

Changing lifestyles, business, and the politics of the nineteenth-century Cape ice and refrigeration trade

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Abstract

The involvement of Cape businessmen in the ice or frozen water trade, and their contribution to its globalisation during the nineteenth century, is a neglected aspect of South Africa's water history. During the period 1840 up to the outbreak of the Anglo-Boer (South African) War, Cape Town-based expatriate American and British citizen-businessmen launched at least three attempts to establish a profitable local trade in ice-making and its associated technology. Constrained by high input and operational costs, limited government support, a small consumer market and high prices, these individual initiatives had a short lifespan. This notwithstanding, it created both an awareness and a growing market of the product's utility and its technology in colonial households, hospitality businesses, retailers, pharmacies and Cape farmers. This article not only foregrounds these significant events, but also assists in its mainstreaming within the international history of both water and the ice trade.

Keywords: Cape Colony; South Africa; Water; Ice; Refrigeration; Food, Lifestyle.

Introduction

The need for refrigeration of perishable goods and comfort cooling in the midst of extreme climatic conditions is literally as old as the human race. Before the development of refrigeration technology in the nineteenth century, the only means of refrigeration and “comfort cooling”, was the use of blocks of natural ice, snow or cold water.² The commodification of natural ice and its trading on a global scale during the course of the century, according to Nigel Isaacs, played an “unrecognised but surprisingly important role” in creating the modern world for it “started the demand that led to today's omnipresent refrigerators and freezers, ready availability of

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² B Nagengast, “A history of comfort cooling using ice”, *ASHRAE Journal*, 1999, p. 49.

cool drinks and ice creams, and dramatic improvement in food hygiene.”³ In short, it turned a large part of the world into a “refrigeration nation” and “revolutionised the global food market”.⁴ The development of the frozen water (or ice) trade, including the globalisation of its associated technology during the nineteenth century, was closely connected with changes in lifestyle, especially as far as food and drink was concerned. South Africa generally, but the Cape Colony (being part of the British Empire), was directly affected. The progression from ‘comfort cooling’ using natural ice, to industrial-style refrigeration utilising the artificial product, was steered by both individual entrepreneurs and colonial businesses who had to overcome multiple challenges in their search for profitability.

South African water history research, noted Johann Tempelhoff in 2005, is relatively underdeveloped, and part of “less than conventional research direction” in search of a universal template.⁵ Almost a decade after this observation, he notes that not only were major strides made with regard to the advancement of inter- and transdisciplinary water studies with a transnational reach, but that the discipline is backed by “a veritable cornfield of source material waiting for the historian to harvest”.⁶ In addition, the concept of panarchy that emerged from this process of intellectual contestation, offered the historian new methodological tools for an improved and more accurate consideration of “the dynamics of fast, slow and cross-scale interactions as well as the interdependency of social ecological systems”.⁷ Against this background, this article, using a combination of official state archives, contemporary newspapers and relevant secondary literature, reconstructs the history and development of the Cape Colony’s frozen water (ice) trade in the mid- to late nineteenth century.

This narrative is divided broadly into three sections. The first deals with the issue of changing lifestyles in nineteenth-century Great Britain under the influence of the Industrial Revolution. Issues under discussion include urbanisation, new social classes and changing lifestyles, especially the search for “comfort cooling”. The next section investigates the various initiatives launched by Cape businesses to become and remain active participants in what promised to be a profitable undertaking. Throughout, the trade’s intersection with colonial politics is foregrounded. Section three, provides a brief investigation of the intersection of the ice, refrigeration and

3 N Isaacs, “Sydney’s first ice”, *Sydney Journal*, 3(2), 2011, p. 26.

4 J Rees, *Refrigeration nation: A history of ice, appliances, and enterprise in America* (Baltimore, Johns Hopkins University Press, 2013), p. 7; P Schönach, “From now on we all demand: Give us pure ice! Natural and artificial ice in the service of food hygiene in nineteenth and twentieth-century Helsinki, Finland”, *Environment and History*, 26(4), 2020, pp. 521-548; 521.

5 JWN Tempelhoff, “‘n Historiografiese verkenning van watergeskiedenis.” *Koers: Bulletin for Christian Scholarship*, 70(3), 2005, pp. 477; 480.

6 JWN Tempelhoff, “Water history and transdisciplinarity: A South African perspective”, *The Journal for Transdisciplinary Research in Southern Africa*, 7(2), 2011, p. 318.

7 JWN Tempelhoff, “Exploring panarchy and social-ecological resilience: Towards understanding water history in precolonial southern Africa”, *Historia*, 61(1), 2016, p. 97.

cold storage industry and Cape agriculture, and pays particular attention to the early struggle to establish freight services as an integral part of and for the benefit of both local farming and the Cape colonial railway system.

Nineteenth-century Britain, changing lifestyle and new comforts

By the early nineteenth century, Great Britain, under the influence of the Industrial Revolution and benefiting from new inventions such as the steam engine, succeeded in establishing an efficient factory system and productive farming. The former capacity allowed the country to turn imported raw materials into highly-valued manufactured goods. This assisted in establishing a prosperous nation “full of expertly-produced goods”.⁸ These advances, however, came at a price. Some of the social consequences that followed, included a depopulation of the countryside, significant urbanisation, and changes in lifestyle – all of which left an indelible mark on both Britain and her colonies.

The establishment of factories resulted in the rapid movement of large numbers of former rural dwellers to the larger towns and cities in search of work and new opportunities. This left the British countryside significantly depopulated. The growing urban population in turn, created the need for new forms of food production, processing and storage.⁹ The new urban worker, trapped in fulltime employment and detached from subsistence farming, was now fully dependent on cash-earnings for the procurement of basic accommodation, food and manufactured goods. This purchasing power boosted the growth of businesses such as grocers, confectionaries, pubs, inns, restaurants and pharmacies. Beyond the essential providers of meat, dairy products, fish, poultry, fruit and vegetables, a new generation of shops offered “new ideas [and commodities] about making life more interesting and comfortable” and in the process the concept of need emerged.¹⁰ These changes were particularly conspicuous amongst members of the middle-classes.

The factory, hotel and business owners, and the new class of professional managers and overseers which followed, developed as a result of industrialisation. Now there were higher investment earnings, wages and disposable income and the new class of shoppers “helped to fuel demand”.¹¹ With their basic needs satisfied, they developed an interest in indulging in the new and “flourishing leisure-time activities” (including visiting parks and restaurants), in addition to acquiring a taste for “cool drinks and iced delicacies”.¹² This was added to the already well-developed taste for sugared tea,

8 SL Steinbach, *Understanding the Victorians: Politics, culture and society in nineteenth-century Britain* (London, Routledge, 2016), pp. 84; 73.

9 BB Blain, “Melting markets: The rise and decline of the Anglo-Norwegian ice trade, 1850-1920”, Working Paper, London School of Economics, 2006, pp.14-15.

10 K Graham, *Gone to the shops: Shopping in Victorian England* (Westport, Conn, Praeger, 2008), pp. 88-89.

11 K Graham, *Gone to the shops*:..., p. 2.

12 P Schönach, “Give us pure ice! ...”, *Environment and History*, 26(4), 2020, p. 523.

puddings and the old favourite – Italian ice-cream. These delicacies expanded the developing role of food as a “medium of sociability”.¹³ This was, at the same time, a direct result of the new middle-class’s growing interest “in food because of the social rituals that surrounded it”, and the hosting of dinners “not simply a matter of impressing one’s neighbours with the skill of the cook – who was often hired only for the occasion – but of showing off the sophistication of one’s kitchen and dining-room and one’s knowledge of correct form”.¹⁴ Similarly, regular/daily meat, access to varieties of bread, the practice of hosting afternoon teas, and enjoying a regular glass of wine “with every part of a good dinner, including dessert” became the hallmarks of the wealthier and more prosperous social classes.¹⁵

With dining a showcase, richly-decorated and heavy tableware, such as silver-plated iced-water pitchers, were added with the aim of emphasising “ritual and elaboration in dining” and adding “splendor to the middle-class dining table”.¹⁶ Fruit, one of the more expensive products in Victorian England, for example:¹⁷

... merited a special appearance on the table in a special serving dish called an epergne: this centerpiece, often silver-plate and crystal, had a ‘bowl of fruit at the center and delicate arms ending in smaller crystal bowls, and literally presented the fruit to diners.

Over the course of the century, these practices became a dominant feature of a changing Great Britain and saw its citizens acquiring a “well-developed taste for comfort”.¹⁸ Against this background, ice or frozen water not only became an object of desire, but also one “that whets the appetite, inviting you to eat more”.¹⁹

Ice and the British Empire

Although Britain had a long-established tradition and acquaintance with the use of natural ice (for both the preservation of perishable foods and in leisure drinking), its availability to all classes of society was limited. Initially collected locally and stored in specifically-designed ice houses, awareness about the availability of a superior quality overseas product resulted in the importation of large volumes of ice in block format

13 BB Blain, “Melting markets...”, Working Paper, London School of Economics, 2006, pp. 14-15; M Calaresu, “Making and eating ice cream in Naples: Rethinking consumption and sociability in the eighteenth century”, *Past & Present*, 220(1), 2013, p. 38.

