

INFANT FEEDING

Infant feeding in Japan.

There is considerable evidence that breast-feeding by the mother protects the infant from disease and hence lowers mortality rates.

(APPENDIX a-milk)

Given all this, we might specify a continuum of protection. At one extreme is the ideal situation. A mother herself breast-feeds her infant. Her nipples are kept clean. She feeds frequently and she herself is reasonably well and has plenty of milk. She does not add other foodstuffs, 'paps', chewed foods, uncooked foods for the first six months. She continues to breast-feed until the child is quite strong, a minimum of a year. Maher, however, suggests that 'Many studies indicate that babies breast-fed for longer than six months tend to be less healthy than those exclusively so fed for only three to six months.'¹ She weans slowly, keeping the protection of her milk part of the time, onto well cooked and nutritious solids.

The other extreme is a situation where the child is not breast-fed at all, fed diluted versions of a nutritionally poor adult diet, often uncooked and filled with bacteria. Even if the infant is breast-fed for a while, if it is then early and rapidly taken from the breast and fed on inadequate food, it will suffer. 'A particularly vicious form of hidden hunger is infant protein deficiency syndrome (IPDS). Levels of protein that are significantly below the minimum required for growth in the first 18 to 24 months of life will permanently cripple mental development.'² The most famous of the diseases is described thus. 'The deficiency illness **kwashiorkor**, which is caused by a serious shortage of proteins, is the most common such illness among the small children of poor "pre-industrial" populations. The word comes from the language of a Ghanian tribe and means "the first child is deposed (from the breast) when a new one is born".'³ It does not seem implausible to argue that all else being equal, the difference between the two ends of the continuum could make the difference between infant mortality rates (that is deaths per thousand in the first year of life) of under 100 at one extreme and over 300 at the other, between one in ten infants dying or one in three infant deaths.

The first question is what infants were fed. We may too easily assume that breast-feeding is so 'natural'

¹Maher (ed), *Breast-Feeding*, p.5.

²Mokyr, *Lever*, 156

³Benedictow, *Milky (xerox)*, 47

that is will almost universally be found. It is thus worth noting a contrary case well described by Scheper-Hughes for north-east Brazil. She reminds us that 'breast-feeding is no more "natural" or any less "cultural" than cooking. Breast-feeding is a form of body praxis. Like swimming, dancing, or making love, breast-feeding must be learned, and the knowledge of "how" to do it comfortably and well (though with many cultural variations) can be lost.⁴ In her case, the precious first colostrum was thrown away. 'It is manually extracted and thrown away. Most Alto mothers do offer the breast to their newborn by the third or fourth day postpartum but **always** in combination with, and usually following, **mingau**.'⁵ The reason for this and the nature of **mingau** is described thus. 'Because women were anxious about the survivability of their often small, puny infants, they hastened to offer them a heavy, thickened "pap" to fill their tiny bellies and (as we might say) to "stick to their ribs". In contrast to thickened powdered milk or even to fresh goat's milk, human milk appeared blue, thin, water.'⁶ She elaborates as following. 'Alto mothers of the present generation used the breast as an initial, and not very dependable, supplement to the staple infant food, **mingau**, that is offered to the newborn was early as the second day of life, following the cleansing herbal tea given to all infants immediately postpartum. Maternal colostrum is rejected as a "dirty" substance.'⁷ After a while, breast-feeding is abandoned altogether. 'Before long - usually in just a few days - mother's milk "fails". Alto infants are not put to the breast often enough, or hungrily enough, to suck vigorously and build up the mother's milk supply. And Alto mothers, like so many women elsewhere in the world (see Gussler and Briesemeister 1980), explain their failure to breast-feed in terms of "insufficient milk".⁸

In Japan there were few domestic animals and it would have been impossible to feed infants on animal milk. In fact, as we have seen, it was considered disgusting for humans to drink animal milk. Numerous observers attested to the universal breast-feeding of infants, and linked its length to the absence of milking animals. For instance, in the early nineteenth century, Rein wrote that 'Japanese mothers have as a rule abundant nourishment for their children, and suckle them until they are from two to five years old, and wean themselves of their own accord...This long-continued suckling may be partly accounted for by the absence of any other suitable food for children in the shape of the milk of animals.'⁹ A century later,

⁴Scheper-Hughes, *Without Weeping*, 326

⁵Scheper-Hughes, *Without Weeping*, 317

⁶Scheper-Hughes, *Without Weeping*, 325

⁷Scheper-Hughes, *Without Weeping*, 317

⁸Scheper-Hughes, *Without Weeping*, 317

⁹Rein, *Travels*, 426

Alice Bacon made a similar comment: 'Born into a country where cow's milk is never used, the Japanese baby is wholly dependent upon its mother, and is not weaned entirely until it reaches the age of three or four years, and is able to live upon the ordinary food of the class to which it belongs.'¹⁰ In cases where for some reason no human milk could be found, for instance because of the death of the mother, the infant seems to have been fed on a special nutritious alternative. Hearn described how 'In Nakabaramachi there is an **ameya**, or little shop in which **midzuame** is sold - the amber-tinted syrup, made of malt, which is given to children when milk cannot be obtained for them.'¹¹ This was sometimes mixed with rice gruel. Hearn described a case of a widower who had 'fed the boy for more than a year with rice gruel and **ame** syrup.'¹² Alice Bacon wrote that 'Sometimes, in the old days, rice water was given to babies instead of milk, but it was nearly impossible to bring up a baby on this alone.'¹³

The customs varied with class, area and time. The complex situation in the early twentieth century as Western custom penetrated Japan, is well described by Inouye. 'The child is at first fed entirely with its mother's milk; if she is weak or sickly, a wet nurse is engaged in a family which can afford one, but in poor homes the child is nourished with a very thin rice-gruel. Cow's milk is now largely used in Tokyo, and in many families given together with human milk. Very often the former is drunk in the daytime, and at night the mother who sleeps with the baby, suckles it with her own milk.'¹⁴ In general, though, it would seem that in the vast majority of cases the Japanese infant was fed on human, preferably mother's, milk.

