

The Carloway Mill Harris Tweed: Tradition-Based Innovation for a Sustainable Future

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Abstract Textile manufacturing, and within it Harris Tweed production, is as deeply ensconced into Scottish heritage as champagne is to French culture. Today, there are three Mills in Scotland that produce Harris Tweed (twill) fabric, which is then marketed worldwide for production of luxury clothing. The Harris Tweed industry, initially based exclusively on hand-made processes (dyeing, spinning, and weaving) was transformed in the mid-19th century into a more standardized process, still hand-crafted, and as impeccable as machine-made production methods. This led to the booming of demand for Harris Tweed, which essentially made that industry the base of the Outer Hebrides of Scotland's economy through the 1970s. The decline of European textile industries that followed (Harris Tweed included) and the economic depression that ensued only proves how inextricably linked the local Scottish economy is to this unique type of craftsmanship. The Carloway Mill, one of the three remaining Mills, is under new leadership since 2005. The last ten years have proven critical for the Mill. Harris Tweed survived primarily because of its distinct traits and quality but also "because it is protected by an Act of Parliament limiting the use of the Orb trademark to hand woven tweeds made in the Outer Hebrides of Scotland." In addition to governmental intervention, the new leadership took a bold approach to solving the issue of declining demand for the luxurious fabric by catalyzing an internal product development process. In other words, an industry that has relied on the same type of fabric for the last two hundred years has been revitalized from within and with the launch of the new lighter version of Harris Tweed invented exclusively at Carloway Mill. It is at that Mill that the art of weaving Harris Tweed, the culture of the local craftsmen, and the innovation that comes with a 21st century perspective on textile functionality will all contribute to the legacy of the evolving local craftsmanship. The impact of this innovative product on the local community and its economy is of tremendous significance as it also marks a transformative period in which sustainability is what drives the locals' survival: they either introduce more positive changes into a legacy

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process of textile production or they suffer the financial and social repercussions that stagnation entails.

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Luxury

1 Introduction

The Harris Tweed industry, for most considered a remnant of the past, presents an opportunity to study its elements anew and reframe them both within the context of luxury and that of sustainability. This 700 year-old manufacturing sector continues to adjust and evolve while preserving its traditional elements. These link it to its land of origin, its people, and to the human spirit. The industry's structure is germane to the discussion of slow fashion and, beyond that, slow culture—the only way to a sustainable future.

On the contrary, textile innovation today is primarily linked to synthetic materials, woven to produce high-performance fabrics that may even consist of microchips to gather data from the wearer's body. Moving at a galloping pace, this fascinating, technology-based, large-scale industrial sector of high pollutants caters to the individual at the expense of the collective.

At the Carloway Mill, one of the three remaining “homes” where Harris Tweed is handcrafted, we will study the strengths, weaknesses, threats and opportunities that have pushed a small enterprise to experiment with tradition in order to ensure a sustainable future for itself and its people. Specifically, we will try to understand how the Harris Tweed industry arrived to where it is today and what it means for the Carloway Mill to have introduced a “new” type of fabric that addresses the modern wearer's concerns about climate change, environmental pollution, and zero-waste fashion design.

In addition to various scholarly articles and books that were consulted, business intelligence was gathered by commercial and popular press perusal, including commercial brands' websites. *The New Yorker* and *Vogue* archives offered testimony to the market's swings and consumers' tastes through the decades. Both databases cover the same time period, from the end of the nineteenth century to today. Two types of material were isolated and examined: paid advertisements (for size, placement, word count, image choice, and creative approach) and editorials in which Harris Tweed is featured (for frequency and constancy). Finally, this business case would not have been written without a series of interviews that I conducted over a period of almost six months, from October 2016 through March 2017, with Derek Reid, former CEO of the Carloway Mill, Alan Bain, Director, Annie Macdonald, former Head of Operations and current CEO of Carloway, and “Biddy” (Murdo McLeod), Head Hand-warper and Creative Director at Carloway. I am most grateful to all four for their time, patience, and astute insights about their own processes and about the textile industry as a whole on a global scale.

The ensuing discussion will serve as the point of departure for several marketing projects, the difficulty of which rests on the fact that we cannot afford not to produce luxury products. They present the only viable solution to applied sustainability. This depends on enterprises that place emphasis on: remaining harmless as opposed to reversing or counterbalancing their harmful operations; empowering people as opposed to forcefully intervening with their future; and trying to learn from nature as opposed to trying to tame her.

2 Place: The Outer Hebrides

The long and narrow body of water, known as the Minch, that separates the Outer Hebrides from the Scottish mainland is a portal to a place where time stands still. About 200,000 visitors choose to cross that invisible divide every year, mostly on vacation, by air and predominantly by ferry (Snedden Economics 2007). On the other side, the many islands of the Outer Hebrides await them. They form an archipelago of five main islands: Lewis and Harris, North Uist, Benbecula, South Uist, and Barra and several uninhabited ones, all of them perforated by large bodies of water, known as loch (Murray 1973). The landscape appears harsh and wind beaten. The hilly land rises in unexpected contortions as if resisting the brutal winds only to descend in fertile low-lying dunes. The exposed rock of the islands hovers over a sandy coastline. The landscape appears rugged and unpredictable, much like the wind. Yet the temperatures remain temperate throughout the year, greatly benefiting from the North Atlantic Current (Haswell-Smith 2004). Both land and people seem caught in between the sweetness of the climate and the violence of the winds. The area's proximity to the North Pole ensures long days during the summer, which is usually dry and lasts from May to August. Against the nakedness of the land, the Callanish Stones on the island of Lewis have been standing in a cruciform pattern with an interior stone circle since about 2900 BC, also known as the Bronze Age, and greet the visitors without other references to time. In the Outer Hebrides time does not exist. Only land formations of rock, sand, and grassy plains (*machair*), the water, and the wind exist. The archipelago caught in a permanent state of turbulence does not know time.