14 M Paterson, *A brief history of life in Victorian Britain* (London, Robinson, 2008), p. 58.

15 K Graham, *Gone to the shops...*, p. 73.

16 CL Venable, “The silverplated ice water pitcher: An image of changing America, 1850-1900”, *Material Culture*, 19(1), 1987, pp. 41-42.

17 K Graham, *Gone to the shops...*, p. 65.

18 A Kerr-Jarrett, *Life in the Victorian Age* (London, Readers Digest, 1993) p. 50.

19 M Montanari, *Food is culture* (New York, Columbia University Press, 2006), p. 73.

from Norway and the United States.²⁰ However, high import costs, and the absence of modern conveniences such as refrigerators for the preservation of the product, restricted its regular use to the households of the well-to-do as well as commercial establishments. It did, however, make a limited appearance as part of Victorian street food.²¹ By and large, ice, as a food product, was “a social differentiator – [a] signifier of class, a measure of rank” as well as a means to “solidify group membership and to set groups apart”.²²

The collection and storage of ice for domestic use, was a common practice in certain parts of the United States of America. The collected product was then stored in specially-constructed root cellars or ice pits.²³ These, however, were far from perfect and did not prevent food spoilage. In 1803, the first patent for an ice chest was registered. This introduced a compact portable container for the storage of a small volume of ice. Despite its flaws, it achieved a measure of support from the Americans interested in ice for domestic use.

American businessman, Frederic Tudor, based in Boston was the first entrepreneur to export natural ice collected from local lakes and ponds. Beyond developing an overseas market for natural ice, from 1805 onwards, Tudor pursued the building of a domestic market aggressively by offering the barkeeper of a popular establishment, free ice for a year “on condition that he sold his liquors cold without an increase in price”.²⁴ Within the scope of eight years, he established storage facilities and selling points in Calcutta (1835), Madras (1841) and Bombay (1843), as well as offloading facilities in Cuban ports (1844), Portugal, and the West Indies. The first imported ice, ordered and marketed by a Sydney confectionary, reached Australia in January 1839. The second load which was accompanied by 12 boxes of refrigerators, arrived a year later. From Sydney, it was distributed by steamboat to other areas interested in the product.²⁵ By 1865, Tudor’s company also traded in Singapore, Manila, and Mauritius. The Cape Colony, arguably, due to distance, was not part of these developments.

The primary clients serviced by Tudor’s network, were members of the colonial mercantile elite and the upper-classes residing in the different geographic localities that constituted the British Empire.²⁶ Throughout, there was a growing desire, that the product’s availability would not only “render ice creams a common and constant

20 BB Blain, “Melting markets...”, Working Paper, London School of Economics, 2006, pp. 14-15.

21 K Graham, *Gone to the shops...*, p. 63.

22 Fernández-Armesto, *Food: A history* (London, Pan Books, 2002), p. 117; SW Mintz and CM du Bois, “The anthropology of food and eating”, *Annual Review of Anthropology*, 31(1), 2002, p. 109.

23 J Rees, *Refrigeration nation ...*, p. 123.

24 JM Carlin, *Cocktails: A global history* (London, Reaktion Books, 2013), p. 37.

25 N Isaacs, “Sydney’s first ice” *Sydney Journal*, 3(2), 2011, p. 26.

26 MW Herold, “Ice in the tropics: The export of ‘crystal blocks of Yankee coldness’ to India and Brazil”, *Revista Espaco Academico*, 142, 2012, p. 166.

luxury of the table”, but would be cheap and a more effective substitute for “Saltpetre, for cooling liqueurs”, and most importantly, that more people would be experiencing the “same delightful sensation from refreshing radiation”.²⁷ Consequently, the market grew for new ice technology such as ice picks, ice thongs, ice shavers, breakers, axes, scoops and mallets.²⁸ These items were further sold, among others, to London hotels and taverns that used both the tools and the imported ice in the production of exotic drinks such as “Mint-juleps”, “Sherry-cobblers” and other “American beverages of celebrity”.²⁹ With high prices and irregular supply, the client-base remained the urban middle-classes which often resulted in losses as a result of excess and unsold volumes.

Against this background, elements in the Cape Colony started to investigate the extension of the ice trade to the southern tip of Africa.

Pioneering a Cape ice tradition – the Holmes Initiative, 1849-1952

During the nineteenth century, the Cape Colony experienced a “higher frequency of drought and lower precipitation” and its residents had to endure long periods of dry and warm conditions.³⁰ According to George Nicholson, an Englishman who visited the colony in 1848, the only consolation was that “although the sun is intensely powerful, a man at the Cape can undergo exposure to it not only without danger, but with less feeling of lassitude and weariness than he experiences in England under the sickly warmth of its weak summer sun.”³¹ Similarly, Joseph C. Byrne, noted that “the heat is at times extreme, but never of a humid character”.³² However, it still lacked the cooler climates and winter ice (except for frost in some areas) of both Europe and North America. Under these conditions there was always the need for “frosting beverages, soothing fevered brows, and [the need for] preserving perishable foods”.³³ The latter, and specifically the need to prevent ‘flesh’ or fish from putrefying as a result of the long, hot South African summers, was a long-felt one that dated back to the mid-seventeenth century and the early European settlement in South Africa. Colonial businesses, particularly those involved in overseas meat exports, had a need for refrigeration and “effective cold storage, both on shore at either end of the voyage and on board [a] ship while travelling”. One of the first attempts to

27 G Weightman, 2001, *The frozen water trade* (London, Harper Collins, 2001), pp. 101-104.

28 D Wondrich, *Imbibe! From absinthe cocktail to whiskey smash, a salute in stories and drinks to “professor” Jerry Thomas, pioneer of the American bar* (New York City, Tarcher-Perigee, 2015), p. 47.

29 JM Carlin, *Cocktails: A global history ...*, p. 39.

30 C Ballard, “Drought and economic distress: South Africa in the 1800s”, *The Journal of Interdisciplinary History*, 17(2), 1986, p. 361.

31 G Nicholson, *The Cape and its colonists: With hints to settlers in 1848* (London, H Colburn, 1848), p. 23.

32 JC Byrne, *Emigrant’s guide to the Cape of Good Hope... With a map of the colony* (London, Effingham Wilson, 1848), p. 6.

33 DG Dickason, “The nineteenth-century Indo-American ice trade: An hyperborean epic”, *Modern Asian Studies*, 25(1), 1991, p. 53.

design a technological means of cooling the air down albeit for domestic use, were the experiments conducted by Charles Piazza Smyth, an assistant astronomer at the Royal Observatory in Cape Town. In the 1840s he produced ‘a small and effective air-cooling apparatus which some claimed was one of the “first air-conditioners in the world”’.³⁴

By the 1840s, the Cape Colony with its Mediterranean climate, still had no businesses engaged in the import and sale of natural ice (or frozen water as it was often referred to) or ice-related appliances and household utensils (technology) such as ice refrigerators, ice decanters, ice butter pots, ice plates and ice boxes, all of which had entered the European and American markets during the preceding period. Items of this nature, however, were used in some Cape households as evidenced by a listing of a patent ice pail (and some freezing powder) in an auction catalogue of the household content of HC Barwell of Woodstock, on 12 August 1847, prior to his departure from the Colony.³⁵ A year later, in August 1848, the Eastern Cape newspaper, the *Grahamstown Journal*, advertised the local availability of samples of appliances and a prospectus for items such as patent refrigerators, ice safes, an apparatus for making ice cream, metal ice-boxes, an ice-making apparatus, butter coolers, etc. from the London-based business of Lings & Keith Ice Machines & Patentees. Imported by local businessman, TP Hill, the advertiser claimed that these items were not only “admirably adapted for the Cape climate, during the summer months”, but “indispensable for the mansion”, “every family residence”, club, hotel, and confectionery.³⁶ To ensure optimum exposure throughout the colony, this advertisement was repeated in consecutive editions of the newspaper. This attempt to establish a new market for ice technology on the African content, attracted the attention of Cape Town-based entrepreneur and former New Yorker, Gideon Skull Holmes, owner of the GS Holmes & Company, an enterprise with interests in merchandising and shipping as well as being an established commission agent. This was probably motivated by the prevailing price of ice and the profitable trade thereof in overseas centre such as Havana where it traded at 6½ cents per pound a year earlier.³⁷

Due to his acquaintance with the American ice trade and its associated benefits, and with natural ice selling at attractive prices, Holmes identified the importation and sale of natural ice from the United States, a frequent destination for his ships, as a viable option.³⁸ With a sizeable property portfolio, including land eastwards of the Castle of Good Hope, the Zonnebloem Estate in Sir Lowry Road, and portions of land in New

34 PB Simons, *Ice cold in Africa: The history of the Imperial Cold Storage & Supply Company Limited* (Vlaeberg, Fernwood Press 2000), pp. 20-23.

35 “Publieke verkooping van Fraaije Meubelen”, *De Zuid-Afrikaan*, 12 August 1847, p. 1.

