the three breweries referring to their business as local. Survey responses are summarized in Tables 2, 3, and 4 (Appendix D) and discussed as relevant throughout the results. The following section describes the extent to which economic justice, higher quality products, environmental responsibility, and building sense of place motivate Rice County brewers and brewery customers to interpret and seek out localness.

Economic Justice: Money is a Means to an End

“Our mindset isn't, ‘we've got to make as much money as we can because we've got to grow and we need to expand ...’ Our mindset was kind of like, ‘yeah, we want to grow, but we just want to be the community brewery.’”

All of the brewers that we spoke to were interested in growth and making money as a means to fulfilling their passions rather than as a motivator in itself. No brewer produced beer on a small-scale to overthrow our capitalist economy or to fix a broken system. However, this secondary status that brewers give to making money represents a gentle commitment to

economic justice. They are not willing to sacrifice the values that brought them to brewing to make more money.

Growth cannot be a central motivator because of the unreliability of profits in the industry. One brewer expressed, “I mean, you can’t be in this business with the main goal of making money because you’re not really going to do it.” Another continued, “If you got into this thinking you’ll be the next Sierra Nevada⁴, you’ve got another thing coming... To be honest, it’s a competitive market.” Instead, brewers took this jump into a competitive financial environment as a way to live out their dreams. “We hoped to be able to make a little bit of money but it was more of a passion... more of an independence passion project.” They wanted a career in what they loved, and to make something of which they were proud. Clearly motivated beyond their finances, two of the brewers even left steady academic careers on the West Coast to return to the Midwest to open a brewery. Tanzenwald, Imminent, and Chapel work to make a profit primarily as a necessity to keep their passion alive. The motivation to create a business as a means to achieve an ideal life mimics the findings of Paxson (2006). Furthermore, brewing may be a manifestation of simple living for the brewers indicating a cultural shift away from the industrial culture that we inhabit (Elgin 2006). By pushing money-making to a secondary or tertiary goal, the brewers are acting within the principles of economic justice, even though they are not motivated by them.

The trend that brewers make decisions according to their values rather than according to their earning potential is broken when keeping the business open is on the line. Tanzenwald, for example, had to sever ties with many local farmers when the partnerships no longer became financially viable. One of the owners told us of her “broken heart” when she had to switch suppliers, but that there was nothing she could do. She dreams of becoming financially successful enough to return to those partnerships.

Although customers recognized benefits to supporting the small breweries economically, most customers only touted these benefits when we specifically inquired about them, and responded to our prompts with little energy. One customer mentioned that he was neighbors with someone who worked at the brewery, and expressed a slight joy that he knew the money he spent there supported his neighbor. In the surveys, 87.1 percent of respondents agreed or strongly agreed that their money spent at the brewery would foster economic growth in the town, 92.2 percent agreed or strongly agreed that they were supporting the brewer economically, and 52 percent agreed or strongly disagreed that they have a better sense of where their money goes when they spend their money locally as opposed to at a larger brewery. Brewery visitors from outside of Rice County agreed at a significantly higher rate than Rice County residents to the statement that they “come to the brewery because they are supporting the brewer economically” (Table 3, Appendix D). This difference may be a result of wealthier patrons visiting from the Twin Cities who feel pride in economically supporting a small, rural town. Overall, we believe that although customers recognize the economic benefits of supporting the breweries, that the impetus to patronize the breweries was not primarily in those perceived economic benefits.

High-Quality: Beer is Non-Industrialized and Place-Based

One owner began saying, “I go to other breweries and they have a blood orange IPA. I’m from Northern California; I know where blood oranges are grown, and they’re not grown anywhere near

⁴ Sierra Nevada is the third largest craft brewery in the United States. See Brewers Association (2018).

here. So, you're getting a concentrate and that's getting sent to you. You're pleasing your customer because you're probably giving them something that you can't get around here but..."

The other owner completed the sentiment: "Fruit concentrate is gross. I can taste the difference."

As this quote illustrates, production processes that are perceived as less industrialized have greater quality. Preserving the juice in concentrate is perceived as a process that detracts from its freshness or overall quality. Some industrial processes though did not detract from the beer's ingredients quality. For example, malt, a main ingredient of beer which is made of barley that has been sprouted with water then dried, could be shipped internationally without detracting from their quality. What mattered for the quality of the malt, alternatively, was artistic methods employed during the malting process. One brewer described the importance of traditional methods this way:

"If we are making beer that is a German style beer, we prefer to use German malts. If we make British style beer, we tend to like to use British malts. I think that makes a more authentic, flavorful product, than trying to do it all domestic malts Malting is an art itself!"

Artistry of the malting process, then, is the most important quality for good malt. In other ways though, shipping would diminish the quality of an ingredient:

"We don't have a grain mill here. So we buy all our grain pre-milled. It would be nice to mill it on site. That would be nice. It would require extra equipment, extra space, but that would be a nice improvement Because it would be fresher because the grain starts to stale as soon as its crushed. So it's nice to be able to crush it right when you use it so it's as fresh as possible."

While artistry is important for malting, minimal transportation is important for the milled grain. Similar processes can be vital for some goods but unimportant for others. These aspects of quality indicate how humans selectively and intricately create value from complicated systems. The above examples are consistent with the understandings of freshness as non-industrial that Freidberg observed in her research (2009). For the breweries, non-industrial manifests differently in that artisanal practices are vital to processed goods, but unnecessary processing is not attractive.

Furthermore, people believe that people make good beer, and that machines do not. This sentiment is asserted throughout the taprooms at Imminent and Tanzenwald. Imminent has large glass garage doors that act as windows for the storefront, but also as a separation between the taproom and the brewing equipment. The door that separates the customer from the equipment is always ajar leaving the only separation between the customer and the brewing equipment a simple metal fence. The garage doors and presence of the brewing equipment set the stage as if customers are buying beer made in someone's garage. That is obviously untrue, but the infrastructure of the building emphasizes the small batches and craft qualities of the beer. Tanzenwald also provides direct sight of their brewing equipment, but more prominent to the customer is the kitchen. From the dining area, one can see the spices on the shelves and the cook preparing a plate of cabbage pancakes or bratwurst. The customer is directly reminded that things are made in the building where they are eating or drinking. Chapel did not have equally conspicuous equipment because the building is too small. This coziness did have some downsides as the brewer reflected:

“I wish our equipment was more visible. We've got glass windows in the garage, and you can see the stacks, and you can see some of the tanks through the windows. But, it is not super visible, when you're sitting here you can't think, ‘Oh! That's where the beer came from!’”

Chapel emphasizes their craft in a different way. The beers do not have catchy names referencing places, people, or brewhouse stories like the other breweries. Instead, each beer is named for its style. These names are a reference therefore to the flavor profile and process of the beer-making that makes the beer distinct from others. Each beer therefore distinguishes itself by its affiliation to the brewhouse at Chapel. “Chapel” precedes each beer’s name. For example, Chapel’s IPA is called the “Chapel IPA.” Customers therefore get to see the craft through the names of the beers rather than through the brewery’s infrastructure. At each brewery, the customer is able to envision the work of the brewer. They appreciate their creativity and care that are integrated into the product as opposed to the work of an unknown person or industrial machine. Survey responses revealed that Rice County residents found the beer to be significantly higher in quality than beer tourists, further indicating that the perceived quality of the beer is tied to sense of place. The appreciation of local craft beer mimics the findings of West in that a high value is placed on the symbolism added to products produced within the local culture (2012). The work of local production has a greater value than work done by a machine or by an unknowable person.

Not only is non-industrialization important in creating quality, but the ingredients’ geographic origins are important as well. One brewer explained how the main ingredients of beer, barley and hops, are best grown not in Minnesota because of climatic limitations:

“Hops can be grown here, barley can as well, but the quality is not as good. The problem with barley if it was grown around here, if the quality isn’t good, there is not golden parachute to the farmer.... They probably don’t stand to make money off of any of it....That’s why things have shifted out west, where the barley just grows better.”

He further suggested that if these ingredients were grown nearby, they would not be of great enough quality for beer, and would then be used as animal feed. Something about the climate in the western part of the country makes the ingredients for beer superior to the grain grown in the Midwest. Another brewer recognized that location was important to sourcing all local ingredients, citing another craft brewery:

“... Rogue out in Oregon. *Partly because of where they’re at*, they have state grown beers where they have grown all the barley. And yeast is there and the hops are all on the land that they control.”

The perceived quality of ingredients therefore is connected to places as well. Just like how the malting practices seem to be tied to place-based knowledge, as discussed above with the German and British malts, geographic location of grain and hops production offer the perception of greater quality. Trubek argues that affiliation to a region can bolster the quality and authenticity of a food, but here we find that the industrial production of beer ingredients in certain geographies is important (2008). These regional ties are not embedded in history or nostalgia, but exist because of the perceived climactic qualities of the locations.