The residents, who had flocked to the islands in older times to escape extreme circumstances, have been steadily abandoning their land, seeking opportunities and tamer forms of life in mainland Scotland or elsewhere in the United Kingdom (Thompson 1969). Those who remain are the offspring of four main clans, (MacLeods, MacDonalds, MacKenzies, and MacNeils) and speak both Scottish Gaelic and modern English but prefer the former (Buxton 1995). Fishing which used to be the main form of employment has been steadily declining as an industry. Crofting, a local form of land tenure for small-scale food production, is still prevalent and provides both for humans and their livestock for which poorer quality *machairs* are communally owned and used for grazing (Byron and Hutson 1999). The textile industry is the only other option, aside from tourism, that can provide

steady employment to the Outer Hebrides' people. They have been producing woolen cloth for many centuries and continue their craft today.

3 Heritage: The Cloth Industry

Weaving is one of the most ancient industries. While cloth does not survive easily, archaeologists have identified cloth that dates to the Bronze Age, if not earlier. Such is the case in Scotland as well where remnants of ancient cloth have been unearthed along with combs. These combs were used for weaving in the manufacture of fabrics and have occasionally been found with spinning whorls that aid in spinning the wool into yarn. According to *Senchus Mor*, a 1000 year old manuscript that historian Francis Thompson consulted for his account of the Harris Tweed industry, cloth-making has involved spindles, spinning-stick, wool-bag, weaver's reed, distaff-spool stick, flyers, needles, beams, swords or weaving sticks and *glaisin* dye. The ancient manuscript refers to cloth making as a highly skilled craft that requires artistry (Thompson 1969).

Mountain sheep, the Scottish Blackface and the Long-faced or White-faced sheep, known today as the Cheviot sheep, were originally introduced into Scotland around 1372 (Thompson 1969). The two breeds have provided wool for Scottish cloth through the centuries. The Blackface fleece tends to be coarser and longer with many more impurities while the Cheviot fleece is shorter, finer, and, as a result, cleaner. Wool production begins with washing in scouring water and soaps several times over and until any fats and impurities are completely removed. Rinsed with cool water the fleece is laid out on grass and out of direct sunlight to dry. Dyeing is done while the wool is still in a mass and before carding.

Dyeing is a craft as ancient as weaving and requires both scientific knowledge and artistry. In Scotland, and particularly the Outer Hebrides, dyes originate from local flora and natural ingredients that preserve the coloration of the surrounding landscape. The deep knowledge about indigenous plants' properties has been passed down from generation to generation, usually from mother to daughter who contribute in the manufacturing of the tweed woolen cloth, or as it was known in Scotland, *clo mor* (Thompson 1969). For example, blue can be made from elderberry mixed with alum; yellow from buckthorn or bracken root; red from stone parmelia, a flat plant with a black underside; black or grey from water-flag root or yellow flag iris; dark green from iris leaf, broom, and whin bark; magenta from dandelion; orange from barberry root or peat soot; purple from cudbear; black from the boiling of the briar bark, oak or alder. This list is not exhaustive and is indicative of how much of the character of the tweed depends on the land, the weather conditions, and the particularities of each island's microenvironment.

Carding, namely a careful scarping between two flat hard boards covered with strong, wired teeth embedded in leather, follows the dyeing process. This is a major difference of modern day industrial production of yarn where dyeing occurs only after the yarn has been created. Carding loosens up the wool and softens it,

ultimately renders it thinner and thinner so that the spinning can begin. With spinning the wool turns into yarn. Whorl, spindle and wheel are instruments with which we are well acquainted even today as they survived well in the nineteenth century. Once the yarn has been formed it is arranged in the proper order by color (warping) so that it produces the desired pattern in the web. Warping was traditionally done by women (Thompson 1969). Weaving tweed was an arduous and complex process. It involved using both feet and hands and required focus and dexterity. Depending on the operator's efficiency, the quality and quantity of the yarn, the complexity of the pattern of the cloth, the production of a web of tweed may have required more than a week of continuous effort. Worn by unassuming locals (fishermen and shepherds) tweed production was intricate and expensive. The weave attained at the end of that week was not even ready for use. It required *waulking*, a combination of five sequential stages, thickening of the cloth, cleansing, folding, giving tension to the cloth, and the rite of consecration of the cloth. The women who conducted these processes were singing special songs to mark the ceremonial character of their work. Several accounts of traditional waulking have been recorded by prominent visitors of the Hebrides such as Dr. Samuel Johnson or Sir Walter Scott and they survive in their biographies (Thompson 1969). The quality of the final product was marked as exceptional. Ironically, while the diet of the Hebrideans was relatively limited, they were all fairly well dressed.

In the beginning of the nineteenth century several aspects of the weaving process evolved to a better type of warping which continued to require nevertheless, as it does today, an advanced set of motor skills from the operator (Anderson 2013). The evolution allowed for the home industry to grow and find new markets on the mainland (Scotland and England). As the demand for tweed grew, more women were absorbed in the industry while their husbands had turned to the quite lucrative industry of herring fishing. Tweed producers were supported by non-profit groups such as the Scottish Home Industries Association and encouraged to establish sales contacts mostly through visitors who were moving regularly between the Mainland and the Isles. In 1849, Harriet, Duchess of Sutherland established an Industrial Society which later became Sutherland Home Industries. In 1889, the Scottish Home Industries Association was established under the patronage of Princess Louise (Thompson 1969). It is no coincidence that during that time, the Arts and Crafts Movement was gaining momentum as a reaction to the sweeping changes that came with the industrial revolution earlier in the same century. People were already regretting the dominance of the machine as a means of production, the uncontrollable growth of cities, and the alienation from land and home, especially pronounced amongst industry workers. The march toward overproduction and overconsumption had already begun. The tweed industry seemed like a haven of sustainable processes that respected both environment and man. In addition, they were exemplary of local traditional modes of making and maintained a unique artistic character that echoed the flora and fauna of the Outer Hebrides (Moisley 1961).

