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## THE GENTLE CANNIBAL: THE RISE AND FALL OF LAWFUL MILK

*Yoriko Otomo\**

**Abstract.** Milk, a globally traded commodity, is ubiquitous throughout our food systems. In light of its ever-increasing production and consumption, this article seeks to contextualise the fluid within a history of its regulation, tracing the role of state intervention in shifting milk feeding from the domestic to the public and to the international sphere; from the sacred and precious to the surplus and profane; and from corporeal matter to industrial material. There is a range of scholarly publications on milk, a couple of them looking specifically at legal aspects of milk production, and some taking feminist or animal welfare approaches to its commodification. The majority deal with either breastmilk and breastfeeding practices, or cow's milk production. This article extends the literature by analysing the co-evolution of regulation that, on the one hand, restricted direct human/animal contact in milk feeding while, on the other, enabled the creation of national and global cows' milk production systems and distribution networks. The argument advanced is that there is no coincidence here: milk, with its symbolic and physiological powers of nurture and purification, plays a central role in securing the political economy of the late modern state and making lawful the bodies of its cities and its citizens. Furthermore, control over female human and animal lives through the process of milk production is an expression of political liberalism that cannot be ignored in any jurisprudence which takes that project seriously.

### 1.0 LAWFUL MILK

I sit in the morning in front of a steaming latte. The crema from the coffee swirls together with the milk; a single sip is enough to rouse the brain and energise the senses. Across the world, over two billion cups of the liquid are consumed in this manner each day. After my coffee, I settle down to feed my son, who after twenty minutes or so of nursing breaks into a beatific smile, satiated. Almost half of all new mothers across the country feed their offspring in this manner each morning. Not only does the composition of milk change over the duration of a single feed, but it also changes over the entire period (of weeks, months and years) that an infant is breastfed, to meet its specific nutritional and health needs at each stage. Milk — from cow and from human — is the mammal's finest food: a luxury product

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as well as a basic force of life. Yet, milk is also an internationally traded commodity. It is ubiquitous throughout our food systems and yet, it remains a mystery to science:

[Milk is] ... an astonishingly complex liquid ... it contains water, lipids, protein, carbohydrate ... and also gases and minerals. ... The lipids comprise neutral glucerides, free fatty acids, phospholipids, cereborsides, gagliosides, sterols and carotenoids. The most important protein is casein but also to be found are lactalbumin, lactoglobulin, and fibrin, along with the enzymes ... peroxidase, reductases, lipase, phosphatase, catalyse, galactase and amylase. The minerals ... are various salts of potassium, sodium, calcium, magnesium, iron, sulphur, phosphorus and chlorine. There is also a spectrum of vitamins and trace elements ... microbiologists now think that milk contains roughly 100,000 types of organic molecules, most of which have yet to be identified and studied.<sup>1</sup>

This article tells a story about milk that is alluded to, but not fully articulated, in the numerous commentaries on the topic.<sup>2</sup> Since the nineteenth century, milk — both human and animal — has become one of the largest and most heavily regulated industries in the world.<sup>3</sup> For this reason alone, it merits sustained consideration. Milk '[t]ravels both the private and the public domains, and draws attention towards the permeable boundary between inside and outside the body'.<sup>4</sup> From a sociological perspective, the legal life of milk is thus of great interest. Since milk comes from female mammals, it seems particularly appropriate to employ a feminist

<sup>1</sup> Atkins Peter *Liquid Materialities: A History of Milk, Science, and the Law* Ashgate Aldershot 2010 p 19.

<sup>2</sup> Given the limitations of space, I am not able to digress into descriptions and examinations of the numerous primary and supporting materials available on the cultural and economic histories of milk. In lieu of this I merely note here that almost all of the literature falls into one or the other of two categories: commentary on female human breastmilk, or (cow's) milk. In discussing issues pertaining to one, scholars may briefly mention the other (such as the impact of formula milk availability upon rates of breastfeeding), but for the most part the two liquids and the two kinds of female bodies that produce them are treated as having nothing to do with one another. The exceptions (and I refer to them throughout this article) are the work of Carol J Adams and Greta Gaard, who argue that the issues underlying the control of both animal and human milk-producers are analogous: see Adams Carol J 'Pity the Poor Mad Cow: A View from the United States' (1997) 3 *Ecotheology* 117; Gaard Greta 'Toward a Feminist Postcolonial Milk Studies' (2013) 65(3) *American Quarterly* 595. In this article I am responding to Gaard's call, as well as contributing to the (as yet) small body of work that looks at the role that milk plays in the gender wars of the nation state: see Miles Margaret R *A Complex Delight: The Secularization of the Breast, 1350–1750* University of California Press Berkley CA 2008; Lacy Cheryl 'Nurturing the Nation in a Colonial Era: The Rationalisation of Breastfeeding in France, 1870–1930' (2003) 15(1/2) *Phoebe* 101; Nadeau Carolyn A 'Blood Mother, Milk Mother: Breastfeeding, The Family, and the State in Antonion de Guevara's *Relox de Principes (Dial of Princes)*' (2001) 69 *Hispanic Review* 153; Baumslag Naomi and Michels Dia L *Milk, Money and Madness: The Culture and Politics of Breastfeeding* Bergin and Garvey Westport Connecticut and London 1995. It is, of course, possible to reappropriate this ambiguity or undecidability of feeling about the breast, to argue that this is its subversive feature.

