

# Practices of Third Wave Coffee: A Burundian Producer's Perspective

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## ABSTRACT

The relationship between coffee quality and sustainability is typically analysed using symbolic quality attributes, not material quality. This article provides a bottom-up perspective of Burundi's current competitive advantage in the global coffee market: material quality. The research agenda was embedded within the operations of a Burundian coffee washing station and describes critical business practices for producing and selling high material quality coffee. We argue that these business practices represent quality governance mechanisms that are significantly different from the exogenous and fixed criteria of sustainability certifications and labels. Such quality governance mechanisms are an important trading trend to recognize and understand in a producing country such as Burundi that is unable to effectively compete in the certified coffee market because of the small size and irregularity of its supply. Copyright © 2018 John Wiley & Sons, Ltd and ERP Environment

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## Introduction

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**A**CCESS TO THE GLOBAL COFFEE MARKET FOR SMALLHOLDER PRODUCERS IS SECURED ALONG ONE OF TWO ROUTES: AS A LOW COST producer of a bulk commodity or through differentiated product offerings in order to access quality or sustainability-conscious markets (Neilson, 2007). There are different ways of perceiving coffee quality, and it is best defined by three attributes: material, symbolic and in-person service attributes (Daviron and Ponte, 2005). Material quality attributes refer to the quality parameters that are embedded within the coffee fruit and can be measured by using human senses (touch, sight, smell, hearing, taste) or technological devices. These attributes are embedded in the product because they are the outcome of the interaction between the biophysical makeup of the country of origin and the processing techniques used (for example Arabica, Yellow Bourbon varietal, grown at 1800 metres and processed by mechanical depulping). Material quality attributes are also referred to as intrinsic quality attributes. The value of material quality attributes relates primarily to the existence of measurement procedures and devices and the accuracy of these measurements. Thus the ability to measure material quality attributes creates objectivity (Daviron and Ponte, 2005). The symbolic quality attributes of coffee

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are in most cases determined by those living outside of the origin and form the story of where the coffee came from for the purposes of marketing coffee to consumers and, in some instances, for drawing attention to development challenges in a particular origin (i.e. coffee producing nation).<sup>1</sup> Symbolic quality attributes cannot be measured by human senses or technological devices and are determined by reputation. Sustainability labels rely on symbolic quality to create and retain visibility in the coffee market. Symbolic attributes often work together with in-person service attributes. In-person service attributes are mostly disconnected from the material quality attributes of coffee and relate to the atmosphere and feeling that coffee professionals create for coffee consumers in a café ('immaterial production').<sup>2</sup> Differentiation via exemplary material quality is an expedient way of creating trading opportunities for origins that are unable to effectively compete in the mainstream market due to low or inconsistent volumes (Donnet *et al.*, 2007). This is a strategic opportunity, as there is a shortage of exemplary material quality coffee available in the global coffee market (Daviron and Ponte, 2005; Watts, 2013). Whilst there is a significant body of sustainability-oriented research and debate on the development possibilities derived from the symbolic quality attributes of coffee (Bacon, 2005; Blackman and Rivera, 2011; Elder *et al.*, 2014; Giovannucci and Ponte, 2005; Hudson and Hudson, 2003; ITC, 2011b; Lyons, 2005; Ponte, 2004; Reynolds *et al.*, 2007; Vermeulen and Metselaar, 2015), less attention has been paid to how the material quality attributes of coffee are involved in the sustainable coffee discourse (Borrella *et al.*, 2015; Goldstein, 2011; Wilson and Wilson, 2014). 'Cup quality' is the term that coffee professionals and aficionados use to refer to material quality (Steiman, 2013; Sunarharum *et al.*, 2014; Wilson and Wilson, 2014). Whilst implementation of a sustainability certification *may* contribute to material quality improvements, none of the available mainstream sustainability standards are able to certify material quality attributes (Goldstein, 2011; Linton *et al.*, 2004). For an origin such as Burundi it is impossible to ignore the relationship between cup quality and sustainability, as cup quality is Burundi's only competitive advantage in the market. Burundi's agro-ecological features are near ideal for high material quality coffee production. These include growing altitudes of 1500–2200 metres above sea level and moderate tropical conditions with abundant rainfall, the predominance of the Red Bourbon varietal and a long history of high quality processing using the wet method. The agro-ecological endowments of Burundi, together with the recent privatization of coffee production, offer an unprecedented opportunity to exploit a renewable resource within a global market that is demanding exactly what Burundi can produce: high material quality coffee.

Creating demand for what Burundi can offer the market is not an automatic process. Quality is socially constructed (Renard, 1999) and its appreciation is ultimately contingent to specific cultural, political and economic contexts (Ilbery and Kneafsey, 2000; Warner, 2007). Coffee buyers, roasters and cafés utilize the three sets of quality attributes in different ways as means of positioning themselves in the market and securing a customer base (Davids, 2013; Daviron and Ponte, 2005; Giovannucci and Koekoek, 2003; Holland *et al.*, 2015; Lundy *et al.*, 2012; Manzo, 2010; Morris, 2013; Reynolds, 2009; Roseberry, 1996). The variety of ways in which to prepare and consume coffee, together with diverse cultural associations with the drink, has resulted in a highly fragmented market manifested by a plethora of coffee-related drinks, flavoured syrups, cafes, single-serve pod machines and sustainability stickers. Learning how to compete in and negotiate the quality-conscious sector of the global coffee market is an essential skill for producers who cannot compete using volume. However, in order to compete on the basis of material quality, producers need to have a clear idea of the quality practices demanded by buyers who purchase exemplary material quality coffee. Unfortunately, there is a scarcity of accessible information that can serve as a guide to producers on how to make investment decisions to compete with the material quality of their production (Wilson and Wilson, 2014). Unlike the rigid requirements of mainstream sustainability certifications (symbolic quality), there is a high level of flexibility regarding production practices for improving material quality attributes. In this article, we examine the market relevant quality practices of a Burundian coffee producer who uses material quality to secure access to niche markets and, as a result, bypasses the agro-economic challenges that prevents Burundi from effectively competing in the mainstream coffee market.

<sup>1</sup>See also Davids (2013).

<sup>2</sup>Daviron and Ponte (2005) illustrate the differences between these three quality attributes in their case study of the Italian coffee market. Their research clearly shows that 'high quality' coffee in Italy is predominantly defined by symbolic quality (generated through roaster brand names and marketing, not origin) and in-person service quality. Material quality, in the majority of cases, is non-essential to an Italian roaster's success, as the majority of espresso consumption relies on the atmosphere of the café where coffee 'does not get tasted, just ingested' (Daviron and Ponte, 2005, p. 148).