Survey responses revealed that Rice County residents found the beer to be significantly higher in quality than beer tourists, further indicating that the perceived quality of the beer is tied to sense of place. Our brewer and customer interviews revealed that these different responses are

partially a result of the beer reflecting the tastes of the town based on customer access to the brewers, but more prominently result from the sense of place fostered by brewery that improves the taste of its beer to those that appreciate the setting. Overall, certain notions of non-industrialization and connection to specific geographies seem to offer quality to the ingredients of beers as well as to the beers themselves.

Environmentally Responsible: Energy Efficiency through Economies of Scale and Minimal Transportation

“I’m going to say this, being a small business owner coming not only from my perspective but from working for a large company as well and going to a school where it was endowed by Anheuser Busch⁵ the larger scale you go the more efficient you go. And that’s just pure economics. That’s how it works. That’s how the brewing industry works for sure. So, the bigger you get the more you can afford to brew in large quantities and your efficiency goes up big time.” His partner summarized, “[in other words], you can afford better equipment.”

Each brewer recognized that the small scale at which they were brewing was not the most efficient means to brew beer. Some noted that scale was a key issue. Brewing beer is perceived as more energy efficient when it is done at larger scales. On the same note, brewers also recognized that larger breweries had the money, not only to afford better equipment that brewed beer efficiently, but also innovative equipment that could make beer markedly sustainable. One brewer expressed his awe at the work of larger craft breweries:

“[a larger craft brewery was] using the carbon dioxide of the fermentation from their beer to help grow green algae which they then turned into a biofuel which was highly sustainable. So it was just like this unique thing. I think they’re wind powered mostly.”

As this quote highlights, sustainability was also understood, most often, in terms of reducing energy consumption. While referring to the amount of water that it takes to make beer, he stated: “I hesitate to use the word sustainable in anything beer related because it’s an inherently wasteful process.” Yet the consumption and use of water did not seem to be important for most people. One consumer pondered openly about what actually happened to the water once it was used in the brewing process, considering if the water was truly “wasted.” Overwhelmingly, sustainability was discussed in terms of energy efficiency. The brewers unanimously agreed that larger breweries that benefit from economies of scale and more capital availability can better achieve the goal of energy efficiency in order to be sustainable.

On the other hand, every brewer also recognized the ability of a small producer to reduce their implicit energy use through reducing the need for commodity transport. One brewer put it this way:

“Honestly the biggest factor in [the sustainability of local products] is just shipping, just the carbon footprint of getting it in your hands... So, usually, you cut down on your carbon footprint – indirectly cut down on your water use – just by saving on that shipping cost. Especially with something like beer: it’s heavy. Water is heavy, and beer is mostly water. So it costs a lot to put it

⁵ Anheuser-Busch is an subsidiary of Anheuser-Busch InBev which is the largest manufacturer of beer worldwide. See Kendall (2018).

on a semi and ship it across the country from one point to another. So yes, local things, if for no other reason than shipping, are going to be a more sustainable option.”

The reduction of transportation could be seen throughout the activities of the brewers. Each brewer bought base malt, the main ingredient in each beer, from companies that had a distribution company nearby in Shakopee, Minnesota. They served goods from other businesses within Rice County such as hot dog buns from Brick Oven Bakery, soda from Loon Liquors, and coffee from Groundwire coffee. Because these other goods did not need to be shipped from across the country, people perceived them to require less transportation to bring the goods to their mouths. Also, none of the breweries distributed their beer outside of Rice County. Reducing transportation was a way that brewers felt they concretely contributed to reducing energy consumption.

Even though brewers could easily articulate how energy efficient their businesses were, brewers understood that sustainability was not a great motivation for customers. Only 36 percent of customers believed that the beer served at the breweries was more sustainable than that from larger brewing companies. This finding could be that they were uninformed about the production or various inputs of the beer, or that they did not perceive the product as more sustainable. At the same time that customers did not perceive the product as drastically more sustainable and that there are barriers to being sustainable due issues of scale and capital, the brewers saw their business as a “sustainability-oriented business that supports a vibrant community of farmers, small business owners, artists and musicians.” Practicing sustainability, therefore, means more than being energy efficient, and we argue that there are different ways of conceptualizing sustainability. We explore these different forms of sustainability below.

Sense of Place: Expanding Community, Connecting to Nature and History

Minnesota winters tend to be a slow time for productivity, as the outdoor conditions become less welcoming, and the warmth of company becomes more enticing. We feared that the extreme conditions would impact our ability to study sense of place, but the community did not fail to show up. As consistent as we were with data collection, brewers and brewery customers were consistently hosting and attending events open to all. Trivia Nights promise a full house. Jogging and skiing clubs reconvened at breweries to warm up with a craft beer. Considering all these breweries were established less than three years ago, we were amazed to immediately find and access the social networks already established. Naturally, we asked the brewers how this could have happened so quickly.

“We want to create a space where [people] feel like they can be welcomed to come here and meet their neighbors, meet their friends, have their family be here. It doesn’t matter if you’re 2 or 92, you’re welcome here.”

Being open to the community was important to each brewery. Not only did they want people to feel comfortable in their taproom, they also wanted people to feel like they belonged there. They created this belonging by evoking a sense of place in the infrastructure, beer names, and decoration of the taproom. The breweries fostered a sense of place through creating an environment that is conducive to conversation and making personal connections, referencing rivers and flora of the immediate area, and connecting the physical space of the breweries to the

history of the town. Customers recognized these factors relating to community building and sense of place as primary motivators for brewery patronage. Ninety-one percent of respondents agreed or strongly agreed that they visit the brewery because the beer and the experience there are unique to the community. Ninety-one percent also agreed or strongly agreed that they visit the brewery because overall, the brewery is a community space. Table 5 summarizes the ways in which the breweries employed the infrastructure of their building, branding of their product, and decoration to foster a sense of place.

Each brewer we talked to discussed the importance of making their taprooms family friendly and non-exclusive to beer drinkers. Large communal tables at Imminent were chosen to allow different groups to be in close proximity and eventually strike up a conversation. Tanzenwald chose a U-shaped bar to permit conversations to continue across the divide. Games, such as Jenga, for younger people, and Trivia Pursuit, for older people, were present at each brewery. Each brewery also offers drinks that are not beer, or are similar to beer but softened. Kombucha, craft soda, and tap coffee were present at the breweries. Imminent offers a bright red “Graf” which is half cider from Keepsake Cidery, half beer, and contains fruit to differentiate it from beer. The brewers offered these different ways of interacting in the brewery space in order to allow anyone who was interested to feel welcome. One customer, when inquired as to why he thinks people prefer to visit breweries over drinking beer at home with friends explained that he believes there is a desire for people to expand their social circle. This desire for social interaction can be fulfilled at these breweries, due to the presence of games, attractive drinks for people with different pallets, and a conversation-inducing taproom.

There are other ways that brewers offer people a way to buy into a type of in-group. For example, the breweries offer takeaway glass containers to take out beer, known as growlers. These products allow the customer to feel that they own or represent a little part of the business. Imminent capitalizes on this idea of ownership inside the brewery by offering individualized mugs that customers leave and display at the bar. Many of the individuals that own a mug displayed at Imminent also participated in fundraising campaigns conducted early in to the creation and establishment of the brewery. One owner described their supporters like this:

“A lot of those folks have mugs too. They’ve become kind of regular customers so we have a relationship with a lot of people. And had that relationship before even we opened our doors which was kind of a neat piece for us and I think for them too. To kind of feel like you’re part of that story that they helped make happen.”

Not only do these mugs naturally offer a “regular” status to customers, the mugs themselves are individualized with the mug owner's initials. Customers can feel at home in these breweries because, to an extent, they can control their experience and feel like they are truly part of the business. This connection to the business and the people who take part in it is one way that the breweries foster a sense of place.

The local natural environment is also an important way that breweries create a sense of place. Chapel’s deck oversees the flowing Cannon River in Dundas. Tanzenwald’s property is occupied by a prairie planting, which evokes the perceived natural landscape of the upper Plaines. Imminent has three beers that are named after water features in the immediate region. They serve the Cannon Valley Pale Ale, Prairie Creek Porter, and the Wolf Creek IPA. One of the workers who contributed to the name Wolf Creek IPA eloquently explained how they pick the beer names. She said there is a formula: either an important local person, local natural

feature, or a story from the brewhouse. When we asked further why water features were part of their beer names, an owner struggled describing why, stating,

“I don’t know. I think...I just don’t know. It just felt like a...It’s like part of our story of being here and all the people living here. Why we came here, maybe that’s part of it.”

One brewer articulated why environmental or natural features are craft beer names, pinpointing water straight-away:

“I think a common theme to me amongst a lot of beer names are water features. And that certainly makes a lot of sense, because we’re all tied to the environment. We all have an impact on the world and environment around us, and specifically water, is obviously a very important ingredient in what we’re doing.”

Brewers thus play off of this important connection that beer has with water to develop a sense of place. The smaller creeks are unknown but to local people. To our embarrassment, we had to ask where Wolf Creek was. The bartender responded kindly, informing us that she knew only because she also worked south of Northfield where the creek is located. Although she politely explained the location of the creek, it was clear that as researchers, we did not know the place as well as she did. This sentiment is consistent with Frake’s research that describes how place names are intimately tied to identity and sense of place (2008). Furthermore, the importance of water to these breweries is consistent with Gatrell et al. (2018) and Lorr’s (2018) research on other breweries in the Midwest. Local water features influence a local’s sense of place and breweries emphasize our connection to nature by naming their beers after local water features to reaffirm that sense to place.