<sup>3</sup> Although milk adulteration has scandalised people as recently as 2013 (when the latest in a string of Chinese companies recalled their infant formula milk after unusually high levels of mercury were identified in its powder), it has long been a problem, and subject to regulation in England since at least 1875: Collins E J T and Thirsk Joan (eds) *The Agrarian History of England and Wales: Part III* Cambridge University Press Cambridge 2000 p 807.

<sup>4</sup> Giles Fiona 'Relational, and Strange: A Preliminary Foray into a Project to Queer Breastfeeding' (2004) 19(45) *Australian Feminist Studies* 301 at 307.

analysis in giving an account of this story. And since the control to which it is subject has largely been coordinated by states, the story looks at legislation that signifies important interventions in the production of milk and its distribution through its territorial body (its cities) and to its citizens, analysing that effect upon the political economy of the state.<sup>5</sup> It focuses on the nineteenth and twentieth centuries as the period that has seen the most rapid and wholesale change in the way that milk is made and used.

This period, of course, has been witness to two key forces of globalisation: industrialisation and colonisation. The process of industrialisation (fuelled by, and enabling, systematic colonisation) has led to urbanisation, first in the old colonial powers, and then in their settler colonies. With the growing density of human populations in cities, livestock, including cows, goats and sheep, have been moved outside household yards to rural farms and increasingly, to large-scale industrial warehouses. The commercialisation of milk production (with the creation of refrigeration, pasteurisation and railway networks) has moved the locus of activity from the domestic sphere to the industrial. Milk — now consumed globally at a rate of over 780 million tonnes per year, has become a standardised product.<sup>6</sup> In some former colonies, the introduction of specialised dairy breeds has dramatically changed social, cultural and economic structures: in India, for example, the revered status of the cow in Hindu culture stands in jarring contrast to the nation's status as major global exporter of cattle and water buffalo meat, skin and milk.<sup>7</sup> The development of the milk industry has impacted on a changing tapestry of relationships between human and animal, feminine and masculine, parent and child, public and private, coloniser and colonised, urban and rural and church and state. In the most general terms, one could describe some of the most significant changes as including a replacement of a multitude of breastfeeding practices with the standardised product marketed by a handful of commercial operators; the shifting production of milk and meat to colonial outposts; an increase in dairy consumption around the world and the concentration of regulatory power over the industry by the state; a growing taboo against domestic contact (cohabitation, feeding) with 'livestock' animals'; a ubiquitous sexualisation (and de-sacralisation) of female human breasts; and, last but not least, the atomisation of family life.<sup>8</sup>

<sup>5</sup> While this article is limited to case studies involving France, Britain and India, I use the term ('the state') in its generic formulation as the analysis could be extended to the political economy of the state as an institution.

<sup>6</sup> World milk production is at historically high levels <<http://www.milkproduction.com/Library/Editorial-articles/FAO-Food-Outlook-Nov-2013—Milk-and-Milk-products/>> Accessed 16 December 2014.

<sup>7</sup> India was the world's main beef exporter in 2012 <<http://en.mercopress.com/2012/11/07/india-becomes-main-world-beef-exporter-in-2012-and-probably-2013>> Accessed 16 December 2014.

<sup>8</sup> While current scholarly discussions about the politicisation of female human breasts are interesting and important, I am not focusing on the politics of breasts in this article, but rather, on the liquid they deliver. For a detailed examination of the rise of formula sales, see Baumslag above note 3 at 147–83. For a description of the impact of enforced separation of parent (cow) and child (calf), see Jasper Jennifer Budzynska Monika and Weary Daniel M 'Weaning Distress in Dairy Calves: Acute Behavioural Responses by Limit-Fed Calves' (2008) 110 *Applied Animal Behaviour Science* 136.

In turn, these changes have witnessed both an increasing juridification of milk production, and an increasing use of milk feeding by the state to produce lawful subjects, sustained by the symbolic, economic and phenomenological power of the fluid. I develop this analysis in three parts. The first part looks at the historical shift in Western Europe away from wet nursing, to an insistence on breastfeeding by the birth mother in order to ensure her payment of a ‘blood tax’ to the nation. Emblematic of this shift is the 1874 French *Roussel Act* or ‘Loi Roussel’, which sought to institutionalise and reduce the practice of wet nursing.<sup>9</sup> The second part examines the substitution of human breastmilk with cow’s milk, pursued throughout the global north in the twentieth century. The prime example is the institution of England’s post-war *Milk Marketing Board*, which centralised control over cow’s milk production, and sought to globalise this commodity.<sup>10</sup> The final part looks at the replication of this model in England’s colonies, namely in India, site of the so-called ‘Operation Flood’ or ‘White Revolution’.<sup>11</sup> Drawing on anthropological, sociological, critical and historical methods, this article describes how the production and consumption of our most valuable liquid commodity has been shaped to serve the state. The scholarship from which this article draws its material is rich, given the interest in milk evinced by philosophers, ethicists, historians, sociologists, lawyers, literary scholars and theologians.<sup>12</sup> Perhaps due in part to the growing availability online of archival material as well as the twenty-first century emergence of critical animal studies as a stand-alone field of study, much of the work has been produced in the last ten years.

## 2.0 THE ROUSSEL ACT 1874

To frame the significance of the *Roussel Act 1874*, let me offer a brief background on the history of wet nursing (the feeding of one creature by another who is not the biological mother). Across Europe in the fifteenth to the seventeenth century wet nursing was common practice, undertaken by friends, relatives, slaves and by non-human animals.<sup>13</sup> Of the latter there are many accounts and, indeed, wet nursing by animals was common until as late as the end of the nineteenth century — there are

<sup>9</sup> The French law is *Loi Roussel du 23 décembre 1874*. The original text is available online at <[www.histoire-du-biberon.com](http://www.histoire-du-biberon.com)> Accessed 16 December 2014.