Given the fact that human milk was normal, the next question is **which** human. In Japan, for the vast majority of the population for most of history, the answer seems to be simple, the mother. The exceptions in the first year were those cases where the mother was unable to do so and the family was rich. Inouye noted that in the early twentieth century 'Where the mother has no milk or is too sickly to give healthy milk, a wet nurse is engaged who has to be well fed and royally treated to make sure that her charge does not fare ill at her hands.'¹⁵ Wet nursing was probably very limited - at least in the early

¹⁰Bacon, *Japanese Girls*, 9

¹¹ Hearn, *Glimpses*, p.165

¹² Hearn, *Kokoro*, p.264

¹³Bacon, *Japanese Girls*, 9

¹⁴ Inouye, *Home*, p.223

¹⁵ Inouye, *Home*, p.161

stages of life. It would appear, however, that there was a good deal more informal exchanging of nursing in Japan than in Europe. Folklore sources in Japan describe a widespread custom that on the seventh or 30th day, the young infant was given milk by five females who still had milk. This was to make the baby remember the different taste of milk from various women. This had a double significance. Firstly, if the mother died, then other women could feed the baby; secondly, that other people will support the baby.¹⁶ Pompe reported in the mid-nineteenth century, 'One often sees children suckling at the breasts of strangers. This happens, for example, when a nursing mother visits a family where there is a suckling baby. She will then, out of courtesy, put the baby to her own breast.'¹⁷ This was still happening in the 1960s.

Furthermore, a sort of surrogate breast-feeding could occur. Pompe describes, 'Nursemaids in Japan are accustomed to carrying babies against their bare breasts, at which they cover them up and carry them with their own clothing. As soon as a child starts to cry, a nipple is put in his mouth, and he starts suckling on it. As a result of this continuous sucking, the mammary gland gradually starts to secrete a milky liquid, which secretion is maintained by the stimulus of that sucking and is often quite considerable. This is not a rare occurrence; in fact, I have noticed this fact at least one hundred times, and I have determined that there was no question of pregnancy of the servants. I have also had the occasion to show this phenomenon several times to some of my colleagues who visited Japan.'¹⁸ The recourse to these supplements is related to the length of breast-feeding in Japan. Pompe believed that the fact that other people could help later with breast-feeding 'makes it possible to suckle children for such a long period, something which otherwise would be a physiological impossibility.'¹⁹ The purposes of this later feeding, and the fact that others were involved is described by Dr. Namahira. 'There was a double purpose of breast-feeding. In the early years, it was to give milk. But the long suckling of children was later on as a comforter; hence a large child might be given his or her grandmother's breast - where there was no milk, but some comfort.'²⁰ In general, then, Japan's infants were fed with their own mother's

¹⁶ Namihira, Rural Communication

¹⁷ Pompe, p.43

¹⁸ Pompe, p.43. **Note** - can this be somehow related to Gorer's observation that 'if the mother dies the husband's breasts will very often swell, but not produce proper milk.' (Himalayan, p.293)? 'Adoptive lactation', namely that parents who adopt infants can provide them with breast-milk, is now a widely used technique (see **Independent** 27.9.94 which describes a case in Cambridge and cites US studies)

¹⁹ Pompe, Wittermans (xerox), p.43

²⁰ Namahira, personal communication

milk, at first at least.

A third question concerns the duration of breast-feeding. A survey of duration around the world suggested that twelve months of maternal breast-feeding is normal, with occasional instances of societies with up to twenty-five months (Nepal) or even twenty-eight months (Bangladesh).²¹ Where do Japan and England fit on this continuum? There is increasing evidence that Japan had very long breast-feeding, perhaps even exceeding Bangladesh. This is the opinion of one leading demographer of Japan, Hanley, who wrote that 'up to the mid-twentieth century, it was common for rural women in particular to nurse children up to the age of three or over.'²² The comments of several visitors support this view.

Isabella Bird noted a case where 'Her boy was five years old, and was still unweaned'²³ and Morse recounted how a woman was sitting in a jinrikisha 'with a large-sized child in her lap, the child holding in her hand a half-consumed sweet potato and tugging away at the maternal font for the milk to go with it...'²⁴ This is, of course, very impressionistic. More general were the remarks made by Morse to explain some odd deformations of Japanese teeth. While the explanations are suspect, the observations are relevant. 'Some show a remarkable protrusion of the incisors, and this deformation has been ascribed to the custom of children nursing so late; children nurse until they are six or seven years old and this is supposed to pull their teeth forward.'²⁵ Chamberlain noted that 'Japanese infants are not weaned till they are two or three, sometimes not till they are five years old.'²⁶ Pompe gave a slightly lower age, but still commented on the length. 'Special mention has to be made of the method of suckling in Japan. The children there get the mother's, or at least human, milk for a much longer period than anywhere in Europe. Two years is the average period for breastfeeding...As long as the mother has milk she will suckle her child, and I rarely heard complaints that milk was lacking.'²⁷

²¹ Dyson, *Fertility Tradition*, p.426

²² *Economic*, p.244

²³ Bird, *Tracks*, p.100

²⁴ Morse, *i*, p.263

²⁵ Morse, *i*, p.40

²⁶ Chamberlain, *Things*, p.93

²⁷ Pompe (xerox) p.43

It may be that what happened was that the longer periods reflected a pattern described by Inouye. 'The infant is commonly fed with its mother's milk and is not as a rule weaned until its position as part of the family is threatened by a new arrival.'²⁸ She gives a more detailed account, though it should be remembered that this may reflect a partly new pattern in early twentieth-century Japan. 'There is no fixed time for weaning. After its first birthday, ordinary food is given to the child little by little until in a year's time it is able to do without its milk. Generally-speaking, however, the time for weaning is governed by the arrival of a younger brother or sister; but the youngest is often allowed to take its mother's milk up to its fifth or sixth year, though of course, as it can take common food, it goes to its mother only for diversion.'²⁹ It is clear that children were breast-fed for as long as possible, first by their mother and then, possibly, as has been implied, by servants, neighbours or others.

One of the difficulties in assessing the effects of breast-feeding is what one might call the 'quality' factor; how often it takes place, how much and with what it is supplemented. The frequency of feeding is a very important area to examine. It is strongly influenced, for instance, by the working habits of women. As we have seen, it has been believed that in busy agricultural times women are forced to leave their children at home and hence mortality rises in the summer.³⁰ Or again, it is often stated that when women began to work in the factories in the nineteenth century, they were forced to abandon their infants at home, and this could lead both to improper food and hence high mortality of infants, and, presumably, a loss of much of the contraceptive effect of the infant's mouth on the nipple. (see xxx).

