
A importância do processamento de alimentos no sistema de alimentação do Atlântico no século XIX

The importance of food processing in the nineteenth-century Atlantic food system

Richard Wilk*

Resumo: Nossa atenção tem recentemente focado a globalização no século XX. Mas a globalização tem uma longa história e raízes profundas. Este artigo explora a economia alimentar global no século XIX, que ligou produtores e consumidores em todo o mundo, de maneira que produziu, ainda que muito dispersos, impactos ambientais. Sabemos muito pouco sobre a agricultura da *plantation* e a forma como muitas regiões dos trópicos se transformaram em áreas de monocultivo de cana para alimentar o crescente apetite por açúcar e cachaça na Europa e América do Norte. Mas os produtos extraídos da natureza, deslocou a um nível muito mais amplo, o sistema do Atlântico; a criando vastos fluxos de alimentos conservados, madeira, peles de animais, especiarias e corantes em muitas direções diferentes. A comida era importante nesse sistema global, tanto como uma substância física com valor econômico, como culturalmente significativa para a cultura

Abstract: Our attention has recently been focused on the globalization in the 20th century. But globalization has a long history and deep roots. This paper explores the global food economy of the 19th century, which connected producers and consumers around the globe in ways that had serious but widely dispersed environmental impacts. We know quite a bit about plantation agriculture, and the way many parts of the tropics were turned into cane monoculture to feed the growing appetite for sugar and rum in Europe and North America. But products taken from nature moved much more widely in the Atlantic system, creating vast flows of preserved foodstuffs, timber, animal skins, spices and dyestuffs in many different directions. Food was important in this global system both as a physical substance with economic value, and as culturally meaningful material culture which carried deep personal, social and political significance to those who traded and consumed it.

* Ph.D. em Antropologia pela Universidade do Arizona. Professor no Departamento de Antropologia da Universidade de Indiana, EUA. *E-mail:* wilkr@indiana.edu.

material, na qual realizou profundas transformações nos significados pessoal, social e político àqueles que trocaram e consumiram esses alimentos.

Palavras-chave: Sistema de alimentação. Economia alimentar global. Século XIX. Globalização.

Keywords: Food system. Global food economy. 19th century. Globalization.

Introduction

Just a few decades ago, historians paid little attention to the economic role of food trade before the twentieth century. It was an accepted fact that before the era of steamships and refrigeration, food trade was mostly confined to luxuries. Archaeologists argued that without efficient transportation systems, no society could move large amounts of staple food from place to place with enough efficiency to make it worth the expenditure of time and energy (Feinman and Garraty 2010). Therefore, though we could acknowledge the importance of trade in sugar and rum, the massive Atlantic trade in dried fish did not come to historical attention until an amateur historian published *Cod* in 1997 (Kurlansky 1997); since then work by Fagan has traced the trade in preserved and salted fish back to classical antiquity (2007). He demonstrates that far from being a luxury commodity, salt fish was a staple in many parts of the world on both sides of the Atlantic, a component of the basic sustenance for slaves and free workers, the goal of huge investment and the source of great fortunes, with profound influence on politics, geography, culture and natural ecosystems.

In “Empires of Food” Fraser and Rimas push the pendulum far over in the other direction, arguing that trade in food has been pervasive and economically important from at least the Bronze Age (2010). In their narrative, all empires become dependent on trade in staple foods, and inevitably collapse when that trade is disrupted, or production declines due to poor husbandry of natural resources. In this paper I do not want to become involved in the positives and negatives of Malthusian theory, or debate the ultimate importance of trade in food versus trade in other commodities. Rather, I want to point out that the most lucrative link , the section which sees the most corporate and commercial




investment, technological innovation, and profits in both present and past food chains is *food processing*. In other words, while historians and historical ecologists have given a great deal of attention to food production, and a good deal more work is now being done on wholesale trade, transportation and retailing, processing is a crucial link which has tended to fall from sight.

It is almost a cliché of the modern “local food” movement that so little of the retail price of processed foods ends up in the hands of farmers. Just a small percentage of the price of a box of breakfast cereal reflects the cost of the raw materials, the grain, sugar and other ingredients. The bulk of the profit in the food chain for processed food ends up in the hands of retailers and manufacturers, in this case those who turn a few cents worth of grain into an elaborately flaked or puffed, coated product in a brightly colored and heavily promoted box, and put it on shelves at a convenient height. The food trading system in the United States is increasingly dominated by a close consortium of retailers and processors who exclude small and local companies from the marketplace in the name of efficiency, lower prices, and quality control. Many argue that this increasing concentration of the marketplace makes the food system less safe, a threat to public health, damaging to the welfare of workers, and a menace to the environmental sustainability of the farming system as well as the financial well-being of farmers (eg. Hinrichs 2003, Friedman 1994, Allen and Guthman 2006).