<sup>10</sup> ‘Dairy Crest’ which has taken over some functions of the decommissioned Milk Marketing Board, describes its history on its website <<http://www.dairycrest.co.uk/who-we-are/our-history.aspx>> Accessed 6 November 2014.

<sup>11</sup> India’s National Dairy Development Board website gives a brief description of the history of ‘Operation Flood’ <<http://www.nddb.org/English/Genesis/Pages/Operation-Flood.aspx>> Accessed 6 November 2014.

<sup>12</sup> See note 3 above. Some texts in critical animal studies that I have found very helpful are: Derrida Jacques *The Animal that Therefore I Am* Fordham University Press New York 2008; Derrida Jacques *The Beast and the Sovereign: Volume 1 (The Seminars of Jacques Derrida)* University of Chicago Press Chicago 2011; Calarco Matthew *Zoographies: The Question of the Animal from Heidegger to Derrida* Columbia University Press New York 2008; Wolfe Cary *What is Posthumanism?* University of Minnesota Press Minnesota 2010.

<sup>13</sup> Over the centuries the popularity of wet nursing among wealthier families fluctuated, but breastfeeding at any rate was encouraged consistently, given the high mortality rate of infants fed by the bottle. See Stevens Emily E Patrick Thelma E and Pickler Rita ‘A History of Infant Feeding’ (2009) 18(2) *The Journal of Perinatal Education* 32.

accounts of donkeys and goats working as wet nurses at orphanages and hospitals in England, France, Italy and Ireland.<sup>14</sup> This was critical at a time when infant mortality was often due to the use of non-sterile feeding bottles or inadequate milk substitutes.<sup>15</sup> Not only were human infants sometimes fed directly by a non-human animal, but at times the reverse has also been socially accepted practice. Women would keep an animal companion feeding alongside their infant in order to induce milk flow before the birth of their child; to increase milk flow where it was low; to release engorgement and mastitis; or simply to nurture the animal, particularly if it had been orphaned.<sup>16</sup>

Wet nursing in all forms was organised both informally and formally. Unlike the present day, it was not taboo; indeed, in France there were agencies matching lactating women to families seeking wet nurses.<sup>17</sup> As well as being able to earn money for breastfeeding infants, lactating women had considerable social power in that they could also nurse the elderly and the sick.<sup>18</sup> In terms of organising milk feeding (of their kin, of animals, by hiring wet nurses and so on) women seem to have had considerable decision-making power (*vis-à-vis* their husbands, the State and the Church).<sup>19</sup> This autonomy did not, however, extend to the representation of their body parts, which in the public domain have served to further various political ideologies. The nursing breast and breastmilk, for instance, have, from the early to the late modern period, had a significant symbolic purchase in religious discourse. This has led to an ongoing struggle between political institutions for control over

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<sup>14</sup> In 1724, a child nicknamed 'Peter the Wild Boy' was found in northern Germany, having been nursed by a bear. This tale has a rich history in mythology, too, including perhaps most famously the story of Romulus and Remus, nursed by a wolf: Ruhrah John 'Animals as Wetnurses' (Pediatrics in Art) <<http://archpedi.jamanetwork.com>> Accessed 5 June 2014. With animals, as with humans, it was important to hire 'agreeable' — gentle, patient, good-looking — candidates, since milk was widely believed to transmit the physical, intellectual and emotional attributes of the feeder to the child: Zwierlein Conrad A *The Goat as the Best and Most Agreeable Wetnurse* (1816), cited by Radbill Samuel X 'The Role of Animals in Infant Feeding' in Hand Wayland D (ed) *American Folk Medicine* University of California Press Berkley 1976 p 24.

<sup>15</sup> Velten Hannah *Milk: A Global History* Reaktion Books London 2010 p 57.

<sup>16</sup> Valenze Deborah *Milk: A Local and Global History* Yale University Press Ann Arbour Michigan 2011 p 153.

<sup>17</sup> Atkins above note 1 at 58.

<sup>18</sup> Indeed, this was a common medical intervention across different cultures: see Stevens et al above note 14. In early modern Europe and America breastmilk was treated as a specific form of medicine, given either by feeding directly, or in expressed form: Salomon Marylynn 'The Cultural Significance of Breastfeeding and Infant Care in Early Modern England and America' (1994) 28 *Journal of Social History* 247. Milk was also seen as blood and as spirit — in other words, as carrying properties or characteristics of the individual: Bildhauer Bettina 'Medieval European Conceptions of Blood: Truth and Human Integrity' (2013) 19 *Journal of the Royal Anthropological Institute* 57. Interestingly, under Islamic Law women's milk is considered to create a 'milk kinship' which precludes marriage between two people who have been fed by the same woman. This is particularly the case where consumption of milk has taken place directly from the breast: Ghaly Mohammed 'Milk Banks through the Lens of Muslim Scholars: One Text in Two Contexts' (2012) 26(3) *Bioethics* 117.