At first sight, we might expect Japan to be a strong example of the abandoning of infants at home. Not only was Japanese agriculture one of the most labour-intensive in the world, but women were, unlike China, heavily engaged in almost all stages of agricultural production. When not doing heavy farm work, they were very busy in bi-occupations, such as spinning and weaving. Although we know that women can combine heavy agricultural work and breast-feeding, as described for a village in Nepal by Panter-Brick³¹, we may nevertheless wonder whether the Japanese...could they feed on demand in such an arduous environment?

One of the customs which most struck foreign observers who visited Japan was the way in which infants were constantly carried everywhere. Furthermore, breast-feeding was done wherever the mothers went. In the 1870s Morse noted the situation. He saw 'women nursing their children in the

²⁸ Inouye, Home, p.161

²⁹ Inouye, Home, p.229

³⁰ e Kunitz above xxx

³¹In Maher (ed.), Breast-Feeding, pp.137-40.

streets, in the shops, and even while riding in the jinrikishas.³² Here comes a woman nursing her child in her arms as she travels along, and soon we pass another, naked to the waist, browned by the sun, leading a pack-horse, and actually holding a baby under her arm like a bundle and the baby nursing in this uncomfortable position.³³ At noon he noticed 'everybody taking a siesta lying on the floor; children nursing from sleeping mothers...'³⁴ Alcock described how 'I was met by groups of fishermen, with their wives and children - the wife suckling her baby, and carrying the fish.'³⁵ He noted elsewhere how 'almost every woman has at least one at the breast, and often another at the back.'³⁶ The different concepts of nudity and decency which we discussed briefly in relation to clothing are also important here. The upper half of a woman's body was not an erotic zone and hence there was no difficulty in breast-feeding in public.

(APPENDIX on infant carrying - a-child)

The two important facts are to be that breast-feeding on demand was made easy and that women had the extra burden of being one of the main carriers of infants, often alongside their normal work.

One other time when infants can either be fed or kept away is at night. My first impression is that mothers and infants slept together for a long period. This is suggested for early twentieth-century Tokyo by Inouye. She describes how 'The mother gets into the bed without undressing with the infant and gives it milk until it falls asleep, whereupon she gets out.'³⁷ But it would appear that the getting out is only temporary, for she continues that 'In Japan the mother, unless her place is taken by the wet nurse, invariably sleeps with the youngest child, and never leaves it by itself in a cot or bed.'³⁸ We know that wet nursing was restricted to the rich in a few cities. It seems very likely that most mothers slept with their babies. Certainly this is the situation in contemporary Japan. Some Japanese friends were amazed

³² Morse, i, p.262

³³ Morse, i, p.95

³⁴ Morse, i, p.61

³⁵ Alcock, Tycoon, 1, p.452

³⁶ Alcock, Tycoon, i, p.82

³⁷ Inouye, Home, p.149

³⁸ Inouye, Home, p.223

when they visited Oxford in the 1970s to discover the English pattern of putting the infant in a cot in a separate room. In Japan, all parents share their bed with the infant. This does not seem to have caused the problem of 'over-laying' which so concerned the English. It may, however, have some effect on another matter to which we shall come, namely the frequency of sexual relations during breast-feeding.

Finally, in relation to the infant's health, there is the question of supplementary foods and the methods of weaning. As Maher points out, 'women in the overwhelming majority of cultures supplement their breast-milk (with gruels in Africa, rice-water in South-East Asia and herbal teas in Mesoamerica) often for the first weeks of a baby's life...'³⁹ A first thing to notice is that the infant seems to have been fed on other substances as well as, or instead of milk for the first day or two. Inouye described how 'For the first day or two the child is given an infusion of a sea-weed which acts as a purgative; and if the mother is yet too weak, she gets another woman to give it her milk until she is strong enough.'⁴⁰ The second tells how 'When the child is born, it is bathed in warm water, and for three days it is given no other nourishment than **makuri** dissolved in water, which the baby sucks out of a little silk bag. At the end of this time the mother gives the breast.'⁴¹ I need to check whether 'makuri' is sea-weed; my dictionaries do not include the word (xxx). The effects may have been good or bad; only research will show.

After that, as we saw earlier, the child is gradually given supplementary food in the form of rice-gruel, that is the water in which rice was cooked. It seems likely that this was both nutritious and, having been long boiled, disinfected. There was no dangerous period as the infant moved to an adult diet. The absence of meat meant that mothers or nurses did not have to masticate the food for their babies. The absence of the stage of 'pap' was noticed by Alice Bacon. 'There is no intermediate stage of bread and milk, oatmeal and milk, gruel, or pap of some kind; for the all-important factor - milk - is absent from the bill of fare, in a land where there is neither "milk for babes" nor "strong meat for them that are of full age".'⁴²

It thus seems likely that the weaning had as little hazard as it was possible to achieve. Certainly at the end of the nineteenth century Alice Bacon commented on the healthy and happy Japanese infants. Apart from skin infections and the 'early loss of the child's first teeth, which usually turn black and decay some time before the second teeth begin to show themselves,'⁴³ she thought 'Japanese babies seem healthy,

³⁹Maher (ed), *Breast-Feeding*, p.167.

⁴⁰ Inouye, *Home*, p.223

⁴¹ Regamey, *Art and Industry*, p.243-44

⁴²Bacon, *Japanese Girls*, 9

⁴³Bacon, *Japanese Girls*, 10

hearty, and happy to an extraordinary degree, and show that most of the conditions of their lives are wholesome.⁴⁴ Appropriate exercise and clothing also helped to overcome any deficiencies in diet. 'The constant out-of-door life and the healthful dress serve to make up in considerable measure for the poor food, and the Japanese baby, though small after the manner of the race, is usually plump, and of firm, hard flesh.'⁴⁵

Infant feeding in England.