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## Methodology

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This study is based on transdisciplinary research work undertaken for the first author's PhD. The broad, overall, research aim for the PhD project was to learn about sustainability issues within the Burundian coffee sector by inserting the research aims into a coffee supply chain in Burundi. Transdisciplinary research is a methodology that seeks to transcend disciplinary boundaries as well as boundaries between scientific and practical/experimental knowledge in order to solve problems in the real world (Bergmann *et al.*, 2012; Brandt *et al.*, 2013; Hirsch Hadorn *et al.*, 2008; Jahn *et al.*, 2012; Pohl and Hirsch Hadorn, 2007). Transdisciplinarity (TD) is a 'fuzzy and contested field' (Hirsch Hadorn *et al.*, 2008, p. 27) precisely because it is shaped by heterogeneous conceptions of science and allows for the integration of various methods. The approach followed in this study stresses the relational epistemology of TD, that is the non-separability of subject and object in knowledge production (van Breda *et al.*, 2016).<sup>3</sup> In this approach to TD, an individual researcher is both a participating insider (co-producing knowledge with societal actors) and an observing stranger (Swilling, 2014).<sup>4</sup> The first author began working with a Burundian coffee producer,<sup>5</sup> Long Miles Coffee Project (LMCP),<sup>6</sup> in 2013 as part of the larger PhD project and took on the role of farmer relations officer. The primary objective of this role was to discover the everyday challenges that farmers faced and design appropriate farmer support programs that could be funded by LMCP and its buyers. Embedding the research agenda into the everyday operations of LMCP meant that the first author related to individuals working for LMCP as colleagues and co-researchers, not as key informants. Similarly, both coffee farmers and coffee buyers related to the first author as someone who worked with LMCP, not as an external researcher doing research on or for LMCP. The result of this was that everyday experiences at LMCP generated the primary data sources for this study in the form of journal reflections, email exchanges (with buyers and colleagues) and community meetings with farmers. Supplementary learning and data were generated from semi-structured interviews conducted between November 2013 and September 2015 with coffee buyers and other coffee researchers who have working experience and insight into production dynamics in Burundi's coffee sector (Appendix 1). The style of writing in this article mimics the learning experience gained from the TD approach that was followed and thus departs from more traditional formats of academic writing where context and empirical data are often reported separately. In the TD approach followed, knowledge integration is unapologetically perceived through the lens of the research context. Emergent insights from context have guided the selection of theoretical perspectives to be included and connected to, with a focus on seamless integration of practical/experiential knowledge and scientific knowledge in the reporting of the research process. Several of the literature sources in this article are not peer reviewed, owing to the fact that Burundi's coffee sector is not well researched, despite the significant changes that the sector has undergone since its effective privatization in 2009.

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## Coffee Quality as Context

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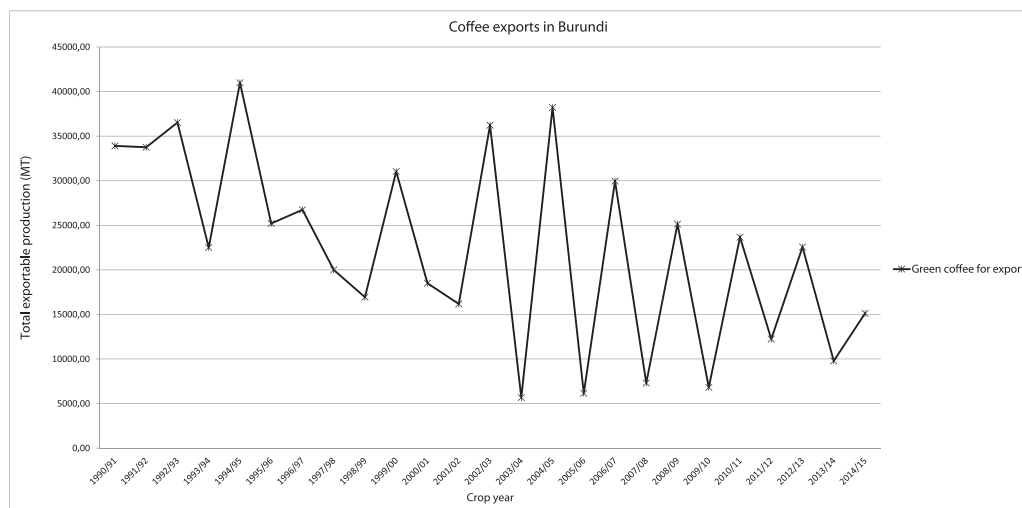
The idea of producing 'quality coffee' emerged as a central research theme at the beginning of 2014 as LMCP expressed that it was a strategic goal for the company to meet current and future demand from buyers. A brief note on Burundi's position in the global coffee market is needed in order to fully appreciate why differentiation by quality would be important to LMCP. Burundi is the smallest origin in East Africa and it is known for its highly irregular supply and low volumes (Figure 1). The continuously declining nature of its supply positions Burundi as virtually inconsequential to global production. In general, Burundian coffee producers face a unique mix of compounding socio-political, economic and institutional challenges that threaten the longevity of the entire coffee sector. These challenges are further complicated by cyclical instability: horrific and destabilizing episodes of ethnic-based violence

<sup>3</sup>Immersion into the research context is thus non-negotiable.

<sup>4</sup>This approach to TD remains contested, as there is disagreement in the literature regarding the necessity and extent of involvement of non-academic actors in the research process (Jahn *et al.*, 2012).

<sup>5</sup>In Burundi, smallholder coffee farmers rely on coffee washing stations (CWSs) to depulp and export their coffee.

<sup>6</sup>[www.longmilescoffeeproject.com](http://www.longmilescoffeeproject.com)



**Figure 1.** Cyclical and declining production Source: ISTEEDU (2009, 2014), World Bank (2011), ICO (2015)

in 1965, 1972 and 1988 and a civil war from 1994 to 2005 (Daley, 2006; Lemarchand, 1970, 1995). As of April 2015, Burundi is experiencing further political turmoil after the decision of President Pierre Nkurunziza to run for a third term in office.

Burundi's low agro-economic performance (and the associated image problems this creates with buyers), its political instability and its low level of economic development<sup>7</sup> make it difficult to reach for voluntary sustainability standards (VSSs). Burundi's production is too small and too unreliable to be of any concern for the majority of sustainable coffee buyers, despite the potential benefit that wide scale adoption of VSS could catalyse. Furthermore, the high risk of buying coffee affected with the potato taste defect (PTD) – an inconsistent flavour defect found only in Burundian, Rwandan and DR Congo coffees – is a major deterrent to many large volume coffee buyers who require absolute dependability for their brands<sup>8</sup> (Gueule *et al.*, 2015). Burundi's (current) strongest competitive advantage in the global market is the relatively high quality of its supply, which has attracted a new wave of specialty coffee<sup>9</sup> buyers since the late 2000s who recognize the unique and characteristic flavour profiles (material quality) of Burundian coffee, despite the risk of PTD. It is these buyers that LMCP seeks to initiate and sustain trading relationships with, and as a result these buyers continue to generate the mainstay of LMCP's business.

### Three Waves of Coffee Quality

At LMCP the first author was introduced to the idea of third wave coffee – a term used to describe a new approach to producing, roasting and selling coffee that is characterized by a near exclusive focus on the material quality of coffee. Coffee aficionados and industry professionals perceive the current heterogeneity of consumption trends in the market according to three distinct, but overlapping, waves (Borrella *et al.*, 2015; Hartman, 2011; Manzo, 2010,

<sup>7</sup>Burundi ranks 180 out of 187 countries on the Human Development Index (UNDP, 2014).

<sup>8</sup>Brewed coffee beans with PTD literally taste like a raw potato. It is common knowledge that traditional commercial buyers would readily reject entire containers of coffee if one incidence of PTD were found in their order. The macro-economic consequences of this can be dire. There is currently no clear solution to eliminating PTD from production (Bouyjou *et al.*, 1999; Jackels *et al.*, 2014; Songer, 2014).

<sup>9</sup>Erna Knutsen originally coined the term 'specialty coffee' in 1978. Knutsen described specialty coffees as coffees 'made from coffee beans grown in special geographic microclimates with unique flavor profiles' (Rhinehart, 2009). However, since the 1970s, the term has not always denoted terroir and is often used as a positional term for marketing purposes. It often implies a beyond minimum standards product, which creates the idea that it should command a premium price (Ilbery and Kneafsey, 2000). Unsurprisingly, there is no universally accepted definition of specialty coffee (ITC, 2011a). Specialty coffee represents 48% volume share and nearly 55% value share of the American coffee market, which is estimated at \$48 billion dollars (SCAA, 2015). Although void of a formally accepted definition, the specialty coffee market often aligns itself with different values and notions of quality compared with the market positioning of 'regular' coffee. Certified coffee, for example, is part of the growth of the specialty coffee market.