<sup>19</sup> Nadeau above note 2 at 153.

that iconography. From the fourteenth to the eighteenth century, the Virgin/Mother Mary was frequently depicted in paintings and sculptures with a bared breast, with the focus of such work on the nourishment of her child.<sup>20</sup> This promise of nourishment offered to the viewer was spiritual as well as it was physical: while from the third century to the Middle Ages the Virgin Mother's role was to guarantee Christ's *humanity* through her *flesh*, it was common belief in the late medieval and early modern period that breastmilk conveyed the spirit (of God or of the mother).<sup>21</sup> In the sixteenth century the icon of the feeding breast began to lose its hegemony as Protestant alternatives to 'the one true Church' emerged, resulting in a gradual downplaying of the Virgin Mother's role as wet nurse to humanity, and a covering up of her breasts in religious artwork.<sup>22</sup>

White in colour, milk was associated with purity (or perhaps, it is the association of purity with the colour white that derives from milk), which gave it a transcendental authority that perhaps made it attractive to a state seeking to validate its claim to power. Over the course of the long nineteenth century, the Virgin Mary's power to humanise the divine was appropriated from Church discourse by the French state through a 'rhetorical association [of] motherhood with moral and national renewal'.<sup>23</sup> The maternal body and the feeding breast were idealised as the life-giving source for a new nation, filling its future citizens with milk that tied the body to soil and to territory.<sup>24</sup> In 1874 the Republicans passed the *Roussel Act* during a brief period of rule after crushing the 'Paris Commune' (a popular insurgency that included a strong feminist element).<sup>25</sup> The Act criminalised the practice of wet nursing and of employing wet nurses where this had not first been registered with the relevant local authority. Purportedly for the 'protection of children' (Art 1), the *Roussel Act* afforded surveillance powers for state authorities to inspect both wet nurses' houses and those infants being wet nursed, criminalising

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<sup>20</sup> Miles above note 2 at 6. We should just note that in the religious repertoire of the late medieval and early modern period, female bodies were either 'good' (in the form the Virgin Mary and women saints), or 'bad' (Eve, witches). Miles argues that the figure of Mary Magdalen 'conflated the virtuous and the sexed female body', becoming a vehicle by which artists could begin to eroticise breasts; a move that was so effective as to remove (by the twentieth century) the non-sexual connotation altogether: Miles above note 2 at 10. See the work of Valenze above note 16 at 34–57 for an excellent account of milk and its social and religious significance through the Middle Ages, and also Mendelson Anne *Milk: The Surprising Story of Milk Through the Ages* Knopf Publishing Group New York 2008.

<sup>21</sup> For a rich discussion on this topic, I urge the reader to refer to the excellent text by Miles above note 2 at 39. Surprisingly, perhaps, it is not only Mary, but also Jesus, who has been portrayed as a nursing mother in medieval art: Bynum Caroline Walker *Jesus as Mother: Studies in the Spirituality of the High Middle Ages* University of California Press Berkeley 1982.

<sup>22</sup> Miles above note 2 at 4.

<sup>23</sup> Lacy above note 2 at 101.

<sup>24</sup> As above. The acquisition of nearly two dozen colonies after the Berlin Conference in 1885 caused anxiety in France over their presumed racial supremacy and thus a moral right to the land; this anxiety was managed in part by entrenching a rhetorical association between blood and soil, tying republican citizenship of the child to the breastfeeding body of its mother.

<sup>25</sup> This had included the establishment of the *Union des femmes pour la défense de Paris et les soins aux blessés* ('Women's Union for the Defence of Paris and Care of the Injured'), which sought gender equality, including wage equality.

those who refused visits (Art 6).<sup>26,27</sup> It provided for the annual publication, by the Minister for the Interior, of a report detailing statistics of deaths of infants under the care of wet nurses (Art 9).<sup>28</sup>

Not only would this regulatory burden, surveillance and criminalisation have had the consequence of reducing the availability of wet nurses and pressuring mothers to breastfeed (thus making it difficult to work outside the home), it also served to bring the state into the domestic sphere. The French state also intervened in the infant-rearing process by medicalising it (the resulting discipline was called *puériculture*), entrusting the creation of a uniform set of techniques and indicators to (male) scientists.<sup>29</sup> These practices were then implemented nationally through the micro-management of both mothers and babies, for instance, by requiring feeding to be carried out once every two or three hours rather than on demand, and for babies to be weighed before and after each feed.<sup>30</sup> The rhetorical justification for this control was the ‘civilisation’ of babies, no doubt also including the ‘civilisation’ of their mothers who had to suppress their individual rhythms in favour of an externally determined set of norms, and then monitor themselves in the process.<sup>31</sup>

### 3.0 THE MILK MARKETING BOARD

The French state, followed by others through the late nineteenth and twentieth centuries, thus took up breastfeeding as its lawful domain. And as time went on, this regulatory oversight extended from breastfeeding to the distribution of milk (what I call milk feeding) to the population as a whole. Nowhere was this more evident than

<sup>26</sup> Article 1: ‘*Tout enfant âgé de moins de deux ans, qui est placé, moyennant salaire, en nourrice, en sevrage ou en garde, hors du domicile de ses parents, devient, par ce fait, l’objet d’une surveillance de l’autorité publique ayant pour but de protéger sa vie et sa santé.*’

<sup>27</sup> Article 6: ‘*Le refus de recevoir la visite du médecin-inspecteur, du maire de la commune ou de toutes autres personnes déléguées ou autorisées, en vertu de la présente loi, est puni d’une amende de cinq à quinze francs (5 à 15 fr.). Un emprisonnement de un à cinq jours peut être prononcé si le refus dont il s’agit est accompagné d’injures ou de violences.*’