In Europe, also, until the middle of the nineteenth century, the normal food for infants was human milk. This was not because animal milk was lacking, but there seems to have been a widespread feeling that mother's human milk was better. 'The belief that babies ingested the mental and physical characteristics of the woman or animal who fed them was still very strong, and was one reason for avoiding animal milk, except in an emergency.'⁴⁶ Thus the reported cases, such as that described by Montaigne of goat's milk being used to supplement human milk,⁴⁷ are the exceptions. Likewise cereal and water pap were condemned. Some medical views on the matter were summarized in mid-eighteenth century England by Buchan. 'The mother's milk, or that of a healthy nurse, is unquestionably the best food for an infant. Neither art nor nature can afford a proper substitute for it. Children may seem to thrive for a few months without the breast; but, when teething, the smallpox and other diseases incident to childhood, come on, they generally perish.'⁴⁸

In relation to the question of whose milk was to be given to the infant, there were two main alternatives. One was mother's milk, the other was paid wet nursing. There seem to be two important wet-nursing 'fault lines' in Europe - one is geographical, the other social. Oversimplifying somewhat, it would appear that much of Continental Europe, at least in the cities and middle classes and above, was characterized by widespread wet-nursing, from at least the sixteenth century. Evidence in relation to France is particularly abundant.⁴⁹ This work suggests that wet nursing not only occurred among the rich

⁴⁴Bacon, *Japanese Girls*, 10

⁴⁵Bacon, *Japanese Girls*, 10

⁴⁶ Fildes, *Wet Nursing*, p.73

⁴⁷ idem

⁴⁸ Buchan, *Domestic*, p.15

⁴⁹Aries, *Centuries*, p.105, 374; Hunt, *Parents and Children*, p.100-1, 113; Flandrin, *Families*, p.59, 203ff; Fildes, *Wet Nursing (xerox)*, p.122

in a big city like Paris, but was also found in many rural areas and among artisans and smaller farmers. Wet nursing, we are told, was to be found among 'the artisan and shopkeeper classes, and in the French towns in the seventeenth and eighteenth centuries up to 50 percent of mothers put their infants out to wet-nursing.⁵⁰ It was this tradition that Rousseau, for instance, famously attacked in **Emile**. It is possible that a fairly widespread pattern was also found in Italy. We are told that as early as the fourteenth century, among merchants at least, it was an universal custom to send babies out to nurse.⁵¹ Evidence for widespread wet-nursing in the sixteenth century is also available.⁵² There were also parts of Germany where wet-nursing was widespread. Knodel found this in relation to Bavaria in the south (xxx) while in the north one authority estimated that in eighteenth-century Hamburg there were 4,000-5,000 wet-nurses out of a total population of 90,000⁵³ Wet nursing also seems to have been common in Flanders (xxx).

This makes the case of Holland all the more surprising. Schama is clear about the absence of wet nurses. 'Wet nurses do seem to have been very rare in country or town and were generally called only in the case of maternal death or sickness.'⁵⁴ Amplifying this, he wrote that 'The reluctance to use wet nurses unless medically necessary appears to have been true well into the eighteenth century, when a few mothers among the regent elite took wet nurses to affect a certain status.'⁵⁵ What is less clear is why this should have been the case. The fact that writers and others were unanimously in favour of maternal feeding is both an index and contributor to the practice: '...doctors and divines alike were unanimous in urging breast-feeding on others...'⁵⁶ 'Maternal breast-feeding was urged by virtually every authority as imperative for the baby's health. Indeed Blankaart, Cats and Van Bieverwijck all considered it to be **the**

⁵⁰ Flinn, *European* (xerox), 40

⁵¹ Origo, *Merchant*, p.202-3

⁵² Stone, *Sex and Marriage*, p.426ff; Mause, *Childhood*, p.185

⁵³ Goody, *Family*, p.69

⁵⁴ Schama, *Embarrassment*, p.539

⁵⁵ Schama, *Embarrassment*, p.540

⁵⁶ Schama, *Embarrassment*, p.538

attribute of true mother love.⁵⁷ Schama writes that 'it is as an expression of family love and devotion that mothers suckling their infants appear in innumerable Dutch genre paintings, drawings and prints.'⁵⁸

Yet there are two puzzles. Firstly, why was there such a widespread ideology of associating love and breast feeding? Secondly, why did the normal pressures which led to wet nursing elsewhere not arise? This is part of the general puzzle to which Wilson has drawn our attention. 'What now needs to be explained is why different European societies adopted the varying patterns of breast-feeding which led to such dramatic differences in fertility and infant mortality.'⁵⁹ The solutions will probably lie in three main areas. One is in the husband-wife relation and the status of women. Women in most societies, left to their own devices, prefer to feed their own children. It is usually male pressure which forces an alternative. If women are seen as conspicuous display objects, or as breeders of heirs, they are often stripped of their children, often under the pressure of their husbands. This was recognized by the Puritan writer William Gouge in 1622. He wrote that 'Husbands for the most part are the cause that their wives nurse not their owne children. If husbands were willing that their wives should performe this dutie, and would perswade and encourage them thereto, and afford them what helps they could, where one mother now nurseth her child twenty would do so.'⁶⁰ Secondly, there is religion. When we look at a further example, we shall see the very close association between Protestantism and breast-feeding, a point which has also been noted by Fildes.⁶¹

The case of England is an interesting and well-documented one. It was noted by the first analyst of Germanic society that, unlike the Romans, the Germans had the odd habit of suckling their own children: 'Every mother feeds her child at the breast and does not depute the task to maids or nurses.'⁶² This custom was re-enforced by Christian teaching which unequivocally and early stressed that wet-nursing should be discouraged as leading to immorality, a point noted in the seventh century by Bede.⁶³ The

⁵⁷ Schama, *Embarrassment*, p.538

⁵⁸ Schama, *Embarrassment*, p.540

⁵⁹ Wilson, *Proximate (xerox)*, 227

⁶⁰ Quoted in Fildes, *Wet Nursing (xerox)*, 84; see also other contemporary views cited on p.83-5

⁶¹ Fildes in Diggory (ed.), *Natural Human Fertility*, p.122.

⁶² Tacitus, *Agricola*, p.118; cf Malthus, i, p.69

⁶³ Bede, *Ecclesiastical History*, p.44

situation through the middle ages needs further investigation. The English Franciscan Bartholomaeus Anglicus in about 1230 in his *Encyclopaedia* wrote that 'the child in the modir wombe is ifed with blood menstrual, and wherne the childe is bore Kynde sendeth that blood to the brestes and turneth into melke to feed the childe, and so the childe is bettir and more Kindeliche ifedde with his owne modir melk than with othir melke. The modir conserveth with lykinge, and traveileth and bringith forth here child with sorwe and with woo, and he loveth the child tendirliche, and clippith and kissith him and fedith him and norischeth...' ⁶⁴ There are also hints of parental breast-feeding in literary sources of the fourteenth century. ⁶⁵ The evidence becomes more abundant from the sixteenth century.