This kind of analysis has mostly been done on the flow of modern industrial commodities and finished consumer products, but it has the potential to be very useful in thinking about the historical development of food chains. Long distance trade in raw and processed foods separates the environmental and social contexts of production, processing and consumption. Just as importantly, extended food chains create a setting where the cultural meanings attached to food products can be segmented, so that products can change their cultural significance as they move from place to place. This also means that the players in a food chain, especially those involved in processing and marketing, can manipulate the flow of information, or even sever it, replacing one kind of significance with another.

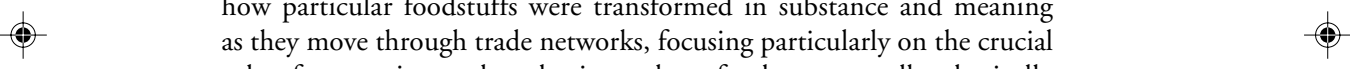
A number of anthropologists and social historians have adopted the “social life of things” approach to ‘object biographies’ advocated originally by Kopytoff (1988), which tracks objects as they change






their social positions and cultural contexts. Generally these transformations consist of movements back and forth across the boundary between gifts and commodities, as cultural property is alienated and commoditized, and as market goods are re-integrated into inalienable wealth through ritual. But these authors have not paid equal attention to the transformations of goods which take place along commodity chains, because the objects remain commodities throughout – they may never become anything more than consumer goods which are bought and sold commercially, and consumed prosaically without fanfare or overt cultural significance.

In this paper I will argue that this neglect is unwarranted. Instead, the transformations which goods go through as they move along industrial commodity chains are just as mysterious, dramatic, and significant, as the conversion of cultural property (“gifts”) into commodities which anthropologists and economic historians (e.g. Davis 2000) have typically studied (usually in the realms of ‘tribal’ art, music, and traditional medicine). I will illustrate my argument by showing how particular foodstuffs were transformed in substance and meaning as they move through trade networks, focusing particularly on the crucial role of processing and packaging, where food were usually physically changed and re-combined.



Environmental Distancing in Food Supply Chains

Before giving specific examples, it is worth framing the importance of meaning in commodity chains within broader issues of consumption and the environment. Anyone studying the environmental history of a region quickly becomes aware of the way marketing and commercial extractive enterprises have had dramatic – and sometimes ruinous effects on natural ecosystems. In Canada, the elimination of hundreds of millions of beavers, lynx, wolves, sea otters and other fur-bearing mammals in order to make luxurious clothes and hats for Europeans, had a transformative effect on landform, maritime environments like kelp forests, soils, and every other aspect of the environment. We have recently learned that the removal of hundreds of millions of sea turtles from the Caribbean, in order to provide a high-status soup course for the banquets of the rich, undermined the entire ecological foundation




of the tropical sea, to the point where the reefs we see today have little resemblance to those of the 16th century (Jackson 1997, 2001).

Because consumers do not know where the products they are consuming come from, or the social and environmental costs of procuring and transporting those products and their ingredients, they are unable to include this information in their own decisions. One could argue that the consumers of an earlier era would not have cared one bit if they were eating the last Passenger Pigeon or Dodo, or if the production of their hat had killed an Indian and five workers, as well as polluting a river with mercury. On the other hand, they might have been very interested to find out that the Port wine they were drinking was adulterated with lead and other harmful ingredients. And at various times the consumers of an earlier era did show that they cared about the conditions of extraction and processing of commodities. –as in the campaign for ‘non-slavery’ sugar in 18th century Europe, the boycotts of endangered wild-bird feathers on hats in the 19th century, and the many other efforts by social reformers and nationalists to change consumer behavior through early efforts at what is now called “social marketing.” (Andreasen 2005).

Regardless of the beliefs and decisions of consumers, the flow of information along supply chains is also vitally important to those conducting food processing, transport, wholesale and retail businesses. These actors are all interested in prices, quality, adulteration, and the security, duration and future of the supply of every product they use. But the ‘middlemen’ in supply chains often have a vested interest in keeping their customers ignorant of their suppliers, for the simple reason that their buyers are always tempted by the possibility of ‘cutting out’ the middleman and buying direct at lower prices. Processors may also keep their sources secret to protect trade secrets, so they can substitute cheap or even fake ingredients for expensive ones, or play different suppliers off against each other forcing them to lower their prices. A chocolatier in Paris might never know if the raw cacao they buy from a wholesaler are really made from high-quality Ecuadorian beans, as claimed.