<sup>10</sup>Coffee professional Trish Rothgeb is credited as the first person to put into writing this perspective on coffee after experiencing the styles of cafe that were available in Norway in 2002: 'First Wave, Second Wave, Third Wave: this is how I think of contemporary coffee' (Skeie, 2003).

2014; Thurston *et al.*, 2013).<sup>10</sup> LMCP's business model focuses on producing exceptionally high material quality coffee that can command a premium on the international market to deliver higher prices to farmers. LMCP self-identifies and markets itself as a third wave coffee producer. LMCP's production is not certified by a third party sustainability certification or standard. However, it uses the industry standard method of sensory perception and analysis (called cupping) to evaluate and 'certify' the material quality (cup quality) of the coffee it produces (Bhumiratana *et al.*, 2011; Di Donfrancesco *et al.*, 2014; Franca *et al.*, 2005; Goldstein, 2011; Sunarharum *et al.*, 2014). Although there are many styles and variations of cupping that coffee businesses use internally, the de facto sensory framework for cupping used by producers and buyers is the Specialty Coffee Association of America (SCAA) Cupping Protocol (Carvalho *et al.*, 2015; Stewart, 2013).<sup>11</sup> The SCAA standards define specialty coffee as any coffee that scores above 80 (out of 100) on their cupping protocol (SCAA, 2014). The average cupping score for the first LMCP container exported during the 2014 harvest was 86.8 points. LMCP's exclusive focus on material quality sets it apart from all mainstream sustainability standards for coffee production that have a primary focus on symbolic quality. During the many cuppings with third wave roasters during 2014 and 2015, the practices of third wave coffee production and consumption became apparent. Third wave coffee is process oriented and celebrates coffee as a fruit (not a drink), with all processing geared towards enhancing fruit quality rather than creating a standardized taste. Cup score is the final determinant of fruit quality and provides rich data regarding the influence of processing on material quality attributes. As a result, at LMCP, significant investment is directed towards ensuring that the latest cup scores dictate how the technical processing protocols are designed and implemented. LMCPs create micro-lots that can be sold to buyers as means of highlighting and differentiating the material quality attributes of their annual production. Micro-lot coffee is a term used to refer to highly differentiated coffee that is differentiated by a combination of terroir, processing method, size and cup score over and above its differentiation by origin. A micro-lot can be as small as a single 60 kilogram bag; a clear departure from the volume-based approach to selling, where the aim is to sell coffee in container loads. At LMCP micro-lots are created primarily through differentiation by terroir (discovered through cupping) and secondarily by the date on which they are processed during the harvest period. Although this article is not focused on the demand side of the coffee supply chain, brief insight into these dynamics during the first and second waves is necessary to fully understand how LMCP differentiates its offerings in order to be attractive to third wave buyers. Table 1 summarizes the most obvious distinguishing differences of each wave according to each quality attribute with the most significant differences listed first. Table 1 is non-exhaustive, as coffee, the drink, is always connected to a particular style and culture of consumption (that differs between countries as much as it does within countries) to the point that 'coffee is never "just coffee"' (Morris, 2013, p. 883).

First wave coffee roasting and retail is associated with standardization and mass marketing with the aim of mass consumption (Roseberry, 1996).<sup>12</sup> Roasting during the first wave was a large scale and industrial process with little to no effort directed towards enhancing material quality. Second wave coffee is the result of roasters differentiating their products through improved material quality and attention to symbolic quality attributes (Davids, 2013). The opening of Peet's Coffee & Tea store in California in 1966 is said to be the beginning of second wave coffee in America (Bacon, 2013; Borrella *et al.*, 2015; Davids, 2013; Daviron and Ponte, 2005). Notions of coffee quality are the focus of the second wave, with the introduction of a wide array of customizable (size, flavouring, origin, milk) espresso-based drinks that Ponte (2002) has described as the 'latte revolution' because of the predominance of milk (*latte* in Italian) over coffee content. Unlike the first wave, the retail strategy of the second wave revolves around fragmentation and attracts consumers through differentiated, out-of-home consumption experiences in ambient cafes, placing high value on in-person service quality attributes (Ponte, 2002; Roseberry, 1996). Undoubtedly, the pervasive presence of Starbucks is the (ongoing) epitome of the second wave (Daviron and Ponte, 2005; Hartman, 2011; Skeie, 2003). Interestingly, the second wave is known for the paradoxical consumer experience it created. On the one hand, in the second wave coffee connoisseurship begins to resemble that of wine through increased recognition of the importance of unique attributes of origin and its relation to material quality (Howell, 2013;

<sup>11</sup>The SCAA was established in 1982 and is the largest trade association (by members) in the coffee industry.

<sup>12</sup>Borrella *et al.* (2015) argue that the first wave occurred between the 1930s and 1960s; however, as Thurston *et al.* (2013) stress, there is no agreement on the exact time frame of this wave of consumption. What is agreed upon is that low quality coffee beans were used to create instant coffee blends that were packaged and sold in cans to ensure a long shelf life. Freshness of roast was not a priority.

Quality attribute	First Wave	Second Wave (1966-present)	Third Wave (2003-present)
<b>Material quality</b>	Unimportant given that coffee is sold as instant soluble blends	Increased attention paid to material quality; introduction of 'single origin' (unblended) and 'gourmet' coffees  Dark to medium roast preference Large volume purchases of varying cup score Seasonality of coffee determined by roasts/holiday periods not origin harvest period	High material quality fundamental to business models of traders, roasters and cafes  Light to medium roast preference Exclusive micro-lots of high cup score Seasonal coffee according to harvest periods of different origins Roasting, brewing and even logistics all centred on preserving material quality of coffee sourced Symbolic quality generated by drawing attention to material quality of coffee as a tropical fruit that is transformed into a drink Micro-lots enable high levels of traceability (to farm level / processing method) which create symbolic quality
<b>Symbolic quality</b>	Little/no information about origin or bean quality Industrial blends with low levels of differentiation	Symbolic quality is fundamental to business model (the idea of better quality coffee) coupled with high in-person service quality Certified coffee (FairTrade, Organic, Rain Forest Alliance, UTZ) used to create symbolic quality	Symbolic quality generated by drawing attention to material quality of coffee as a tropical fruit that is transformed into a drink Micro-lots enable high levels of traceability (to farm level / processing method) which create symbolic quality Leaders in the field (often direct trade roasters) are more transparent with their farm gate prices 'Relationship coffee' focused on enhancing material quality
<b>In-person service quality</b>	In-home consumption  Coffee is easily accessible at supermarkets and relatively cheap	Franchised chains with a branded ambience (Starbucks, Caffè Nero, Wayne's Coffee, Costa, Gloria Jean's Coffee) in major Western cities, airports, shopping malls Trained baristas necessary to enhance cafe ambience	Independent micro-roasters  Increased professionalism of the barista
		The beginning of consumer education about coffee quality and espresso-based drinks and paying more for 'quality' coffee Espresso based drinks with flavour variability (syrups) Increased presence of automated espresso machines in non-traditional consumption venues (eg. chicken fast-food franchises)	Consumer education about terroir, including Cup of Excellence competition coffees Manual hand-brewing alongside espresso machines

**Table 1.** Three waves of coffee

Raynolds, 2009; Wilson *et al.*, 2012). Yet, at the same time, the competition between major second wave stores also resulted in automation of process to achieve brand recognition (symbolic quality) via standardization: a Starbucks Caramel Macchiato should look and taste like a Starbucks Caramel Macchiato regardless of which store in the world it is purchased from.