(APPENDIX on debate over breast-feeding & advice on; a-breast)

There thus seems to have been a very strong current of advice encouraging breast-feeding by mothers. What effect did this have? There is some literary evidence that the preachers did score victories. For instance, the famous Elizabethan preacher Smith seems to have changed the habits of some of his wealthy London congregations. 'So moving were Smith's words, says Fuller, that fashionable women were persuaded by him that it was sinful not to suckle their own offspring, and many forthwith summoned their babies back to their bosoms from wet nurses in the suburbs.' ⁶⁶ Yet we need to probe deeper to see what the general state of wet-nursing was in early modern England.

The very authorities who wrote about the importance of mothers feeding their own babies also bore witness to the quite extensive use of wet nurses. Phaire in the mid-sixteenth century added a section on how to choose a wet nurse, if that was necessary. ⁶⁷ Gouge in the early seventeenth century thought that 'many poore women maintaine their house by nursing other folkes children.' ⁶⁸ Further evidence comes from midwives. 'R.C.' throughout his treatise on midwifery of the mid-seventeenth century implied that there were many wet nurses, ⁶⁹ as did Mrs. Sharp who wrote that 'The usual way for rich people is to put forth their children to nurse...' ⁷⁰ Nicholas Culpeper in 1656 reflected on 'the multitude of Children

⁶⁴ *Properties*, i, p.303

⁶⁵ e.g. Chaucer, *Reeves Tale* (*Works*), p.57

⁶⁶ Haller, *Puritanism*, p.30

⁶⁷ Phaire, *Children*, p.18-19

⁶⁸ Gouge, *Domestical*, p.516

⁶⁹ R.C. *Complete Midwife*, p.20ff, 165

which died in **London** in the time of their suckling' and proceeded to describe the ideal wet nurse.⁷¹

As Fildes has pointed out, there is plenty of contemporary evidence for wet nursing amongst wealthy families in London and elsewhere, at least in the upper classes.⁷² The evidence can be found in contemporary diaries.⁷³ It can be found in sets of accounts and family papers of gentry families in the sixteenth and seventeenth centuries.⁷⁴ It can be found in the unusually detailed London parish register of Aldgate,⁷⁵ and in other parish registers.⁷⁶ Evelyn thought that in the later seventeenth century it was customary among 'persons of quality'.**(REF)** Advertisements concerning wet nurses appeared in contemporary broad-sheets.⁷⁷ Consequently several social historians have concluded that there was an 'almost universal practise of putting babies out to wet-nurses' among the aristocracy in the sixteenth and seventeenth centuries.⁷⁸ This was a continuation of a medieval practice among the upper classes⁷⁹ and

⁷⁰ Sharp, *Midwives*, p.353

⁷¹ Culpeper, *Directory*, p.209ff

⁷²Fildes, *Wet Nursing*, ch.6 passim and Fildes, *Breasts*, ch.3 passim.

⁷³For example Greene, *Diary*, p.599; Twysden, *Diary*, p.117; Freke, *Diary*, p.25; De ?? *Diary*, p.12, 14, 39; Winthrop, *Diary*, p.215, 24, 25; Blundell, *Diary*, 26, 34, 50, 51

⁷⁴ Emmison, *Tudor Food*, p.29; Winchester, *Tudor Portrait*, p.106; Lisle, *Letters*, p.95; Mause, *Childhood*, p.35; Hurstfrell, *Words* (1958), p.63

⁷⁵ Forbes, *Aldgate Chronicle*, p.195

⁷⁶ J.C. Cox, *Parish Registers* cited in Chambers, *Population and Society*, p.78

⁷⁷For examples, see Houghton, *Husbandry*, iim no. 201, 208, 235, 245

⁷⁸ cf Laslett, *Lost World*, p.186; Stone, *Crisis*, p.78

⁷⁹ Power, *Women*, p.420

continued through to the nineteenth century.⁸⁰ It may well be true, as Fildes argues, that 'Although maternal breast-feeding had been urged on mothers for hundreds of years, especially in Protestant countries, this campaign was not effective until the mid-eighteenth century. In England it only became fashionable and acceptable from the 1750s, following a period of, perhaps, 80 years during which much experimentation with artificial feeding had taken place.'⁸¹ Yet we still need to consider the degree to which such wet-nursing was confined to certain groups and particularly the 'upper-class' of which Fildes is principally writing.⁸²

Let us start with the most wet nurse prone groups. In relation to London, it has begun to emerge that the practice was restricted to particular parts of the capital. Wilson, who has done much work which, as we shall see, indicates the absence of wet nursing, suggests that 'The one important exception to this is London. The work of Roger Finlay has shown that women in certain of the richer parishes of London had markedly higher fertility in the late sixteenth and early seventeenth centuries than the population at large. Indeed, it was comparable with the highest fertility ever reliably recorded. He attributes this difference to the practice of sending children out to wet-nurses. His evidence suggests, however, that the practice was limited to a handful of particularly wealthy parishes.'⁸³ Thus not only was London exceptional, but only in a 'handful' of parishes was the practice widespread. As for the gentry and aristocracy, as de Mause noted in a puzzled way some years ago 'England was, in fact, so far in advance of the continent in nursing matters that quite wealthy mothers were often nursing their children as early as the seventeenth century.'⁸⁴ He cites several examples, including Lucy Hutchinson and Ralph Josselin's wife. In fact it would not be difficult to compile a list of higher status mothers who breast-fed their children.⁸⁵ In the illustrated educational text book for the middle classes by Comenius,

⁸⁰ e.g. Banks, *Family Planning*, p.68

⁸¹Fildes, *Wet Nursing (xerox)*, 116

⁸²Fildes, *Wet Nursing (xerox)*, 116

⁸³ Wilson, *Promimate*, p.205

⁸⁴ de Mause, *Centuries*, p.35

⁸⁵e.g. Thornton, *Diary*, p.92, 124; Fanshawe, *Memoirs*, p.18 and the cases of Ann D'Ewes and Anne Newdigate and 'numerous well-born wives' cited by Fildes, *Wet Nursing (xerox)*, 85, 90

breast-feeding was pictured as done by the mother.⁸⁶ In the late seventeenth century literary work **The Pleasures of Marriage**, it was assumed that the upper middle class bourgeoisie family would be one where the mother would feed her own child.⁸⁷

If we turn from the less than one percent of the population who were in these categories, it seems very likely that wet nursing was absent. Apart from the parish registers round London, there is very little evidence for wet nurses. Wills, letters, diaries, court cases and other contemporary evidence show little sign of extensive wet nursing. Demographic studies based on reconstituting populations from baptisms, marriages, and burials, suggest a pattern which is consistent with breast feeding by the mother.⁸⁸ The situation is summarized for the early modern period by Wrightson. The practice, 'seems unlikely to have involved more than a tiny minority of urban infants...an untypical minority of families.' He continues that 'Most infants were nursed at home, and by their mothers.'⁸⁹ Fildes concludes that 'The impression gained over years of study is that the great majority of British infants were breastfed at home by their mothers.'⁹⁰ It would thus appear that like Holland and Japan, but unlike parts of other Continental countries, England was relatively free of wet nursing. This in itself is important.