The end of the nineteenth century brought a major change in the tweed industry. Carding that had been done by hand, rendering production slow and extremely tiring, changed to a machine-aided process. Several producers began sending their

cloth to the mainland to be carded at mills there. This however was not ideal as it took production away from its origin and made it confusing for customers to understand whether their favorite woolen cloth was indeed manufactured by hand or by machine (Anderson 2000). As a response, the first carding mill was erected in Harris in 1900 by Sir Samule E. Scott, the proprietor of the North Harris estate (Thompson 1969). Three years later, a new mill was erected in Stornoway. In 1904, Diricleit in Harris, the third mill, was built. In spite of the expediency of production facilitated by the mills, islanders were not able to meet the growing demand for tweed cloth, a fabric favored by royalty and other upper class citizens. The demand for tweed had become so great that in 1906 Henry Lyons of London was convicted of fraud, namely “selling a Harris Tweed suit when in fact the cloth was mill-spun and power-loomed in Huddersfield” (Thompson 1969). This was an issue of economics and not merely pride (Herman 1957). In 1911, a tweed cloth made by machine-spun yarn made profit of about £3 per web whereas authentic tweed (hand-made) made just a fraction of that profit because of the increased cost of production. Discussions led to the organization of the Outer Hebrides producers and marketers of authentic Harris Tweed. This first association had a main priority: the application of standardization marks (what is known today as certification trade marks) of the only cloth legitimately described and sold as Harris Tweed.

4 Authenticity: The Harris Tweed Authority

“Woven with patience, love and care” Harris Tweed Authority

What is known today as the Harris Tweed Authority (HTA) was founded on December 9, 1909 as the Harris Tweed Association. Its mission was defined as:

...the protection of the interests of manufacturers and merchants of and dealers in tweed made in the Islands of Harris, Lewis and Uist in Scotland, and to promote the manufacture and sale of such tweed. To protect the trade against offences under the Merchandise Marks Acts and otherwise to prevent the use of false trade marks and descriptions in respect of tweed made in imitation thereof. (Thompson 1969)

Additionally, the company would have complete control over the trademark of Harris Tweed, market the merchandise in the media, and legally defend manufacturers and merchants against any entity imitating the Harris Tweed product.

As the industry grew so did the Association that came to be known the Association for the Protection of the Harris Tweed Industry. It promoted and protected the mark of Harris Tweed so as for it to mean “hand spun, hand woven, dyed and finished by hand on the Islands of Lewis, Harris, Uist, Barra and their several purtenances and all known as the Outer Hebrides” (Thompson 1969). The Association began stamping tweed with its trademark in 1911. The production capacity of each island varied but detailed records were kept under the Association’s watch.

In the 1930s, after the industry had grown considerably, the Association failed to perform the duties promised to its members, especially in terms of promotion. Additional disagreements rose between the Association and its members because yarn was widely mill spun as opposed to hand spun, a fact that the Association resisted to recognize. The complexity of the issue led to market confusion, a depression that was felt by all and a substantial price drop for the hand-woven tweed. It took three additional years to resolve the disagreement which concluded with the inclusion of “hand-woven” in the definition of the Harris Tweed name and the introduction of the new term “at their own homes” which would ensure that the hand-weaving would remain a cottage industry. The recovery took full effect in two years and by 1935 the islands had six mills (for spinning, carding, dyeing, and finishing) four in Stornoway and two in Harris. While the Second World War slowed things down, the industry recovered in the 1950s and the Association continued the promotion of the product in foreign markets as well, the US included. It is recorded that in the 1960s some 7.6 million yards of Harris Tweed were produced and stamped as opposed to the few hundreds at the beginning of the century.

It was the early 1990s when another major transformation of the industry took place based mainly on the increase of orders from luxury houses that were discovering the traditional fabric and making it fashionable again in new and unexpected ways. Production adjusted to a new double width look which actually required retraining the weavers. This was a great opportunity for the Harris Tweed Association to impose stricter quality standards. By an Act of Parliament in 1993, the Harris Tweed Authority took over from the Harris Tweed Association and the brand of Harris Tweed became statutory forever linked to the Hebrides Islands. “The mark of the Orb, pressed onto every length of cloth and seen on the traditional label affixed to finished items, guarantees the highest quality tweed, dyed, spun and hand-woven by islanders of the Outer Hebrides of Scotland in their homes to the laws outlined in the Harris Tweed Act of Parliament” (<https://www.harristweed.org/about-us/guardians-of-the-orb/>).

The Harris Tweed Authority oversees the production that takes place in the three remaining mills, Harris Tweed Hebrides, Kenneth MacKenzie, and Carloway Mill as well as the seventeen independent producers of Harris Tweed who also produce cloth for the mills.

5 Enterprise: The Carloway Mill and Its Product

Craftsmanship for today and tomorrow’s world

One of the three surviving mills, the Carloway Mill was revived with its purchase by three investors, Derek Reid, Alan Bain, and Roddy MacAskill in 2003 (Figs. 1 and 2). While all three are Scots, MacAskill had been a local Harris businessman and Bain a New York lawyer. Having had a long and successful career as a CEO of a major company in the consumer goods industry, Reid assumed the role of overseeing manager at Carloway. It was not the mill’s financial health that

