Wine Terroir:

a Sense of Place Model
Different places on the face of the earth have different vital effluence,
different vibration, different chemical exhalation,
different polarity with different stars:
call it what you like.

But the spirit of a place is a great reality.

D. H. Lawrence (1964)
Introduction

When we lift a glass of wine to our mouth, what sense of the wine’s place of origin does it impart to our lips? How is that place expressed and how is it received by the taster?

The French concepts of terroir and goût de terroir have been much discussed by geographers interested in wine, and the broader academic wine community. Simply put, terroir refers to the place wine is made, and goût de terroir is the taste of that discernible expression of the place in the glass (Foroni, Vignando, Aiello, Parma, Paoletti, Squartini, & Rumiati, 2017). This over-simplified explanation of the original, culturally-rich meaning terroir doesn’t adequately capture the elements from the place of origin that are tasted by the drinker. The term terroir doesn’t translate well into a new language and the new global world of wine (Trubek, 2008), losing its complexity of understanding in the process.

The often-cited chapter by Unwin (2012) about terroir in The Geography of Wine explains that the physical geography of a place where wine is grown, including geology, soils, climate geomorphology and vegetation, influences what people taste in a wine glass. Although British geographer Unwin does contend that the meaning of terroir is “something much more subtle and complex” (p. 37) than just the physical factors, and that the interaction between human factors and the environment shape the tastes of a place, he fails to detail which cultural factors play a role, other than religion and the uptake of innovation.

Vaudour, a French wine geographer, goes beyond the physical by explaining that cultural geography also influences terroir. In his 2002 paper, he discusses that the collective memory of the wine culture contributes to “conscience terroir,” the valuing of wine related to the narratives told about it. Vaudour discusses a mix of physical and cultural geographic factors in his multi-dimensional definition of terroir, but does not include humanistic geographical elements. Both authors ignore the individual experience of terroir, which is the constructivist contribution I would like to make to the explanation of this complex concept.

In this paper, I make the hypothesis that terroir is actually best translated into the geographic term “sense of place.” With roots in humanistic geography, the concept of sense of place refers to the human experience in a place. As each person has their own personality, experiences, understanding, intellectual and physical responses to a place, their interaction with that place is unique and shaped by their individuality (Wilkie & Roberson, 2010).

Drawing on physical, cultural and humanistic geography, I make a case that terroir can be understood as sense of place, encompassing not only the physical aspects where wine is grown and the influence of the people who make it, but also the interaction between those physical and cultural elements, and the perceptions and background of the person tasting the wine. As the wine expert Gerald Asher (cited in Osborne, 2004, p. 25) stated when reminiscing about the best wine he ever tasted, “the pleasure in any wine is subjective: we each bring something to what is there in the glass and interpret the result differently.”

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Wine Terroir
As *terroir* is one of the most commonly used terms in the wine industry, it is important that geographers and other academic understand that the expression of the place includes more than soil, climate and the winemaker. Terroir is an individual experience that is both objective and subjective, and has physical, cultural and experiential elements that can manipulate the wine taster’s experience.

**Methodology**

This theoretical paper expands on previous definitions of *terroir* by examining the concept through a constructivist lens. When examining the existence of a place, a constructivist adds humanistic geography to physical and cultural geography, including personal and social values, emotions and stories, local institutions and levels of engagement. This multidimensional constructivist view of *terroir* is the definition of sense of place. The understanding of a place is the individual construction of a place: the “metaphorical process of placing phenomena in a local context” (Smith, 2015).

To develop a theoretical framework of *terroir* that would reflect my constructivist viewpoint, I conducted short informal interviews with nine people, including two Masters of Wine, a wine geographer, two wine marketing professionals and three students of wine geography. I asked the participants individually what they thought was missing from the physical / cultural definition of *terroir*, and if they thought personal opinions played a role in what is tasted in the glass. Through these cumulative interviews, I developed a theoretical framework for a new definition of terroir based on the geographical concept of sense of place.