Sense of place is also created through symbols of local flora. Prairie themes were present at both Tanzenwald and Imminent. Tanzenwald had the prairie planting on their property, as previously described, and Imminent had decorations of grasses that are reminiscent of an aesthetic of prairie. One brewer even hoped to incorporate wild sumac fruit, a flowering plant present in the Minnesota landscape, into his beer. While they never made this beer, the local landscape inspires them to be innovative with their beer making. Water is clearly important in creating sense of place for brewers, but this connection can also be made with the local flora as well. Lorr argued that more ethnographic exploration of breweries should occur for different geographies in order to explore the plethora of ways that they construct sense of place (2018). We hypothesize that brewers could connect to place through the local flora in geographies where water is less of a prevalent resource.

The breweries also connect their physical building to the towns’ histories to develop sense of place. Many people, including the brewer, recited fables of the building that Chapel occupies. The cozy space was previously a religious gathering place and a town hall. Another suggested use of the building was that it once served as a temporary jail, holding uncontrollable drunk people overnight. Although that fable serves mostly as a joke for people who frequent Chapel – they kid that it continues to be a drunkard’s den – the building has long been used for public purposes. They intentionally aim to bring that history back to life:

“Obviously it serves a different purpose than a chapel, right? But, we wanted it to evoke some of the ideas like the way we have carvings in the bar, and the way we have those pendant lights, and

the shape of the mirror, wanted to evoke some of those ideas of like a country chapel, while still being a warm and comforting place.”

Chapel hopes to create a cozy home environment that connects the visitor to the history of the town. The brewer at Chapel claims that older customers remember the building serving as their polling place, decades ago. Tanzenwald also connects its building to the history of the town it resides in, Northfield:

“The interesting thing about this building is that it was Northfield’s original water department, so there is now a very old capped well directly underneath the building.... Older Northfield folks remember it as a creamery, even though a lot of people don't realize it was also a water department.”

By connecting breweries to the history of the towns in which they reside, they create a sense of place that not only considers the current state of their place, but also recalls its place in the past. This historical connection was exciting for several customers. One couple exclaimed, “We love old things. Who doesn’t love old things?” This joy reflects the sense of place and how connecting to history affirms their identity as local. Breweries foster sense of place by connecting the community, affirming a connection to the local environment, and recalling local history. On the other hand, because sense of place is well developed for people who can connect to the local environment and community, the breweries can be exclusive places even for people who live in the area.

Aspect of Sense of Place		Imminent	Tanzenwald	Chapel
Community Connectivity	<i>Inclusivity</i>	Board games, non-alcoholic beverages, food trucks and food delivery menus, walkable	Board games, many choices of food, non-alcoholic beverages	Board games, children’s toys, food delivery menus, non-alcoholic beverages
	<i>Created conviviality</i>	Large tables for multiple groups, live music, trivia	U-shaped bar, live music, trivia	Cozy taproom, trivia
	<i>Shared ownership</i>	Personalized mugs, donor’s names are engraved in a table, growlers, apparel	Growlers, apparel	Growlers, apparel
Reference to Nature	<i>Beer Names</i>	Wolf Creek IPA, Prairie Creek Porter, Cannon Valley Pale Ale	Not Present	Not Present

	<i>Beer Ingredients</i>	Cherries, peppers, hops, and honey harvested nearby	Local fruit commitment, vision of a Sumac Sour	Local hops
	<i>Other calls to nature</i>	Recovered wood furniture, paintings of grass	Forest theme and wall decorations, tree-like chandeliers	Deck oversees the Cannon River and rain retention garden
Recollection of History	<i>Recovered Infrastructure of Building</i>	Not Present	Maintenance of ceiling	Bar made from original flooring
	<i>History of Building</i>	Posters referencing World Wars recalls the building's past as an armory	Photo of water department official	Church-like decoration (e.g. light fixture, gothic arched mirror)

Table 5. The ways in which breweries evoke sense of place. Infrastructure, names, and decoration all contribute to developing a sense of place at each brewery.

Discussion: Interpreting Paradoxes

The search for locality is rife with contradictions. Locality seems to be about geographical distance as well as other factors that are harder to quantify. When asked which beer brewers considered the most local, each brewer identified the beer that included the greatest proportion of ingredients grown and harvested nearby. At the same time, several brewers argue that all their beers are local because they are crafted on-site, despite the fact that some ingredients originate as far away as Britain and Germany. Furthermore, one brewer argued that just because a business operates nearby does not make it a local business in the same sense. After interviews and discussions with both brewers and customers, it became clear that strong feelings construct the idea of locality, instead of concrete guidelines. By qualitatively studying these feelings and values, particularly through engagement with the paradoxes that they have created, we are able to better describe locality with a thickness that reveals interesting dynamics.

We find that local products are crafted to satisfy the customers' globalized pallet while fostering a sense of local identity through stories of the product's creation and aligning it with place-based histories. This paradox clarifies the true aims of locality and recognizes that global connection and products are part of our culture – we cannot be separated from globalness. We also find that sustainability at the local or small-scale manifests itself differently than at the large scale. Sustainability can be fostered at the small-scale by encouraging compassion and ethical consideration for the local environment and community, which is accomplished by developing a connection to the community. Finally, we find that fostering a commitment to community building and developing a sense of place can be exclusive. This exclusivity not only hampers the ability to spread environmental values of a place but also inhibits the creation of a comfortable place for everyone who calls Rice County home.

Paradox 1: Local Is Inseparable from Global

I always ordered a pale ale because I knew that I liked it and it was hard to decide. Even limiting myself to pale ales, I had so many choices. At Imminent there was the Cannon Valley Pale Ale, the Wolf Creek IPA, The Quick & The Red, and the Double Down '19 Imperial IPA. It was easier to order at Chapel, they only had two types of hoppy beers. The names of the other beers – the German style Kolsch and the Guinness-like Oatmeal Stout – made me think of Europe. I was comfortable with my Chapel IPA. Tanzenwald too, there were so many choices. I tried to branch out and get the Tanzenator – a darker beer. The name made it an easy choice; I was just getting the beer that I felt represented the brewery. [adapted from field notes]

The endless variety and foreignness of the beers was both overwhelming and interesting to one of the researchers. Foreign ingredients or traditions influenced beers that simultaneously evoked sense of place and locality, like the Wolf Creek IPA. The description of this beer in the pamphlet on the tables at Imminent illustrated the flavors that its ingredients offered, “The US and UK malt bill leaves enough sweetness to keep the bitterness in check.” Germanness of another beer was also shown through the beer’s description: “This Bavarian⁶ quaffer has a grainy malt sweetness in the aroma that carries through into the flavor....Prost⁷!” The brewer at Tanzenwald recounted the tradition that gave rise to the name of the Tanzenator, a doppelbock style beer:

“... doppelbocks for some reason have always taken a name like ‘-ator.’ The original, first doppelbock made, was call Salvatore out of a brewery in Munich. It was actually a monastery brewery at the time. The brewery still exists it's called Paulaner but Paulaner used to be the monastery of St. Paul, before they became commercial. The monks used to brew doppelbocks. They brewed the really strong malty beer and drink it all during lent when they wouldn't eat. They would fast for forty days from Ash Wednesday all the way to Easter.”

The references to European ingredients and traditions were prevalent at each brewery and connected the customer to the European tradition of beer. These traditions do not reflect the ethnic background of the community, but channels European brewing. This distinction is made clear by one brewer’s reasoning for decorating Imminent with nutcrackers:

“One of [the nutcrackers] is mine that I got when I went to Germany when I was in high school... [A]s we were getting ready to open, we would have locals stop by, and this guy kept stopping by. He always had something quirky and something beer related. One day, he came in here and had a nutcracker like mine, and I told him, “I want that!” Because I have one, and now we can have 2, and put them up there.”

Germanness, as well and Britishness, is evoked in order to emphasize the tradition of brewing.

Not only were European themes present in the branding of the beer, cosmopolitan cultural fusions were present at the breweries all while maintaining a local image. Imminent serves a beer called the Snow Crush Mole Porter. The beer uses chocolate and chili peppers to give its distinct flavor and bite. A local farm grew the chilies in the beer and the description recognized the Minnesotans favorite topic of conversation, the cold weather: “An inviting and complex aroma gives way to a mouthful of chocolate tempered by just enough peppery bite to

⁶ Bavaria is a region of Germany.

