

• *Research Note* •

## **Hopping to It: Tradition, Apprenticeship, and Formal Brewing Education**

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**Abstract:** *This research note examines the two most common ways in which brewing professionals learn their trade. The author argues that both apprenticeship and formal brewing schools are important methods to learn how to brew beer and then looks at the evolution of how both have changed over time. The essay chronicles the concerns present day brewers have about the educational system and the importance of having an open mind when it comes to training.*

In many industries, there are often two tracks to learning: apprenticeship with hands-on learning and formalized education with a defined curriculum. Take for example, professional painters, art conservators, and beer brewers; all three of these professions have professional schools while keeping the apprenticeship model alive and well. Parallel to this, many people in professions operate with an *art vs. science* mindset. That is, do you need the empirical, scientific training to be successful or is the intuitive nature of apprentice training enough?

American cultural anthropologist Richard Kurin would argue for arts' sake with this sentence: "Like other forms of brokerage, cultural dealings rely on an extensive base of knowledge, formal and experiential, but they are, in the end, and art" (1997). Kurin's statement about cultural dealings is reflective of the position of this writer that experiential and formal, or in this case, apprenticeships and professional training, are both valid methods of learning the craft of brewing beer. That is to say, apprenticeship and formal training can live together. This paper will offer an overview of the brewing industry, explaining the necessary components of brewery operations, and break down why both

brewing apprenticeships and professional brewing schools are important methods to learn how to brew beer.

In my experience, many people in the brewing industry start as homebrewers. Rarely have I found someone that one day woke up and said, "I'm going to brewing school!" This is true for both apprentice-trained and academically trained brewers. Some start off as homebrewers, brewing in their backyards with friends and catch the bug. They might volunteer at a brewery, kicking off their apprenticeship journey, usually working with a more experienced brewer. Eventually, some take a leap and decide to go professional, continuing with formalized education. There are certainly industry accolades one can pick up along the way prior to brewing school that help to understand the styles of beer. One such accolade is becoming a "Certified Cicerone." This is not an official endorsement of the scientific education needed to brew; only the understanding of taste and styles.

To those who work in the brewing industry today, the term "Brewing School" often conjures up sterile quality assurance ("QA") labs, vials of yeast, or tubes of water for testing. These formal brewing labs are becoming more and more prevalent in big breweries across the United States. Stop to think about the bigger brewing companies you may know in the United States: The Boston Beer Company (Sam Adams), Dogfish Head (who recently merged with The Boston Beer Company), Lagunitas, or Anchor Brewing Company. These companies never started with school-trained professionals; they started with homebrewers and, in due time, they were able to hire school trained brewers who understand more practical scientific nuances of brewing. It's not a coincidence that these breweries are doing well because they have cultivated brewers who are the best in their class and have the privilege to continue their education. They have a lockdown on quality. Quality is king in beer.

### **Innovation vs. Tradition**

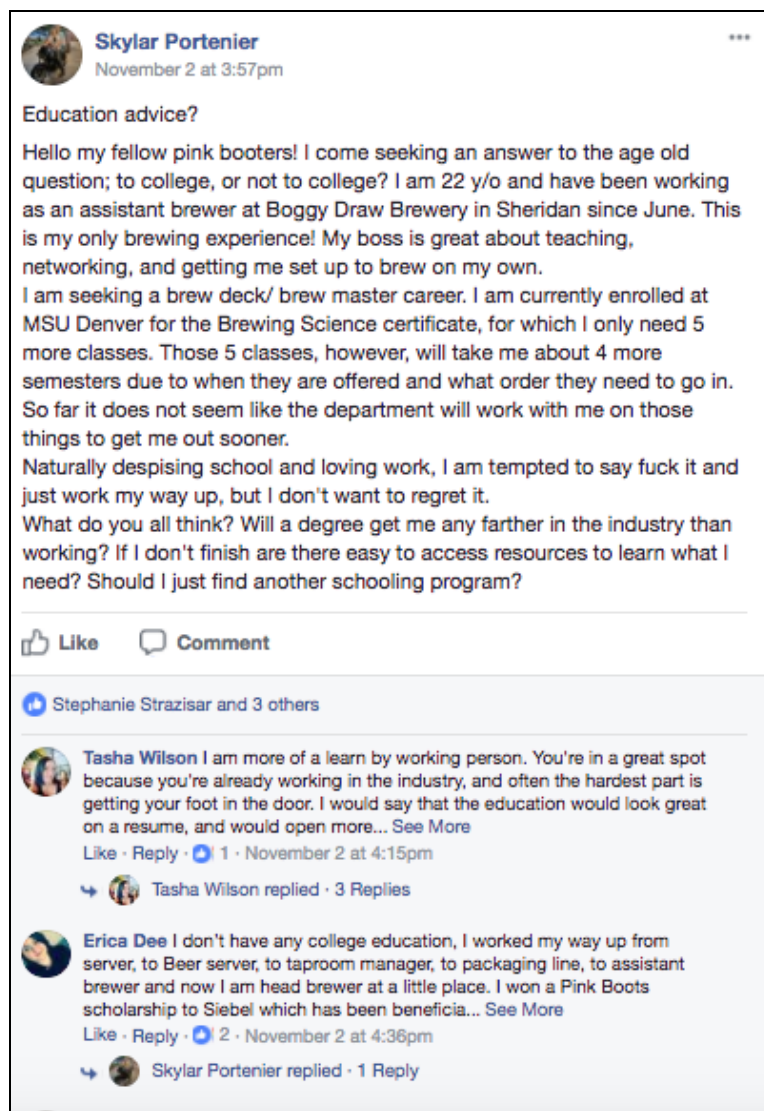
In his introduction to the *Complete Joy of Homebrewing*, Charlie Papazian, the father of modern American Craft Brewing and the professional guild group, The Brewer's Association writes: "I've had plenty of time to reflect on my forty-four years of continued homebrewing—all that has changed, and so much that has been sustained. I've learned to recognize two constants: 1) Traditions of beer brewing are always evolving, and 2) the best