In relation to the question of the duration of breast-feeding, when we turn to the English case, the general impression is of a middle length of breast-feeding. Fildes has undertaken systematic study of this subject among the literate upper groups. She shows that the age recommended by authors was 24-21 months in the sixteenth to seventeenth century, but dropped to ten months in the later eighteenth century. The assumed age in such textbooks remained at ten to twelve months throughout the period. The mean average actual age was 14.5 months in the sixteenth century, 13.75 months in the seventeenth, and eight months in the eighteenth.⁹¹ The drop in the last figure in the eighteenth century she links to the decline in wet nursing. In the seventeenth century Culpepper noted that Avicenna had prescribed 'two years for the child to suck' but thought 'that's usually one too many', though if the child were sick it might need

⁸⁶ Comenius, *Orbis*, p.245

⁸⁷ *Pleasure*, p.89

⁸⁸ Wilson, *Proximate*, xxx; McLaren, *Fertility*, xxx; McLaren, *Breast-Feeding (xerox)*, 381, 387

⁸⁹ Wrightson, *English society*, p.108

⁹⁰ Fildes, *Breasts*, p. 99 and cf. p.401.

⁹¹ Fildes, *Breasts*, pp.352ff.

extra time. 'If the Child be strong and lusty...a year is enough in all conscience for it to suck...Suck being ordeined for children no longer, than until they can digest other Food.' Yet he thought there was a tendency to exceed this. 'I have knowen many and heard of more, that sucked three or four yeer, but never knew any come to good...' He believed that only one in twenty of the women in London were fit to breast-feed their own children because they spoilt them and 'give them suck too long.'⁹² Mrs. Sharp wrote along exactly similar lines, noting and refuting Avicenna's advice, observing that she had 'seen some in England that have kept their children sucking near four years, who would carry their stool after their Nurses to sit down or to give them suck.' She believed like Culpepper that 'sucking is not proper for children so soon as they can concoct other nutriment.' She added, however, detailed and interesting advice on the weaning process and timing. 'After four months...give it some pap of barley bread steeped a while in water...so soon as the teeth come forth, let it eat more substantial meat...also give it cows milk and broths...Let the teeth come forth most part, especially the eye-teeth, before the child be weaned, for those teeth cause great pains when they are breeding...the stronger the child is, the sooner he is ready to be weaned, some at twelve months old, and some not till fifteen or eighteen months old. You may stay two years if you please, but use the child to other foods by degrees...'⁹³ If this pattern were followed, it suggests that some feeding took place from six months onwards, but that weaning was at between twelve and eighteen months.

It is likely that there was a shortening of the recommended period during the seventeenth and eighteenth century as Fildes argues. Flinn cites a study of recommendations for suitable periods of breast-feeding in England which 'revealed a remarkable diminution of the mean recommended period from two years in the early seventeenth century to nine months in the later eighteenth century (253).'⁹⁴ Yet the change may not be that dramatic. Another study suggests that if we look at the seventeenth century 'The consensus of advice, around the end of the century, about the idea age for weaning seems nearer a year than eighteenth months.'⁹⁵

When we turn to the best sort of evidence for the sixteenth and seventeenth century, namely diaries, they appear to confirm this range.⁹⁶ In the sixteenth century, children, mostly at wet nurses, were

⁹² Directory, p.214-15

⁹³ Sharp, Midwives, p.374-75

⁹⁴Flinn, European (xerox), 32

⁹⁵Crawford, Suckling (xerox), 36

⁹⁶ see also Mause, Childhood, p.36 for a rather inaccurate table.

weaned at ten months, eighteen months and about three years.⁹⁷ John Dee's children were weaned at a wet nurse at ages varying from eight months to fourteen and a half months.⁹⁸ In the seventeenth century, John Evelyn was weaned at fourteen and a half months, while Blundell notes a child being weaned at a wet nurse at not quite ten months.⁹⁹

These rough impressions fit well with recent analysis of the phenomenon as suggested by family reconstitutions. On the basis of sixteen individual parishes in the sixteenth to eighteenth centuries, Wilson found intervals between live births which, depending on factors such as 'the frequency of suckling and the amount of supplementary food given to infants, would be associated with fourteen to eighteen months of breastfeeding.' Wilson thus concludes that breastfeeding 'is unlikely to have been less than a year, and was probably somewhat longer.'¹⁰⁰ Wrigley concludes that 'In England there is persuasive indirect evidence that the average duration of breast-feeding was about 15 months, a period sufficiently long to exercise an important influence in keeping infant mortality at a modest level.'¹⁰¹

As regards the frequency of breast feeding, we saw in the Japanese case that women were under enormous pressure to combine agricultural, domestic and child-rearing roles. There was thus a widespread carrying of children to the place of work and around the house. When we turn to England, we find a very different situation. Until the huge demand for labour pulled married women into the factories and mines from the later eighteenth century onwards, the structure of women's employment put far less of a pressure on married women. There were two main reasons. Firstly, as we saw in the chapter on 'work', the pressure on all human bodies in England was far less than in Japan because of the system of agriculture.