For these reasons, a key attribute of the food supply chains which historically spanned the Atlantic world is that while they intimately connected groups of people economically, they did not connect those people culturally – very little actual information flowed from producers to consumers and back again. Those involved in commercial networks



as marketers, wholesalers, middlemen and retailers, had every incentive to keep information flow to a minimum. They did not want producers to capture more value by marketing their products directly, and they did not want their customers to find alternative sources of supply. Often this meant that the exact places of origin for products were effaced, and consumers could not learn how food was prepared or preserved, or the exact ingredients.

We can group together a number of the ways information was restricted in the food chain into what I call strategies of *substitution* and *appropriation* (based on the work of Princen, 2002). These strategies are familiar to those who study the history of branding, which is an art applied by one agent along a supply chain to appropriate the role of originator and source. The agent who affixes their 'brand' to the product is essentially taking credit for the entire process of production, when their own role might actually be very limited, a principle which was invented as early as the Bronze Age (see Bevan and Wengrow 2010). Substitution and appropriation are forms of relabeling; in substitution one source is switched with another, or a series of others. Thus vinegar and mustard from France may be processed in London and then labeled and sold as "English Mustard." Appropriation takes place when one particular agent along the supply chain claims credit as the source. In the USA early meat packers like Swift and Cudahy, through their brands and their role as packers, displaced all other information about origins with their own identity.

Appropriation through branding did not begin as a device for elevating the role of intermediaries. Rather, the earliest forms of corporate branding date to the 10th century AD in China, where they served the role of ensuring quality by allowing a manufacturer to build a reputation (Lai and Lai 1989). In Europe branding also emerged in a context where goods traded over long distances were subject to adulteration, counterfeiting and substitution, and the quality of goods could not be easily assessed by the buyer, a common situation associated with early forms of bulk packaging (Freeman 1989). Sealed and branded packaging built on longstanding associations of particular places with processed foods of a high, or at least identifiable quality. For example, Yorkshire hams, Irish salted beef, fortified wines shipped from Oporto in Portugal, Dutch herring, and dried cod from Newfoundland all established lasting reputations for quality in the long distance food trade of the early modern period.



But the power of such location-branding was gradually lost as commodity chains grew in size and complexity. Yorkshire ham became a generic term for a particular style of curing, a fate of many local products as diverse as Cheddar cheese and Tequila. A particular tavern may become known for the quality of its beer, a retailer for cleanliness and freshness, or an importer for consistent quality. The first packaged teas in Britain were packaged by the Quaker John Horniman, whose personal reputation served to guarantee quality, a power which he passed on to his descendants (Rappaport 2006).

Gradually the agent of quality appropriates the role of the producer, a process which is easily furthered if the agent is responsible for mixing, processing and packaging. This can easily be seen in the coffee business, where unblended beans retain their nationality (Kenyan, Colombian, etc.), while blends take the name or brand of the processor or roaster. Instant coffee retains no trace of other origins, and the brand (Nescafe, Folgers) becomes a putative source. In modern food processing systems, branding is usually a complete block to the flow of information along the food chain, as food processors, packagers and more recently retailers have appropriated the origins of food products. It is literally impossible to find out the physical origins of the many ingredients in many processed food products. Large food processing companies are aware that consumers are often dissatisfied with the anonymity of the corporate source, with the idea that their food flows from a faceless entity, so they have gone full circle and re-invented the personalized agents and geographic origins which they have displaced.

Early examples of emblematic imaginary individuals, like Betty Crocker and Aunt Jemima built on existing historical meanings (Shapiro 2004), but today the imaginary agents of brands are more likely to be imaginary characters like elves and celebrity sports stars. It took longer to establish the veracity of imaginary *places* as the symbolic origins of food products. The Jolly Green Giant was invented for Minnesota Foods in 1928 (the company later changed its name to Green Giant Foods), but the giant did not have a home in a fictional valley until the 1950s. In a kind of “populuxe” version of *terroir*, fictional places like Nature Valley and the Wild Ocean now stand in for the geographical sources which still function as marks of quality for elite products like fine wine and cheese. These attributions skirt the edges of false advertising, as when the giant Miller brewing company (now SABMiller plc based in South Africa), in an effort to compete with artisanal breweries, invented



the “Plank Road Brewery,” as a fictional source for its premium “small brewery” brands.

Brands have always used nostalgia to evoke romantic images of the rural, historical, and exotic, particularly in marketing food. Historical research, however, has revealed the important role of wholesalers and food processors in creating modern notions of “terroir” which mystically associate flavor with particular soils, climate, and primary producers (Paxson 2006, Trubek 2010). The producers themselves may appear on the label, but the marketing and the structure which assigns particular products to regions and creates a legal basis for appellation is entirely a product of corporations.