Apart from books written for coffee professionals and aficionados, there is scant academic research around the phenomenon of third wave coffee, except for the work of Manzo (2010, 2015), Borrella *et al.* (2015) and Fischer (2017). The transition into third wave coffee should be seen as a move towards the artisanal approach to crafting quality that has long been evident in the wine industry (Folmer, 2014; Howell, 2013).

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## Opportunities and Constraints for Burundi in Coffee's Third Wave

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In 2012 the Cup of Excellence (COE) programme was introduced in Burundi, one of only two African origins to participate in this competition. The COE programme is the hallmark of specialty coffee, representing the highest award that can be given for material quality, as the level of analysis that winning coffees undergo is unrivalled. All coffees are cupped 'blind' without any information given about production (Alliance for Coffee Excellence, 2015). Apart from the COE programme, Burundi has also demonstrated its ability to produce exemplary quality coffees with a unique cup profile to the market, and these have attracted direct trading relationships (Bamber *et al.*, 2014; Elena, 2010; Leeson, 2015; USAID, 2013; Wennersgaard, 2015; World Bank, 2011, 2012). Our ongoing research in the Burundian coffee sector continues to reveal that buyers perceive Burundian coffee as a good cost to performance product that offers unique and desirable terroir offerings at a highly competitive price point compared with coffees with similar cup scores and flavour profiles from other origins. However, there remains considerable concern from buyers regarding the PTD – a direct challenge to sustaining the reputation of the high material quality attributes of Burundian coffee in the market.

What is currently lacking amongst Burundian producers is the business know-how to connect to buyers interested in high material quality coffee. An intentional commitment is required from producers to differentiate their product according to material quality attributes, as market access created by material quality upgrading occurs primarily at farm level. In Burundi, although the correct pre-conditions exist to produce high material quality coffee, the sector has not yet capitalized on these nor has there been significant investment to retain this competitive advantage. We see this as one of the unfortunate influences of the previous governance of the coffee sector. Up until 2009 the state monopolized all activities related to the production and export of coffee, and relied on a strategy of rent seeking off the simple production of bulk, undifferentiated coffee. In the next sections we explain two business practices of third wave coffee production used by LMCP to attract and retain buyers. These are the production of material quality attributes, and the production of symbolic quality attributes at origin to sell alongside material quality attributes. Thereafter, we show how direct trade is an important tool to sustaining third wave coffee production for small volume producers and buyers.

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## The Production of Material Quality: Cupping in Origin

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Although historically exporters and buyers have employed cupping as faultfinding exercise, cupping is now used as a flavour discovery tool to create new sales (Freeman *et al.*, 2012; Goldstein, 2011). At LMCP cupping is an integral part of everyday operations, with extensive resources dedicated to ensuring that coffees are cupped in the best way possible.<sup>13</sup> Initially, it was difficult to discern how the time investment into cupping coffee was directly connected to improving the livelihoods of poor smallholder farmers. However, what became apparent after a year of working with LMCP is the necessity for LMCP to be competent in the operational logic of both ends of its supply chain. In order to capitalize on the investments made at farm level (for example, providing farmers with organic fertilizer), LMCP

<sup>13</sup>For example, paying for various tests to ensure that water quality is optimal to counter the irregular quality of water supply in Burundi.

needed to be able to clearly link these investments to improvements in cup score, otherwise these investments would be of no interest to material quality buyers. Third wave buyers are looking for *terroir*: the taste of place that 'divides the world into ever smaller areas for the purposes of ascribing value to both the uniqueness of the foods produced in that area but also to define its relative scarcity' (Wilson *et al.*, 2012, p. 501). Continuous cupping of the current harvest is the means by which *terroir* is discovered and correlated with farm-level investment. The 'farm to cup' connection (often touted in ethical coffee marketing campaigns) is not a given and needs to be intentionally integrated into the business operations of a producer. In the case of LMCP, all farm-level investments are scrutinized through annual monitoring and evaluation, and any investment that cannot be linked to an improvement of cup score is discontinued.

Cupping protocols (such as the SCAA protocol) provide a language that is mutually intelligible to actors at either end of the supply chain: a process that involves 'the objectification of the subjective' (Freeman *et al.*, 2012, p. 60). Professional cuppers (such as those at LMCP) undergo training in order to ensure that their sensory analysis skills are calibrated with international cuppers. Calibration happens informally (every time a buyer visits from abroad) and formally (during international coffee competitions and trade fairs). LMCP's ability to perform sensory evaluation and analysis of their own production according to international protocols creates a language with which to connect to buyers, especially those who are searching for a particular material quality attribute. What was also evident is that LMCP's ability to confidently cup with potential buyers and existing clients appeared to be the beginning of negotiation of the sales contract. For long-standing clients who regularly travel to Burundi to sample LMCP's production, cupping is the subject around which discussions about improvements in processing occur. Cupping at LMCP is a non-negotiable activity: it ensures the sustainability of the company in much the same way as the arrival of each harvest does.

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## The Production of Symbolic Quality at Origin: Traceability

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One of the challenges that LMCP faces as a small, third wave coffee producer (in one of the world's most unreliable origins) is competing with importers and traders abroad who are able to offer spot coffee that is certified and is fully traceable at a lower price point. 'Spot coffee' refers to coffee that has already landed at a coffee-receiving warehouse (e.g. Antwerp, Hamburg) and can be bought by roasters 'on the spot' by simply ordering off a trader's offer list (ITC, 2011a). Spot coffee comes in various qualities and price points, and generally caters for almost every roaster and retailer. LMCP produces its own symbolic quality in order to compete with cheaper spot coffee offerings. Coffee producers create symbolic quality through traceability (Neilson, 2007). For LMCP this means being able to trace every kilogram of coffee produced to individual farming families. LMCP's ability to do so is only possible because it has created a farm database of agro-economic indicators<sup>14</sup> that is updated each harvest period and is read alongside the information generated by cupping. LMCP also employs a professional photographer to capture high quality images of production and the communities in which it works. Every micro-lot of coffee sold by LMCP is accompanied by a dossier of marketing material (symbolic quality) that is produced in situ. LMCP's marketing material cannot be replicated because the symbolic quality attributes are unique to place and complement *terroir* (material quality). These symbolic quality attributes flow out of the messy processes of building trust with farming communities in an environment that is hostile to private enterprise.

Symbolic quality attributes are the means by which sustainable coffee labels secure market position. However, as Reynolds (2009) shows, there are three categories into which sustainable coffee buyers fall: mission-motivated buyers, who believe in the ethical cause(s) undergirding the certification, quality-motivated buyers, who buy certified coffee insofar as the coffee is of a high quality, and market-motivated buyers, who purchase certified coffee to gain or retain market share. Whilst a significant body of work exists to understand the effects of the purchasing practices of mission- and market-motivated buyers, the purchasing habits of quality-motivated buyers are less understood (Borrella *et al.*, 2015). Similarly, research on the production practices of producers who produce high material quality coffee and their own accompanying symbolic quality attributes is almost non-existent. Third wave buyers

<sup>14</sup>Size of farm, number of trees, level of fertilizer use, household size, yields from previous harvests etc.



look for unique micro-lots of limited availability in order to distinguish their businesses in the market. What was apparent at LMCP is that the production of its *own* symbolic quality is extremely appealing to material quality buyers and far more desirable than the symbolic quality attributes curated by traders and importers.