<sup>28</sup> Article 9: ‘*Il est publié, chaque année, par les soins du ministre de l’intérieur, une statistique détaillée de la mortalité des enfants du premier âge et, spécialement des enfants placés en nourrice, en sevrage ou en garde. Le ministre adresse, en outre, chaque année, au Président de la République, un rapport officiel sur l’exécution de la présente loi.*’ This law was not controversial at the time it was passed because of previous debates around the authority of the state, as against the father, to regulate and profit from the labour of women and children: Cole Joshua *The Power of Large Numbers: Population, Politics and Gender in the Nineteenth Century* Cornell University Press Ithaca 2000 p 173. By the late nineteenth century, references to *animal* wet nurses all but disappear, and so one can only speculate that within this climate (not only in France, but across Europe) of surveillance and criminalisation, this practice, too, was gradually suppressed. This period coincided with the development of powdered infant milk formula (by Henri Nestlé in 1867).

<sup>29</sup> The nascent pharmaceutical industry ‘made mothers the target of advertising for numerous ... infant dietary supplements. In their quest to extend their authority over infant care, doctors faced competition from the manufacturers and purveyors of commercial products who were just as adept as the medical profession at manipulating the rhetoric of national degeneration, maternal responsibility, and pro-natalism’. Lacy above note 2 at 109.

<sup>30</sup> This was established by the French physician Alfred Caron, who in his 1866 edition of his manual on ‘scientific childcare’ declared that young mothers must be taught ‘to regulate mathematically ... the proportion and frequency of feedings’. Cited in Lacy as above at 103.

<sup>31</sup> Lacy above note 2 at 110.

in England, where the establishment of railway networks and the invention of refrigeration (in the 1840s), and the discovery of pasteurisation (in 1864), resulted in the rapid expansion of a milk industry in England, most significantly enabling a further distinction of the country from the city and the rural from the metropolis, as milk animals could now be kept away from centres of human habitation. One railway company began transporting milk into London in 1860, and by 1900 was transporting over 25 million gallons a year.<sup>32</sup> By the early twentieth century, the supply system for milk was the most highly organised of any food product in the UK.<sup>33</sup> In 1875 the *Public Health Act* regulated the sale of food (including milk) by providing for official inspections; in 1885 powers were given to local authorities under the *Dairies, Cowsheds, and Milk Shops Order* to set hygiene standards in dairies and milk shops, and in 1901 — by which time over 90% of milk was being transported across the country into London — *The Sale of Milk Act* was passed, setting standards for the milk processed for commercial sale.<sup>34</sup>

Following the collapse of milk prices after World War I and in the lead-up to World War II, the British Government established a Milk Marketing Board to control the production and distribution of milk throughout the United Kingdom. This Board, described by one scholar as ‘the British farmers’ greatest commercial enterprise’, ensured a standardised milk selling price that was determined each month, with a lower manufacturing price to be paid to producers who had surplus milk.<sup>35</sup> It had a monopoly over distribution. It established a commercial arm, ‘Dairy Crest’, and took active measures to increase milk consumption across the nation. These included setting up new milk bars, developing ‘Milk in Schools’ and establishing ‘Welfare Milk’ schemes. At the conclusion of World War II, 3.75 million school children were drinking ‘school milk’, and four million pre-school children and expectant mothers were being sold subsidised milk. The Board controlled a nationwide system of artificial insemination (to the tune of two million inseminations a year, topping the international league).<sup>36</sup> In the 1950s it established a National Milk Publicity Council, a Butter Information Council and a Cheese Bureau, and it maintained a scholarship under which leading agricultural economists of the day were trained.

Part of the government’s rationale for the creation of this industry was that milk was a ‘complete food’ that could be easily manipulated to feed a population hungry after the war.<sup>37</sup> Even by 1950, however, the milk consumed by this population was almost entirely divorced from the brutal reality of its production, and the

<sup>32</sup> This was the Great Western Railway, as recorded on the website of DairyCo, the remaining corporate expression of the Milk Marketing Board <[http://www.dairyco.org.uk/talking-to-the-public/talking-to-schools/providing-school-milk/the-history-of-milk/#.VJHr\\_ofBYa1](http://www.dairyco.org.uk/talking-to-the-public/talking-to-schools/providing-school-milk/the-history-of-milk/#.VJHr_ofBYa1)> Accessed 16 December 2014.

<sup>33</sup> Atkins P J ‘The Growth of London’s Railway Milk Trade, c. 1845 to 1914’ (1983) 4(4) *Journal of Transport History* 208.

<sup>34</sup> Collins above note 3 at 807.

<sup>35</sup> This scholar offers a detailed account of the Milk Marketing Board and its activities: Empson John ‘The History of the Milk Marketing Board, 1933–1994: British Farmers’ Greatest Commercial Enterprise’ (1998) 51(3) *International Journal of Dairy Technology* 79. In the United States, a similar institution goes by the name of the ‘Milk Security Program’. See also Valenze above note 16 at 235 for a description of similar projects around the world.

<sup>36</sup> Empson as above.

<sup>37</sup> Empson as above.

relationship between cow and consumer was a far cry from the familial and domestic one that was standard in the early nineteenth century. The milk that the nation drank (and continues to drink) daily has been combined and pasteurised, tested and adulterated to match state-proscribed proportions of fat to liquid. It involves the warehousing of hundreds and thousands of animals in remote parts of the country; the annual impregnation of dairy cows; the forced removal of babies hours after birth and the use of their crying to induce their mothers to begin producing milk; the slaughter of the calves soon afterwards; the constant use of milking machines; confinement; radically reduced lifespans and lameness; and eventual sale — once past their peak at the age of four — for the hamburger trade.<sup>38</sup> The cow herself is not considered as the agent of production, but a static object through which the milk passes — or even less, as simply a risk factor for profit margins.