⁷ Prost is the German word for “cheers.”

warm your palate! Bring it on, it's about (winter) time!" Tanzenwald showcased Pan-American food with references to different regional styles, including "Alabama white BBQ sauce" and "Nashville hot sauce." Korean barbeque sauce and Alabama white cheese sauce cover the Japanese-inspired Cabbage Pancakes. While the food and beer are globally influenced, their ingredients are sourced from local producers and take on a local perception through naming and affiliation with the space of the brewery. Through these fusions, the owner hoped that the customer could "[get] a little bit of the city, without leaving Northfield, [get] a little culture, without leaving Northfield." At the same time, the establishments were perceived overwhelmingly as local despite all the ways that regions and a variety of other cultures were present in the breweries. Furthermore, while there is cosmopolitan infusion of cultures which represents the cultural fusion that defines America, an owner of Tanzenwald noted pushback to that fusion. They had to change their menu because some of their food was too foreign for the palate of their customers, among other reasons as well. The breweries recognize the importance of cultural variety to their clientele, but also realize the limit to that cultural inclusion in their customers. We explore this tension further in our third paradox.

Local therefore does not necessarily mean that commodities must originate within a small geographical distance. One bartender described this understanding of locality with clarity. He said that, while people think it's interesting when something is sourced locally, it does not matter to them if things are sourced from far away. One brewery's owner described what she thought as the true attraction and source of popularity of the local movement is:

"There is that interaction that is really personal and that I think people are looking for. That's why we're seeing this local food movement really becoming important more and more. Because people are realizing that people actually want the story."

She describes people thirsty for meaning through connections to community that are ultimately created and influenced by the geographical proximity of people – their place. We crave connection to the people around us and the feeling of belonging in a place. On the other hand, we are entrenched in a global economic system. We are people from all over the globe. We feel connectedness to a variety of places. How can we expect our things to be tied to one place?

The understanding of localism should be broadened to include aspects of globalization that are inescapable or culturally meaningful. This version of localism will foster a greater understanding of the true benefits and aims of localism. If we are to live meaningful lives, we should recognize that influences from many places are important to the meaning of our food and culture. James articulates this idea well in that people who are connected to several places feel at home when consuming cuisines from those places (2005). Food from other places therefore can create a sense of belonging for some. Schnell articulates that one definition of local is anti-global: "'Local'...conceptually becomes the opposite of everything that the 'global' is seen to be" (2013, 66). Contrastingly, as illustrated with the case of these breweries, local is not limited to only geographically close influences. Global supply chains and connections to other cultures are vital to our way of life at the local scale. Local should focus more on developing meaning through relationships with neighbors and connecting to place not on restricting our consumption to things produced nearby. This understanding of locality also allows for a truer sense of sustainability. For example, it would not make sense to grow tropical fruit, which has become integral in American cuisine, in greenhouses in Minnesota. These artificial systems

would allow for “local” tropical fruit, but it would not be efficiently cultivated. Conceptualizing local as dependent upon a global economic system will allow us to live more meaningful lives and better allows for an honest understanding of sustainability.

Paradox 2: Sustainability Is Big and Small, Efficient and Place-Based

Chapel Brewing, the smallest of the three, sits alongside the Cannon River and is designed to protect it against flooding. The back patio is next to a rain garden, the parking lot is made of semi-permeable pavement, and the property utilizes several rain barrels. Each of these measures causes water after a storm to filter slowly into the river rather than rushing in immediately. This slow trickle protects the river and town against flooding and the river banks from erosion. If Chapel brewing were any larger, it would require more impermeable surfaces that would undermine flood protections. Chapel can protect the local environment, fostering localism and sustainability, only as a function of its small size.

Imminent and Tanzenwald also described size-dependent practices that promote sustainability and localism. Limited input requirements allow brewers to buy ingredients from nearby farms. One Imminent brewer explained:

“Right now, we’re making a cherry stout that has a bunch of cherries from this farmer outside of town called John Corterfield – Cherry Leaf Farm. That’s amazing, because we’re small and we’re local, and we’re able to do that. [A large business] would never be able to make a [product] using John Porterfield’s cherries because John does not make enough cherries. It’s just not possible. So, I guess what....I’m kind of thinking this out as I go.... What I’m driving at is it’s great when big companies do support the local economy by supporting local groups, but they’re not really ever going to be a part of it in the same way that a smaller local business is going to be a part of it because they can’t be.”

Imminent found that their small size is vital for the maintenance of their local collaborations that allow them to support their community and limit greenhouse gas emissions from ingredient transportation. These two examples demonstrate how small breweries can act more locally and more sustainably than large breweries, corroborating the common perception that local and sustainable go hand in hand.

However, the brewers also spoke of limitations to localness and sustainability based on their size. Bigger breweries with broader distribution have a greater capacity to invest in environmental protection and community building, both facets that contribute to the localness of a business. The Imminent brewers wrestled with the contradiction:

“If [big businesses] can [support the local community and environment] to a degree, it’s going to have a wider reach that we ever would.”

“Because they have more money than us.”

“Right, exactly, and their product is going farther afield. Even thinking about it on a brewery scale, I’m going back to New Belgium⁸. So, New Belgium started with that as a goal and as they’ve grown they’ve been able to spread that because they can invest more dollars into really cool initiatives. Because they can create that both locally, and farther afield”

⁸ New Belgium is the eleventh largest brewery, including craft and domestic breweries, in the United States. See Stoller (2018).

“It’s a Catch 22, because a local thing like the Tour de Fat⁹, as soon as you expand that to San Francisco to Chicago, that’s no longer local.”

This conversation highlights the tension between a brewery expanding its capability to support local events that build community, but sacrificing some of their local status because of the breadth of their actions.

In addition to the increased resources that come with growing in size, larger breweries benefit the environment through increased efficiency by way of economies of scale. When we asked the Chapel brewer if he had plans to make Chapel more sustainable, he responded:

“pie in the sky, one of the plans would be to open a bigger facility with more distribution in mind, and if we had a large funding source and a plan for a larger facility, that would be the place where you’d want to implement those [sustainable] things.”

In his response, he acknowledges a relationship between a larger size and sustainability via resource efficiency. If he had more space, he could buy a centrifuge that would reduce beer waste by fully separating the beer from the waste products. He could buy a “ready-reuse system” that would allow him to reuse sanitizing liquids until the chemicals go inactive instead of dumping them down the drain after each cycle. “A brewery of our size, it’s hard to justify that.” An Imminent brewer expressed similar concerns about lack of space. He thought that his small brewery might require more frequent shipments because of their limited storage capacity, thus producing more transportation emissions than larger breweries.

How can localness and sustainability simultaneously reinforce and limit each other? We find the source of these tensions to be in an oversimplification of the term “sustainable.” By breaking down sustainability into *efficiency sustainability* and *place-based sustainability* (summarized in Table 6), the benefits, limitations, and causes of each can be better understood. Efficiency sustainability refers to the kind of environmental rewards that occur as a result of financial motivations to reduce inputs and maximize outputs. Financial motivation, when accompanied with the capital availability that larger businesses have, can lead to a reduction in energy use, waste, and physical resources. Efficiency sustainability thus refers primarily to measures that reduce environmental impacts. Smaller breweries also take steps to improve efficiency sustainability, but cannot as effectively as larger breweries because of economies of scale and a lack of resources.

By contrast, place-based sustainability is motivated by the community values of the brewer. A brewer who is in tune to the needs and desires of the community can increase this more qualitative form of sustainability by promoting citizen engagement, building social networks, and fostering a general care for the town. These qualities manifest as a town that feels both the need to and the agency to protect each other and their quality of life, both of which will support the environment. In this way, place-based sustainability differs from efficiency sustainability in its focus on building and creating rather than reducing.

Characteristics	Efficiency Sustainability	Place-Based Sustainability
Motivation	Cost Saving	Community

⁹ New Belgium hosts a local bike race called the Tour de Fat.

Prerequisites	Capital and space availability	Producer integration in the local community, finances as a secondary motivator, and producer intentionality
Preferred business size	Large	Small
Sustainability implications	Minimizes waste, emissions, and physical inputs	Promotes care for local environment and agency to mobilize to protect it
Measurability	High	Low
Prevalence in research	High	Low

Table 6. Key features of efficiency sustainability and place-based sustainability.

Environmental decision makers have prioritized quantitative over qualitative sustainability indicators (Fricker, 1998). Though the importance of place-based sustainability in Rice County’s microbreweries challenges this norm, the scientific understanding of sustainability goals nonetheless manifests itself in the brewers’ conceptions of their own sustainability. Brewers spoke about efficiency sustainability efforts (e.g. waste reduction, reduced carbon emissions) in the context of sustainability goals, and spoke about place-based sustainability (e.g. hosting community groups, designing the bar to promote conversation) as distinct from the environment. Even brewery customers who expressed that localness was associated with more sustainability justified this view in the terms of efficiency sustainability. They stressed that lower emissions that result from shorter transportation distances, but neglected to mention sense of place.