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### Direct Trade: Visible and Invisible Actors that Facilitate Third Wave Coffee

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LMCP uses direct trade to connect 'coffee farming families with roasters who believe that exceptional coffee includes traceability and sustainability' (Carlson and Carlson, 2014). The concept of direct trade (or direct import) is not new in the coffee industry, and has been in use since the 1950s by various alternative trade organizations (Fridell, 2004; Jaffee, 2007; Reynolds, 2009). Traditionally, the term direct trade was associated with the *idea* of a (literally) shorter supply chain with the removal of intermediaries, who stereotypically generated exploitative rents from coffee that they purchased at low farm gate prices. The idea of a shorter supply chain has previously created significant symbolic quality with product differentiation that was appealing for ethically conscious consumers. However, for a producer, direct trade refers to whether or not the sales contract has been directly negotiated with a buyer (Cycon, 2007; Lundy *et al.*, 2012; Watts, 2013). The ability to directly negotiate the value of the final sales contract is significantly more important to a producer than a shorter supply chain where there is no ability to negotiate the value of the contract. Third wave producers and buyers will typically only shorten the supply chain (in the literal sense) insofar as it enhances material quality (Hartman, 2011; Lundy *et al.*, 2012; Reynolds, 2009). At its simplest, third wave direct trade is the result of regular and direct engagement between producer and buyer, often with the aim of securing a long term trading relationship, to obtain high quality coffee fruit. Third wave roasters distinguish themselves in the market by offering exclusive micro-lots (some of which are as small as one 60 kilogram bag) that are seasonally available according to the various harvest cycles at origin. The work required to sustain this operating principle, multiplied by the number of origins that roasters source from, is a full time job and only a few third wave roasters have the human and financial capital to do this themselves. Likewise, producers such as LMCP who wish to export small quantities of differentiated lots face the same problem in exporting to micro-roasters. Third wave producers and roasters use 'connective businesses' to connect with each other and facilitate the logistics involved in small-volume coffee trading (Borrella *et al.*, 2015). Connective businesses make direct trade relationships between producers and buyers possible but remain 'invisible' in the marketing of the coffee – possibly because of the negative connotations associated with middlemen in the supply chain. Connective businesses are also not simply importers and occupy different roles in the supply chain both at origin and in consuming countries.<sup>15</sup>

LMCP has leveraged its connective businesses ecosystem to help overcome some of the constraints described above. LMCP works with carefully selected partners, chosen by their ability to appreciate the immense time and effort that has been invested in creating material quality attributes in its micro-lot offerings. It is also important to LMCP that its connective businesses appreciate and utilize the symbolic quality attributes it produces. For LMCP, a connective businesses needs to be more than simply a service provider (e.g. simply providing marketing services). LMCP chooses to work with connective businesses that understand Burundi's niche position in the global market and the associated fragility of such a market position by connecting LMCP to clients (usually boutique micro-roasters) who value uniqueness of supply over ubiquity of supply. Connective businesses are often built around business models that are incongruent with the logic of supplier substitutability that has become commonplace in the mainstream sustainable coffee market (Borrella *et al.*, 2015; Daviron and Vagneron, 2011).<sup>16</sup> Connective businesses are critical for an origin such as Burundi that is often substituted out of purchasing plans of roasters because of the threat of buying coffee affected with the PTD or because of the political instability, which affects production. Whilst most connective businesses strive to establish durable and direct relationships with the

<sup>15</sup>An emergent learning in this research is that, ironically, connective businesses are often financed or partly owned by large trading companies. These larger trading companies seek to invest in the emerging third wave market but do not wish to do so by involving the reputation of their own (second wave) companies.

<sup>16</sup>Supplier substitutability is common because origin is less important than evidence of certified production.

aim of improving consistency and quality of supply for the long term (Borrella *et al.*, 2015), at times contextual challenges can put pressure on these relationships despite the best efforts of the producer:

Working with Burundi as an origin this year has been a discouraging experience. When I compare the amount of time and effort it takes to work in Burundi with all the other origins we work in, Burundi is heads and above more challenging. I expect this, to a certain extent, considering the many challenges the coffee sector faces, but my customers are not as understanding... The customers don't have access to all the info about the challenges within Burundi and quite frankly, a lot of them don't have enough time to know and care about everything that's going on. In the end, more and more roasters will simply conclude that Burundi is a 'difficult' place to buy coffee from. The logistics combined with the potato defect has meant that we've lost customers for Burundian coffee each consecutive season (September 2014, email communication with a connective business that handles LMCP's logistics for exporting to Europe).

Regardless of the contextual challenges involved in producing coffee in Burundi, a small third wave coffee producer such as LMCP will always have to rely on connective businesses in order to reach its optimal client base. This is largely due to the fact that most third wave roasters to whom LMCP sells coffee are independent micro-roasters: small to medium sized businesses for which pre-financing the export of coffee from multiple origins is beyond their capabilities.

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## Discussion

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The importance of understanding the production of 'quality coffee' emerged from everyday interactions and experiences generated by being embedded within LMCP. Quality was defined in terms of what is desirable to third wave coffee buyers (high material quality attributes) and what allows LMCP to retain a competitive advantage in the global market (symbolic quality attributes produced in situ). The production of quality for LMCP has created a learning platform around which interaction with buyers occurs. Sustainable business models based on the material quality attributes of coffee require a mutual understanding of quality as value in order to be successful (Lundy *et al.*, 2012). Both buyers and producers need to have a clear idea of the quality standards necessary to sustain their trading relationship, and cupping is the primary tool that a producer will use to communicate with buyers regarding material quality. Although several trained cuppers exist in Burundi (USAID, 2013), far more need to be trained in order to assist producer organizations to describe the material quality attributes of their supply (Bamber *et al.*, 2014). LMCP's ability to cup its own production (in a manner acceptable to international standards) has resulted in increased capacity to negotiate price based on material quality. However, it is not enough for a producer to know how to cup or to have their production cupped by a professional. What is also required is the know-how to cup with production protocols in mind in order to correlate farm-level activities (or the lack thereof) to taste. The production of material quality using cupping is thus a never-ending learning curve for a producer. Terroir is complex and dynamic: contingent on the interaction between the genetic composition of the coffee fruit and environmental conditions (Sunarharum *et al.*, 2014). In order to hold court in the third wave market niche, Burundian producers need to be au fait with describing the terroir of their production. If they are not, they lose the ability to connect with clients who are searching for unique products that Burundi is capable of producing. This is an important market niche for Burundian producers, which should not be overlooked, as third wave coffee roasters often pay significantly higher prices to producers to secure access to high material quality coffees (Borrella *et al.*, 2015; Lundy *et al.*, 2012; Peterson, 2013; Wilson and Wilson, 2014; Wilson *et al.*, 2012).

Alongside the ability to cup, producers also need to invest in creating systems that maintain and present traceability-informed quality characteristics to buyers in order to benefit from product differentiation (Neilson, 2007). For myriad reasons, the right combination of knowledge and infrastructure required to produce differentiated coffee is often difficult to achieve (see Appendix 2). If however these are catalysed, there is potentially much reward to be gained (Borrella *et al.*, 2015; Lundy *et al.*, 2012; Wilson and Wilson, 2014; Wilson *et al.*, 2012). As Daviron and Ponte (2005) have argued, producers who are able to control how their products are marketed globally

– by selling the symbolic attributes of their coffee – are able to capture more value than those who do not. Sustainable coffee research needs to pay more attention to how producers – not roasters – control and create symbolic quality around their products. This remains an area that receives insufficient policy attention and where there is significant trade potential for producers to exploit (Daviron and Ponte, 2005). LMCP's production of symbolic quality attributes, in situ, represents a new perspective within the 'coffee paradox' articulated by Daviron and Ponte (2005, p. 160): 'Farmers and other producer-country actors sell material coffee. In consuming countries, coffee is sold packaged with symbolic and in-person service components, which value is firmly controlled by roasters, retailers and coffee bar owners'.