36 TP Hill, “Ice! Ice! Ice!”, *Grahamstown Journal*, 5 August 1848, p. 1.

37 MW Herold, “Ice in the tropics...”, *Revista Espaco Academico*, 142, 2012, p. 166.

38 KAB, MOOC 6/9/175:429, Death Notice, Gideon Skull Holmes, 26 July 1880.

Market and Rutgers Street which accommodated a variety of businesses (a soap factory, general merchant stores, wool and skin stores and offices), Holmes was regarded as part of Cape Town's influential business elite.³⁹ Like his local peers and overseas contemporaries,⁴⁰ which Firth's in a different context designated as men of influence and perseverance,⁴¹ Holmes was a profit-driven businessmen adept at using existing business networks to promote interdependence, cultural convergence, transnational diffusion of new entrepreneurial knowledge (economic ideas, technologies and commercial practices) and the establishment of mutually-beneficial partnerships, to their long-term benefit.⁴² Possessing strong business links with his homeland due to his specialised products importation business, Holmes was, therefore well-positioned to capitalise on the increasing availability of ice-related equipment and appliances for both retail and domestic use, produced by American companies.

Capitalising on his noteworthy public profile, and a strong business-presence within the colonial economy, in January 1848 Holmes directed a petition to the colonial government via the office of Colonial Secretary Montague, requesting permission to import natural ice from the United States of America where it was harvested from the lakes and ponds.⁴³ He was at pains to present his proposal of pioneering the trade as being in the public interest. He suggested "that every encouragement should be given to this undertaking",⁴⁴ but his appeal, beyond attracting a certain measure of interest in government circles, failed to illicit the desired permission. From the available information, the reason for withholding approval of the initiative is unclear. It is possible that the high price of the product and its affordability only to the moneyed-classes, probably played a role. Not only was the presence of ice-trading common throughout the British Empire by this time, but the product had also penetrated the British market as early as 1822 with imports from Norway. By the 1840s, and the addition of American imports, the product also won endorsement from Queen Victoria.⁴⁵ Thus when Holmes, resubmitted the same appeal during the latter part of the year, aided by the growing knowledge of the social and economic benefits of ice within the echelons of power and influence, his application was favourably considered and the necessary permission was granted.

39 KAB MOOC 13/1/392: 24, Distribution Account: Estate of G.S. Holmes – Mortgage Bond, 3 September 1873.

40 These included businessmen such as John Owen Smith, Elias De Pass, and Benjamin Norden (all Cape Town), and their foreign counterparts such as W Grace (USA) and JT Arundel (of New Zealand) who were also active in the shipping of the maritime trade.

41 S Firth, "The Pacific Islands and the globalization agenda", *The Contemporary Pacific*, 12(1), 2000, pp. 178-192.

42 A Thompson, "The power and privileges of association: Co-ethnic networks and the economic life of the British imperial world", *The South African Historical Journal*, 56, 2006, p. 46.

43 Western Cape Archives and Record Service (hereafter KAB), Colonial Office (CO) 4046, Memorials vol. 3, G-J, GS Holmes to John Montagu, Secretary to Government, 30 January 1848.

44 KAB, CO 4046/89, Memorial, GS Holmes to John Montagu, Secretary to Government, 11 January 1849.

45 J Rees, *Refrigeration nation ...*, p. 26.

Having accepted Holmes' designation of the industry as strategic, the colonial government finalised the paperwork in correspondence signed by Colonial Secretary Montagu. It granted permission for the importation of 280 tons of ice, the landing of materials for the erection of an "ice house" and land for the erection of the same. In February 1849, mere months after the scheme received government permission, the Australian newspaper, the *People's Advocate and New South Wales Vindicator*, reported on "the first investment, received at the Cape, of cool comfort, for which a few melting days will doubtless procure a warm demand."⁴⁶ The arrival of the vessel *Kate Hastings* with his valuable cargo from Boston were mentioned in the *Natal Witness* as a "most seasonable notion", causing a "distracting excitement".⁴⁷ This historic event, noted Donald McIntyre, would sooth "the fevered brows of invalids and [would soon be] tinkling in goblets of White Constantia".⁴⁸ In addition to blocks of ice, the newly-arrived cargo also included additional products such as jars of iced butter.⁴⁹

Despite its obvious profit-potential, the business of importing ice presented its own challenges, especially with regard to issues on the possible location of the ice-house, import duties, wharfages and storage facilities. One of the first matters that Holmes had to deal with, was the issue of import duties and wharfages. In the course of his early interaction with the colonial administration, and their acceptance of his contention of the strategic nature of the trade, he was under the impression that the landing of ice imports would be duty-free – which was the standard practice in India, from about 1833, the product being exempt from harbour duties.⁵⁰ One of the main reasons for the exemption was the need to facilitate the speedy unloading of the shipment during the cooler evening to prevent it from melting. Behind all of this, was the need to secure the shipment and concomitantly the trade's continued profitability. The situation in the Cape Colony, however, proved tricky. Contrary to Holmes's expectation, he was charged the amount of £51.13s. 6d for wharfages and customs duties.⁵¹

This situation was prompted by the fact that the administration, led by Governor Maitland inherited a significant debt and, with no expectation of extra funding from the metropolis, he was hard-pressed to find new sources of income to fund the colonial state's operations.⁵² The Cape Colony was still an evolving fiscal state and far from "fiscal modernity" and in terms of the basic principles of such a state, he chose to centralise and multiply government revenue from all available sources at all

46 "Cape of Good Hope", *People's Advocate and New South Wales Vindicator* (Sydney), 24 February 1849, p. 2.

47 "From the *Cape Town Mail's* mail bag", *Natal Witness*, 2 March 1849, p. 4; "The ice trade", *South Australian Register* (Adelaide), 31 January 1851, p. 4.

48 D McIntyre, *The Diocesan College: A century of 'Bishops'* (Cape Town and Johannesburg, Juta, 1950), p. 9.

49 GS Holmes, "Iced bitter and apples", *De Zuid-Afrikaan*, 1 February 1849, p. 3.

50 G Weightman, *The frozen water trade*...p. 101.

51 CO 4046: Memorials vol. 3, G–J, GS Holmes to John Montagu, Secretary to Government, 30 January 1848.

52 RW Murray, *South African reminiscences: A series of sketches of prominent public events which have occurred in South Africa within the memory of the author during the forty years since 1854* ..., (Cape Town, Juta, 1894), p. 99.

cost.⁵³ The revenue generated by import duties on ice, like the income derived from the import and export of guano during this same time, offered the administration a “fortunate addition” to the colonial coffers.⁵⁴ The colonial state, therefore had a direct financial stake in the maintenance of the status quo, much to the detriment of entrepreneurs such as Holmes. Despite regular appeals to the governor for exemption, he had no success during the early stages of his new enterprise.

In addition to coping with the matter of custom duties, Holmes also had to establish the required infrastructure for the new trade. In line with the established practice in the USA and elsewhere, an ice house was needed for the storage of the imported product. Ideally, it was supposed to be housed within a harbour area protected by a breakwater. With Table Bay lacking a breakwater wall, the ice house had to be established on the open coastline in Rogge Bay. This location was far from ideal and exposed the facility to what was called the “effects of the sea” which impacted severely on the general conduct of the business.⁵⁵ Access to more land for expansion and by implication also for a better location of the facility, became a necessity. Holmes applied for a larger portion of land closer to the beach and with due consideration to the practicalities of the application, also included a request to re-purpose the old Port Offices.⁵⁶ This application was followed by further correspondence asking for the repayment of the original custom charges and exemption from harbour dues. These requests, however, remained unresolved for a substantial period of time.

During the intervening period, a notice was placed in the *Eastern Province Herald* by a Port Elizabeth hotel owner, Francis Wasley, proprietor of the Wasley Hotel, informing the public of the scheduled arrival of a load of imported ice on the steam ship *Phoenix*. The origin of the ice is not mentioned, but the landing of a load of the product by any party other than Holmes, suggests that interested parties were able to side-step the existing monopoly and include natural ice as part of their general cargo with the full compliance of some shipowners.⁵⁷ GS Holmes & Company, in turn, imported 178 tons of ice and a machine for lifting the same from Boston during July 1851.⁵⁸ This load arrived on the American ship *Suwarro* during May and was widely welcomed. It would seem that the “utility ...[was] gradually becoming appreciated” and soon became the object of new speculation with indications that it was to be engaged as the transporter of Cape ice for England.⁵⁹ The various requests from Holmes, however, remained unresolved for almost three years. By 1852, the application for more land for the expansion of the ice house, was finally granted

53 A Gwaindepi, “State building in the colonial era: Public revenue, expenditure and borrowing patterns in the Cape Colony, 1820–1910” (PhD, Stellenbosch University, 2018), p. 17.

54 J Burman & S Levin, *The Saldanha Bay story* (Cape Town & Pretoria, Human & Rossouw, 1974), p. 97

55 KAB, CO 4059:37, Memorial, GS Holmes to Sir H. Smith, Secretary to Government, 26 April 1851.

56 KAB, CO 4046:90, Memorial from GS Holmes to John Montagu, Secretary to Government, 3 January 1849.

57 “Ice”, *Eastern Province Herald*, 9 February 1850, p. 1.