How can we start to incorporate a qualitative understanding to conceptions of sustainability given the current prioritization of efficiency sustainability? Some Northfield establishments have made aspects of place-based sustainability explicit. For example, Northfield Community Solar¹⁰ and the Cannon River Watershed Partnership emphasize the importance of relationships to their environmental goals through the use of the words “community” and “partnership” in their names. Their missions are not limited to renewable energy and water quality respectively; they recognize the importance of building community in addition to the quantitative aspects of their work. They engage Rice County in environmental action through a community lens that can ultimately lead to greater participation in the environmental movement. This finding expands on the findings of Hunt (2007) in that not only does environmental concern spread when people are connected but environmental action is more effective when community is emphasized. Incorporating place-based sustainability into conceptions of environmental action in addition to the geological, climactic, and ecological systems that currently dominate will craft an understanding of sustainability that is more complete. The human quality of nature is

¹⁰ Northfield Community Solar is a company based in Northfield that constructs solar arrays from which subscribers source their energy. The company has the goal of localizing renewable energy. See more information on them at <https://www.cleanenergyprojectbuilder.org/company/minnesota-community-solar>.

important to understand and prioritize as it is human action in human-constructed systems that can ultimately lead to more effective environmental programming.

While the place-based sustainability fostered by breweries deserves to be recognized as a legitimate contribution to environmentalism, its limitations must also be scrutinized. Who is included and excluded from the community being built? How might building community for some populations alienate others? How might some instances of community building reduce place-based sustainability? These questions are the subject of our final paradox.

Paradox 3: Community Is Exclusive

Our first visit to a Rice County microbrewery was on a busy Thursday evening. We were meeting with our advisors, who were encouraging us to describe and absorb our surroundings. We all sipped on a beer of our choice, keenly observing the social energy in the building as the day got darker. Finally, we mustered the courage to initiate our first customer interaction. Our team of three each approached a different table and politely interrupted their conversation to introduce ourselves. When we reconvened to debrief, it seemed as though almost all of us had gotten over the initial nervousness that comes with approaching strangers. All except one. We were shocked that a team member had been jarred by their first interaction until they shared their story:

“So, I approached that group over there (a group of elderly white folks by the entrance), and I don’t know if it was weird or not. I shared my name and a quick statement as to why we are here. A lady at the table then shared her name, shook my hand, and responded with, ‘Let me ask you something. Where did you vote? Where are you from?’, which immediately set off an alarm for me...”

The woman at the table proceeded to lecture our researcher on the injustice of them and their friends voting in the local elections. Her instinct to pounce on our researcher and single them out as an outsider made it clear that she did not see our researcher as a part of her community. We were unsure how to react. Microbreweries are very intentional in creating a comfortable setting and building a sense of place for customers, but it was in observing the customers more closely that we discovered a blind spot in their efforts to create a space welcome to all. Rice County represents a highly diverse region compared to other rural counties in southern Minnesota, including a sizable population of Latinos (8.1 percent). We had not considered these demographics initially, but our observations and experiences made us highly aware of the populations we were encountering during our study.

The researchers on our team are not homogenous. We are white, Latino, two cis-women, a cis-man, queer, heterosexual, Southern, Midwestern, all able-bodied, and from a wide range of socio-economic contexts. One of us did not visibly match the demographics of the people that occupy these microbreweries. Most of the time, most of the people around us were white. While microbreweries successfully facilitate a sense of place and community to white customers, one member of our research team accumulated experiences in which they were reminded that their presence in the microbreweries was an oddity. People of color in Rice County are not frequenting their local microbreweries. From the experiences gathered by our non-white researcher, it was clear that the symbolism that stimulates people entering microbreweries to develop a sense of place does not translate to everyone. We were all looking at the same objects

in the same spaces, but the ways we perceived our surroundings and were perceived by our surroundings differed.

While microbreweries do foster a sense of place, that place only provides comfort to people with a particular identity. The beer styles, tastes, themes, and events are largely catered to people who find comfort in European nostalgia. The breweries provide for those familiar with American pride, World War II history, citizenship status, Rock 'n' Roll classics, American poets, German foods, and conscious shopping, all attributes that have been historically less accessible to non-whites. These characteristics of breweries are mainly Eurocentric and westernized, leading non-whites to experience discomfort when reminded how they are different. They have few symbols to anchor their experience.¹¹ If they venture into that space, they are left to assimilate.

Further, these racial divisions affect how white middle class customers interact with people of color who do stumble upon these spaces. During another data collection session, our non-white researcher was once again made to feel out of place by a customer. Upon seeing our researcher approach, an elderly white man quickly picked up an available menu from the Mexican restaurant that was catering the taproom that evening, and asked for a chicken quesadilla off the restaurant menu to which we have no affiliation. Our researcher, attempting to combat the assumption that the only Latin-American in the room must be taking orders for a Mexican restaurant, clarified his mistake and asked if he was interested in filling out our survey. The customer became completely flustered and our researcher fled the uncomfortable scene for the customer's sake. Debriefing this interaction made it apparent that the well-intentioned attempts to build community through establishing a sense of place in breweries were excluding key demographics of Rice County.

These examples highlight the contradiction embedded in our third paradox: that breweries are simultaneously building community and stunting its growth by constructing a sense of place that does not cater to everyone. Breweries reinforce an exclusive community by excluding a substantial portion of Rice County's population from community building initiatives. Furthermore, this exclusion limits the benefits of place-based sustainability, which can only extend as far as the population that identifies with the sense of place.

During our interviews, some brewery representatives recognized that most of their customers were white and affluent, but failed to address why that may be. Assuming that it is because craft beer is served at a higher cost than domestic beers and is therefore less accessible to those of lower socioeconomic status does not fully explain the obvious absence of non-white people in the space. While each brewery hosts a variety of beer styles from different countries, they are all exclusively European or American. This is the case across all three breweries, as no one has ventured or inquired about other beer styles and traditions. While one brewery offers a craft beer inspired by a traditional Mexican dish, actual Mexican beer styles have not been attempted. Beer is a global phenomenon, as styles emerged from available staple crops and imperial influence across history. This is especially true for Mexican beer styles, initially brewed with corn, that were transformed by European colonial practices. Opportunities for inclusivity exists if breweries take the time to consider the various identities that exist in Rice County.

One Northfield business has taken that opportunity. Brick Oven Bakery, which partners with Tanzenwald in making buns from spent grains, recently expanded their bread styles to

¹¹ Our comps advisor, non-white, shares that they also experienced discomfort when recognizing that they were unlike the rest of the customers in the brewery we visited.

include Mexican pastries after hiring Mexican bakers. They include their employee's unique skills as part of the bakery's variety. As a result, the business has notably increased the diversity of their customers. While breweries may not be intentionally exclusive, they have room to address lack of inclusivity by realizing the community's different pallets, cultures, and experiences.

The final paradox discovered in microbreweries highlights a common oversight by legal, social, and academic institutions who often fail to acknowledge different origins and upbringings when generalizing experiences and solutions to a population. As constructive as microbreweries can be in terms of community development and engagement, they have not overcome the systemic divisions that keep people from feeling or being welcomed. These findings expand on the literature of sense of place and environmental action. Griswold and Wright argue that people who move into new places can accumulate enough regional knowledge from literature to the same level as locals, in a sense becoming local themselves (2004). We argue that it is also important to understand the historical divisions of a place and multiplicity of understandings of the place when calling on a local history. While Frake notes that a lack of knowledge of a place can lead an individual to be perceived as a stranger (2008), differing understandings and perceptions of a place can also lead people to be othered and, maintain dissimilar understandings of environmental protection. Stedman prominently articulates that a sense of place and connection to the local environment can leverage environmental action (2002). We find that intentionally fostering a sense of place requires attention towards different conceptions of place and understandings of place, so that the environmental action can be universally agreed upon.

Overall, our paradoxes highlight how the attributes of localism require individuals, scientists, and environmental groups to reorient our understandings of sustainability and community. As customers, we found ourselves trying to find our own sense of place, and realized that our experiences varied. Because we were not all white, we all perceive our surroundings differently. Global ingredient sourcing was not perceived as counter to the products' local status. Brewers maximized social relationships with farmers and producers, allowing customers and brewers to become more closely associated with stewards of the land, and ultimately adopting concern for their physical surroundings as well. When sense of place is successfully achieved by customers, there is an increased desire to know other people enjoying the same experience, as well as the hands that make the experience possible. Ultimately, sustainability is a value that develops through sense of place for the customer and brewers, as they become familiar with the geography, farmers, local economies, and their community.

Implications and Future Study

Through our examination of the ways in which breweries in Rice County constructed localness in their business and our interpretation of the paradoxes that are presented when breweries practice localism, we were able to deconstruct the ways in which locality is understood. The paradoxes that we have found highlight inconsistencies behind the meanings of localism that when pinpointed can be avoided in order to foster the benefits that localism is meant to create. In order for localism to foster a sustainability ethic and develop a robust community, it does not necessarily need to be anti-global, but it does need to be all including to be most effective at meeting localism's goals. Understanding the benefits of localism could

shape environmental policy to include more human dimensions. Incorporating place-based sustainability into environmental efforts will create a more inclusive and popular environmental movement. Furthermore, localism can be better practiced when one understands the complexities of localism, such as greater inclusion.