The production of high material quality through cupping, the accompanying production of symbolic quality in situ and the use of connective businesses to facilitate third wave direct trade are understood as the 'continual coordination of ways of doing and practices of quality' (Holland *et al.*, 2015, p. 3). The ways of doing and practices of quality act as quality governance mechanisms to assist producers to retain economic rents associated with terroir (Neilson, 2007). These quality governance mechanisms are significantly different from the exogenous and fixed criteria of sustainability certifications and labels. In particular, we wish to highlight the role that connective businesses play in third wave coffee quality governance. The primary work of a connective business in the third wave is to locate exceptional quality coffee and to 'certify' this quality through cupping with a producer and correlate it to terroir. For third wave producers looking to sell exclusive, high scoring micro-lots, the role that connective businesses play can be likened to that of a matchmaker. The connective businesses that LMCP works with operate as sensory intermediaries (focusing on material quality) to source coffee and then as logistics partners to move the coffee from Burundi to various warehouses across the world. Occasionally the connective businesses that LMCP works with will also operate as event coordinators to create marketing platforms for LMCP at coffee trade fairs. It is essential for LMCP that the connective businesses it works with remain fruit focused, as this is Burundi's competitive advantage in the market.

Whilst a focus on material quality has allowed LMCP to bypass the agro-economic challenges that buyers usually associate with Burundian coffee, it must be noted that this approach is insufficient to guarantee longevity. In order to ensure long term competitiveness, LMCP will need to increase its investment in new trees and the appropriate inputs needed to stabilize yields.

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## Conclusion

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The categorization of coffee production via three waves of consumption has been overlooked in the literature to date; rather, the focus has been critical inquiry into the impacts of certified coffee. Only a small body of research exists on the economic benefits that producers of high material quality coffee derive from selling to the diffuse network of independent micro-roasters who are willing to pay more for material quality improvements. We have described third wave coffee production from the perspective of a Burundian producer using an embedded research methodology. Third wave coffee producers and buyers occupy a miniscule percentage of trade within the global coffee market and their activities are often completely invisible to the majority of coffee drinkers. However, the production practices around which these supply chains are organized deserve more attention from researchers interested in how different groups of producers carve out and maintain niche positions in the market. Further work is needed to analyse the long term impacts of connective businesses that source according to material quality. This form of research will require immersive, country-specific research, given that – unlike sustainability standards – the production of taste is unique to place. This study has revealed that Burundi is unable to compete with large volume origins and is often considered an unreliable origin in the market because of its irregular supply and the constant challenge of the PTD. Burundi does however have advantageous agro-ecological endowments that have allowed its producers to demonstrate that Burundi is capable of producing coffee with high material quality attributes and unique flavour profiles. The emergent learning discussed in this article has shed light on market-relevant practices and quality governance mechanisms that need to be further developed in Burundi in order for the sector to further enhance its position amongst quality-conscious buyers.

## References

- Alliance for Coffee Excellence. 2015. *What is Cup of Excellence?* <http://www.allianceforcoffeeexcellence.org/en/cup-of-excellence/> [7 September 2015].
- Bacon C. 2005. Confronting the coffee crisis: can Fair Trade, organic, and specialty coffees reduce small-scale farmer vulnerability in Northern Nicaragua? *World Development* 33(3): 497–511.
- Bacon CM. 2013. Quality revolutions, solidarity networks, and sustainability innovations: following Fair Trade coffee from Nicaragua to California. *Journal of Political Ecology* 20(1): 98–115.
- Bamber P, Gereffi G, Guinn A. 2014. *Burundi in the Coffee Global Value Chain: Skills for Private Sector Development*. Duke University, Center on Globalization Governance and Competitiveness: Durham, NC.
- Bergmann M, Jahn T, Knobloch T, et al. 2012. *Methods for transdisciplinary research - a primer for practice*. Campus Verlag: Frankfurt/Main, Germany.
- Bhumiratana N, Adhikari K, Chambers E. 2011. Evolution of sensory aroma attributes from coffee beans to brewed coffee. *LWT – Food Science and Technology* 44(10): 2185–2192.
- Blackman A, Rivera J. 2011. Producer-level benefits of sustainability certification. *Conservation Biology* 25(6): 1176–1185.
- Borrella I, Mataix C, Carrasco-Gallego R. 2015. Smallholder farmers in the specialty coffee industry: opportunities, constraints and the businesses that are making it possible. *IDS Bulletin* 46(3): 29–44.
- Bouyjou B, Decazy B, Fourny G. 1999. Removing the ‘potato taste’ from Burundian Arabica. *Plantations, Recherche, Développement* 6(2): 107–115.
- Brandt P, Ernst A, Gralla F, et al. 2013. A review of transdisciplinary research in sustainability science. *Ecological Economics*. Elsevier B.V. 92: 1–15.
- Carlson B, Carlson K. 2014. Long Miles Coffee Project press release. Bujumbura.
- Carvalho JM, Paiva EL, Vieira LM. 2015. Quality attributes of a high specification product. *British Food Journal* 118(1): 132–149.
- Cycon D. 2007. *Javatrekker: Dispatches from the World of Fair Trade Coffee*. Chelsea Green: White River Junction, VT.
- Daley P. 2006. Ethnicity and political violence in Africa: the challenge to the Burundi state. *Political Geography* 25(6): 657–679.
- Daids K. 2013. The competing languages of coffee: signs, narratives, and symbols of American specialty coffee. In *Coffee: a Comprehensive Guide to the Bean, the Beverage, and the Industry*, Thurston RW, Morris J, Steiman S (eds). Rowman and Littlefield: Lanham, MD; 279–289.
- Daviron B, Ponte S. 2005. *The Coffee Paradox: Global Markets, Commodity Trade and the Elusive Promise of Development*. Zed: London.
- Daviron B, Vagneron I. 2011. From commoditisation to de-commoditisation... and back again: discussing the role of sustainability standards for agricultural products. *Development Policy Review* 29(1): 91–113.
- Di Donfrancesco B, Gutierrez Guzman N, Chambers E. 2014. Comparison of results from cupping and descriptive sensory analysis of Colombian brewed coffee. *Journal of Sensory Studies* 29(4): 301–311.
- Donnet ML, Weatherspoon DD, Hoehn JP. 2007. What adds value in specialty coffee? Managerial implications from hedonic price analysis of Central and South American E-auctions. *International Food and Agribusiness Management Review* 10(3): 1–18.
- Elder SD, Lister J, Dauvergne P. 2014. Big retail and sustainable coffee: a new development studies research agenda. *Progress in Development Studies* 14: 77–90.
- Elena K. 2010. *From the Road: Burundi, June 2010*. Counter Culture Coffee. <https://counterculturecoffee.com/updates/132-road-burundi-june-2010> [4 November 2015].
- Fischer EF. 2017. *Quality and Inequality: Taste, Value, and Power in the Third Wave Coffee Market*. MPIfG Discussion Paper, Cologne.
- Folmer B. 2014. How can science help to create new value in coffee? *Food Research International* 63: 477–482.
- Franca AS, Mendonça JCF, Oliveira SD. 2005. Composition of green and roasted coffees of different cup qualities. *LWT – Food Science and Technology* 38(7): 709–715.
- Freeman J, Freeman C, Duggan T. 2012. *The Blue Bottle Craft of Coffee: Growing, Roasting, and Drinking, with Recipes*. Ten Speed: Berkeley, CA.
- Fridell G. 2004. The fair trade network in historical perspective. *Canadian Journal of Development Studies/Revue canadienne d'études du développement* 25(3): 411–428.
- Giovannucci D, Koekoek J. 2003. *The State of Sustainable Coffee: a Study of Twelve Major Markets*. IISD–ICO–UNCTAD: Cali, Colombia.
- Giovannucci D, Ponte S. 2005. Standards as a new form of social contract? Sustainability initiatives in the coffee industry. *Food Policy* 30: 284–301.
- Goldstein JE. 2011. The ‘coffee doctors’: the language of taste and the rise of Rwanda’s specialty bean value. *Food and Foodways: Explorations in the History and Culture of Human Nourishment* 19(1/2): 135–159.
- Gueule D, Fourny G, Ageron E, et al. 2015. *Pantoea coffeiphila* sp. nov., cause of the ‘potato taste’ of Arabica coffee from the African Great Lakes region. *International Journal of Systematic and Evolutionary Microbiology* 65: 23–29.
- Hartman J. 2011. Starbucks and the third wave. In *Coffee – Philosophy for Everyone: Grounds for Debate*, Parker SF, Austin MW (eds). Wiley-Blackwell: Chichester, UK; 166–183.
- Hirsch Hadorn G, Hoffmann-Riem H, Biber-Klemm S, et al. 2008. *Handbook of Transdisciplinary Research*. Springer Netherlands: Dordrecht, Netherlands.
- Holland E, Kjeldsen C, Kerndrup S. 2015. Coordinating quality practices in Direct Trade coffee. *Journal of Cultural Economy* 0350(December): 1–11.
- Howell G. 2013. Appreciating quality: the route to upward mobility of coffee farmers. In *Coffee: a Comprehensive Guide to the Bean, the Beverage, and the Industry*, Thurston RW, Morris J, Steiman S (eds). Rowman and Littlefield: Lanham, MD; 99–101.
- Hudson I, Hudson M. 2003. Removing the veil?: commodity fetishism, fair trade, and the environment. *Organization and Environment* 16(4): 413–430.
- ICO. 2015. *Total Production by All Exporting Countries*. London.