58 KAB, CO 4059:40, Memorial from GS Holmes to John Montagu, Secretary to Government, 16 June 1851.

59 “Ice”, *Friend*, 16 June 1851, p. 3.

and approved by both the governor and the legislative council. The request for the reimbursement of the original wharfages, however, remained outstanding. When the request for exemption was eventually granted, it was merely a once-off concession aimed at facilitating the consolidation of the business.⁶⁰

Two years after obtaining the right to import ice, Holmes was appointed as the US consul in the Cape Colony.⁶¹ Accepting this important post, and becoming a crucial link in the economic relationship between the Cape Colony and the United States, was a step towards stabilising the still-nascent enterprise. In line with his acknowledgement the venture was an experiment and that the exemptions granted would (hopefully) contribute “much to the health of the inhabitants”,⁶² Holmes imported four further shipments of natural ice totalling over 1 400 tons by the end of 1854. In order to increase sales, the “Ice House”, as the business was officially known, operated “from 6 o’clock in the morning, till gun-fire in the evening”.⁶³ However, the market for the available volume of ice remained small because it was pricey. The markets for industrial cooling appeared to be in their start-up phase and Holmes & Co struggled to dispose of its stock. To aggravate matters, new competitors began to enter the market.

The first to challenge the Holmes monopoly was the business G. Hein’s Chemist & Druggist of Adderley Street in Cape Town. In February 1854 it issued a prospectus for the establishment of an ice-manufacturing enterprise to be called “The Ice Company”. The main objective of the proposed company with its intended share capital of £1 000, was to ensure “a regular and constant supply of ice in this Colony” – a product which, according to the proposers:⁶⁴

... the want of ...in this City, has been very severely felt, the inhabitants having learnt to appreciate it, not only as an article of luxury, but also as a most-useful remedy in many cases of illness.

To attract interested investors, the prospectus offered an investment in any of 200 shares at a value of £5 each. The emergence of a competitor placed significant pressure on Holmes who was already struggling to build a proper client base for the disposal of his imported product. In May 1855, with little prospect of reversing the situation, he opted to terminate his business and tried to recoup some of his expenses which amounted to over \$4 000. He reluctantly acknowledged that he had failed in his attempt to introduce ice

60 KAB, CO 4064:185, Memorial from GS Holmes to Sir HG Smith, Secretary to Government, 13 March 1852.

61 KAB, CO 4059:39, Memorial from GS Holmes to John Montague, Secretary to Government, 15 February 1851.

62 KAB, CO 4064:185, Memorial from G.S. Holmes to John Montague, Secretary to Government, 6 April 1852.

63 “The Ice House”, *Mercantile Advertiser*, 13 December 1852, p. 3.

64 “Prospectus of a company to be entitled ‘The Ice Company’”, *The Mercantile Advertiser*, 25 February 1854, p. 4.

into the colony for general consumption.⁶⁵ Ironically, shortly after his exit, ice, in addition to guano (fertiliser), live animals and diamonds, were all exempted from custom duties.⁶⁶ Having left the frozen water trade altogether, Holmes concentrated his efforts on his other business interests, including expanding his already substantial property portfolio.⁶⁷

Following Holmes's exit from the frozen water trade, the market for ice and ice-related products was thrown open. In the absence of an official supplier of natural ice, the product entered the Cape Colony in a variety of ways, including via the sale and auction of the cargo of wrecked ships. In the latter case, the cargo of the American vessel, *Sea Eagle* which ran aground at Murray Bay, close to Robben Island was carrying 535½ tons of ice that were disposed of.⁶⁸

Beyond natural ice, this period saw the announcement in the United States by *Scientific America* of "a novel and elegant method of serving ice water for the use of guests on their table". According to this report:⁶⁹

... a glass bottle is filled with Croton water, and then placed in a freezing mixture of ice and salt; in about two hours the contents of the bottle will have become one mass of clear, beautiful ice, possessing all the properties and flavor of Croton water. These bottles of ice are placed on the table, and the warmth of the atmosphere gradually melts it, and from it you pour your glass of ice water, and leave behind a hard mass of ice, which has to liquify for the next customer.

In addition, the *Natal Witness*, a local newspaper, reported the invention of a "steam machine for manufacturing ice" in London in 1858,⁷⁰ while the *Grahamstown Journal* carried an advertisement by the local auctioneering company, Pote & Brother, offering a Keith Patent Ice-making Machine, for sale.⁷¹

A close study of auctioneer's notices in various local newspapers of the time, further indicates that ice making equipment, and the pre-requisite salts to produce the product, was an integral part of the domestic utensils of the higher middle-

65 KAB, CO 4074, H45, Memorial from GS Holmes to Rawson & Rawson and the Colonial Secretary, 17 October 1854.

66 "From the shipping gazette, May 11", *Friend*, 19 May 1855, p. 3.

67 KAB, CSC 2/6/1/71, 107: Motions – Holmes Family [Boston] to the Hon. the Court at Cape Town, Cape Colony, 10 July 1878.

68 "Wrecked ship *Sea Eagle*", *De Zuid Afrikaan*, 20 November 1856, p. 4.

69 "Ice water", *Scientific American*, 13(2), 19 September 1857.

70 *Natal Witness*, 1858.

71 "Pote & Brother: Sale by Auction", *Grahamstown Journal*, 24 September 1859, p. 1.

class Cape households and some farming operations at the end of the 1850s.⁷² With reference “ice-making salts”, the *Cape Town Mercantile Advertiser* in December 1859 informed the general public that local businessman, Charles Slingsby, in Darling Street, Cape Town, had imported a load of “freezing powder”, which in the hot season would supposedly be “found a valuable substitute for ice, for cooling all kinds of drinks”.⁷³ It was therefore no surprise that ice cubes became an essential part of colonial entertainment events, ranging from official state dinners to post-racing evening balls.⁷⁴ These advances in both science and technology, laid the basis for the first local attempt to establish a new industrial-type ice-manufacturing plant. This pioneering initiative in the early 1860s, was initiated by the partnership of two local companies: De Pass, Spence & Co and Robert Granger of Granger & Co. Both concerns were managed and owned by well-known and influential maritime entrepreneurs, landowners and political opinion-formers within the colony at large, and Cape Town in particular.⁷⁵

De Pass ice-making plant venture, 1861-1863

By 1860, the worldwide ice market in terms of tonnage was dominated by New Orleans where 60 000 tons of Boston ice was consumed, while a further 20 000 tons went to the East Indies. In a period of about 50 years, the Boston export trade increased from one cargo of 130 tons in 1805, to 353 tons in 1847 and 129, 403 tons in 1859.⁷⁶ These figures are indicative of the increased popularity of the product over a wide front. Ironically, Mrs Isabella Beeton’s popular *Book of Household Management* published in the United Kingdom in 1861, cautioned “that ices, a standard finale to a dinner, should not – because their coldness may be a shock to the system after several hot courses – be eaten by elderly people, children (!) or those of delicate constitution”.⁷⁷

The initiator of the new venture was De Pass and Granger who, as mentioned above were actively involved in the export of fish and guano to Mauritius and other markets. They were also prominent co-directors of the Marine & Fire Assurance Company, and the Cape Town Patent Slipway, through which they undoubtedly also became aware of the growing popularity of ice as a source of comfort cooling and refrigeration. In addition, ice *en route* to India and other parts, passed the Cape of Good Hope and with Table Bay Harbour being an important replenishment station, the locals were further acquainted with the product and its utility.⁷⁸ Alfred De Pass,

72 “Ice machine”, *Cape Mercantile Advertiser*, 20 June 1857, p. 1; “Sales by auction”, *Cape Mercantile Advertiser*, 21 March 1860, p. 1.

73 “Substitute for ice”, *Cape Town Mercantile Advertiser*, 28 December 1859, p. 4.

74 “The race ball”, *Natal Witness*, 2 June 1854, p. 2.

75 “Ice-making: Opening of the patent ice-making factory”, *South African Advertiser and Mail*, 20 November 1861, p. 3; Also see *Mercantile Advertiser*.

76 MW Herold, “Ice in the tropics ...”, *Revista Espaco Academico*, 142, March 2012, p. 168.

77 M Paterson, *A brief history of life in Victorian Britain...*, p. 59.

78 G Weightman, *The frozen water trade ...*, p. 95.

of Spence & Co. was an avid user of ice-related appliances and household utensils (technology) which he imported from abroad, and together with Robert Granger he launched the new ice-making plant in Cape Town on 19 November 1861.⁷⁹ This establishment was adjacent to the patent slipway located in the harbour and close enough to the other trading establishments controlled by these same business partners.

The inaugural event was attended by about 300 guests and included some of the most influential members of Cape society. They were hosted at a luncheon “at which the excellence of the luxury which is now manufactured at our doors could be fairly tested”. The lieutenant-governor was there, as were many of the top colonial businessmen. According to the information provided to the assembled dignitaries this “novel” ice-making facility, when fully operational, had the capacity to produce 2 400 pounds of ice within a 24-hour period. The speeches described ice as a “luxury”, as being “conducive to pleasure [and] health”, and an absolute necessity “in various sicknesses”. These claims were probably motivated by the regular advertisements of products such as “iced soda water” and “ice! a la vanilla” in local newspapers like the *South African Advertiser and Mail*, and which suggested that Cape consumers had started to develop a taste for the new and emergent consumer goods. These claims, especially the suggestion that ice was a commercial necessity, were not however, universally accepted. Lieutenant-Governor Wynyard on this auspicious occasion, expressed scepticism and noted that the venture was “perhaps not too important but at all events, no less [an] interesting undertaking”.⁸⁰ This notwithstanding, soon after the opening of the new facility, ice was exempted from custom import duties under the Customs Tariff Act of 1855 and Customs Tariff Amendment Act of 1861.