Future studies should continue studying localism in breweries. As Lorr stated in his research on Michigan breweries (2018), we concur that more regions should be studied in order to understand how the intentional connection to place is fostered in different environmental contexts. Another realm of future research is the study of individuals environmental ethics. It is important to understand to what extent a sense of place induces people to act environmentally responsible. Also, while we found that breweries were cultivating a sense of place, it would be important to know if customers of these establishments could articulate a greater sense of place from visiting them. Future study should also examine the motivations of environmental organizations like the Cannon River Watershed Partnership that incorporate community building into their mission and marketing. Researchers should analyze how this community mindset impacts participation levels and demographics as well as public reputation. All these questions and more should guide future research on the importance and intricacies of the relationship between localism and place-based sustainability.

Concluding Thoughts

Through an ethnographic study of Rice County breweries, we were able to understand the ways that localism and sustainability are related and influence each other. We found that each of our analytical focal points – economic justice, high-quality products, environmental sustainability, and sense of place – were present in the Rice County breweries. Sense of place and high-quality products were especially important to both brewers and consumers. Through exploring the paradoxes that developed through our study, we developed a deeper understanding of localness, sustainability, and community. Local cannot be defined as anti-global because we rely on a global supply chain and are influenced by many cultures. Sustainability is both about reducing burdens on the environment and about fostering the relationship between humans, their community, and their home environment. Finally, community building can be a leverage point for environmental work, but can also be exclusive to certain groups if diverse cultural viewpoints that are representative of the full region are not taken into consideration. Importantly, our study provides an understanding of qualities that are usually believed to be objective. Localness, industrialness, nature, deliciousness, place, and community are all qualities that are not objective but subject to a variety of cultural understanding. While these qualities are all called upon to motivate environmental action, their effectiveness is limited because they are utilized in an objective manner. Environmental action therefore should acknowledge the many ways that localness and other qualities can be interpreted in order to better leverage them in the future. Overall, we must understand how culture informs our desires to care for the environment in order to ensure lasting impacts.

Bibliography

- Adams, Damian C, and Alison E Adams. 2007. "De-Placing Local at the Farmers' Market: Consumer Conceptions of Local Foods." *Journal of Rural Studies* 26 (2): 74–100.
- Adams, Damian C, and Matthew J. Salois. 2010. "Local versus Organic: A Turn in Consumer Preferences and Willingness-to-Pay." *Renewable Agriculture and Food Systems* 25 (4): 331–41.
- Andreatta, Susan, and William Wickliffe. 2002. "Managing Farmer and Consumer Expectations: A Study of a North Carolina Farmers Market." *Human Organization* 61 (2): 167–76.
- Brewers Association. 2018. "2017 Top 50: U.S. Craft Brewing Companies." https://s3-us-west-2.amazonaws.com/brewersassoc/wp-content/uploads/2018/03/Top50_2017.jpg
- Brewers Association. 2019. "Number of Breweries." *Statistics*. <https://www.brewersassociation.org/statistics/number-of-breweries/>
- Eberts, Derrek. 2014. "Neolocalism and the Branding and Marketing of Place by Canadian Microbreweries." In *The Geography of Beer: Regions, Environment, and Societies*, edited by Mark Patterson and Nancy Hoalst-Pullen, 189-199. Dordrecht: Springer Netherlands.
- Elgin, Duane. 2006. "Voluntary Simplicity and the New Global Challenge." In *The Environment in Anthropology: A Reader in Ecology, Culture, and Sustainable Living*, edited by Nora Haenn and Richard R. Wilk, 458-468. New York: New York University Press.
- Finn, Stephanie Mariko. 2011. Aspirational Eating: Class Anxiety and the Rise of Food in Popular Culture. PhD dissertation. The University of Michigan.
- Flack, Wes. 1997. "American Microbreweries and Neolocalism: 'Ale-ing' for a Sense of Place." *Journal of Cultural Geography* 16 (2): 37-53.
- Fletcher, Ann M. 2016. "Place-Making through Beer-Drinking: A Case Study of Montana's Craft Breweries." *Geographical Review* 106 (4): 539-566.
- Frake, Charles O. 2008. "Pleasant Places, Past Times, and Sheltered Identity in Rural East Anglia." In *Environmental Anthropology: A Historical Reader*, edited by Michael R. Dove and Carol Carpenter, 435-456. Malden, MA: Blackwell Publishing.
- Fricker, Alan. 1998 "Measuring up to sustainability." *Futures* 30 (4): 367-375.
- Freidberg, Susanne. 2009. *Fresh: A Perishable History*. Cambridge: The Belknap Press of Harvard University Press.

- Gatrell, Jay, Neil Reid, and Thomas L. Steiger. 2018. "Branding spaces: Place, region, sustainability and the American craft beer industry." *Applied Geography* 90: 360-370.
- Geertz, Clifford. 1973. "Thick Description: Toward an Interpretive Theory of Culture." In *The Interpretation of Cultures* by Clifford Geertz, 310-323. New York: Basic Books.
- Graefe, David, Andrew Mowen, and Alan Graefe. 2018. "Craft Beer Enthusiasts' Support for Neolocalism and Environmental Causes." In *Craft Beverages and Tourism, Volume 2*, edited by Slocum, Susan L., Carol Kline, and Christina T. Cavaliere, 27-47. Cham: Springer International Publishing : Imprint: Palgrave Macmillan.
- Griswold, Wendy and Nathan Wright. 2004. "Cowbirds, Locals, and the Dynamic Endurance of Regionalism." *American Journal of Sociology* 109 (6): 1411-1451.
- Grullon, Gustavo, Yelena Larkin, and Roni Michaely. 2018. "Are US industries becoming more concentrated?." *Forthcoming, Review of Finance*.
- Hoalst-Pullen, Nancy, Mark W. Patterson, Rebecca Anna Mattord, and Michael D. Vest. 2014. "Sustainability Trends in the Regional Craft Beer Industry." In *The Geography of Beer: Regions, Environment, and Societies*, edited by Mark Patterson and Nancy Hoalst-Pullen, 109-16. Dordrecht: Springer Netherlands. https://doi.org/10.1007/978-94-007-7787-3_15.
- Holtkamp, Chris, Thomas Shelton, Graham Daly, Colleen C. Hiner, and Ronald R. Hagelman. 2016. "Assessing Neolocalism in Microbreweries." *Papers in Applied Geography* 2 (1): 66-78. <https://doi.org/10.1080/23754931.2015.1114514>.
- Hunt, Alan R. 2007. "Consumer Interactions and Influences on Farmers' Market Vendors." *Renewable Agriculture and Food Systems* 22 (1): 54-66.
- Imbruce, Valerie. 2006. "From the Bottom Up: The Global Expansion of Chinese Vegetable Trade for New York City Markets." In *Fast Food / Slow Food: The Cultural Economy of the Global Food System*, edited by Richard Wilk, 163-179. New York: AltaMira Press.
- James, Allison. 2005. "Identity and the Global Stew." In *The Taste Culture Reader: Experiencing Food and Drink* edited by Carolyn Korsmeyer, 373-384. New York: Berg.
- Kaiser, H. M., McCluskey, J. J., and Rickard, B. J. (2014). "Beverage markets and policy." *Agricultural and Resource Economics Review* 43 (1): 4-III,IV,V,52.
- Kendall, Justin. 2018. "Anheuser-Busch InBev Reports Q3 Earnings, Outlines New Commercial Strategy in US." *Brewbound*.
<https://www.brewbound.com/news/anheuser-busch-inbev-reports-q3-earnings-outlines-new-commercial-strategy-in-us>

- Kleine, Alexandro, and Michael von Hauff. 2009. "Sustainability-Driven Implementation of Corporate Social Responsibility: Application of the Integrative Sustainability Triangle." *Journal of Business Ethics* 85 (S3): 517–33.
- Knerr, Kerry M. 2015. "In Search of a Good Drink: Punches, Cocktails, and Imperial Consumption." Master's thesis, University of Texas at Austin.
- Lorr, Michael J. 2018. "Pure Michigan Beer? Tourism, Craft Breweries, and Sustainability." In *Craft Beverages and Tourism, Volume 2*, edited by Slocum, Susan L., Carol Kline, and Christina T. Cavaliere, 49-64. Cham: Springer International Publishing : Imprint: Palgrave Macmillan.
- Lupton, Deborah. 2005. "Food and Emotion." In *The Taste Culture Reader: Experiencing Food and Drink* edited by Carolyn Korsmeyer, 317-324. New York: Berg.
- Maye, Damian. 2012. "Real Ale Microbrewing and Relations of Trust: A Commodity Chain Perspective." *Tijdschrift Voor Economische En Sociale Geografie* 103 (4): 473–86.
<https://doi.org/10.1111/j.1467-9663.2012.00716.x>.
- Olajire, Abass A. 2012. "The brewing industry and environmental challenges." *Journal of Cleaner Production*: 1-21. doi:10.1016/j.jclepro.2012.03.003
- Onozaka, Yuko, Gretchen Nurse, and Dawn Thilmany McFadden. 2010. "Local Food Consumers: How Motivations and Perceptions Translate to Buying Behavior." *Choices: The Magazine of Food, Farm and Resource Issues* 25 (1).
- Patterson, Mark W., Nancy Hoalst-Pullen, and W. Blake Pierson. 2016. "Sustainability Attitudes and Actions: An Examination of Craft Brewers in the United States." In *Urban Sustainability: Policy and Praxis*, edited by Gatrell, Jay D., Ryan R. Jensen, Mark W. Patterson, and Nancy Hoalst-Pullen, 153-168. Springer International Publishing.
- Paxson, Heather. 2006. "Artisanal Cheese and Economies of Sentiment in New England." In *Fast Food / Slow Food: The Cultural Economy of the Global Food System*, edited by Richard Wilk, 201-217. New York: AltaMira Press.
- Pearson, Brent. 2013. "Rice Co. Demographic & Economic Profile." *Department of Employment and Economic Development Communications Analysis & Research Division*.
<https://www.co.rice.mn.us/DocumentCenter/View/697/Rice-County-Demographic-and-Economic-Profile-PDF>.
- Pratt, Jeffery. 2008. "Food Values: The Local and the Authentic." *Research in Economic Anthropology* 28: 53-70.
- Schnell, Steven M. 2007. "Food with a Farmer's Face: Community-Supported Agriculture in the United States." *Geographical Review* 97 (4): 550–64.