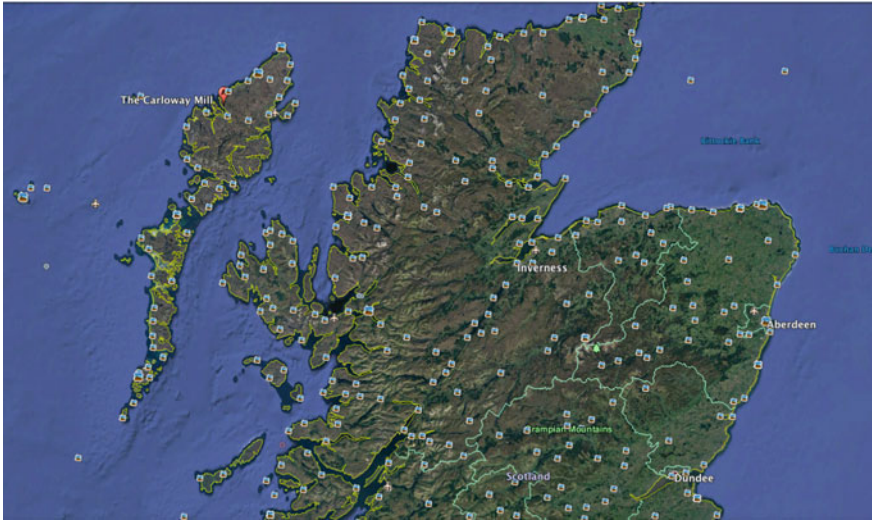


Fig. 1 The outer Hebrides. Carloway. *Courtesy Google Maps*



Fig. 2 The Carloway Mill. Street View. *Courtesy Google Maps*

drove the three investors to its acquisition but rather the iconic identity of Harris Tweed and its place in the local culture. Reid had become acquainted with the product and culture of the Western Isles when he served as the CEO of The Scottish Tourist Board between 1994 and 1996. In the years that followed, the industry experienced a decline that propelled the investors to give it a financial boost and substantial personal time and effort.

The first few years at Carloway were focused on reviving the mill with the purchase of new plant equipment, overseeing its installation, and ensuring its compliance with all the standards of the Harris Tweed Authority (Figs. 3, 4, 5 and 6).

From 2003 to 2016 the company grew from 5 to 25 employees while its turnover increased from merely insignificant to £1.5 million. In 2016, Reid assumed the role of CEO and appointed a new manager of operations Annie Macdonald. As the CEO, Reid articulated the following vision for the company:

We believe that respect for traditional Scottish traditions, perseverance against industry threats, and an open mind will lead us to being a luxury brand within the brand of Harris Tweed.

We believe Carloway Harris Tweed to be synonymous with innovation, superior quality, and adherence to traditional methods of tweed production.

We believe in treating our staff as family and in empowering our weavers in their journey of preserving their craft and transmitting it to the next generation while catalyzing financial prosperity for our region.



Fig. 3 Blended Wool. The Carloway Mill. *Courtesy* Annie Macdonald



Fig. 4 Carding at the Carloway Mill. *Courtesy Annie Macdonald*



Fig. 5 Preparing to be spun at the Carloway Mill. *Courtesy Annie Macdonald*



Fig. 6 Making Tweed at the Carloway Mill. *Courtesy Annie Macdonald*

We believe in the human element of our work and find pride in our product.

Carloway is the smallest of the three mills and an independent wholesale producer of Harris Tweed. Exemplary in its old-style production of the cloth, Carloway owns traditional craft equipment and employs a crew of local home-based weavers for the production of a distinctively different material that befits bespoke orders (Kitchener 1994). The mill weavers are self-employed. When they produce cloth for the mill they are supplied with beamed warps and yarn as well as instructions on the particular pattern to be woven. When the tweed is ready, the mill employee collects it to finish it and stamp it before it is shipped to the customer. According to Macdonald (who is currently Carloway's CEO after a Management Buyout was completed in February 2017) the minimum order is usually 20 m single width (75 cm wide and woven on a Hattersley loom) or 50 m double width (150 cm and woven on a Bonas-Griffith rapier loom). The delivery time depends on the size of the order and can take anywhere between 6 and 12 weeks since each product is made from scratch. Single width has a faster production cycle, 2–3 weeks shorter. Single or double width orders may be delayed if the colors are not readily available. The making of Harris Tweed is based on dyed fleece and not dyed yarn. Therefore, bespoke colors require the mixing of fleece in the basic colors at varied combinations of carefully weighed wool in exact proportions as defined by the recipe for each color (Fig. 7). Dyeing the fleece is a long process in itself and may therefore add to the overall turnaround time for the particular order (Lawson 2011).



Fig. 7 Dalmore Herringbone Tweed. *Courtesy* Annie Macdonald, The Carloway Mill

The employees have long experience in the industry having previously worked at Shawbost and Stornoway (as tweed producers). One amongst them, “Biddy” (Murdo McLeod) is one of the three remaining hand-warppers in the industry. Very knowledgeable and talented in hand-warping, “Biddy” is in charge of creative decisions as hand warping is the process that determines the transferability of the individual pattern that has been designed for the particular piece of cloth. Already in his seventies, “Biddy” is eager to transmit his knowledge of “know-how” to a younger generation of weavers, which has proven difficult because hand-warping resembles music skills. One may know how to play the piano but that does not mean that she is a good pianist. At the moment, another one of the Carloway employees is able to divide the workload of hand warping with “Biddy.” Four hands are better than two.

Additionally, the management took care to increase the electricity capacity of the mill so that all carding machines can be operative. The production process remains consistent with what has been discussed in the historic account of the industry. It consists of washing of the virgin wool, dyeing, blending, carding, spinning and beaming. The beams with the yarn are transported to the homes of the weavers. The average time for the yarn to be converted to tweed is 5 days. In total, Carloway can produce up to 50 tweeds or about 4000 m of tweed per week.

When the mill picks up the tweed from the weavers, payment to them must be made (as they are independent contractors). At the mill, the cloth is washed, darned

(for quality control) and stamped by the Harris Tweed Authority (HTA) with the official “Orb” that classifies it as genuine. Finally, it is sent to the customer. The process is intense, time consuming, and cash flow heavy. The mill pays for the wool purchased, the dyes, the overheads, the weavers’ and administrative personnel’s wages, and the HTA. It takes 30 days to recover the cash from the customer. In other words, customers are used to paying only after they receive their tweed, a practice that seems impertinent for a heritage-driven industry.