thing you can do for yourself and your homebrewing is to relax, not to worry and have homebrew" (2014). In this context, Papazian is correct and writing on the behalf of tradition. U.S. teenagers of the in the 1960s, '70s, and '80s may recall their parents drinking Budweiser or Coors Products. Those light lagers dominated the market during these decades. Periodically there were rare exotic Irish Guinness beers or other imports, but the hoppy brews that many Americans are now accustomed to drinking were but a faint dream. Papazian is seemingly nonchalant about his perspective of brewing; it is very much a mindset of the culture, but it is correct. Things are always changing: apprenticeships, schools or styles. For example, what would you think if the acronyms IPAS, APAS, NEIPAS were rattled off by your bartender? Those last few acronyms are beer styles; India Pale Ale (IPA), American Pale Ale (APA) and New England India Pale Ale (NEIPA). These are not the traditional styles of beer brought over by British and German Immigrants. One could argue even the type of training a brewer receives in modern times is reflective of the current taste in beer styles. Modern styles of beer such as the New England IPA simply were not brewed two decades ago and it takes a certain skill and finesse to know how the best brew this style. In this style of beer for example, consumers look for a juicy but hazy appearance. Something that seems altogether contradictory based on the clear crisp lagers of your parents age, but nonetheless exciting.

The seemingly un-ending styles in beer sometimes feel daunting, but it's important to keep traditional styles in mind. Much of how brewing was conducted from the early 19<sup>th</sup> century to the present day has similarities; there are still four backbone ingredients to make a beer: water, malt, hops, and yeast. Additionally, there are two basic yeast strains: ale or lager yeast; bottom or top fermenting. In ales, the yeast rises to the top and takes less time to produce beer versus lagers, which the yeast falls to the bottom of a fermenting vessel and takes much longer to produce beer. Tradition has it that the English produced ales and the Germans produced lagers. Why? Climate. The term ale-wives came about in England where the woman of the house would produce the family ale-beer. Ales can withstand the warmer climates of England. Lagers, on the other hand, love the cold caves of Germany. To be a brewer that understands and can master either or both styles is impressive. Examining these past traditions is one way the brewing industry continues to

honor and keep alive the unique cultures that developed around traditional ale and lager beer styles such as Maerzen, Kolsh or HefeWeizen.

As Papazian stated, traditions are always changing. The tradition in Germany used to be for young men to apprentice under butcher/brewers. It was imperative that tavern owners knew both brewing and butcher trades in order to keep their guests satisfied with food and drink. Today, that style of apprentice training is not practiced. Rarely do people receive an apprenticeship complete with how to butcher a hog. In fact, in might be a little alarming to some in 2020!



Screenshot from Facebook about brewing education

### **Jobs in Beer**

To understand this industry it is important to understand the people and the roles that they hold. Jobs in the brewing industry involve both art and innovation. The following is a listing of brewing-specific jobs:

- 1.) Brewers: formulate recipes and brew the beer.
- 2.) Cellar men/women helps with maintaining the cellar where the beer is held, ensuring sanitation, cleaning, and transporting.
- 3.) Canning/Bottling/Kegging Operators: put the finished product in containers
- 4.) Sales Representatives: conduct-tasting meetings and sell the beer.

Many of these positions are the same as what they were twenty, thirty, or even forty years ago. However, some of the early 19<sup>th</sup> century jobs in the brewing industry have been eliminated due to technology. Positions such as stable hands to maintain the fleet of horse drawn carriages for beer distribution are long gone, as are the firemen who would have been shoveling coal in furnaces to keep the brewery operational.