Food Chains: Crossroads of Ecology and Cultural Politics

Long distance commodity chains have important environmental effects in today’s global economy, shifting environmental costs from place to place, usually to the benefit of consumers and corporations in rich parts of the world, and to the detriment of poor people in rural and marginal places. It is therefore important that we begin to systematically study the way this global system grew to prominence, and the key roles of technologies of processing, packaging and branding in building the network of trade which today connects producers and consumers across the globe. The historical growth of the processes of *appropriation* and *substitution* in the global food trade had an intimate connection with the cultural politics of empires and colonization.

Spurious centralization was a central strategy through which the large scale political structures of colonial empires were normalized in the everyday practices of buying, preparing, and eating food. Branding, appropriation and substitution transformed diverse and heterogeneous products from all over the world into products of the metropolitan center of the empire, in what people were encouraged to think of as the ‘home’ country. Tobacco from four or five different countries might be blended together and rolled into “English” cigarettes. The rich spices of all of Asia acquired a spurious equivalence and uniformity in the neatly ranked sealed packages of a German grocery wholesaler. Exotic flavorings, sugar, alcohol and medicinal extracts entered factories in New York and emerged as “American” patent medicines which were then re-exported to cure the ills of the very laborers who had grown, harvested




and packed the ingredients to begin with. Coffee was brought to France, roasted and ground, packaged and given the name of a French manufacturer, becoming through an elaborate subterfuge “French” even though grown by peasants in Africa, New Guinea, or Asia. French consumer bought, prepared and drank “French” coffee without a second thought, ingesting the geography of empire with every sip, accepting the cultural superiority of roasting and branding over the activities of ‘natives’ in the distant plantations in unseen colonies.

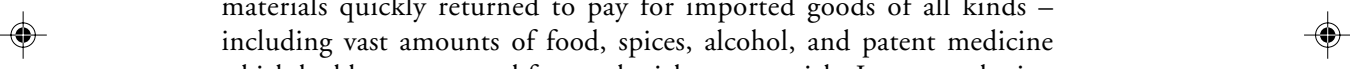
This does not mean that the exotic origins of foods and were completely erased. In the British Empire for example, curry retained an Indian identity, and even sometimes a fictive origin in the Indian city of Madras. But because the condiments was blended, packaged, and branded by a British company based in London, India was effectively shaded out and appropriated, and became no more than an exotic backdrop which gave authenticity to a product whose quality and purity was guaranteed by the British agent. The foreign or colonial consumer buying curry powder imported from Britain was partaking in the bounty of empire, but entirely through the agency of the ‘mother’ country. And for expatriates and their descendants, curry powder could become a taste of home, a reminder of British identity, just as potent a ‘memory food’ as potted anchovy paste, mustard, bottled porter, and smoked herring. Later in the 19th century, British brands themselves became reminders of home, part of the cultural furniture of empire, mnemonics of quality, and some of these brands like Crosse & Blackwell retain some of that power. The importance of “home” products in maintaining the cultural identity and integrity of migrants offers many instances of irony, as when English canned products became symbols of Belizean national identity, and gave comfort to Belizeans displaced back to England in search of education and work (Wilk 2006; see Sutton 2001 on migrants and food memory).

Food Trade and Economic Growth

At one time economic historians were quite convinced that the industrial revolution was driven by technological inventions and the growth of natural science, and that new systems of manufacture gradually drove down the prices of goods, sparking the growth of consumer society. A much more complex picture has now emerged, in






which the consumer plays a much more prominent role, and demand is often depicted as the driver, rather than the consequence of technological and industrial growth (e.g. Schama 1987). James Walvin is among very few who recognize the important role of wholesale and retail businesses as intermediaries in the connection between globally dispersed producers and consumers (1997). His work focuses closely on the major 'drug foods' which came to dominate the European market, including sugar, tea, coffee, tobacco, spices and chocolate. Like Mintz' well-known study of the global trade in sugar (1985), however, Walvin sees the global system as one where the colonies produced raw materials which were then processed and consumed in the metropole.



But if the colonies were merely producing and selling raw materials, they would have gradually accumulated wealth and generated autonomous development. If they were self-sufficient, and selling a surplus, there would have been a net inflow of wealth and resources – and they would not have remained poor appendages of empire. Instead, all of the money that went out to the colonies in payment for raw materials quickly returned to pay for imported goods of all kinds – including vast amounts of food, spices, alcohol, and patent medicine which had been processed from colonial raw materials. In most colonies, in fact, the demand for imported goods eventually outstripped the income from exported raw materials, leaving a worsening trade balance, and increasing debt crises of the kind which were arguably the true reason the colonial powers were eventually willing to let the colonies go their own way (this is obviously a gross oversimplification of a complex and variegated situation).