- Ilbery B, Kneafsey M. 2000. Producer constructions of quality in regional speciality food production: a case study from south west England. *Journal of Rural Studies* 16: 217–230.
- International Trade Centre (ITC). 2011a. *The Coffee Exporter's Guide*, 3rd edition. ITC: Geneva.
- International Trade Centre (ITC). 2011b. *The Impacts of Private Standards on Producers in Developing Countries*, Literature Review Series on the Impacts of Private Standards – Part II. Geneva.
- ISTEEBU. 2009. *Annuaire des statistiques agricoles*. Bujumbura.
- ISTEEBU. 2014. *Annuaire des statistiques agricoles*. Bujumbura.
- Jackels SC, Marshall EE, Omaiye AG, et al. 2014. GCMS investigation of volatile compounds in green coffee affected by potato taste defect and the antestia bug. *Journal of Agricultural and Food Chemistry* 62(42): 10222–10229.
- Jaffee D. 2007. *Brewing Justice: Fair Trade Coffee, Sustainability, and Survival*. University of California Press: Berkeley, CA.
- Jahn T, Bergmann M, Keil F. 2012. Transdisciplinarity: Between mainstreaming and marginalization. *Ecological Economics*, Elsevier B.V. 79: 1–10.
- Leeson M. 2015. *The Inevitable Chaos That Is Burundi Coffee Buying*. <http://collaborativecoffeesource.com/2015/10/20/the-inevitable-chaos-that-is-burundi-coffee-buying/> [20 October 2015].
- Lemarchand R. 1970. *Rwanda and Burundi*. Pall Mall: London.
- Lemarchand R. 1995. *Burundi: Ethnic Conflict and Genocide*, 2nd edition. Woodrow Wilson Center Press–Cambridge University Press: Cambridge.
- Linton A, Liou CC, Shaw KA. 2004. A taste of trade justice: marketing global social responsibility via Fair Trade coffee. *Globalizations* 1(2): 223–246.
- Lundy M, Becc G, Rodriguez F, et al. 2012. Business models for quality coffee. In *Specialty Coffee: Managing Quality*, Oberthür T, Läderach P, Pohlen JA, et al. (eds). International Plan Nutrition Institute: Peachtree Corners, GA; 201–226.
- Lyons J. 2005. Think Seattle, act globally. *Cultural Studies* 19(1): 14–34.
- Manzo J. 2010. Coffee, connoisseurship, and an ethnomethodologically-informed sociology of taste. *Human Studies* 33(2/3): 141–155.
- Manzo J. 2014. Machines, people, and social interaction in ‘third-wave’ coffeehouses. *Journal of Arts and Humanities* 3(8): 1–12.
- Manzo J. 2015. ‘Third-wave’ coffeehouses as venues for sociality: on encounters between employees and customers. *Qualitative Report* 20(6): 746–761.
- Morris J. 2013. Why espresso? Explaining changes in European coffee preferences from a production of culture perspective. *European Review of History: Revue europeenne d'histoire* 20(5): 881–901.
- Neilson J. 2007. Institutions, the governance of quality and on-farm value retention for Indonesian specialty coffee. *Singapore Journal of Tropical Geography* 28(2): 188–204.
- Peterson P. 2013. Strategies for improving coffee quality. In *Coffee: a Comprehensive Guide to the Bean, the Beverage, and the Industry*. Thurston RW, Morris J, Steiman S (eds). Rowman and Littlefield: Lanham, MD; 13–20.
- Pohl C, Hirsch Hadorn G. 2007. Systems, target and transformation knowledge. In *Principles for Designing Transdisciplinary Research. Proposed by the Swiss Academies of Arts and Sciences*. Munich: oekom; 36–40.
- Ponte S. 2002. The ‘Latte Revolution’? Regulation, markets and consumption in the global coffee chain. *World Development* 30(7): 1099–1122.
- Ponte S. 2004. *Standards and Sustainability in the Coffee Sector: a Global Value Chain Approach*. International Institute for Sustainable Development: Winnipeg, Manitoba.
- Raynolds LT. 2009. Mainstreaming Fair Trade coffee: from partnership to traceability. *World Development* 37(6): 1083–1093.
- Raynolds LT, Murray D, Heller A. 2007. Regulating sustainability in the coffee sector: a comparative analysis of third-party environmental and social certification initiatives. *Agriculture and Human Values* 24: 147–163.
- Renard M-C. 1999. The interstices of globalization: the example of fair coffee. *Sociologia Ruralis* 39: 484–500.
- Rhinehart R. 2009. *What Is Specialty Coffee?* <http://scaa.org/?page=RicArtp1> [8 July 2015].
- Roseberry W. 1996. The rise of yuppie coffees and the reimagining of class in the United States. *American Anthropologist* 98(4): 762–775.
- Skeie TR. 2003. Norway and coffee. *Flamekeeper* Spring: 3.
- Songer P. 2014. *Potato Defect*. Presentation at 12th African Fine Coffee Conference & Exhibition, 14 February: Bujumbura.
- Specialty Coffee Association of America (SCAA). 2015. *U.S. Specialty Coffee Facts & Figures*. <http://scaa.org/?page=resources&d=facts-and-figures> [3 December 2015].
- Specialty Coffee Association of America (SCAA). 2014. *SCAA Protocols: Cupping Specialty Coffee*. SCAA: Santa Ana, California.
- Steiman S. 2013. Why does coffee taste that way? In *Coffee: a Comprehensive Guide to the Bean, the Beverage, and the Industry*, Thurston RW, Morris J, Steiman S (eds). Rowman and Littlefield: Lanham, MD; 295–303.
- Stewart K. 2013. Points of taste – alternative cupping forms and standards. *Roast Magazine* September/October: 64–75.
- Sunarharum WB, Williams DJ, Smyth HE. 2014. Complexity of coffee flavor: a compositional and sensory perspective. *Food Research International* 62: 315–325.
- Swilling M. 2014. Rethinking the science–policy interface in South Africa: experiments in knowledge co-production. *Science–Policy Interface in South Africa* 110(5/6): 1–7.
- Thurston RW, Morris J, Steiman S (Eds). 2013. *Coffee: a Comprehensive Guide to the Bean, the Beverage, and the Industry*. Rowman and Littlefield: Lanham, MD.
- UNDP. 2014. *Human Development Report 2014: Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience*. Human Development Report 2014. New York.
- USAID. 2013. *Burundi Agribusiness Project: Final Report*.
- van Breda J, Musango J, Brent A. 2016. Undertaking individual transdisciplinary PhD research for sustainable development. *International Journal of Sustainability in Higher Education* 17(2): 150–166.