Today, there is still an apprenticeship method to learn how to perform these brewing related jobs, but they are becoming fewer. Attending brewing school is more common and sometimes more desirable to employers. Like any advanced education, these training programs come with both a financial and time price tag that one must consider. In one example, a young woman solicited advice via the official Facebook group of a professional women's organization, The Pink Boots Society. The society is dedicated to women in the brewing industry who earn at least half their earnings from beer. She asked if continuing education in brewing school was worthwhile or if she would be able to obtain the same skills by on the job training. The answers varied. Many expressed their gratitude with having to work from the bottom up, tap to tank and the invaluable experiences gained. Others commented the value of brewing school, specifically that it can be a resume booster by learning the science behind beer quality control.

Bill Madden, a revered Master Brewer and owner of Mad Fox Brewing Company in Falls Church, Virginia, explained how the industry has shifted from when he was in brewing school some twenty years ago, his concerns about the current climate, and the future of the industry:

"It's kind of interesting what's happening now. The experience pool is less and less too ... there are more brewers in the industry now, who started as homebrewers and made the leap into brewing and less and less do I see the educated brewers. Guys that actually went to, took the time—guys, gals, took the time, got their education and went to Siebel or UC-Davis, went and apprenticed with somebody or worked for somebody for some period before opening their own brewery or becoming head brewer. Um...it's an interesting time right now and it has me worried in some regard because I think a lot of these guys that are taking over breweries don't realize the challenges or how dangerous it can be sometimes and I'm worried that people are going to get hurt."

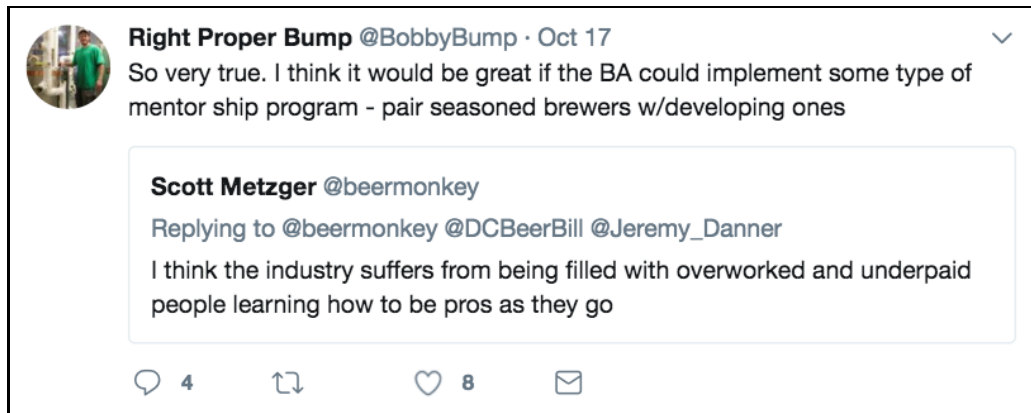
Sympathetic to Madden's point, Susan Welch, co-chair of the associations Higher Education Advisory Board stated: "Master Brewers want to ensure the future of the brewing industry by establishing the requirements for the most robust and effective training available to students in the world today." Master Brewers such as Madden have had both the apprenticeship training and formalized education, giving them a well-rounded perspective of what's working and not working for the industry. Madden further explained what he looks for when hiring brewers:

"I look for a combination when I'm hiring brewers. So, it depends. It's very different now than when it was 20 years, where, and it depends on the position I'm hiring for too. So, when I was running five breweries, I was hiring head brewers too. And you look for a combination of experience and, have they run other breweries? Or, bringing them through the school of hard knocks: Hiring them, teaching them, and seeing if they have the qualities to become a head brewer. I've over the years elevated some folks and made them into head brewers. Or they've gotten enough experience through working for us at the different breweries I was at that they became head brewers and that, that gives me a lot of pride."

Brewers like Madden are able to look at the community with a more introspective lens and articulate their concerns for the industry. Unfortunately, after this interview was conducted with Madden, he was forced to shut down his own brewing operations citing the rapid growth of breweries in the state of Virginia and low beer sales.

What support is there for brewers such as Madden who understand both sides of the issue and seek to sustain a livelihood in the industry? Some think it is the job of the Brewers Association to help foster the more traditional, pre-arranged mentorship style of learning. One October 2017 Twitter thread between the head brewer of D.C.'s Right Proper Brewing Company, Bobby Bump, sheds light on the lack of mentorship in the brewing

industry, explaining "I think it would be great if the BA could implement some type of mentor ship program – pair seasoned brewers w/ developing ones."



It is clear that many people are learning about the craft as they go, but somehow the more formal apprentice aspect lingers. There is a desire for a mentorship program of "seasoned" professionals with young or developing professionals. This concept is not new to many other industries, but it is not something formalized in the brewing industry.

### Conclusion

The beer industry carries an exciting culture that is worth sustaining, fostering and nurturing. It's important to keep in mind that there is both a science and art of learning and brewing. Just as there is not a right or wrong way to taste beer, there is not a right or wrong way to learn how to brew. As Charlie Papazian said, "Traditions of beer are always evolving" and so it's important to keep an open mind about letting people experience their training and tasting in all forms.

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