Attempts by the Milk Marketing Board to ensure a high rate of return for its producers were undermined in the 1960s and 70s by surplus milk dumped by other countries onto the market.<sup>39</sup> It was for this reason, no doubt, that the Board was so eager to provide ‘advisory visits’ to India as part of their establishment of the dairy industry in the former British colony. It resulted in the shifting of the EU milk surplus onto India, discussed in the following section. The United Kingdom acceded to the EU in 1973, which brought it under the ambit of Regulation 804/68 (regarding the common organisation of the market in milk products). With common Community-wide prices established by the Regulation, the Board’s primary functions of price-setting and milk allocation were no longer required. The Board’s commercial arm, Dairy Crest, was turned into a subsidiary in 1987 and was divorced from the Board’s marketing arm, effectively closing down that aspect of its operation.<sup>40</sup> The Board was dissolved in 1994 with deregulation of the British milk market; a co-operative scheme called the Milk Marque was established in its place, subsequently replaced by a co-operative called Milk Link, after the Milk Marque was investigated by the European Commission for price-setting.<sup>41</sup>

Whether in its public or private guise, the marketing, production and distribution of milk in the UK has thus been directed — indeed, created — by the state. The growth of the industry and the widespread commercialisation of infant formula have tracked the decline of wet nursing and maternal breastfeeding through the twentieth century. Today, in the twenty-first century, drinking the milk of another mammal that we do not need (in the nutritional sense) has become quotidian. Or perhaps to put it another way, milk as a product has become entirely denaturalised, save occasional visual or rhetorical references to nature as ‘purity’ and ‘goodness’. Cows may have become ‘humanity’s wet nurses’, but humanity does not seem to have noticed — or, at the very least, it has acquiesced.<sup>42</sup> The question, then, is ‘Why?’. Why, given its impact on the

<sup>38</sup> See Deckha Maneesha ‘Disturbing Images: PETA and the Feminist Ethics of Animal Advocacy’ (2008) 13(2) *Ethics & The Environment* 64.

<sup>39</sup> Empson above note 35 at 80.

<sup>40</sup> As above at 81.

<sup>41</sup> In 1994 the Conservative Government ended the long-standing monopoly of the Board, and privatised part of the organisation. The Milk Link was merged with Arla Foods (<http://www.arlafoods.co.uk/>) in 2012 to become one of Europe’s largest dairy cooperatives, and sources approximately 8.4 billion litres of milk a year.

<sup>42</sup> Adams above note 2 at 117.

environment, animal welfare concerns, intensive capital investment, difficulty of manufacture and transport and adulteration scandals, has the state invested so much energy into this particular liquid? How has milk (and its dairy derivatives) become so widely adopted that it is consumed with nearly every meal? I suggest that the answer cannot lie only with the argument that it is a convenient foodstuff, or with the marketing undertaken by the Milk Board (although this has undoubtedly had an influence on its uptake). Rather, the very ideas with which the state promoted milk feeding — life, nurture, comfort, purity and goodness — must be placed within a context where the liquid is entirely removed from the female labour that produces it.

This analysis directs us, then, to think about what the significance of milk extraction (and excision) from the body may be, and what the stakes are for the state in feeding that milk to other bodies: its centres of production — cities — and its labouring citizens. While there are many ways of thinking about the circulation of fluid (the work of Luce Irigaray or Zygmunt Bauman may come to mind here), of thinking about the corporeality of the state (perhaps beginning with Thomas Hobbes, or the French physiocrats), I find it helpful to think initially with a theorist of political economy, Adriana Cavarero. She describes how in canonical literary and philosophical work, the city is envisioned as a polis where:

free males reserve the power of the logos for themselves, uprooting themselves from a carnal existence perceived only as the disquieting attachment to a life that is prelogical, prehuman, and nearly animal: therefore female.<sup>43</sup>

The city, in other words, is imagined as a masculine, clean, rational and pure space, transcendent from the body that is coded dirty, irrational and impure: female and animal. Cavarero thus reads what she calls an ‘organological’ ordering of elements on a territorial plane, whereby the city — ‘already adult, perfect, harmonious, and vigorous’ — is constituted through the banishment of any metaphorical bodies that are its other: female and animal.<sup>44</sup> We see this expressed in nineteenth-century England with laws that cleanse the city of livestock (with their bodily presence and non-human speech), banishing them outside the city.<sup>45</sup> And we see it expressed in the movement of milk production from houses and communities (with their dense social and affective relationships) to industrial warehouses out of sight of the home and the city.

The city — at least the global powerhouses of the nineteenth and twentieth centuries — dealt not in the business of making life, but in the business of making profit from capital — a practice perceived at least since the sixteenth century as posing a ‘danger to the soul’.<sup>46</sup> It poses a danger because trading in money can be profoundly anti-social, removed from the basic community function of creating a social safety net for its inhabitants. Milk feeding, in this context, undertakes some of

<sup>43</sup> Cavarero Adriana *Stately Bodies: Literature, Philosophy, and the Question of Gender* (trans Robert de Lucca and Deanna Shemek) University of Michigan Press Ann Arbor Michigan 2002 p x.

<sup>44</sup> As above.