While Harris Tweed production has been perfected in terms of craftsmanship, the cloth itself still maintains its rough character, which is, generally speaking, more appropriate for men’s fashion. This was particularly true in the industry’s early days when the heaviness of the fabric combined with its muted colors seemed well matched with men’s clothing. Slightly more vibrant colors appealing to women were introduced after the Second World War and developed through the 1950s. Today, coloration is not an issue as all mills can be very creative in the ways they mix the colored fleece to achieve the desired hue. However, fabric coarseness and heaviness is an issue in the sense that it limits the uses of tweed within the fashion industry. Appropriate for outerwear and even shoes, as proven by Nike’s launch of the “AirRoyal Harris Tweed” model (Fig. 8), tweed has had limited applications and no change in the last 30 years.

This lack of innovation motivated Carloway’s management to delve deeper into the area of product development. Their work revolved around the desirability of the product and resulted in the softest and lightest tweed produced until now. They researched various combinations of types of fleece and concluded in one from Australian sheep. The new product presents an opportunity to enter women’s fashion more aggressively and at the same time differentiates Carloway as an enterprise from the other two mills. Additionally, as Reid remarked during one of our conversations, his team took into account that climate change is progressing rapidly, rendering our climates warmer and the weather patterns unpredictable.

Fig. 8 Nike AirRoyal.
Website Screenshot High
Snobiety ([http://www.
highsnobiety.com/](http://www.highsnobiety.com/))



Such is the environmental reality of our time that it seems absolutely necessary to rethink Harris Tweed for a new world and a customer with different expectations.

6 Threats from Industry Changes

The cyclical nature of the fashion industry is a well-known factor that greatly impacts the bottom line of even the most robust companies. Based on the most refined intelligence on future trends and customer preferences, the swings of the market can be anticipated only up to a certain degree. Harris Tweed has been a classic staple in the repertory of dressmakers but its popularity has had its ebbs and flows. To observe this phenomenon archival material was consulted in two American publications: *The New Yorker* and *VOGUE*. The former is an American culture magazine in which the HTA placed advertisements for the promotion of the tweed with the American public. The latter is an international fashion magazine that dictates proper fashion and sets trends in large scale. Founded in the US in 1892, the American publication is the earliest and most venerated voice in fashion circles. The British version was launched in 1916 pioneering the fashion magazine's international expansion. Therefore, we consider these to be great primary sources of information in terms of editorial preferences and perceived public influence through paid advertisements. It would be a mistake not to account for personal taste even though this is largely shaped by the trade publications in which journalists inform and instruct the public what to wear. Personal taste relates to a person's: A. *Subjective* experience and aspiration to resemble a personal fashion ideal; B. *Objective* understanding of the functional characteristics of the garment (i.e. is it suitable for sports? Or is it made for a leisurely walk in winter? etc.); and C. *Symbolic* value vis à vis the segment of society in which the person belongs (Berthon et al. 2009).

The aforementioned archives confirmed that Harris Tweed was popular and regularly advertised between 1893 and 1900 but hardly mentioned between 1900 and 1909. This coincides with the reorganization of the industry and the founding of the Harris Tweed Association. The brief drop of interest was replaced by mentions of and print advertisements about the qualities of Harris Tweed in the following three decades. Interest peaked between 1950 and 1959 only to steadily drop until 1970. During the 1970s the print ads became smaller but the number of editorials on Harris Tweed soared. A dramatic drop followed in the 1980s and 1990s. Awareness about the industry increased in the early 2000s, when Chanel openly publicized its relationship with the Scottish mills. There could not have been a more dramatic decline in interest however than what the industry has experienced from about 2010 forward. This last decade is characterized by lack of vigilance as far as the HTA is concerned, a catastrophic reduction of wholesale prices, and a spike in development and production of new synthetic performance fabrics.

In the current highly competitive environment of fast fashion, suppliers have lost their power. Globalization has allowed many new players to enter the market and has

unevenly shifted all the bargaining power to buyers (brand manufacturers) who have direct access to customers. Wholesalers are doomed to fail. This is the present state of the market for tweed. Still competing in wholesale, the three remaining tweed mills are mainly competing against new types of textiles, usually machine made and not necessarily natural, that represent just a small fraction of the final garment's cost. In a perpetual cycle, the fashion engine is fed cheap (and often harmful to the planet) raw material to churn out inexpensive and expendable items that have a life cycle of about four weeks. The shorter these cycles become, the greater consumers' appetite for more new items of low quality and short closet life span. Additionally, cheap garments are overproduced and end up in landfills making the issue of fashion waste one of the most threatening of our times (Black 2010).

Street style and athleisure (=athletic + leisure) are two new fashion categories that stem from a strong cultural shift that rejects twentieth century traditional clothing in favor of more relaxed, youthful and active lifestyles. The former is anchored in grassroots urban wear and was initially spotted within the hip hop and skaters' communities but has in the last twenty years gained substantial following. Urban fashion built of mainly heavy cotton items in the form of sweatpants, hoodies, t-shirts etc. has by now become mainstream, greatly impacting consumers' stylistic choices. In winter 2017, one of the most prominent urban fashion labels, *Supreme*, collaborated with luxury fashion house *Louis Vuitton* for the launch of a special collection (Chen 2017). In other words, street style has penetrated fashion tastes in great depth.