This difference was re-inforced by the marital structure. In England, marriage was traditionally late and selective. (REF: xxx) Much female labour was thus available, in the form of servants or unmarried women. Once married, it was assumed by many that one could relax a little and bring up children. In Japan, where almost all married, and at a younger age than in England, marriage was not an end to gruelling labour. A woman was expected to work just as hard **and** to bring up children. A silence about

⁹⁷ Greene, *Diary*, p.197; Pearson, *Elizabethan*, p.87; Winchester, *Tudor Portrait*, p.106

⁹⁸ Dee, *Diary*, p.16-17, 43, 55, 59

⁹⁹ Blundell, *Diary*, p.27

¹⁰⁰ Wilson, *Proximate*, p.224

¹⁰¹Wrigley, *Death (xerox)*, 139

the carrying of infants to fields in the English context is **not** an indication, as it would be in many societies, that they had been left at home while their mothers toiled at agriculture tasks. Those who were toiling were men, animals and often unmarried women. The one time they were joined by married women was during the harvest. Thus, as McLaren concludes 'Except at harvest time, women in rural south Oxfordshire may not have had to go far from home, and it would not be difficult to breast feed in field, barn, brewhouse or malthouse, and the rural tythings were enclosed long before the seventeenth century.'¹⁰²

It would seem that the majority opinion among professionals was that babies should be fed on demand. Some of the early modern literature is summarized by Crawford. 'As for the feeding schedule, few writers advised a strict routine. The child should be fed when he was hungry. Most advisers showed a compassionate attitude to the baby, urging adults to heed the child's cry. Some sterner voices pointed out that babies who were given the breast whenever they cried were "almost continually sucking, and never satisfied", but the mainstream of advice to mothers was to satisfy their babies.'¹⁰³ Fildes surveys the evidence and concludes that 'the normal procedure in Britain, France and some other parts of Europe before the mid-eighteenth century was to feed infants on demand.'¹⁰⁴ The attitude was probably very different from that of north Italian peasant women described in the late seventeenth century as follows. 'Our peasant women are certainly more prudent about nursing their children, for they give them the breast only three or four times a day and leave them to cry as much as they please while they themselves are busy at work in the fields. They say that they have learned this lesson from sucking calves, which are allowed to suck milk from the cow only three times a day.'¹⁰⁵ It would appear that though the upper half of a woman's body was not as neutral as in Japan, the sight of female breasts may have been less arousing in this earlier period than it became in Victorian England. This is a subject which could do with some further research (xxx), for instance pictorial representations will be useful. For the present we can just cite Fynes Moryson who in the early seventeenth century described how 'Gentlewomen virgins' in England 'weare fine linnen, and commonly falling bands, and often ruffles both standed, and chaines of pearle about the necke, with their brests naked.' He adds that 'the young Gentlewomen no lesse than the Virgins, shew their breasts naked.'¹⁰⁶¹⁰⁷ It would not be difficult to find

¹⁰²McLaren, Breast-feeding (xerox), 394

¹⁰³Crawford, Suckling (xerox), 31

¹⁰⁴Fildes in Diggory (ed.), Natural Human Fertility, p.123 and Fildes, Breasts, pp.118-120.

¹⁰⁵quoted in Fildes, Wet Nursing (xerox), 110

¹⁰⁶ Moryson, Itinerary, iv, p.234-45

depictions of scenes where women were breast-feeding in public, for instance in front of their houses.¹⁰⁸

Finally, there is the question of sleeping habits. There was certainly much warning against wet nurses (and mothers?) sleeping in the same bed as their infants for fear of overlaying or smothering them (cite xxx). There was probably a very different pattern, from Japan. Possibly the sleeping arrangements, the difference between a mat on the floor off which nothing could fall and which allowed more space, and a raised bed which had to be restricted on its edges for fear of falling off, may be important here. In the English case, a baby would have to lie **between** mother and father; in the Japanese, it would be possible to have a pattern with the mother in the middle. Further research is needed. My hunch is that the evidence will show that the English baby was normally kept in a cot, or crib, which was in the same room as the parents in its infancy and that it was demand-fed by its mother through the night. (XXX)

We have noted the importance of the first milk or **colostrum** and it would be valuable to know more about the pattern of feeding in the first few days. We know a little of the views of writers on the subject, but whether these reflected what happened is more difficult to determine. In terms of theory, there seems to have been a considerable shift. In the seventeenth century it would appear that doctors thought the **colostrum** was harmful. Mrs. Sharp had suggested that 'It is not good for women presently (immediately) to suckle her child because those unclean purgations cannot make good milk, the first milk is naught (bad) for even the first milk of a cow is salt and brackish...'¹⁰⁹ More generally, Crawford summarizes opinion thus. 'Medical advisers considered that the baby should not suck any milk at all on the first day of his life. On the second day, ideally, he should be put to the breast of another woman until the eighth day or so, because immediately after a woman had given birth, her milk was observed to be wheyish. "Foul, Turbid and Curdy" and therefore very inferior.'¹¹⁰ Infants were given all sorts of delicate and fortifying foods, especially in the upper middle class and above. 'Among the prescribed first nutrients were fresh oil of almonds and sugar, treacle and honey. Honey prevented conclusive fits, sugar prevented wind and phlegm. Some said that if the new-born baby took half a scruple of pure coral before anything else, he would have no falling sickness.'¹¹¹ Such foodstuffs, however, were probably a cause of infection and were certainly less beneficial than the foregone **colostrum**.

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¹⁰⁸ Q/Sba, 2/61; cf Hogarth et al xxx

¹⁰⁹Sharp, Midwives, p.234

¹¹⁰Crawford, Suckling (xerox), 30

¹¹¹Crawford, Suckling (xerox), 48 note 73

By the middle of the eighteenth century, opinion was changing and the new attitude is well demonstrated in the most popular treatise of the period by William Buchan. Buchan seems to have been aware that a special cleansing was needed on the first day, but instead of suggesting a sea-weed, as in Japan, he noted the special medical effects, now well known, of the first secretions of the mother's breast, noting that 'the first milk that the child can squeeze out of the breast answers the purpose of cleansing, better than all the drugs in the apothecary's shop, and at the same time prevents inflammations of the breast, fevers, and other diseases incident to mothers.' He warned against the tendency to feed the infant drugs but does seem to have been aware that some kind of emetic was needed. 'Children are seldom long after the birth without having passage both by stool and urine; though these evacuations may be wanting for some time without any danger. But if children must have something before they be allowed the breast, let it be a little thin water-pap, to which may be added an equal quantity of new milk; or rather water alone, with the addition of a little raw sugar.'