Despite the high hopes expressed at the inauguration, the Cape market for general consumer ice does not appear to have grown significantly. In addition, the new plant, according to a public notice in the *Cape Mercantile Advertiser*, was only formally declared fully functional (“now at work”)⁸¹ in January 1862, more than a year after its inauguration.⁸² In the meantime city-based retailers obtained their ice supply from a variety of ad hoc suppliers. Amongst these were James Stevens, and confectioners WA Knoops and CH Martino who offered ice as well as ice-creams. Whereas Stevens’s advertisement indicated that he had “a constant supply of ice at his own premises” at 81 Loop Street,⁸³ Martino’s advertisement for “ices! a la Vanille!” claimed that their product was “prepared after the most approved Continental

79 The catalogue of De Pass’s furniture when he left the colony a few months later, included an ice refrigerator, ice decanters, an ice butter pot, and ice plates. See for example “Catalogue of MA De Pass’ Furniture”, *Cape Town Mercantile Advertiser*, 22 January 1862, p. 1.

80 “Ice-making: Opening of the patent ice-manufactory”, *South African Advertiser and Mail*, 20 November 1861, p. 3. Also see *Mercantile Advertiser*.

81 De Pass, Spence & Co., “Ice! Ice, Ice!”, *Cape Mercantile Advertiser*, 6 December 1862, p. 3.

82 A De Pass, “Notice”, *Cape Mercantile Advertiser*, 6 January 1862, p. 2.

83 “Ice! Ice! Ice!”, *Cape Mercantile Advertiser*, 11 December 1861, p. 4.

method” – without indicating any specifics of its true origin.⁸⁴ In Port Elizabeth, Wasley’s Hotel, continued to receive the product (“a small quantity”) from Cape Town, which enabled the establishment to serve iced-drinks, with the sherry-cobbler in particular, a firm favourite.⁸⁵ This suggests that the De Pass initiative started with a real backlog and had to work hard to satisfy the existing and future needs of elite Cape society. Importantly, it was doubtful whether supplying individual households directly would be the ideal business strategy.

Against a background of competition from ad hoc suppliers with independent procurement channels, the De Pass-Granger initiative turned to targeting retailers involved in general trading. Among them were established traders such as Anderson & Murison, who like De Pass, Spence & Co, were involved in multiple enterprises including whaling and the export of guano and fish. The availability of an industrial-type supplier of ice ignited a price-war among the small group of grassroots retailers. This led to the sale of bulk ice, with volumes being offered at between 2½ pence per pound for purchases larger than 5 pounds, and 2 pence for any that exceeded 10 pounds.⁸⁶ Barely a year later, just as this contest entered its first phase, a new competitor and supplier of imported natural ice, William L Avery & Co, entered the market.

WL Avery Initiative, 1864-1867

During March 1864, an American expatriate called Avery, who was resident in Cape Town, publicised his intentions to initiate new and enabling legislation which would allow the importation of natural ice from the United States. Avery, a merchant, shipping agent, and a former judge of the Federal Court in the USA had been a longstanding resident of the city for a decade.⁸⁷ Over his long residency, Avery, a Freemason, joined the Lodge de Goede Hoop.⁸⁸ Undoubtedly attracted by the possibility of importing ice duty-free, and the experiences of his compatriot, Holmes, Avery’s approach and business strategy with regard to the ice or frozen water market differed markedly from those of his predecessors. Approaching the matter from a legal angle, he publicised his intentions to initiate new legislation (an Ice Bill), with a view to secure a 10-year importation monopoly, to provide the product to the wholesale and retail sector, and to establish ice depots in Cape Town and Port Elizabeth.⁸⁹ This proposal differed materially from that of the De Pass-

84 For these advertisements see the *Cape Mercantile Advertiser*, 2 December 1861, p. 4.

85 “Miscellaneous intelligence”, *Cape Mercantile Adviser*, 9 December 1861, p. 3.

86 “Ice”, *Cape Mercantile Advertiser*, 23 January 1869, p. 2.

87 JP van Niekerk, “British, Portuguese, and American judges in Adderley Street: The international legal background to and some judicial aspects of the Cape Town Mixed Commissions for the suppression of the transatlantic slave trade in the nineteenth century (Part 3)”, *CILSA*, 37, 2004, p. 434; KAB, *Cape Town Directory for 1865* (Cape Town, Cyrus J Martin, no date), p. 287.

88 “Masonic”, *Eastern Province Herald*, 6 July 1866, p. 6.

89 “Miscellaneous intelligence”, *Cape Mercantile Advertiser*, 9 March 1864, p. 3; WL Avery, “Ice Bill”, *Cape Mercantile Advertiser*, 28 March 1864, p. 4.

group who did its business exclusively from Cape Town and had no depots or points of sale in the rest of the colony. Following his formal public notifications: In 1864, Avery petitioned the Legislative Council to adopt legislation that would allow the importation of natural ice into the Cape Colony.

The petition, which was tabled on 29 April 1864, was followed by the establishment of a Select Committee two months later to investigate the matter. This committee consisted of Messrs Godlonton, Tucker, Busk and Barry and within a short space of time after receiving testimony, recommended the adoption of a new law.⁹⁰ Opposition to the proposed measure was minimal and took the form of objections to the monopolisation of ice imports. While this was presented as a concern for public health, including the availability of sufficient ice for medical application, fear of poison contamination during its sea journey, and a suggestion that the product was devoid of any real utility value, it also included a certain measure of anti-Americanism. A report in the *Fort Beaufort Advocate*, a local regional newspaper, following a particularly cold Karoo night which left the environment covered under winter frost, a correspondent wrote:⁹¹

... perhaps the Hon. Mr. Woods will consider this an additional reason why Mr. Avery's Ice Bill shall be thrown out, and a citizen of the murdering Yankee nation, as he termed the Americans, prevented from importing with spiders and poisonous tobacco, ice blocks for the Eastern Province.

This objection notwithstanding, new legislation, namely an *Act to Encourage the Importation into the Colony* [The Ice Act, No. 35 of 1864], was tabled and after debate, promulgated as law. It effectively gave Avery exclusive rights to import and sell ice for a period of 10 years.⁹² Avery not only 'accepted the privileges and liabilities provided by the said act' with enthusiasm but established his formal business premises at 2 Spin Street Cape Town.⁹³ In addition, a sales depot was established in Port Elizabeth. By September, the colonial newspapers reported that the essential materials required for the construction of an ice-house on the beach in Rogge Bay were on hand and the first shipment of ice from Boston in the US was dispatched in June and August respectively. A load of 300 tons of ice and "sundries", arrived in Table Bay Harbour on 30 November 1864.⁹⁴ Days later, Cape Town was finally in a position to witness the arrival and was beginning to enjoy a new cargo of the product which one newspaper described as

90 KAB, CCP2/1/1/10, Cape of Good Hope: Votes and Proceedings of the Legislative Council, p. 13.

91 "Fort Beaufort", *De Zuid-Afrikaan*, 20 June 1864, p. 3.

92 KAB, AMPT PUBS (Official publications) CCP 6/2/1/6/: Act to Encourage the Importation of Ice into this Colony (Act no. 35 of 1864).

93 KAB, CO 4133: A23, William A Avery to Hon. R Southe, Colonial Secretary, 3 September 1864.

94 "Local and general", *Eastern Province Herald*, 6 December 1864, p. 2.

“ponderous in mass and clear as crystal”.⁹⁵ As from 1865, the Cape Directory also formally listed Avery as an Ice Merchant and Importer.

The distribution of the first consignment of Avery-ice, judging from an anonymous letter of complaint to the *Eastern Province Herald*, barely 30 days after its arrival, attracted an almost immediate complaint. Signed by “A Consumer”, the anonymous writer pointed out that contrary to Avery’s previous commitment to fairly serve both Cape Town and the eastern districts fairly, only an estimated nine tons were released to the sales agent in Port Elizabeth. This “miserable portion”, complained the writer, was not only inadequate and quickly exhausted, but exposed the inability of the local agent to project interest accurately, and further demonstrated a lack of business foresight which, according to his/her reasoning, left the distant consumer “debarred by sheer negligence from the enjoyment of the grateful luxury”.⁹⁶ This, concluded the complainant, bordered on a transgression of the legal obligation which compelled the concession-holder to service both Cape Town and Port Elizabeth equally and regularly. Similarly, a complainant to the *Cape Mercantile Advertiser* also protested against the shortages, irregular supply and high prices, and noted:⁹⁷

... the demand here last summer always exceeded the supply, and we would respectfully submit to Mr. Avery, that if he do justice to himself and save the inhabitants of Port Elizabeth from much disappointment and annoyance during the approaching summer, he should at once make arrangements for keeping a large quantity of his crystal blocks here. We may get on very well without the luxury while we are ignorant of the bliss of swallowing endless glass fillings, sherry-cobblers, and cocktails, but once we have become accustomed to these delicious drinks, we rebel against the man who, having the power, neglects or refuses to supply them.