<sup>45</sup> See, for example, Trabsky Marc ‘Law in the Marketplace’ in Otomo Yoriko and Mussawir Edward (eds) *Law and the Question of the Animal: A Critical Jurisprudence* Routledge Oxford and New York 2013 p 133.

<sup>46</sup> The sixteenth-century theologian Francisco de Vitoria was concerned with questions of commerce and salvation: this is discussed in Koskenniemi Martti ‘Empire and International Law: The Real Spanish Contribution’ (2011) 61 *University of Toronto Law Journal* 19.

the ritual work of creating the sense of a community: the ubiquitous white liquid nourishes and purifies the city, and gives comfort.<sup>47</sup> Milk feeding undertakes some of the symbolic work of tying animal life to human while at the same time keeping them separate: the ‘animal’ part of the human is literally taken away, subcontracted to bodies that exist outside the organs of the city. And milk feeding — through the control of both the ‘flow’ of breastmilk and of cow’s milk — undertakes the juridical work of drawing consumers into a regulatory and ideological system, making them lawful subjects.<sup>48</sup> The violence of this process is not incidental, nor is it accidental. Sanitising the agony of making life, and then the agony of losing it — to the slaughterhouse, to the state — is a deliberate expression of masculinised political power. We, directed both to partake and to avert our gaze, are co-opted thus.

#### 4.0 THE WHITE REVOLUTION

If we were to extend this ‘organocological’ (to borrow Cavarero’s term) analysis of milk feeding to an international political economy, we see the same process replicated on a larger scale.<sup>49</sup> In Australia, for instance, archival research reveals a sustained early concern by the Colonial Office for the establishment of a national milk industry and distribution network, regardless of the unsuitability of dairy to a hot climate.<sup>50</sup> In post-war Japan, the occupying forces initiated a nationwide milk program in schools.<sup>51</sup> Indeed, if we look at the world’s largest producer of exported milk today — India — we find that it has been used specifically by European powers to further outsource milk production, creating a global network of arterials along which milk is collected and redistributed.<sup>52</sup> The dairy industry in India began when military dairy farms were established to supply the colonial army. Following Indian Independence in the aftermath of World War II, privately run urban processing dairies undertook much of the trade, but without significant improvements to milk production. Milk production was nationalised to some degree through the post-war

<sup>47</sup> A glance at advertisements for milk throughout the twentieth century reveal that they rely on the symbolic draw of a fluid that has a high cultural value due to its white colour, and its association with purity and innocence. See Wiley Andrea S “‘Drink Milk for Fitness’: The Cultural Politics of Human Biological Variation and Milk Consumption in the United States” (2004) 3 *American Anthropologist* 506.

<sup>48</sup> The Empire Marketing Board (1926–33) advertisements in particular depict milk as the drink of children and women, associating milk again with ideas of nurturing and fecundity. For a brief background to the Empire Marketing Board, see Schwarzkopf Stefan ‘Markets, Consumers, and the State: The Uses of Market Research in Government and the Public Sector in Britain, 1925–1955’ in Berghoff Harmut Scanton Philip and Spiekermann Uwe (eds) *The Rise of Marketing and Market Research* Palgrave Macmillan Basingstoke 2012 p 171. Captions on posters include statements such as: ‘The Milk Made Complexion — Take Fresh Milk and Be Healthy’; ‘Here’s a Health Unto His Majesty — Take Fresh Milk and Plenty of It’; ‘It Gives a Girl Glamour ... When She Eats Her Milk Too’. All of these posters depict children or women.

<sup>49</sup> For data on the global milk trade, see Shanahan Edward William *Animal Foodstuffs, their Production and Consumption, with a Special Reference to the British Empire* Routledge London 1920.

<sup>50</sup> I have observed this in research that is part of a larger ongoing project, and will detail my findings in later publications.

<sup>51</sup> See Moen Darrell Gene ‘The Postwar Japanese Agricultural Debacle’ (1999) 31(1) *Hitotsubashi Journal of Social Studies* 29

<sup>52</sup> India has been a leading producer of milk for several years <<http://www.dawn.com/news/1050700>> Accessed 16 December 2014.

Integrated Cattle Development Project and the Key Village Scheme, again without significant stabilisation of milk prices, and hence little growth in production.<sup>53</sup>

A co-operative model of dairy farming called the 'Anand model', established after World War II, was relatively successful, and was taken up by the Indian national government and the World Food Programme to be replicated throughout the country. Using milk surplus built up in Europe during the 1970s, 'Operation Flood', also known as the 'White Revolution', was launched in 1970. This project was the world's biggest dairy development program, aiming to make India the largest milk producer in the world. It began by using the EU's (then the European Economic Community) excess skimmed milk powder and butter as buffer stocks to stabilise Indian milk prices, and was followed up with IMF and World Bank interventions that sought to create institutional linkages from villages through to national centres, which would enable the national and international distribution of milk. 'Farmer training' was made available, as was cross-breeding technology, and a 'National Milch Herd' and 'National Milk Grid' were established. The purpose of the milk grid was to balance differences in the supply of milk across seasons and regions, and involved a 'complex network of storage facilities, tankers, chilling plants, feeder balancing dairies, urban dairies and bulk vending outlets'.<sup>54</sup>