The growth of the food processing and re-export trade from Europe (and later the USA and Canada) has a complex history and chronology which is not covered in detail by any major study. This may be because the histories of consumers, merchants, food processing, import trade, customs, food culture, and packaging have been written separately, instead of tracing the flow of particular goods through the hands of all these actors and institutions. I have been able to sketch the outlines of such a more synthetic history using secondary sources limited to the British Empire. For information on labeling, packaging and branding of goods which were re-exported to the colonies I also draw on my research in 19th century newspapers from the Caribbean port of Belize, which include numerous listings of cargoes offered for sale, and later advertisements from retailers. Recent work by historical archaeologists



has also proven helpful in tracing the variety of packaged foods, beverages and medicines which were exported from British home ports. The physical evidence of tins, crocks and glassware reveals a much larger and more complex British food export trade than that attested by documentary evidence. Given the general paucity of material, I have used a broad definition of 'food' to include 'drug foods' like coffee and tea, alcoholic beverages and liquors, and the tonics, stimulants, and patent remedies which often had ambiguous qualities.

Quantitative measures: It is difficult to assess just how much prepared and processed food England (and later Great Britain) exported through history, and how important it was to the development of the British economy. The quantities of food imports which were re-exported in processed, mixed and repackaged forms were never accurately measured, and most economic historians have tended to view them as relatively unimportant compared with cloth and other manufactured goods. On the other hand, a recent reappraisal by economic historian Anne McCants suggests that:

[...] luxury trades of the early modern period were in fact transformative of the European economy...New evidence will show that global groceries, long thought to be merely exotic, were actually in wide use by the early decades of the eighteenth century (2006:3-4).

We do know that food processing export industries had an early start in England. as early as the late sixteenth century, quantities of processed fish and beer were exported from British ports to the continent (Willan 1959: 70-76). As large-scale imports of exotic food and drug products began in the following century, the re-export trade grew accordingly. At the end of the seventeenth century, two-thirds of the tobacco, 90 per cent of the spices and 80 per cent of the textiles imported to England were re-exported to Europe (Steensgaard 1990). However, we do not know how much of this was processed and packaged in England, and how much was simply sold in the same bulk packages in which it was imported. We do know that even in the seventeenth century, large numbers of English glass and pottery retail packages are already showing up in the trash heaps of colonial towns and cities in the New World, as well as in smaller numbers in Asia and Africa. Archaeologists find that this evidence of food import generally goes along with the

consumption of large amounts of imported pottery used for serving and eating meals in a European style.

According to Jacob Price, the foreign trade in re-exported exotic products (most prominently tea, coffee, sugar and tobacco) grew in the Atlantic world in the period from 1675-1775 because of increasing demand from North American colonies (and the related Africa trade), presumably because these products were significant marks of status and cosmopolitanism (Price 1989:277). The greatest growth period for re-exports from England was the end of the eighteenth century. Grocery was fastest growing re-export category between 1790 and 1800, in ten years increasing from 1.2 million pounds sterling to 11 million, and from 26 to 64 percent of all re-exports (Schumpeter 1960:13). The economic importance of exports and re-exports of groceries and liquor continued to grow throughout the nineteenth century, although by the end of the century they were economically overshadowed by the imports of bulk food like wheat and beef, needed to feed a growing industrial population on a limited land base.

Policies and Practices: It is not clear to what extent British trade policies were important in promoting the re-export trade. The seventeenth century Navigation Acts, by excluding foreign merchants and shipping from home and colonial trade certainly encouraged inbound ships with raw materials to find British outbound cargoes to fill their holds. Due to expansionist diplomacy and economic policies, Britain consolidated its control of the East and West Indian trades, and included a large portion of South America as well. The volume of trade was not as important as the direction; customs policies consistently discouraged shipping from one colonial port to another. Instead the vast majority of raw materials went straight to home ports, from whence came finished goods, manufactures, and of course, groceries and liquors.

Quite early on the British government prohibited the import of wines and spirits in small retail-sized packages, as a measure to reduce smuggling. This had the effect of encouraging rapid growth in glass manufacturing and bottling for local retail trade, and these bottled products quickly found their way into outbound cargos (Jones 1993:27). This also demonstrates the constant synergy between production for local markets and export production; goods, packages and brands which became accepted and well-known in the home market followed expatriate officials and military officers to the colonies, where they became






established in those markets as well. Even as early as the seventeenth century, the ornate branded tobacco papers used by retailers to wrap small quantities of their own blends were finding their way into colonial trade. Similar printed retail wrappers were used by British merchants throughout the eighteenth century for other retail products like tea and sago powder (Davis 1968: 50-52).