Furthermore, these were not the only complaints. According to the local agent, the initial orders were as high as 50 but due to the availability of only 27 blocks of ice, not everybody could be serviced. Given the prioritisation of serving the city’s hotels and restaurants, very little remained for other retailers or for household use. Some people started to agitate for Avery’s business to relocate to Port Elizabeth and very ambitiously, for that city to become the “emporium of ice”.⁹⁸ This was, however, easier said than done since the profitability of the business depended not only on accurate and sustained sale figures, but also on the almost universal availability of stock. This was by far the most difficult challenge given the long time-delay between its export from the United States and its arrival in the Cape Colony. The persistence of these complaints further suggested that the De Pass, Spence & Co ice-factory, was neglecting a potentially lucrative market outside the colonial metropolis and

95 “Miscellaneous”, *Eastern Province Herald*, 17 December 1864, p. 3.

96 “A consumer”, letter to the editor re “The Ice Famine”, *Eastern Province Herald*, 5 January 1865, p. 3.

97 “Eastern Province Herald”, *Cape Mercantile Advertiser*, 4 October 1865, p. 3.

98 “Ice”, *Eastern Cape Herald*, 7 March 1865, p. 3.

therefore was not making any inroads beyond its city-based clientele.

Mindful of the need to expand his market, increase his supply and eradicate the problems of delivery while still retaining the duty-free import and supply of his product, Avery deliberately cultivated a market amongst colonial bureaucrats and in so doing hoped to secure their continued support. In this he was assisted by the ongoing advertisements in local hotels such as the Fountain Hotel in Hout Steet, Cape Town that promoted cold drinks such as sherry-cobbler, cocktails, punches and others – using plenty of ice. One advertisement for example, noted:⁹⁹

... cool drinks, judiciously taken, are the best tonic in hot weather; while they sustain the system, they promote a gentle perspiration, and counteracted the injurious effects of the heated air. There is no danger at any time from imbibing the most intensely cold drinks if they are not taken with too great rapidity. To prevent this, always take your cold drinks in hot weather, through a reed or straw.

Against this background, Avery arranged a social gathering involving the members of the colonial legislature, the United States consul-general (GS Holmes, coincidentally), the chief justice and a number of colonial bureaucrats at his Cape Town business premise. The idea was for them, to see and sample the joys of ice and its various applications in a true “trans-Atlantic fashion”. Hosted in November 1865, the occasion provided two hours of pleasant and friendly socialising and speeches while the assembled group enjoyed the iced-sherry cobbles and glasses filled with champagne.¹⁰⁰ This type of event was important for countering the persistent complaints and appeals from some members of the public for the enforcement of the penalty for non-performance in ensuring a regular ice supply.

Despite these public relations exercises, persistent shortages resulted in an increase in the number of complaints. These were accompanied by an increasingly vocal demand for the enforcement of the penalty clause for Avery’s failure to ‘supply Port Elizabeth “fairly”’. One critic, writing under the nom de plume “Cold Comfort”, accused the businessman of doing barely enough to prevent punitive sanctions and of “tantalising” the public while releasing just enough ice to the market to “save his bacon and frizzle ours”.¹⁰¹ They directed their complaints via their local representatives to the Cape legislature. Having secured the ear of the colonial parliament, four tons of extra ice were dispatched to Port Elizabeth in November with a further load following in December.¹⁰² These were stopgap measures aimed at

99 Fountain Hotel, “Keep cool”, *Cape Mercantile Advertiser*, 27 September 1865, p. 1.

100 “A treat for MP’s”, *Eastern Province Herald*, 29 July 1865, p. 2.

101 “Cold comfort, “Ice! Ice!”, *Eastern Province Herald*, 14 November 1865, p. 3.

102 “Ice”, *Eastern Province Herald*, 21 November 1865, p. 2.

appeasing an increasingly restless public.

In the midst of his arm-wrestling with the household consumer, and arguably, also to deflect public criticism of his continued inability to supply sufficient volumes of ice, Avery dispatched six tons of Cape grapes, packed in ice, to the United States in early 1866.¹⁰³ This was followed by an additional load to Great Britain, earmarked for sale at the Covent Garden Market.¹⁰⁴ These initiatives were aimed at developing new export markets and was particularly significant for local farmers, given the struggling state of the local wine industry at the time. *De Zuid-Afrikaan* newspaper the mouthpiece and active campaigner for colonial farming interests, watched this development with increased interest. With a view to the future potential of these and similar actions, it remarked:¹⁰⁵

... we sincerely trust that the adventure made by Mr. Avery, of shipping grapes to England may turn out favourably. Should that be the case, even that little would afford considerable relief to those in the immediate neighbourhood of Cape Town, while though it may not directly, it certainly would, indirectly benefit the wine interest throughout the Colony. But this scheme of Mr. Avery's, even if successful beyond all expectations, would not do very much to improve the general condition of our wine farmers.

Despite these understandable reservations, some Western Province farmers were more than willing to explore and participate in this new initiative. By March 1866, a further shipment of grapes, totalling 4 000 pounds (2 tons) enclosed in tin cases and for additional safety, packed in ice, was dispatched to the United States.¹⁰⁶ This effectively laid the foundation for the export of refrigerated produce from South Africa to overseas markets. These were positive developments, but unfortunately of short duration, because of Avery's changed personal and business circumstances.

By 1867, barely two years after securing the ice import concession, Avery disappeared from the pages of the Cape Town Directory. This coincided with his involvement as United States arbitrator in the Mixed British and United States Court of Justice under the direction of the Admiralty Court for the suppression of the African slave trade, established under a Treaty of 7 April 1862.¹⁰⁷ Although he was subsequently re-listed in the Cape Town Directory, he appeared as an arbitrator without any reference to any merchant activities. A notice in the *Cape Mercantile Advertiser* of 8 May 1868 further informed the public that some of the property in the Avery estate, located in Plein Street, was put up for sale.¹⁰⁸ Whether this was a transaction involving the disposal of excess property, a business premise or a primary resident, or whether it

103 "Miscellaneous", *Eastern Province Herald*, 9 February 1866, p. 2.

104 "Agriculture", *Grahamstown Journal*, 7 February 1866, p. 2.

105 "Hints to a wine farmer", *De Zuid-Afrikaan*, 26 February 1866, p. 3.

106 "Local and General", *Eastern Province Herald*, 23 March 1866, p. 2.

107 KAB, *The Cape Town directory for 1867* (Cape Town, Cyrus J. Martin, no date), p. 67.

108 "Sales announced for the week", *Cape Mercantile Advertiser*, 18 May 1868, p. 3.

was prompted by sudden financial difficulty, was unclear. Avery's departure from the frozen water trade, however, opened the way for others to exploit the benefits offered by it.

Expansion from Cape Town to Kimberley, 1870-1880

During late January of 1869, an advertisement in the *Cape Town Mercantile Advertiser*, notified the public that ice was being offered for sale by Thomas J. Anderson of the company Murison & Anderson in volumes of 10 pounds (10lbs) at £2 per pound. In response to consistent and growing customer support and sales, the company also started to sell the product at 2½ pence per pound from its ice house near the Alfred Docks. In addition, the company maintained a satellite depot with sales at the same price. The price for mobile sales from their horse-drawn ice cart was pegged at 2½ pence per pound for volumes over five pounds.¹⁰⁹ This service in particular was offered for home deliveries in both the central city and southern suburbs.¹¹⁰ Given the seasonal demand for the product, Murison & Anderson was also the first to begin an advertising campaign in October 1870. As a means to grow their business, the company added a note that in its catalogue that ice chests were also for sale.¹¹¹ Similarly, confectioners Daniel Dix in Longmarket Street, and Cornelius H Marting in Plein Street, Cape Town, continued to advertise the availability of ice cream and vanilla per glass. In Port Elizabeth, Ryan's Restaurant prided itself on its ability to provide not only ice but also iced drinks.¹¹² This supplier was joined by the company of MH Wilhelm, that in addition to selling ice, was also a chemist and druggist active in retail and wholesale.¹¹³

Further afield in Kimberley, the centre of the developing diamond industry, attempts were made to introduce new innovations into the evolving business environment. A space described as being characterised by “dust, drought and flies” as well as “crippling heat”, it was an ideal market for the selling of “cool comforts”.¹¹⁴ Further, “since drinks at all hours were Kimberley's biggest industry after diamonds”, ice and Kimberley were a perfect match.¹¹⁵ Businessmen such as Cecil John Rhodes and Charles Rudd were among the first to initiate steps to exploit the emerging opportunities. By 1872, Messrs Baily & Anderson of Du Toitspan, was servicing the needs of the mining community and purchased a steam-driven ice-machine similar to the one

¹⁰⁹ “Ice! Ice! Ice!”, *Cape Town Mercantile Advertiser*, 9 October 1871, p. 4.

¹¹⁰ “Ice”, *Cape Town Mercantile Advertiser*, 23 January 1869, p. 2.

¹¹¹ “Ice”, *Cape Town Mercantile Advertiser*, 22 October 1870, p. 2.

¹¹² “Ryan's Restaurant”, *Cape Mercantile Advertiser*, 3 December 1870, p. 2.

¹¹³ “Ice, Ice”, *Eastern Province Herald*, 4 July 1871, p. 1.