Additionally, the emphasis on athletic lifestyles, performance wear, and new forms of exercising has created "athleisure," a new category of clothing based on the concept of comfort, durability, and flexibility. The push generated by the growth of the fitness industry in the US and abroad, the intensification of international travel across time zones, and the slow break down of the formerly austere and constricting corporate structure has fortified consumers' preference for athleisure clothing. Casual Fridays, that allowed employees to skip their conservative tailored suit and tie or skirt suit for a day, have morphed into the relaxed culture of start-ups. The late Steve Jobs, and former *Apple* CEO, made the casual turtleneck paired with jeans his "corporate" uniform. Mark Zuckerberg, CEO of *Facebook*, has made the headlines more than once for showing up at executive meetings in his hoodie. Greatly influenced by the tech world, employees in a variety of companies favor a type of simple attire that resembles the guise of the next great urban explorer who telecommutes and squeezes in a work out or two during the day. Athleisure is a concept based on new types of synthetic fabrics that are lightweight, allow moisture to evaporate quickly, keep the body warm in glacial temperatures. The selling point is a combination of lifestyle paired with fabric functionality and innovative cuts for performance and movement flexibility. Heavy wools have not been part of this category (Forbes 6 October 2016).

Companies that manufacture urban fashion and athleisure contribute to the production of great numbers of garments perpetuating the evils of "fast fashion," perhaps not as pronounced in urban wear as in athleisure. In the latter category, brands establish business models that lock the consumer in and pressure them to buy several

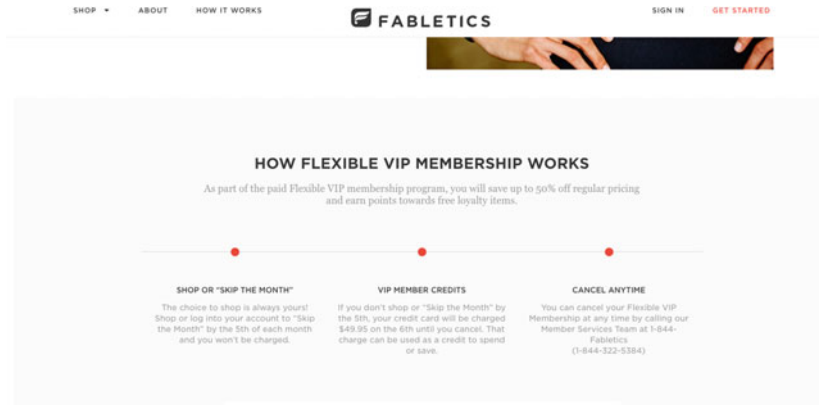


Fig. 9 Fabletics. Website Screenshot (<http://www.fabletics.com/>)

pieces of clothing per month. *Fabletics* is a good example of that category (Fig. 9). Even without the aggressive business model, marketing in that industry is frequent and intense. As a result, younger consumers, Millennials in particular, habitually change their entire wardrobe every six months or so, a mentality starkly different from previous generations of consumers who would hold on to favorite pieces of clothing for a long time, if not a lifetime. Finally, while a few companies in the athleisure category claim not to harm the environment by producing fabrics out of recycled water bottles and other plastics (as does *Patagonia* for example) (Fig. 10) the reality is that their clothing is not biodegradable. It takes these items anywhere between 20 and 200 years to fully biodegrade.

New modes of professional behavior, greater elasticity of what is or is not accepted as formal wear at the office, aggressive business strategy that leads to overconsumption, deceitful marketing that overemphasizes the reversibility of the harm already done to the planet but does not eliminate the problem of waste, are realities that feed the frenetic fashion engine with the power of a tsunami of global scale. These are the market forces against which the Harris Tweed industry is facing today. The HTA has failed to realize that they should not compete on price against textile manufacturers of machine-made and synthetic products. As a result, independent tweed producers and the other two mills are engaging in a practice that Reid of *Carloway Mill* has been trying to stop: the dumping of Harris Tweed in the market at extremely low prices.

To add insult to injury, the industry seems to be facing enemies domestically. According to news site *The Daily Record*, in 2011, when the new movie of the series “Doctor Who” was produced, the main character who had been traditionally dressed in a Harris Tweed jacket swapped his authentic woolen garment for a “Chinese rip-off that is 20% acrylic” (Merrit 2011). According to the same article, to capitalize on the movie’s success, the British Broadcast Corporation (BBC) licensed additional Chinese replica blazers to be sold on the Forbidden

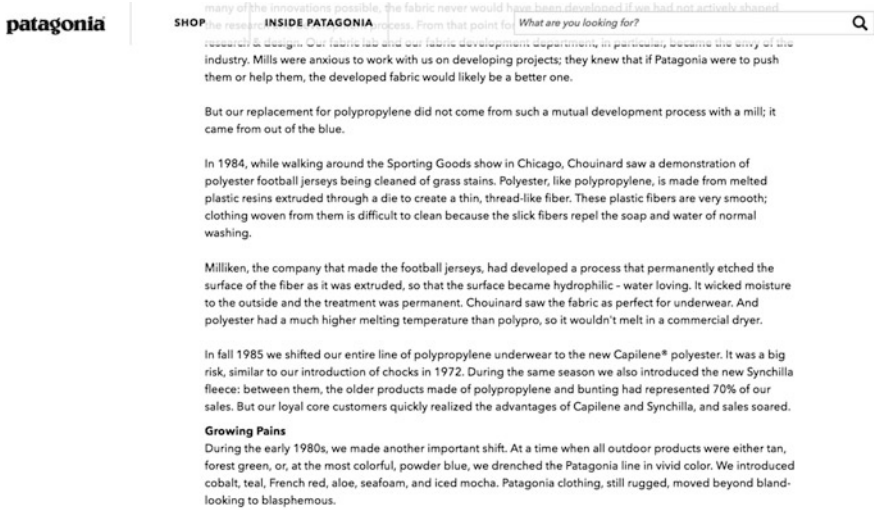


Fig. 10 Patagonia. Website Screenshot 'Our History' (<http://www.patagonia.com/company-history.html>)

Planet website (<https://www.fpnyc.com/>). This is one of “the largest sellers of comic books, graphic novels, science fiction, toys and associated toys in the world” clearly aiding BBC with its mass market strategy to convert the appeal of the Harris Tweed brand into revenues from the sale a counterfeit product (Chunju 2013).