Rather than overt trade policies, the major factors which affected the rapid growth in the export grocery trade were cheap shipping and easy credit. Raw materials imported to British ports were bulky, even when they were tightly compressed into holds with screw jacks (as was done with cotton and some tobacco). Outbound ships therefore offered extremely low shipping rates which averaged about 2.5 percent of invoice value in the early nineteenth century (Price 1989:273). Export trade was further facilitated by very easy credit terms extended by British wholesalers and merchants, at low rates for periods up to two years (Mentz 2005:53-55, Price 1989:279-283.) The flow of exports was further smoothed by the development of a system of public and private auctions for bulk goods, the growth of dockyards and associated warehouse districts and transportation facilities, and a class of brokers and factors who served as intermediaries in both breaking bulk and assembling outbound cargos. Further in the background, but equally important was an efficient insurance industry, and a legal structure which adjudicated disputes between merchants, shippers, and factors relatively quickly.

Grading and Standards: Raw and slightly processed materials imported to British ports from America, Asia, and Africa varied widely in their quality, condition and packaging. One of the key roles played by British ports in the re-export trade was turning this unruly and variable stock into more standardized products, so that overseas merchants and retailers could know what they were buying, predict what would arrive, and effectively compare prices.


The predominately wooden packages used to ship raw materials in sailing ships were notoriously variable in capacity from port to port, with thousands of customary measures and quantities. As early as the seventeenth century English customs authorities passed laws requiring standardized packaging and weights for particular products. A 1673 statute, for example, requiring butter firkins to weigh 8 lbs and hold 56 lbs butter (which at the time was heavily salted for preservation and



shipping). This 8 lb firkin later became a standard measure for small amounts of many kinds of processed foods including lard, pickled tripe, herring and salmon, parched barley and tallow (Zupko 1968:61-62). Similar standards were adopted for other sizes of casks and barrels, so tables could be worked out which would show how much weight of each kind of product should be expected in each size. Export containers became standardized quite early, so that by the beginning of the eighteenth century, glass bottles already came in a range of standard capacities, and many were specifically designed to fit in shipping containers efficiently to minimize breakage.




The customs and excise authorities constantly pushed for greater standardization both in packaging and quality, so the correct amounts of duties could be collected. The containers which goods were imported in were so unstandardized and variable that even using special calipers and gauges, volume and weight could not be accurately judged. Customs therefore insisted that almost every product imported to the country – even many of those intended for direct re-export – be emptied from its original packages (“breaking bulk”), examined and then repackaged. Until 1884, for instance, all the tea chests in a ‘package’ had to be emptied out on a warehouse floor, mixed, and put back in chests (a process called “hobnailing”). (Forrest 1973) Special tools were also used to test the quality and consistency of bulk packages, including coring tools to reach the insides of bales and sacks. Because many wooden containers leaked, measuring the remaining quantities inside variable-sized casks, pipes, and puncheons was itself a skilled task for gaugers (Stevens 1873: 574).



Processing and mixing of products in British ports often had the effect of obscuring the origins of original raw materials. Many times the British merchant did not even know the exact origins of lots of spices, sugar, and other products because they were only identified by the name of the ports they were shipped from. So they might know only that a cask of fish oil was from shipped from New York, not where it was actually rendered. In addition, some goods like black and white pepper, coffee, and tobacco were loaded loose in bulk, either filling a ship’s hold or as dunnage and packing material to stabilize other cargo, so they could come from a number of ports.

The tea industry also typifies the elaboration of grading standards over time in the import-export trade. Bulk packages were graded by overseas factors and buyers, but all were carefully re-examined and




regarded on arrival in Britain. Nineteenth century tasters and smellers used 22 different marks to indicate qualities like mustiness, mold, dust, roast and color. Beyond this, each kind of tea came in numerous grades depending on the size, picking method, and time of picking; hyson tea, for example, came in 13 different grades. Given all the labor involved in moving and repackaging, it is no wonder that already in 1800, the East India Company's London warehouse employed more than 1700 manual workers (Mui and Mui 1984).

The beginning of the nineteenth century also seems to be a time when an increasing proportion of exports and re-exports were shipped blended and packaged by expanding retail merchant houses, and smaller percentages came in bulk packaging from wholesalers. This clearly built on the long experience of grocers and other retailers in blending and packaging teas, coffees, and tobaccos, a role intensified by the greater prevalence of adulteration at this time. Distinctive tastes and qualities were also attributed to particular merchants. The formulation of snuff from imported tobacco was an early example of the important role retailer-manufacturers played in giving a guarantee of quality, and increasingly a sign of status, to highly processed products.