To prove my hypothesis that *terroir* is best translated as sense of place, I collected secondary literature that supported my theoretical comparison framework. My data collection was shaped with the goals of finding the most current physical, cultural and humanistic geographical examples of my theory in action, regardless of their field of inquiry. The literature findings from geography, business, biochemistry and other fields shaped the components in my model and are discussed in the results section.

**Results**
Physical Geography

The physical landscape where grapes are grown has multiple influences on the resulting wine. The degree days, heat load and insolation of a location determine the viability of a vineyard to grow and adequately ripen grapes (Van Leeuwen & Seguin, 2007). Proper ripeness results in more pronounced fruit characters in the glass, whereas under-ripened fruits result in poor-quality wines with less concentrated character. The difference between night and day temperatures is important, as cool nights result in acid balance in a wine; whereas warm evenings produce flabby, unbalanced wines. Climate is the most influential physical impact on anthocyanin concentration and overall wine quality (Van Leeuwen, Friant, Choné, Tregoat, Koundouras, & Dubourdieu, 2004).

It is well known that the soil grapes are grown on has a profound influence on the resulting wine. The properties of the soil change the actual composition of the grapes (Zerihun, McClymont, Lanyon, Goodwin, & Gibbard, 2014). Generally speaking, wines improve in intensity and quality, with more volatile and phenolic compounds, when cultivated on poor soils (Van Leeuwen & Seguin, 2007; De Santis, Frangipane, Brunori, Cirigliano, & Biasi, 2017). The type of soil also determines drainage, and the amount of...
water stress, both which benefit the quality of wine (Van Leeuwen et al., 2004). Sandy soils and those with higher skeletal content bring out the aromas and phenolic compounds in wine. (De Santis, et al., 2017).

The living microbiome of the soil acts as a reservoir for grapevine associated microbiota, and also has a profound influence on the health, yield and quality of the grapes (Belda, Zarraonaindia, Perisin, Palacios, & Acedo, 2017).

Within a region is there is mesoclimatic variability, with altitude, aspect and slope (Van Leeuwen & Seguin, 2007) affecting the heat units and drainage on a plot. Poorly drained vines result in root rot or simply watered down juice, which result in less intense aromas in the bottle (Van Leeuwen et al., 2004). Which direction a slope is facing can change the mineral character (methanethiol) in a wine, even if all other soil factors are the same. (Rodrigues, Sáenz-Navajas, Franco-Luesma, Valentin, Fernández-Zurbano, Ferreira, De La Fuente Blanco, & Ballester, 2017).

All soils in vineyards are influenced by the interaction of humans with the physical geography. In the case of the dirt and rocks, human intervention as tillage and erosion from farming eventually change the physical landscape. Vineyard management practices also influence the soil and grape microbiota. As stated in Belda et al., human-agronomical practices in vineyards and the cellar reinforce the “interdependence between the anthropogenic and microbiological basis of terroir” (2017, p. 2). *Terroir* is a product of physical and cultural geographies, and the interactions between those elements (Trubeck & Bowen, 2008).

*Cultural Geography*

Human decision making and other cultural geographic factors at the winery have been found to have a direct correlation on the composition of wine. Starting in the vineyard, the producer’s decisions about berry size and crop size strongly influence the grape flavonoids, (anthocyanins, tannins and phenolics,) and grape pH (Zerihun et al., 2014) which determine the aromas, structure and balance of the resulting wine. Once the grapes are in the cellar, fermentation, storage temperature, pH adjustments and aging decisions change the aromatics of wines. (De Santis et al., 2017).