Finally, another threat has to do with the complexity of the weaving machines. According to Reid, they require a great amount of maintenance hours because the wool can easily clog them. The parts are also based on precise manufacturing and come from Germany. Any costs associated with equipment production directly affect the industry. This has happened several times during the twentieth century and resulted in significant increases of overhead costs for self-employed weavers.

7 Sustainability: The Future of Carloway Mill as a Luxury Enterprise

Due to its financial struggles, the mill was purchased in a Management Buyout (MBO is a formalized type of acquisition where a company’s managers acquire part or all of the company from its private owners), led by Annie McDonald, former Head of Operations. McDonald confirmed that the new company maintains Reid’s vision that has now been expanded to the following:

Craftsmanship for today and tomorrow’s world

We believe that respect for traditional Scottish traditions, perseverance against industry threats, and an open mind will lead us to being a luxury brand within the brand of Harris Tweed.

We believe Carloway Harris Tweed to be synonymous with innovation, superior quality, and adherence to traditional methods of tweed production.

We believe in treating our staff as family and in empowering our weavers in their journey of preserving their craft and transmitting it to the next generation while catalyzing financial prosperity for our region.

We believe in the human element of our work and find pride in our product.

Our vision is to develop the Carloway Harris Tweed brand through the launch of consumer products and to increase consumers' awareness of the superior quality of Carloway products that are fit for contemporary dressing.

We aim to achieve this by complementing our B2B model with a B2C business model.

As discussed in earlier sections, the Carloway brand has associations with a specific place, heritage, and authenticity that define, according to Fiona Anderson, luxury (Anderson 2013). However, the brand has been struggling to operate as a luxury player even though it regularly supplies luxury fashion houses with bespoke tweed (Sweeney 2009).

Today, luxury requires more than Anderson's definition. It shifts our attention to issues of sustainability, specifically as they relate to manufacturing processes and their byproducts. The Harris Tweed industry is by default much closer to William McDonough's and Michael Braungart's concept of "cradle to cradle," namely a system that imitates how nature produces, uses, and recycles in a constant cycle during which the byproduct of each phase becomes nourishment for the next (McDonough and Braungart 2002). The authors' work as they initially conceptualized it for the 2000 World's Fair in Hannover, Germany is a three-pronged manifesto, which developed around the themes of humanity, nature, and technology, and is directly applicable to the discussion of Carloway as a producer of sustainable luxury products. The future of the mill as a luxury enterprise seems promising mainly because the business already respects McDonough's and Braungart's set of principles that were first publicly presented in 1992 and constitute the backbone of their second book, *The Upcycle: Beyond Sustainability* (McDonough and Braungart 2013). These are: 1. Insist on the right of humanity and nature to coexist in a healthy, supportive, diverse, and sustainable condition. 2. Recognize interdependence. 3. Respect relationships between spirit and matter. 4. Accept responsibility for the consequences of design decisions upon human well-being, the viability of natural systems, and their right to coexist. 5. Create safe objects of long-term value. 6. Eliminate the concept of waste. 7. Rely on natural energy flows. 8. Understand the limitations of design. 9. Seek constant improvement by the sharing of knowledge. Principles 1–5 are already at work at Carloway and can be strengthened whereas 6–9 can be applied in tandem with the luxury business model that follows.

According to the author's luxury business model (Fig. 11) (Serdari 2016), the Carloway Mill would be able to reinforce its position as a luxury player by

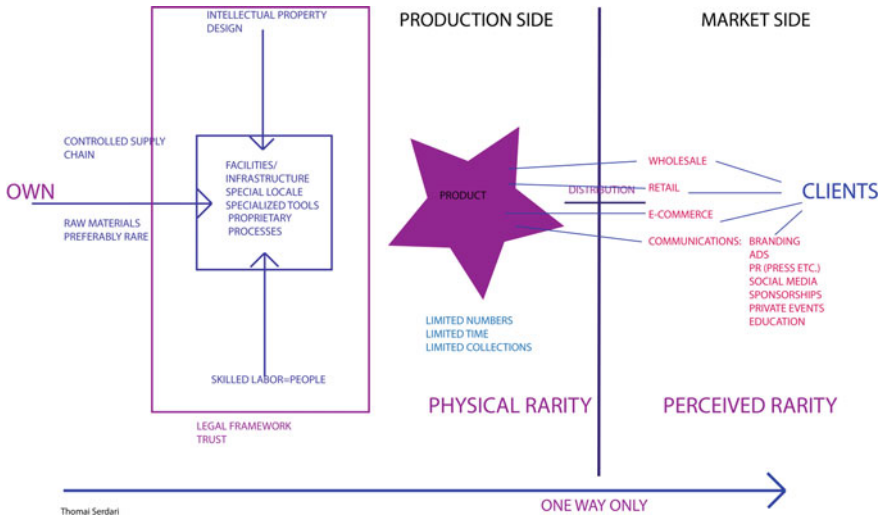


Fig. 11 The Luxury Business Model[©] Serdari (2016)

revisiting each element of the business model through the lens of sustainability. What follows is the author’s interpretation of how sustainability can become a tool for further development of a luxury enterprise and reinforcement of its competitive advantage in the market. This case is aimed for discussion in fashion and business schools so that students can develop additional innovative strategies that will allow the brand to combine sustainable solutions in a traditional textile manufacturing facility.

Checking against the framework of the luxury business model, the following observations apply to the physical and perceived rarity of the *Carloway Harris Tweed*.

7.1 Physical Rarity of Luxury Product/Brand

Supply chain:

As long as local crofters are employed in the breeding of Cheviot and Black Face sheep, the enterprise continues its contribution to sustaining the local economy. The Australian fleece, while all natural, leaves a substantial carbon footprint during transport to the Outer Hebrides (Black and Farren 2010). It is desirable to investigate whether rather than importing fleece the mill can import a new breed of Australian sheep to be kept by local crofters and what would the implications be for the local microsystem.