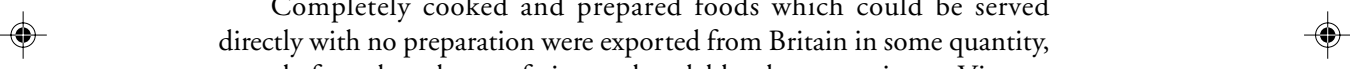
Branding itself depended in turn on advances in the technologies of processing, filling, packaging and labeling. Manufactured packaging materials like cardboard and tin tended to replace wood, straw, and wicker. New innovations like canning were quickly picked up by the export trade, so that in 1817 tins of meat were already being shipped to New York. Manufacturing cooperage was at least partially mechanized as early as 1820. Basic forms of machinery for filling and sealing packages developed rapidly through the nineteenth century. Better printing technologies allowed bright eye-catching labels which were themselves visual cues to memory, capable of evoking images of real or imagined homes.

Expanding Product Range: Through time, one of the most conspicuous trends in the export grocery trade from Britain is the expansion both of the number of categories of food and liquor, and of the number of brands and varieties within each category. Early food exports tended to fall into a few major categories, with a few grades of each; for instance salt pork came in four basic grades through most of the nineteenth century. Beer and wine might be shipped with no more




identity than its putative city of origin, as in “London Porter.” While even in the late 1700s, a surprising range of quite exotic grocery products like anchovies, cheeses (sometimes cased in lead), pickled walnuts, capers, gherkins, and sugared fruits were regularly sold in colonial shops, their origins and quality were rarely specified, and they were never branded.

One of the first product categories to proliferate in variety was bottled sauces. I have argued elsewhere that these sauces played an important role in colonial cuisines by giving familiar flavors to unfamiliar meats and dishes. They also literally and metaphorically covered the local origins of main courses with a British cultural blanket. Named sauces appear first in the export trade in the 1780s, and by 1820 there were a number of well known brands including Quins, Sauce Royal, Cherokee, Harvey’s, and Burgess’ Essence of Anchovies (Jones 1993:35). The variety of sauces broadened to include many kinds of ketchups, soy sauces, chutneys, mushroom sauces and mustards, many of which included tropical fruits and spices. Jellies and preserves also proliferated, initially in ceramic jars and pots, and later in glass and finally tins.



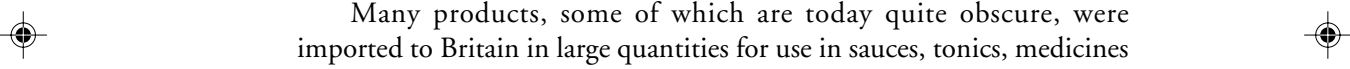
Completely cooked and prepared foods which could be served directly with no preparation were exported from Britain in some quantity, even before the advent of tins and sealable glass containers. Vinegar pickled dishes like “Bristol” tripe and tongues were shipped in the late eighteenth century in wooden firkins or small kegs. Foods like anchovy butter, meat pastes, and jellied meats were packed into interior-glazed ceramic pots, and sealed with a thick layer of suet or other fat. Glass bottles sealed with cork and wax contained cooked peas, tomatoes, barley and other vegetables, preserved in brine. Dried portable soups made from different meats and vegetables, the antecedents of soup mixes and bouillon cubes, were sold overseas in hand-made tin boxes as early as the 1760s. Of course, once tins were perfected, a much wider range of prepared dishes, everything from turtle soup to roast beef, were available to consumers throughout the empire and the world.

Ship’s biscuit supplied to the navy was one of the earliest industrially processed foods in Britain. It was a staple good for mariners, forts, and other enclave settlements which could not produce their own food. But even when local staples were produced in the colonies, imported biscuits remained a major import. They quickly mutated into many shapes and styles, occupying a number of market niches from cheap everyday items up to expensive luxury products which were suitable platforms for caviar and imported cheeses at fine dinners. They were also branded quite




early; the very first branded good I have found in Belize newspaper advertisements was for “R.S. Murray’s Tea Biscuits and Rusks” in 1839. Even today British biscuits have a distinct identity in the global grocery market, and many early brands survive.

The formulae and contents of many sauces were guarded by manufacturers, as were the flavorings and essences used in making liquors and wines. The same secrecy extended to the proliferating number of patent medicines which became an important part of the export trade in the middle of the nineteenth century. While not strictly food products, many of these patent mixtures crossed boundaries when they were consumed as ‘tonics’ for pleasure, or when they contained intoxicating drugs and alcohol and were consumed as beverages. In all these cases, the secrecy of the ingredients made it impossible for a buyer to know much about the product’s origins beyond the name of the British (or sometimes French or German) individual or company on the label. Perfumes and scents also crossed the boundary into foodstuffs on occasion; ingredients like rose water or lemon oil could end up in either.