¹¹⁴ B Roberts, *Kimberley: Turbulent City* (Cape Town, David Philip, 1976), pp. 53-91.

¹¹⁵ B Roberts, *Kimberley ...* (Cape Town, David Philip, 1976), p. 109.

used by De Pass, Spence & Co. This was a most welcome addition to life in the mining community. In this vein, “Ice Ready”, wrote a tong[ue]-in-cheek piece that epitomised the positivity that followed the news of the introduction of ice to the community. He wrote to the *Grahamstown Journal*:¹¹⁶

... we shall have ice in blocks brought to our doorstep every morning...The idea of having of a dish of ice every morning! Then the breakfast butter dish, instead of being full of oil, will look tempting; and ice pudding for dinner, and ice fizz after ice creams at Thomas; and at Jubber’s a knob of ice in the water we drink; a piece of ice in the morning bath; meat that now offends the palate with its freshness, may be kept until it is edible; and a hundred other advantages may be catalogued as about to emanate from Baily & Anderson’s ice machine...

This was followed somewhat later by an initiative led by Rhodes and Charles Rudd, a partner in the firm, R.E. Wallace & Co., “which speculated in numerous ventures ranging from an attempt to buy 200 claims in De Beers Mine to a telegraph between Du Toitspan and Kimberley to an ice-making business.”¹¹⁷ Rudd, in turn, was married to the grand-daughter of Cape Town guanopreneur, Antonio Chiappini and a business associate of the De Pass brothers and Granger who were early entrants into the Cape frozen water or ice industry.

With their customary speed, the Rhodes-Rudd partnership imported an ice-making machine and a bucket ice-cream machine from abroad. In addition to using ice in their drinking holes and similar establishments, they also produced and sold ice cream which was priced at sixpence a wineglass and an extra sixpence for a slice of cake.¹¹⁸ This noted, Robin Brown, “in the heat of Kimberley... was hugely successful”.¹¹⁹ In addition, the company exported ice, wrapped in blankets, by cart to Bloemfontein where according to local resident, Sophie Levisseur, it was used for medical purposes.¹²⁰ However, when the initiative failed to produce the desired results, the partnership was sold and the proceeds were used to buy more diamond claims.¹²¹ From the available evidence it would seem that Rhodes and Rudd never planned to establish a full-scale industrial-type business. Instead they were geared to quick profits. Furthermore, the high import costs of imported ice-making technology and competition from suppliers from neighbouring provinces such as Natal, where there was an established network

116 “Ice”, *Grahamstown Journal*, 6 December 1872, p. 3.

117 RV Turrell, *Capital and labour on the Kimberley diamond fields, 1871-1890* (Cambridge, Cambridge University Press, 1987), p. 83.

118 AP Cartwright, *Gold paves the way: The story of the Goldfields Group of Companies* (Johannesburg, Palgrave Macmillan, 1967), p. 9.

119 R Brown, *The secret society: Cecil John Rhodes’s plans for a new world order* (London, Penguin Random House, 2015).

120 K Schoeman (ed.), *Sophie Levisseur: Memories* (Cape Town, Human & Rousseau, 1982), p. 51.

121 AN Wilson, *The Victorians* (London, Arrow Books, 2003), p. 604; J McDonald, “Rudd: The search for a Cape merchant”, *South African Historical Journal*, 66(1), 2014, pp. 192-196; 194.

of clients in hotels and households being served on a daily basis, made things difficult for start-ups.¹²² Equally problematic was the shortage of operating and maintenance personnel for both ice and mineral water machines.¹²³

By the late 1870s, the *Cape Times* noted that “ice has made its appearance”, and, reporting on a luncheon held by the Table Bay Harbour Board, further reflected “that its presence was immensely appreciated, and we presume that the hotels are already alive to its seductive influence”.¹²⁴ Amongst the new generation of ice providers that entered the market over the intervening period, was Messrs Johnson & Co. of Hout Street and the Pekin Hotel on the corner of Mostert and Zieke Streets who proclaimed that they always had “ice ... on hand!”¹²⁵ Similarly, the Good Templar Café managed by Richard J. Claridge in Mutual Hall, proudly displayed ice cream as part of its “first-class temperance refreshments”.¹²⁶ In addition, some chemists provided “a certain mixture of soda water in ice and ice cream”,¹²⁷ presumably (in modern parlance) “ice-cream sodas”,¹²⁸ and American-imported “delicious & novel summer luxuries” with powdered ice.¹²⁹

In addition to the continued availability of ice and related ingredients to manufacture product variations, the colony saw an influx of new ice-making technology for domestic and low-volume manufacturing (“make your own ice”). Businesses like Samuel Cox & Co, for example, sold the piston freezing machines, in addition to chemical freezing mixture “for the making and moulding of dessert ice in one operation”. They further offered, “great desideratum, direct agitation, and hence simplicity, economy, and effectiveness”.¹³⁰ This allowed small-scale manufacturers such as Stephen Woolven of the “Ice Wagon” to acquire technology to establish a home-based manufacturing enterprise that combined daily ice-delivery service per cart to the residents of Sea Pont, Green Point and Gardens in direct opposition to established retailers.¹³¹ Further, engineering companies such as James Flower & Sons of Burg and Castle Streets, specialists in the installation of ice manufacturing machinery, started to advertise their services in the Cape Town newspapers.¹³² Thanks to the increased availability of heavy and industrial-type equipment, a number of ice factories requiring more substantial capital outlay were established in Cape Town. These included Combrinck & Co., Albion Ice Factory, Kamp & Co. and De Beers & Co ice factories which used water from Table Mountain in their operations. This

122 “Advert: Fruit, vegetables and ice”, *Natal Witness*, 5 February 1881, p. 2.

123 “Wanted”, *Natal Witness*, 20 December 1882, p. 2.

124 “Local and general”, *Cape Times*, 18 November 1876, p. 3.

125 “Pekin Hotel”, *Cape Times*, 10 December 1878, p. 4.

126 “The Good Templar Café”, *Cape Times*, 16 December 1878, p. 4.

127 “Local and general”, *Cape Times*, 18 November 1876, p. 3.

128 “Ice cream sodas”, *Cape Times*, 5 September 1879, p. 2.

129 “Delicious and novel summer luxuries”, *Cape Times*, 26 September 1879, p. 2.

130 “Ice! Ice! Ice! – make your own ice”, *Cape Town Mercantile Advertiser*, 27 October 1877, p. 3.

131 “Ice, Ice, Ice”, *Cape Times*, 25 January 1879, p. 1.

132 “James Flower & Sons”, *Cape Times*, 2 May 1877, p. 2.

water, claimed one manufacturer, made “the finest ice in the world”.¹³³ Kamp & Co also established a factory in Port Elizabeth. The presence of more ice-manufacturing factories that also set up satellite ice depots, directly impacted on the Cape farming sector.¹³⁴

Ice, refrigeration and Cape agriculture to 1899

By the last decade of the nineteenth century, significantly more businesses were acquainted with the usefulness of ice and refrigeration. Although progress with the use of refrigeration for the export of products overseas since the time of Holmes was slow, the Cape agricultural sector in particular, was strongly attracted to its use. Some farmers went out of their way to acquire small ice-making machines to manufacture their own ice which they used for packaging their products intended for dispatch to their intended market. Normal practice was to send perishable products such as butter in accordance with railway recommendation. This stipulated that it was to be dispatched in a particular way, namely:¹³⁵

... in parcels of 1lb or 2lbs weight, and covered with linen steeped in a solution of Liverpool salt. These small parcels should be wrapped in a blanket or woollen cloth, steeped in a similar solution. The blanket containing the butter should be placed inside a box, which should be covered with gunny or grain bags or similar materials, also steeped in a solution of salt.

By the late 1870s, following the first successful overseas transport of 150 tonnes of meat at a temperature of 27-30 degrees Fahrenheit from France to Argentina and back as well as the introduction of the Bell-Coleman refrigerating machine which enabled the safe transport of frozen produce from the USA to the United Kingdom, the world entered a new development phase.¹³⁶

The practice of using “refrigerated rail cars” for the dispatch of meat products in the Cape Colony was formally inaugurated in 1884, without ice being universally used. The system began with four cars which were later increased to 28 by the end of the century. The 24 ventilated trucks were “ordinary box cattle trucks with the windows and other openings lined with perforated zinc” and fitted with movable beams as well as “furnished with hooks from which the meat is suspended”. These trucks did not necessarily require ice and were mainly used over short distances during summer. The colonial railways also had 44 refrigerating trucks using ice for the conveyance

¹³³ “Ice from the Albion factory”, *Cape Times*, 13 December 1879, p. 3.

¹³⁴ “Ice”, *Cape Times*, 24 December 1878, p. 4.

¹³⁵ KAB, Official Publications (AMPT PUBS) CCP 1/2/2/1/55, Minutes of Evidence: Select Committee on Railway Cold Storage (A11 –1900), Evidence of Charles Bletterman Elliot (General Manager of the Cape Railways), 25 September 1900, p. 3.