Facilities:

The financial investment in restoring the mill’s buildings also contributes in sustaining the local economy.

Skilled labor:

As one of the very few employers in the area, the Carloway Mill is responsible for the livelihood of crofters, hand-warppers, weavers, dyeing technicians, mill workers, managers, and administrative personnel. Of these, hand-warppers, weavers and dyeing technicians constitute the Outer Hebrides' living heritage. The learned and tacit knowledge of their respective skill has survived from generation to generation. It must be recorded, documented, archived, and interpreted so that the mill and its product continue adapting to future realities through sustainable and handcrafted means.

Equipment:

Two types of weaving machines are in use and maintained at the mill as mentioned in an earlier section. This is an area of great promise for new product development as *Carloway* has already demonstrated with its new featherweight tweed. In other words, to ensure the longevity of the operation capital investment is needed for research and development so as to catalyze the evolution of the equipment and the way it is used or both and achieve new product development that respects a "cradle to cradle" philosophy.

Manufacturing processes:

While the steps of tweed making are clearly marked by the HTA, the way these are executed offer an area of investigation that does not alter the product or its character. Wool is recognized today as performance fiber and can be made water-repellent and waterproof (Bealer-Rodie 2011). Carloway has an advantage over other companies that are just rediscovering wool and needs to capitalize on its deep knowledge on how to work with wool as an eco-product.

Intellectual property rights:

This is an area that remains exposed. Processes can be patented by the mills and submitted to the HTA for safeguarding. The creative design has always been unprotected, which is why cheap replicas have surfaced in China. The beauty of Harris Tweed has a lot to do with its creative essence, namely the coloring that stems from the land (and its natural flora) as well as the pattern that often reflects the natural environment of the Outer Hebrides.

Limited supply of product:

There is a fixed number of land crofts and pastures, a fixed number of sheep that render their fleece and a fixed number of surviving hand-warppers and weavers. Even when running at full capacity, the Carloway Mill is committed to producing a limited number of yards of tweed.

Limited availability of product:

The Carloway Harris Tweed, a brand within a brand, comes in limited supply and limited availability. The mill produces on contract for its customers and sells directly to consumers at a small shop. This is an area that needs to be redesigned by rethinking the brand's wholesale and retail strategy.

Special product in limited editions:

The mill produces bespoke tweed for established customers. When investments are made in creative development, a variety of bespoke product can be produced in limited editions to enhance the aspect of the product's collectability.

7.2 Perceived Rarity of Luxury Product/Brand*Pricing:*

The pricing strategies undertaken by the HTA are not sustainable. Additionally, they undermine the industry's longevity. Reid's initiative to get all three mills' CEOs to meet and agree on stopping the dumping of tweed in the market is the first step in establishing a new pricing strategy. This should communicate the traits that define tweed as luxury (heritage, tradition of craftsmanship, creative artistry, organic materials, tactility, durability, timelessness, and low negative impact on the environment). Additionally, having already differentiated itself within the industry, Carloway Harris Tweed should adopt special pricing to communicate its innovative breakthroughs and creative direction.

Wholesale:

In an effort to combat fast fashion and its negative impact on the planet, wholesale customers should include only luxury fashion houses that do not engage in fast fashion and do not overproduce.

Retail:

The mill should proceed with the development of individual products of the highest artistic and craft quality and sell directly to consumers through carefully branded retail stores. This presents a major capital investment that requires a few years of product development. Creative talent can be invited to apply for residency and absorb the essence of the Outer Hebrides while designing product that resonates with contemporary culture. The Glasgow School of Art would make an ideal partner in nurturing creative talent that can interpret the singularity of the product in contemporary designs. Returning to MacDonough's and Braungart's theory, new product can be designed at Carloway as zero waste fashion utilizing their aforementioned principles 6–9.

E-commerce:

An e-commerce branch of the retail operation should be part of the firm's long-term strategy and should be examined separately as Carloway is not yet ready to undertake such an initiative.

Brand building:

Carloway's brand rests on solid foundations but must be developed further to express its singularity. This stems from the firm's innovative presence in a traditional industry and revolves around a fortified strategy in the direction of sustainability.

Advertisements; Public Relations; Social media; Sponsorships; Private Events; and Customer education.

These must be rethought and adjusted once the Carloway brand has been correctly expressed to communicate sustainable luxury.

8 Conclusions

The Harris Tweed industry has been evolving for at least the last eight hundred years. Recognized for the merits of its traditional production methods and quality of final product, it became the main source of livelihood for the inhabitants of the Outer Hebrides in Scotland. Under the auspices of the Harris Tweed Authority (formerly the Harris Tweed Association), the three surviving mills on the islands of Harris and Lewis have been looking for ways to expand their market exposure. Amongst them, the Carloway Mill, under the leadership of three capable entrepreneurs whose passion for Scotland drove them to considerable heights of financial investment, has managed to differentiate itself as a brand within a brand, i.e. the Carloway Mill Harris Tweed. Management chose the strategy of brand differentiation in an effort to combat price dumping in wholesale, buyers' pressure for price cutting, delayed payments that are tied to delivery of product to customers, and most importantly, radically changed consumers' taste. Compelled to modernize its offering and strengthen its bargaining power, management invested in research and development of a new Harris Tweed product that maintains all the qualities of traditional Harris Tweed but is ultra soft and featherweight. In doing so, the Carloway Mill has proven its commitment to the Scottish luxury industry and revealed a new mode of overcoming challenges. This has more to do with reflection, deep understanding of the industry's core and its people, and a clear vision of how to combat the harmful culture of fast fashion as well as deconstruct the myth of up-cycling in textile manufacturing. This brief account of the land, its people, their industry and the business challenges faced by the Carloway Mill showcases that entrepreneurship and sustainability when well aligned can push the concept and practice of luxury production into the twenty-first century. In a business context, reflecting on the luxury industries is a necessity in order to restore the market pace and upgrade our quality of life on the planet.

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