The White Revolution has indeed been revolutionary, dramatically increasing production per cow (due to cross-breeding, feed regulation and no doubt a range of disciplinary techniques), and overall annual export. It has been criticised for a range of reasons, including the ongoing dependence of India's milk industry on subsidies and milk powder from Europe, which has tied together Europe and India's milk markets inextricably. The White Revolution has also been criticised for shifting India's agricultural focus away from the production of cereals, pulses and vegetables (which could be used to feed a large underfed population), to meat and milk (which has a higher environmental cost per calorie, and is produced for export).<sup>55</sup> It has further been criticised for its role in relation to the Green Revolution, which, along with the White Revolution, has increased women's work while reducing their political and financial power.<sup>56</sup> Finally, and of particular concern to us here, is the centralisation of the milk industry. While the co-operative, village-level model of milk production is nominally representative, its organisation is essentially under 'corporatist type management', with an 'executive structure directly linked to the centre of power in India, [and whose] basic [goal] seems to be the linking of India's dairy sector into an international milk grid and the world market for dairy products'.<sup>57</sup>

<sup>53</sup> The Food and Agricultural Organisation, Corporate Document Repository <<http://www.fao.org/docrep/t3080t/t3080T07.htm#dairying%20prior%20to%20operation%20flood>> (Accessed 4 January 2015).

<sup>54</sup> Doornbos Martin and Gertsch Liana 'Sustainability, Technology and Corporate Interest: Resource Strategies in India's Modern Dairy Sector' (1994) 30(3) *The Journal of Development Studies* 919.

<sup>55</sup> George Shanti 'Stemming Operation Flood: Towards an Alternative Dairy Policy for India' (1987) 22(39) *Economic and Political Weekly* 1654.

<sup>56</sup> See, for example, Basu Pratyusha and Scholten Bruce A 'Crop-Livestock System in Rural Development: Linking India's Green and White Revolutions' (2012) 10(2) *International Journal of Agricultural Sustainability* 175.

<sup>57</sup> Doornbos above note 53 at 943. For a more detailed account of the development of Operation Flood, see Valenze above note 16 at 270–78.

### 5.0 CONCLUSION

The question of *who* controls the circulation of (*whose*) milk in our economies, and *how*, is a deeply political one. That milk is a politically significant material is borne out by the seventeenth-century struggle (still continuing) between church and state for control over the social symbolic life of milk, breastmilk, breasts and mothers. In this article I have examined the consolidation of state control over milk feeding in three sites: the suppression of wet nursing in nineteenth-century France; the activities of the British Milk Marketing Board before and after World War II; and the milk development project, ‘Operation Flood’, in 1970s postcolonial India. I have argued that there has been a gradual transformation of cow’s milk into a sanitised, standardised commodity for human consumption, and that human breastfeeding has been designated an activity that is subject to the state’s notion of ‘the good mother’. The use of processed cow’s milk throughout our modern food systems, and our consumption of cow’s milk itself, has increased consistently throughout the twentieth and the beginning of the twenty-first centuries. The effect of this has been to shape power relations between sexes, humans and animals, women and the state. It has severed us from the material, emotional, physiological and environmental conditions of production. It has shaped *what* we eat, *who* we eat and *how* we eat — and what we are supposed to think, and not think, about it. The cultural bond between the feeder and the fed has been reconfigured over time, shaped in the present day by the liquid that I call ‘lawful milk’: milk whose extraction and consumption produces lawful subjects and lawful cities, and whose global distribution acts as a nourishing and purifying force for human territory.

And yet, the body resists. While breasts are over-determined by theological and gendered codes that prescribe where they should be, what they should do and who owns them, they nonetheless ‘straddle the border between motherhood and sexuality’, unsettling the status quo wherever they are exposed.<sup>58</sup> While lawful subjects are expected to obligingly consume animal milk, some do not, by refusing to drink milk, or by consuming it unwillingly. While animals are expected to obligingly provide milk, some do not by refusing or doing it unwillingly. And while there is a law of commodity trade (with its licenses, quotas and standards) there is also the law of hunger.<sup>59</sup> It is the hunger of the mother and of the child that drives the production of milk, and this is ultimately invisible, immeasurable and unknowable to the state.<sup>60</sup> The question of milk is important. It is important because milk has a transformative power that can shift the sacred to the profane, and vice versa. Under the regulatory control of the corporation, the state and the Empire, it animates and civilises in turn. It is important because it is a basic life-giving source that has been appropriated at the cost of private

<sup>58</sup> Cixous Helene ‘Laugh of the Medusa’ (1976) 1(4) *Signs* 875 (trans Cohen Keith and Cohen Paula).

<sup>59</sup> See Philippopoulos-Mihalopoulos Andreas ‘The Normativity of an Animal Atmosphere’ in Otomo above note 45 at 149, where the author describes the grazing of a flock of sheep as a ‘moving topography of hunger’, determined by a ‘law of hunger’ that offers us a different way of thinking about the relationship between territory and body.

<sup>60</sup> Although it can be estimated and controlled to some extent, the feeder and the fed nonetheless determine the quality and quantity of milk, particularly where this exchange takes place directly. Milk is also a vector through which bacteria, viruses and steroids can pass, leading to various milk scandals (and consequent falls in consumption) throughout the twentieth century.

suffering (which is also invisible, immeasurable and unknowable). While there are doubtless additional aspects and examples of milk regulation to examine to fully explore the relationship between milk feeding and the state, this article has set out some initial provocations and lines of inquiry that will be pursued in later work.

### 6.0 THE GENTLE CANNIBAL

Milk is blood  
Blood of mothers

In graves and glands  
Of sweetened air

Milk is spirit  
Drawn from comfort

It is food  
Drawn from hunger

Milk is drink  
White ink that makes mine  
A gentle cannibal

On open graves  
Their children lie  
Garnished