¹³⁶ E Domisse, “Sir David Peter de Villiers-Graaff: Sakeman en Politikus aan die Kaap, 1859-1931 (PhD thesis Stellenbosch University, 2011), p. 22.

of meat and fish, “as well as Wicke’s patent car which also uses a good deal of ice”.¹³⁷ These cars were provided with a double lining of insulating material in-between as well as being fitted with ice-boxes. There were also experiments carried out with a range of other mediums such as “coarse canvas or sacking kept moistened by water circulating through pipes from a tank on the roof of the car”.¹³⁸

Provision for cold storage at stations during the 1880s and 1890s was equally rudimentary and typically consisted of a room under a water tank that used “the constant trickling of the water and the evaporation serving that purpose”. It did not make provision for the accommodation of “dead cattle or sheep” but merely for the preservation of butter, vegetables, milk and similar perishables. Kimberley Station, for example, had an ice house for fish “but it proved a failure, because the people did not seem to care to keep their fish there. Practically it was not used, and it was taken down.” Given this combination of practices, the safe transportation of perishable products was not fully guaranteed since such items were sometimes placed with other produce in non-insulated rail cars and in hot rooms.¹³⁹

Thanks to the advancement in ice-making technology and the improved availability of ice provided by the various factories in Cape Town and in Port Elizabeth as well as the establishment of satellite depots, it was possible to provide more of the product to the railway system.¹⁴⁰ By March 1896, Combrinck & Kie of Cape Town, ordered a number of ice containers from New York and the first ammonia-compressor from Glasgow. This enabled the company to establish eight ice and refrigeration plants within 12 months. Six of these facilities were within the Cape Colony (Aliwal North, Kimberley, Beaufort West, Gouda and Cape Town, with two more planned for Port Elizabeth and Johannesburg).¹⁴¹ A rinderpest pandemic among game and cattle during 1897, however, created an acute meat shortage and high prices had to be paid by both retailers and households.

On 4 May a new company, the South African Supply & Cold Storage Co. Ltd, controlled by the De Graaff family of Cape Town was registered in London. This was followed in June 1899 by an announcement by De Beers Consolidated Mines, with prominent businessmen such as Cecil John Rhodes in its ranks, that it was in the process of establishing cold storage facilities (De Beers Cold Storage) in Cape Town and Kimberley for the express purposes of keeping “down the price

137 KAB, Official Publications, CCP 1/2/2/1/55, Minutes of Evidence, Select Committee on Railway Cold Storage (A11–1900), Evidence of Charles Bletterman Elliot (general manager, Cape Railways), 25 September 1900, pp. 2-3.

138 KAB, Official Publications, CCP 1/2/2/1/55, Minutes of Evidence, Select Committee on Railway Cold Storage (A11 –‘1900). Evidence of Charles Bletterman Elliot, 25 September 1900; p. 7.

139 KAB, Official Publications, CCP 1/2/2/1/55: Minutes of Evidence, Select Committee on Railway Cold Storage (A11 –‘1900): Evidence of Arthur John Fuller (MLA Stutterheim), 27 September 1900, p. 23.

140 “Ice”, *Cape Times*, 24 December 1878, p. 4.

141 E Domisse, “Sir David Peter de Villiers-Graaff...”, pp. 58-59.

of meat".¹⁴² While the expansion of storage capacity, enabled increased imports of foreign consumer goods, including dairy products such as butter and cheese, it also introduced competition between Afrikaners and English-speakers for control of the refrigeration industry. These developments notwithstanding, prices over the short to medium-term remained reasonably stable. Matters were not helped by high rail tariffs and a shortage of proper cooling trucks. By 1900, ice still retailed at 3d per pound, for large quantities and 2d or 1½d per pound was charged, with the lowest price pegged at 1d per pound.¹⁴³ In Kimberley the product was sold at ½d per pound.¹⁴⁴ Commercial farmers involved in the meat and fruit industry and businessmen involved in refrigeration and cold storage, consequently started to push for the provision of cold storage at select railway stations within the Cape Colony. This was also in reaction to the occurrence of natural ice-theft while freight was *en route* to its destination and therefore was often subjected to spoilage and contamination.¹⁴⁵

Not all parliamentarians supported the idea or were convinced about the long-term benefits of the ice trade. This division, noted the *Grahamstown Journal*, was along cultural / language lines with Dutch-speaking parliamentarians generally opposed to the idea, seemingly motivated by fear from competition by imported products, while the English-speakers were more in favour of expansion.¹⁴⁶ Some of those in opposition argued that such an undertaking would not only prove too expensive, but that in the absence of any guarantee, that such facilities would also be used for the storage of imported produce, which "would do the farmers more harm than good". Dr Thomas Smartt, the commissioner of railways one of the strongest advocates of the initiative, however, while supporting the exclusion of imported produce, he motivated strongly for the erection of "small cold storage sheds" to give "moderate protection for products of the soil".¹⁴⁷ Such government intervention would also prevent private monopolies. This reasoning swayed members sufficiently to vote for the establishment of a Select Committee on Railway Cold Storage on 12 September 1900.

The Select Committee with its mandate to investigate the question of the provision of cold storage accommodation for all South African produce at the more important railway stations and the provision of suitable "cool cars for railway use", consisted of the commissioner of Public Works, Messrs Sauer, Lee, Weeber and Wienand and

142 De Beers Consolidated Mines Ltd, "Report of the Directors of De Beers Consolidated Mines to 30 June 1899", *Cape Daily Telegraph*, 27 February 1900, p. 3.

143 KAB, Official Publications, CCP 1/2/2/1/55, Minutes of Evidence: Select Committee on Railway Cold Storage (A11 –'1900): Evidence of Elliot (GM of Cape Railways), 25 September 1900, pp. 1, 10.

144 KAB, Official Publications, CCP 1/2/2/1/55, Minutes of Evidence: Select Committee on Railway Cold Storage (A11 –'1900), Evidence of J. Lawrence MLA for Kimberley, 25 September 1900, p.16

145 E Domisse, "Sir David Peter de Villiers-Graaff...", p. 74.

146 "Journal", *Grahamstown Journal*, 13 September 1900, p. 2.

147 "Parliament, House of Assembly", *Cape Daily Telegraph*, 13 September 1900, p. 5.

General Brabant.¹⁴⁸ As part of its investigation, it was decided to send an official to Australia to study their approach to cold storage on the railways.¹⁴⁹ This coincided with public reports that the opening of the De Beers storage facility in Cape Town had already contributed to a price-reduction of one penny on a pound of meat and that voices were emerging pleading for the establishment of the same arrangement in Port Elizabeth.¹⁵⁰ Five months later, the *Grahamstown Journal* reported the purchase of a Port Elizabeth building by a local businessman, JH Webber, with a view to converting it into a cold storage and refrigeration plant.¹⁵¹ This plant came into operation in August after the required machinery arrived from overseas. In addition, the De Beers Company, in order to increase its delivering capacity of frozen meat in Cape Town, transferred its depot to a private firm, named the Distribution Syndicate for De Beers Cold Storage.¹⁵² As a result of the continued war, and the suspension of parliamentary sittings, the investigation stalled and remained incomplete, only to be restarted after the end of the South African War and the conclusion of peace in 1902.¹⁵³

Conclusion

The general use of ice for the purposes of comfort cooling, and the establishment of refrigeration in South Africa, was undoubtedly the result of the initiative of a number of farsighted but profit-driven businessmen, who laboured on despite the constraints of capital and the variable market. However, progress was also the result of the push and pull effects of global forces such as the Industrial Revolution, that shaped local economies, social conditions, lifestyles and politics, far from its epicentre. Unsurprisingly, and mediated by the actions of the middle-classes in their continuous search for a regular supply, the Cape ice trade, over time, displayed the same features and to a large extent followed the same development path of its overseas counterparts.

Despite its popularity over a wide front, irregular supply, high import duties and freight costs, and the cost of infrastructure turned natural ice into a high-priced commodity that was out of reach for the average colonial citizen. Under these circumstances, the importation of high volumes of the natural product proved uneconomical. The colonial state, due to its own systemic limitations and financial shortages, was in no position to subsidise the nascent ice trade for the benefit of its citizens. Consequently, private efforts to initiate industrial-scale production with the aid of modern technology, did not

148 "Parliament, House of Assembly", *Cape Daily Telegraph*, 13 September 1900, p. 5.

149 "Railway changes", *Cape Daily Telegraph*, 20 September 1902, p. 4.

150 "Frozen meat", *Cape Daily Telegraph*, 25 September 1900, p. 4.

151 "Local cold storage: A Grahamstown enterprise", *Grahamstown Journal*, 26 February 1901, p. 3.

152 "De Beers Cold Storage", *Grahamstown Journal*, 11 April 1901, p. 2.

153 KAB, Cape Government Railways (CGR), 2/1/458: 522/64/37882C- Naauwpoort. Ice-making plant for Refreshments Department, 1903-1907.

produce the desired result immediately as far as increased volumes and lower prices were concerned. Colonial society was thus serviced by groups of ad hoc suppliers ranging from general merchants, visiting shipping crews, hoteliers, druggists and confectioners. However, far-sighted entrepreneurs persisted and established more expensive manufacturing and production facilities to ensure a regular supply, and in so doing laid the foundation for the cold storage industry. This benefited the Cape agricultural sector in particular. Thanks to the improved ability to transport perishable products over long distances utilising special refrigeration railcars, a new innovation, the Cape colonial economy was placed on a whole new growth trajectory.