- Vermeulen WJV, Metselaar JA. 2015. Improving sustainability in global supply chains with private certification standards: testing an approach for assessing their performance and impact potential. *International Journal of Business and Globalisation* 14(2): 226–250.
- Warner KD. 2007. The quality of sustainability: agroecological partnerships and the geographic branding of California winegrapes. *Journal of Rural Studies* 23: 142–155.
- Watts G. 2013. Direct trade in coffee. In *Coffee: a Comprehensive Guide to the Bean, the Beverage, and the Industry*, Thurston RW, Morris J, Steiman S (eds). Rowman and Littlefield: Lanham, MD; 291–294.
- Wennergård M. 2015. Burundi 2015. *Nordic Approach Blog*. <http://www.nordicapproach.no/blog/burundi2015> [4 November 2015].
- Wilson AP, Wilson NLW. 2014. The economics of quality in the specialty coffee industry: insights from the Cup of Excellence auction programs. *Agricultural Economics* 45: 91–105.
- Wilson BR, Conley JF, Harris TM, et al. 2012. New terrains of taste: spatial analysis of price premiums for single origin coffees in Central America. *Applied Geography* 35(1/2): 499–507.
- World Bank. 2011. *Rapid Strategic Environmental Assessment of Coffee Sector Reform in Burundi*: Washington, DC.
- World Bank. 2012. *Burundi: Diagnostic Trade Integration Study (DTIS) Update*. Washington, DC.

## Appendix 1

Name:	Organisation/ company:	Country	Role:
Valence Ndayisenga	Mfashangufashe Federation (CNAC federation for Kirundo and Muyinga provinces)	Burundi	Agronomist and project coordinator
Ben Carlson	Long Miles Coffee Project	Burundi	Director and co-founder
Epaphras Ndikumana	Community Coffee Collective	Burundi	Agronomist
Dr. Dan Clay	Michigan State University / PEARL project	USA/ Rwanda	Professor / founder and director
Dr. Mario Serracin	Rogers Family Company, USA	USA/ Rwanda	Rwanda director
Charlie Habegger	Blue Bottle Coffee	USA	Green coffee buyer
Nathan Johnston*	Coffee Cartel	Australia	Owner
Adam Marley*	Monastery Coffee	Australia	Roaster and green coffee buyer
Lennart Clerkx	This Side Up Trading	The Netherlands	Director
Stijn van Geel	Solidaridaad	The Netherlands	Programme manager
Menno Simons	Trabocca	The Netherlands	Founder & green coffee buyer
Morten Wenersgaard	Nordic Approach	Norway	Founder & green coffee buyer
Ward de Groot	Independent; co-founder of UTZ Certified	The Netherlands	Consultant
Gert-Jan Kos	Daarnhouwer & Co.	The Netherlands	Green coffee trader
Charlie Denison	Cultivar Coffee	South Africa	Owner
Henk van Rikxoort	UTZ Certified	The Netherlands	Climate change and environmental expert
Luc Havyarimana	Webcor	Burundi	Head agronomist and coordinator of UTZ Certified programme
Fabien	SOGESTAL Mumirwa	Burundi	Washing station manager
Françoise Ngozirazana	SOGESTAL Mumirwa	Burundi	Director General
Melanie Leeson	Collaborative Coffee Source	Norway	East Africa green coffee buyer
Mike Perry*	Klatch Coffee	USA	Founder and CEO
Jean Heylen	32Cup Specialty Coffee Merchants	Belgium	Director
* = informal conversations as part of business			

## Appendix 2

**De :** IKAWAYATANGANYIKA [mailto: \_\_\_\_\_@gmail.com]  
**Envoyé :** dimanche 24 août 2014 19:23  
**À :** 'Lauren Rosenberg'; 'Lauren Rosenberg'  
**Objet :**

Dear Lauren

As I know you are among people whose knows our washingstation. I would like assist and help me to complete the questions from \_\_\_\_\_ e. Just what it can come from your mind that you saw at \_\_\_\_\_ WA.

Below is the message from \_\_\_\_\_ e

Hi \_\_\_\_\_

In order to make an information sheet for our customers who buy your coffee, we will need information about the area, the farmers, and a few photos of farms and washing stations. Can you pull this together and email it to me? Let me know if you have any questions, I have attached a template of the kind of information we need.

Please is the questionnaire that we have to respond. I still need your English.

## Information Request for \_\_\_\_\_ e Suppliers \_\_\_\_\_ e

1. Description and history of the organization/business cultivating each coffee
2. Description of economic or social projects associated with this coffee
3. If possible, please provide us the name of producer(s) associated with the coffee sold to \_\_\_\_\_ e.
4. Name of the farm (s) \_\_\_\_\_ e
5. Name of the region or area where the farm (s) is located
6. Farm size, if there are several producers, the approximate size of each farm per producer
7. Type of certification (s) of the coffee that was sold to \_\_\_\_\_ e - If applicable
8. The approximate altitude of the area where the farm(s) are located
9. Type of soil predominant in the area where coffee is cultivated
10. List of varieties of coffee sold to \_\_\_\_\_ e
11. Type of processing of coffee sold to \_\_\_\_\_ e
12. **PICTURES** of producers, farms, projects, special events etc...

## Demande d'information pour les fournisseurs \_\_\_\_\_ é

1. Description et histoire de l'organisation / entreprise cultiver chaque café
2. Description des projets économiques ou sociaux liés à ce café
3. Si possible, s'il vous plaît nous fournir le nom de producteur (s) associé avec le café vendu à \_\_\_\_\_ e.
4. Nom de la ferme (s) \_\_\_\_\_ e
5. Nom de la région ou de la zone où la ferme (s) se trouve
6. La taille des exploitations, s'il ya plusieurs producteurs, la taille approximative de chaque exploitation par producteur
7. Type de certification (s) du café qui a été vendu à \_\_\_\_\_ e - le cas échéant
8. L'altitude approximative de la zone où la ferme (s) sont situés
9. Type d'prédominante du sol dans la zone où le café est cultivé
10. Liste des cépages du café vendu à \_\_\_\_\_ e
11. Type de transformation du café vendu à \_\_\_\_\_ e
12. **PHOTOS** des producteurs, des exploitations, des projets, des événements spéciaux, etc