- Schnell, Steven M. 2013. "Deliberate Identities: Becoming Local in America in a Global Age." *Journal of Cultural Geography* 30 (1): 55–89.
<https://doi.org/10.1080/08873631.2012.745984>.
- Schnell, Steven M., and Joseph F. Reese. 2003. "Microbreweries as Tools of Local Identity." *Journal of Cultural Geography* 21 (1): 45-69.
- Schnell, Steven M., and Joseph F. Reese. 2014. "Microbreweries, Place, and Identity in the United States." In *The Geography of Beer: Regions, Environment, and Societies*, edited by Mark Patterson and Nancy Hoalst-Pullen, 167–87. Dordrecht: Springer Netherlands.
https://doi.org/10.1007/978-94-007-7787-3_15.
- Schrank, Z., and Running, K. (2018). "Individualist and collectivist consumer motivations in local organic food markets." *Journal of Consumer Culture* 18 (1): 184-201.
- Seyfang, Gill. 2006. "Ecological Citizenship and Sustainable Consumption: Examining Local Organic Food Networks." *Journal of Rural Studies* 22 (4): 383–95.
<https://doi.org/10.1016/j.jrurstud.2006.01.003>.
- Shoreman-Ouimet, Eleanor. 2011. "Middle-Out Conservation." In *Environmental Anthropology Today*, edited by Helen Kopnina and Eleanor Shoreman-Ouimet, 234-252. New York: Routledge.
- Shortridge, James R. 1996. "Keeping Tabs on Kansas: Reflections on Regionally Based Field Study." *Journal of Cultural Geography* 16, (1): 5-16.
- Stedman, Richard C. 2002. "Toward a Social Psychology of Place: Predicting Behavior From Place-Based Cognitions, Attitude, and Identity." *Environment and Behavior* 34 (5): 561-581.
- Stoller, Gary. 2018. "Craft Breweries Dominate The Top 50, But Guess Which Giants Rule The Beer Market." *Forbes*.
<https://www.forbes.com/sites/garystoller/2018/03/20/craft-breweries-dominate-the-top-50-but-guess-which-giants-rule-the-beer-market/#440426fbdcad>.
- Sutton, David E. 2005. "Synesthesia, Memory, and the Taste of Home." In *The Taste Culture Reader: Experiencing Food and Drink* edited by Carolyn Korsmeyer, 304-316. New York: Berg.
- Tropp, Debra. 2014. "Why Local Food Matters: The Rising Importance of Locally-Grown Food in the U.S. Food System." *National Association of Counties Legislative Conference*, March 2.
- Trubek, Amy B. 2008. *The Taste of Place*. Berkeley: University of California Press.

U.S. Census Bureau. 2018. "U.S. Census Bureau QuickFacts: Rice County, Minnesota." Census Bureau QuickFacts. U.S. Department of Commerce.
www.census.gov/quickfacts/ricecountyminnesota.

West, Paige. 2012. *From Modern Production to Imagined Primitive: The Social World of Coffee from Papua New Guinea*. Durham, NC: Duke University Press.

Wolf, Marianne McGarry. 1997. "A Target Consumer Profile and Positioning for Promotion of the Direct Marketing of Fresh Produce: A Case Study." *Journal of Food Distribution Research*, 1997, 28 (3): 11–17.

Wolf, Marianne McGarry, Arianne Spittler, and James Ahern. 2005. "A Profile of Farmers' Market Consumers and the Perceived Advantages of Produce Sold at Farmers' Markets." *Journal of Food Distribution Research* 36 (1): 192–201.

Appendixes

Appendix A: Brewer Interview Guide

DISCUSSION OF CONSENT

CONVERSATION ABOUT TIME AND CUSTOMER SURVEYING

BEGIN RECORDING

STORY

1. Did you work in brewing before (at home or with another business)? What was the context (was it a large brewery, small, etc.)?
2. Why did you decide to start a small brewery?
 - a. Did you want to participate in small brewing because you thought you could make more money?
3. What are the benefits of running a small brewery in a small town? Basically why here?

SUPPLY CHAIN / ENVIRONMENTAL DECISIONS

Exercise:(materials: paper, pen, possibly an image example)

We ask that you draw out your supply chain in terms of where your inputs come from, how they travel to your location, and how they exit your system, or rather what results as products and by-products of brewing? We can answer any questions you have about the exercise, and expect to talk through your chain to clarify any confusion along the chain. We find this exercise beneficial in understanding how a small business creates a product dependent on natural resources and local interest.

4. Is there anything about the local environment that inspires you to make beer differently?
5. What things do you do that are sustainable?
6. Do you have plans to make the brewery more sustainable?
7. Do you work with environmental causes that are not directly connected to the brewery?
8. Do you believe that local products is inherently more sustainable?
9. Do you think that “small” businesses are more sustainable?

CREATING A SPACE

10. How do you develop the names of your beers? Why?
11. What do you want customers to experience when they come into your brewery?
12. Has there ever been a case where a customer has inspired you to make a difference in how you produce beer?
13. Do you feel connected to customers working here? What are good and bad things about being connected to the customer in this way?
14. Do you have an intentional theme that you expect visitors to comprehend in your brewery?
15. We think your brewery is unique. What about your brewery do you think is unique and interesting for tourists or for locals?
16. Would you describe your beer as local? What current practices or attributes would make them local?
17. Which is your most local beer?

Help Us on Our Senior Thesis!

Hello! Please take a minute to complete our survey on customer perceptions of microbreweries. **When you are finished, please leave this sheet on the table.** First, we will ask you to report on your beliefs about microbreweries. Then, we will ask you to report on how those beliefs influence your behavior.

This survey is being conducted for the senior thesis of Emma, Mayte and James, students at Carleton College. If you have any questions, please send us an email: aldrethm@carleton.edu

Please note that we are planning to use these responses in a report in an anonymous fashion. By completing this survey, you are giving your consent for us to use your responses. Thank you!

Do you live in Rice County? ☐ Yes | ☐ No

Please evaluate the following statements based on how much you consider them to be true when comparing this brewery to broad-scale beer producers.

I feel like / I believe that...

	1 = Strongly disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly agree
The beer served here is a local product.					
I prefer buying local over nonlocal beer.					
The beer and the experience here are unique to this community.					
I can build relationships with people from the community by spending time here.					
Spending time here connects me to the brewing process.					
The brewer is attentive to what the community wants.					
Overall, this is a community space.					
My money spent here will foster economic growth in this town.					
I am supporting the brewer economically.					
I have a better sense of where my money goes.					
I have access to the brewer in case I have input.					
The beer here is fresher.					
The brewer incorporates local ingredients.					
I can trust the brewer to make beer that I will like.					
The beer here is higher quality.					
The beer here is better for the environment.					
The brewing process here uses less water.					
The brewing process here produces less waste.					
The beer here requires less energy to make/transport.					
The brewer is conscientious of the environmental impact of the beer making process.					

Continue on next page...

Please evaluate the following beliefs based on **how much you think they influence your decision to spend time and money** at this brewery as opposed to purchasing from, broad-scale beer producers. **Note the difference from the previous prompt.**

I come here because I believe that...

	1 = Strongly disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly agree
The beer served here is a local product.					
The beer and the experience here are unique to this community.					
I can build relationships with people from the community by spending time here.					
Spending time here connects me to the brewing process.					
The brewer is attentive to what the community wants.					
Overall, this is a community space.					
My money spent here will foster economic growth in this town.					
I am supporting the brewer economically.					
I have a better sense of where my money goes.					
I have access to the brewer in case I have input.					
The beer here is fresher.					
The brewer incorporates local ingredients.					
I can trust the brewer to make beer that I will like.					
The beer here is higher quality.					
The beer here is better for the environment.					
The brewing process here uses less water.					
The brewing process here produces less waste.					
The beer here requires less energy to make/transport.					
The brewer is conscientious of the environmental impact of the beer making process.					

Comments? Other reasons you visit microbreweries?

Thank you! Please leave this survey at your table.