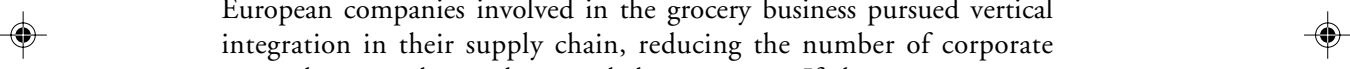


Many products, some of which are today quite obscure, were imported to Britain in large quantities for use in sauces, tonics, medicines and perfumes. Honey was imported from Cuba in 82-gallon tierces, much of it used in preserves, medicines, tonics and other processed foods, while the rest was repackaged in bottles for re-export to the continent. China Root, harvested from a variety of smilax, was imported from Bombay and China as a flavoring and medicinal tonic, often as a substitute for Sarsaparilla. Bdellium (also known as Guggul), a resin extracted from a shrub in Iran and India, was an ingredient in perfumes, medicines, and tonics. Gambier was extracted from the leaves of a tropical vine in Malaysia, and found its way into medicines and perfumes. Dried chunks of chicory roots imported from southern Europe were roasted, ground, and exported around the world packed in 28 or 56 lb tins as a coffee additive; it was also sold pre-mixed with coffee. These examples are given merely to hint at the complexity of the food and drug economy of the 19th century in the British Empire – at a time when other colonial empires each had their own economic networks of similar size and variety, involving a different constellation of products. The overall pattern, however, is clear – materials and ingredients from all over the empire – many of them not in a ‘raw’ state, but already elaborately processed to enhance their flavor, durability, and transportability, were




shipped to metropolitan countries where they were further processed and packaged. These processed products then acquired their value from the cultural capital of the metropolitan country, their assurance of 'quality' which made them global goods which could then be traded among metropolitan countries or re-exported to colonies. They may have retained a kind of 'shadow' value based on the exotic origin of their raw materials, so they may have been advertised as containing genuine African cocoa or Indian spice, but this generic attribution was subordinated to the name of the metropolitan company which did the processing and packaging as a guarantee of quality.

Conclusions



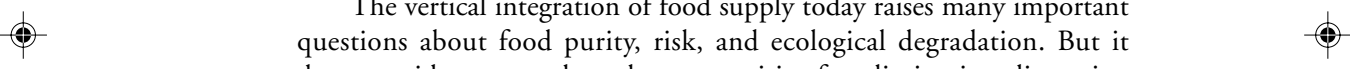
The vertical integration of food processing and retailing, a process begun at the end of the nineteenth century, introduced the modern corporate forms of appropriation and substitution. Over time the European companies involved in the grocery business pursued vertical integration in their supply chain, reducing the number of corporate agents between the producer and the consumer. If the same company which owns the tea plantation is also shipping, processing, packaging and wholesaling the tea, they have much more power to standardize quality and maximize profits. It also gave them unprecedented power to control the flow of information, substituting their own image for that of producers. In doing so they further developed the symbolic and linguistic technologies of appropriation and substitution, primarily through practices of branding, labeling and advertising. The mechanism of branding works through the metaphorical substitution of imaginary people and places for the real workers and machines that make food, and their real physical locations. The complex identities of products are appropriated by the puppets of the food processing corporation, animated by the power of marketing and advertising, legalized by patents, trademarks and proprietary recipes.

In the process of moving food from producer to consumer, food processors have become expert at washing the identity out of raw materials. To give but one example, Belize produces tens of thousands of tons of frozen orange juice concentrate each year, most of which is sold in the USA. But only a small number of specialists in the business know this, because the high-quality Belizean product is used, along



with some Mexican and Arizona concentrate, in blends to improve the flavor of cheap concentrate bought in bulk from other countries. The quality of Belizean concentrate is rewarded in the corporate (B2B) marketplace with a higher price, but at the cost of its meaning and identity. Belize gets no recognition, no visibility or pride, for the extremely high quality of its highest-value agricultural export. And all of this substitution takes place behind the bland corporate face of the food packaging company which sells frozen orange juice concentrate with no national origin listed.

Yet the power of food processors, and increasingly retailers, in modern food chains also presents an opportunity to reduce the effects of shading and distancing. In the colonial food chains, physical distance, poor communications, and the number of agents involved made it virtually impossible to connect consumers to producers. There was no legal accountability anywhere along the chain for the ultimate origins of foodstuffs, and it was often in the best interests of agents to conceal or falsify the sources of their wares.



The vertical integration of food supply today raises many important questions about food purity, risk, and ecological degradation. But it does provide unprecedented opportunities for eliminating distancing and shading, because even if food companies conceal origins from the public through marketing, they do have many of the records and information needed for tracking and tracing. While tortuous multi-agent chains can still conceal the ultimate origins of goods like ivory and drugs from the strictest regulations, with the support of strong public opinion, large integrated companies can indeed be forced to divulge their sources of supply. As the ecological and public-health consequences of food supply chains continue to generate controversy, pressure for such regulation may increase.

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