Outside of the winery, other cultural geographical factors influence the wine in our glass. Overton and Murray elaborate on Lefebre’s social construct of place: “place is a social construction, a fabrication, developed by cultural values, histories, attachments and subjectivities” (p. 797). In France, the traditional definition of *terroir* is strongly associated with the cultural roots of a place, most apparent in its gastronomic and cultural practices surrounding wine (Trubeck, 2008; Gyimóthy, 2017). The expectations of the local culture will also determine which grapes are planted, how much technology is used in the winemaking process, and even the aromas and wine texture that are acceptable (Unwin, 2012; Gyimóthy, 2017). These cultural constructions create notions of value, quality and uniqueness that are embedded in the understanding wine consumers have of a place, and even determine the rules of wine production and product. The cultural understanding of a wine producing area is enforced by active storytelling and the iteration of history (Overton & Murray, 2016; Charters, Spielmann, & Babin, 2016).
Our cultural understanding of a place is even influenced by our prejudices, as evidenced by the strong effect of patrimonialization on the perceived quality of a glass of wine (Trubeck, 2008; Vaudour, 2002; Charters, Spielmann, & Babin, 2016).

**Humanistic Geography**

Participants in a culture perceive a place through shared social and cultural geography; yet, each individual brings their own personality, background and experiences to their understanding of a place (Wilkie & Roberson, 2010). When we drink a glass of wine with a friend, the liquid may be physically the same, but our tasting of the wine will be a unique experience to that individual. For example, most people can “smell the terroir” and discriminate between two different locations, but wine experts draw on their knowledge and learned, sophisticated tasting strategies to be able to integrate what they see and smell in the glass to further differentiate (Foroni et al., 2017). The volatile compounds that constitute the aromas of wine are also perceived differently depending on the complexity of an individual’s olfactory system, and the ability to appreciate the aromas that they are able to perceive and recognize (De Santis et al., 2017).

Our emotional and cognitive minds, as well as our noses, influence what we taste in wine. If we know the origin of a wine or even who is serving it to us, we intermingle our feelings with what we taste. For example, if we taste a wine associated with a location or person we relate identify with, or have feelings of pride or belonging for, we perceive greater quality in the wine (Overton & Murray, 2016). Wine “commingles the senses and the intellect” (Gade, 2004, p. 865). What a wine consumer knows about a wine’s origins influences the perceived value, quality and uniqueness of a wine (Overton & Murray, 2016), for good or for bad (Charters, Spielmann, & Babin, 2016). In fact, the consumer’s brand perceptions of a place, including the associated hedonic and semiotic qualities, have more of an influence on their perception of wine quality than the specificity of origin. The more strongly a wine consumer is involved with the product and feels at one with the place, the stronger the influence of the brand on the consumer’s perception of the wine (Charters, Spielmann, & Babin, 2016). If a wine consumer shares a location with the vineyard or producers, or is even ethnically related to the source of the wine, they regard the wine more favourably. This idealization of a place, ethnocentrism and patrimonialization greatly influence on an individual’s taste of wine (Vaudour, 2002; Charters, Spielmann, & Babin, 2016). Conversely, if a wine has ubiquitous origins, the taster experiences the lack of physical and cultural terroir as placelessness (Relph, 1976), relying less on the influences of physical and cultural geography and more on the consumer’s humanistic perceptions of the wine’s brand and their own experiences (Overton & Murray, 2016).

**Conclusions**

The sense of a place where wine is grown can be tasted in a glass (Foroni et al., 2017); but what is it that we actually taste?

Scholars defining terroir agree that the physical elements in a vineyard, such as the soil, climate, microbiota and aspect are reflected in the actual composition of the resulting wine. It is also commonly stated that the vineyard manager and winemaker’s choices
shape the physical landscape and also influence the constituents of the wine. Other cultural landscape factors such as local customs, gastronomic preferences and local values shape the wine; the narratives about the local culture reinforce the wine culture.

From a constructivist viewpoint, tasting wine is also an individual human experience. Our perceptions of terroir, or the sense of the wine’s originating place are shaped by our own background, olfactory abilities, knowledge, intellect, identity, involvement, location and even prejudices. When the humanistic geographical elements missing from the working definition of terroir are added, we understand that terroir is a subjective as well as objective experience.

“In the act of tasting, when a bite of food or a sip of wine moves through the mouth and into the body, culture and nature become one. Universally, eating and drinking are processes of bringing the natural world into the human domain” (Trubeck, 2008). Terroir is our multidimensional sense of a place, and, as wine crosses our lips, goût de terroir is our taste of that sense of place.
Bibliography