Appendix C: Interview Consent Form

Consent Form: Carleton College ENTS COMPS 2018-2019

Hello, we are Emma, James, and Mayte, and we are students in the Environmental Studies Program at Carleton College in Northfield, Minnesota. We are working on a senior research project that concerns community member and small business perspectives on what it means to be “local.” Our research is being conducted on brewers and customers of breweries in Rice County to learn about local values. We are hoping for a moment of your time to interview you. Before conducting our interview, we ask that you read over this consent form.

We would like to ask you about your motivations for opening this business, how you constructed the business, and how you present it. From this interview we hope to understand how local values influence and are created by business owners. We would like to record the interview.

We plan to use the interview information in writing our senior essay at Carleton that will be presented publicly on Carleton’s campus in the spring. While we have not completely defined exactly what we will write about, we will likely write about your brewery specifically in a manner that could identify your brewery or your views. If you have any concerns about what we write, let us know. You are always able to contact any of us if you decide later that you would not like us to use a response in writing our paper or presentation.

Your participation is voluntary and no compensation will be offered. Please share only what you are comfortable with sharing. You may decline to participate, or you may choose not to answer any particular question that we ask at any point in the interview. If you change your mind about participating, you may stop the interview at any time.

Please feel free to contact us or our advisors, Constanza Ocampo-Raeder and George Vrtis, if you have any questions, concerns or comments about the project.

Thank you!

Researchers:

Mayte Aldrett, Emma Dempsey, James Harren

300 N. College St

Northfield, MN 55057

aldrettm@; dempseye@; harrenj@carleton.edu

Faculty advisor:

Professors Constanza Ocampo-Raeder and George Vrtis

constanza@; gvtis@carleton.edu

If you have any questions or concerns regarding this study and would like to talk to someone other than the researchers, contact the Institutional Review Board for Research with Human Subjects at Carleton College, c/o Office of the Associate Dean of the College, Carleton College, One North college Street, Northfield MN, 55057; telephone (507) 222-4301.

Statement of consent (Please initial only the items you agree to):

_____ I have read the above information. I have asked questions and have received answers. I consent to be interviewed in my perceptions on localism and microbreweries.

_____ I give permission for the interview to be tape recorded.

Signature: _____

Print name: _____

Date: _____

Signature of Investigator: _____

Date: _____

Appendix D: Survey Results – Tables 2, 3, and 4

Category	Survey Prompt	I believe that...		I come here because...	
		Mean Response	Rank	Mean Response	Rank
Local	The beer served here is a local product.	4.68*	1	4.40*	2
	I prefer buying local over nonlocal beer.	4.13	6	N/A	N/A
	The brewer incorporates local ingredients.	3.63	14	3.60	14
Sense of Place	The beer and the experience here are unique to this community.	4.27	3	4.41	1
	The brewer is attentive to what the community wants.	3.88	10	3.63	13
	Overall, this is a community space.	4.31	2	4.28	3
	I can build relationships with people from the community by spending time here.	3.99	7	4.04	6
Economically Just	My money spent here will foster economic growth in this town.	4.17	5	4.19	5
	I am supporting the brewer economically.	4.25	4	4.24	4
	I have a better sense of where my money goes.	3.48	15	3.66	11
Quality	I have access to the brewer in case I have input.	3.78	12	3.65	12
	The beer here is fresher.	3.96	8	3.77	9
	I can trust the brewer to make beer that I will like.	3.84	11	3.77	8
	The beer here is higher quality.	3.89	9	3.82	7
Environmentally Responsible	The beer here is better for the environment.	3.37	17	3.34	16
	The brewing process here uses less water.	3.04	19	3.12	19
	The brewing process here produces less waste.	3.23	18	3.18	17
	The beer here requires less energy to make/transport.	3.7	13	3.66	10
	The brewer is conscientious of the environmental impact of the beer making process.	3.45	16	3.36	15

Other	Spending time here connects me to the brewing process.	3	20	3.18	18
-------	--	---	----	------	----

Table 2. Mean responses to survey questions. Means are calculated from responses to each statement where 1 indicates strongly disagree, 2 indicates disagree, 3 indicates neutral, 4 indicates agree, and 5 indicates strongly agree. The means are ranked from highest (1) to lowest (20 for “I believe...” statements and 19 for “I come here because...” statements). Questions are categorized by topic. The * symbol next to a mean indicates that we found a significant difference ($p < 0.05$) between the mean responses in the “I believe that...” statement and the corresponding “I come here because...” statement. A similar table in Appendix 5 includes data on the spread of responses.

Survey Prompt	Mean Response	
	Do you reside in Rice County?	
	No	Yes
I believe that “the brewer is attentive to what the community wants.”	3.61	4.07
I believe that “I have access to the brewer in case I have input.”	3.44	4.09
I believe that “the beer here is high quality.”	3.56	4.05
I believe that “the beer here requires less energy to make/transport.”	3.39	3.90
I come here because “I am supporting the brewer economically”	4.56	4.04
I come here because “The beer here is fresher”	3.28	3.89
I come here because “The beer is higher quality”	3.39	4.05

Table 3. Survey responses that differ significantly ($p < 0.05$) between Rice County residents and tourists. Tourists and people from the area perceive certain prompts differently.

Category	Question	I believe that...								I come here because...							
		1 = Strongly Disagree (%)	2 = Disagree (%)	3 = Neutral (%)	4 = Agree (%)	5 = Strongly Agree (%)	Number of responses	Mean Response	Rank	1 = Strongly Disagree (%)	2 = Disagree (%)	3 = Neutral (%)	4 = Agree (%)	5 = Strongly Agree (%)	Number of responses	Mean Response	Rank
Localness	The beer served here is a local product.	1.32	0	2.63	21.1	75.0	76	4.68	1	0.00	4.00	9.33	29.3	57.3	75	4.40	2
	I prefer buying local over nonlocal beer.	0	0	0	6.49	23.7	77	4.13	6								
	The brewer incorporates local ingredients.	1.33	1.33	49.3	29.3	18.7	75	3.63	14	2.78	1.39	45.8	33.3	16.7	72	3.60	14
Community Building	The beer and the experience here are unique to this community.	1.33	0	14.7	38.7	45.3	75	4.27	3	0	0	8.11	43.2	48.7	74	4.41	1
	The brewer is attentive to what the community wants.	0	0	36.8	31.2	25.0	76	3.88	10	2.78	0	43.1	40.3	13.9	72	3.63	13
	Overall, this is a community space.	1.3	0	5.19	53.3	40.3	77	4.31	2	1.33	0	8.00	50.67	40	75	4.28	3
	I can build relationships with people from the community by spending time here.	1.3	6.49	15.6	45.5	31.2	77	3.99	7	1.33	2.67	17.3	48	30.7	75	4.04	6

Economically Just	My money spent here will foster economic growth in this town.	1.3	3.9	7.79	50.7	36.4	77	4.17	5	1.33	1.33	13.3	45.3	38.7	75	4.19	5
	I am supporting the brewer economically.	1.3	0	6.49	57.1	35.1	77	4.25	4	0	0	9.33	57.3	33.3	75	4.24	4
	I have a better sense of where my money goes.	2.67	9.33	36.0	41.3	10.7	75	3.48	15	1.37	2.74	35.6	49.3	10.9	73	3.66	11
Quality	I have access to the brewer in case I have input.	1.35	4.05	36.5	31.1	48.7	74	3.78	12	2.7	6.76	32.4	39.2	18.9	74	3.65	12
	The beer here is fresher.	1.32	2.63	21.1	48.7	26.3	76	3.96	8	2.74	0	32.9	46.6	17.8	73	3.77	9
	I can trust the brewer to make beer that I will like.	1.33	1.33	34.7	37.3	25.3	75	3.84	11	2.74	2.74	35.6	32.9	26.0	73	3.77	8
	The beer here is higher quality.	1.33	1.33	32.0	37.3	28.0	75	3.89	9	4.11	1.37	28.8	39.7	26.0	73	3.82	7
Environmentally Responsible	The beer here is better for the environment.	1.33	2.67	61.3	26.7	8.00	75	3.37	17	2.74	2.74	61.6	23.3	9.59	73	3.34	16
	The brewing process here uses less water.	2.7	0	89.2	6.8	1.35	74	3.04	19	2.74	0	83.6	9.59	4.11	73	3.12	19
	The brewing process here produces less waste.	2.67	0	77.3	12.0	8.00	75	3.23	18	2.74	0	78.1	15.1	4.11	73	3.18	17
	The beer here requires less energy to make/transport.	2.67	4	37.3	30.7	24.0	75	3.7	13	2.74	1.37	39.7	39.7	16.4	73	3.66	10
	The brewer is conscientious of the environmental impact of the beer making process.	1.33	2.67	60.0	21.3	14.7	75	3.45	16	2.74	1.37	61.6	26.0	8.22	73	3.36	15
Other	Spending time here connects me to the brewing process.	5.26	23.7	43.4	21.1	6.58	76	3	20	6.85	13.7	42.4	28.8	8.22	73	3.18	18

Table 4. The distribution and rank of responses to each statement in the survey.