In the seventeenth century Mrs. Sharp had warned 'Let the child drink but little wine.'¹¹² The background to this is explained by Buchan. He gives the reasons for the widespread use of wine. 'Upon the first sight of an infant, almost every person is struck with the idea of its being weak, feeble, and wanting support. This naturally suggests the need of cordials. Accordingly wines are universally mixed with the first food of children. Nothing can be more fallacious than this way of reasoning, or more hurtful to infants than the conduct founded upon it. Children require very little food for some time after the birth; and what they receive should be thin, weak, light, and of a cooling quality. A very small quantity of wine is sufficient to heat and inflame the blood of an infant; but every person conversant in these matters must know, that most of the diseases of infants proceed from the heat of their humours.'

Fildes has argued that changes in the treatment of colostrum may have been of major importance in leading to a decline in infant mortality in the eighteenth century. She points to the undoubted fact that infant mortality started to drop in the first half of the eighteenth century and that much of the fall occurred in the first twenty-eight days of birth. She then argues, somewhat like McKeown, that by the method of exclusion we are left with changes in neonatal feeding as the most likely cause. Thus she writes that although the theory 'must be viewed with reservation', nevertheless 'in the absence of any other factor that can be identified as relevant, sufficiently effective, and showing change in the same period, it seems reasonable to attribute the improvement in neonatal survival between the late seventeenth and early nineteenth century to changes in ideas and practice of neonatal feeding, particularly early maternal breastfeeding.' She thus concludes that 'Changes towards early maternal breastfeeding during the eighteenth century contributed to a notable decline in mortality (0-28 days) and a decrease in maternal morbidity and mortality from milk fever.'¹¹³

There is undoubtedly something in this argument, but we should also note the difficulties. Firstly there is

¹¹²Sharp, *Midwives*, p.1671

¹¹³Fildes, *Breasts*, pp.88-90.

the matter of timing. The fall in infant mortality began, according to her account, in the late seventeenth and early eighteenth centuries. This was well before the experiments in 1750 by Hunter which she argues was the main reason for a change in breastfeeding. Secondly, Fildes' evidence is largely concerned with the upper classes. All that she can say is that 'Hunter's findings would have spread among the poor by word of mouth.'¹¹⁴ Whether it did, we do not know. Unfortunately we do not even know whether the majority of the population were substituting other food for the colostrum before the mid-eighteenth century. Nor do we know, what effects medical opinion had. As Landers points out in relation to Fildes' argument, 'Arguments of this kind are often difficult to accept because of the strictly limited influence which "leading edge" medical opinion and practice are likely to have had among the population.'¹¹⁵ Landers does believe that the case of London in the second half of the eighteenth century may have been special.

It seems likely, therefore, that among a restricted number of people in London, probably from the 1760s onwards there may have been an effect. But what of the wider and earlier drop in infant and maternal mortality. It seems likely here that the changes in housing, clothing and drink, which are discussed in other chapters, were more important. In particular, the rapid growth of tea consumption among the poor fits the chronology much better than does the colostrum argument and spread amongst a much larger segment of the population both in London and elsewhere.

A number of recent writers have speculated on the amount of supplementary feeding of young infants and its possible effects.¹¹⁶ Galley has analysed the infant mortality rates for York and concludes that 'the seasonality of infant burials supports the suggestion that a proportion of the population employed some form of artificial feeding of infants from close to birth, although significant amounts of immediate post-birth infection in hot weather would also provide a satisfactory explanation of this phenomenon.'¹¹⁷ In a recent study of parts of London's population, Landers comes to a similar conclusion. He believes that seasonal infant mortality patterns suggests that 'artificial feeding was widely practised from an early age.'¹¹⁸ Such feeding 'exposed them to the pathogenic hazards of contaminated food and water, whilst

¹¹⁴Fildes, *Breasts*, p.87.

¹¹⁵Landers, *Death*, p.357, note 9.

¹¹⁶For a useful preliminary discussion and overview, see Fildes, *Breasts*, ch.8.

¹¹⁷Galley, *York* (xerox), 55

¹¹⁸Landers, *Age Patterns*, 50

simultaneously robbing them of immunological protection...¹¹⁹ He notes a diminution in the pattern, however, in the eighteenth century as 'artificial feeding continued among an ever-diminishing fraction of the constituted families.'¹²⁰ It is implied by this that Landers is speaking of a complete substitution of breast-feeding by artificial feeding. What seems more likely is that breast-feeding was supplemented by artificial foods. This was noted by an Italian physician in 1700 when he suggested that 'It is perhaps because nurses have this bad habit of suckling their nurslings too often that in England and Germany the custom has arisen of feeding infants with pap made of cow's milk, yolk of eggs, and sugar; this makes it easier to establish a regimen for children and to measure by the aid of the senses the precise amount of food needed to nourish them.'¹²¹

The question needs further investigation. In the meantime, we can explore it a little further through the views on supplementary foods by midwives and doctors. Mrs. Sharp in the seventeenth century, as we have seen above, described the gradual introduction of 'barley bread steeped a while in water', then later 'cow's milk and broths.'¹²² A century later, Buchan gives advice on the gradual addition of supplements to the breast milk which amplifies Mrs. Sharp's account. 'If the mother or nurse has enough of milk, the child will need little or no other food before the third or fourth month. It will then be proper to give it, once or twice a day, a little of some food that is easy of digestion, as water-pap, milk-pottage, weak broth with bread in it, and such like. This will ease the mother, will accustom the child by degrees to take food, and will render the weaning both less difficult and less dangerous. All great and sudden transitions are to be avoided in nursing. For this purpose, the food of children ought not only to be simple, but to resemble, as nearly as possible, the properties of milk. Indeed milk itself should make a principal part of their food, not only before they are weaned, but for a long time after.' He then gave advice about teaching the infant to chew. 'Next to milk, we would recommend good light bread. Bread may be given to a child as soon as it shews an inclination to chew; and it may at all times be allowed as much plain bread as it will eat. The very chewing of bread will promote the cutting of the teeth, and the discharge of **saliva**, while, by mixing with the nurse's milk in the stomach, it will afford an excellent nourishment. Children discover an early inclination to chew whatever is put into their hands. Parents observe the inclination, but generally mistake the object. Instead of giving the child something which may at once exercise its gums and afford it nourishment, they commonly put into its hands a piece of hard metal, or impenetrable coral. A crust of bread is the best gum-stock.'

Bread, in fact, became the important transitory food between milk and meat and Buchan spends

¹¹⁹ibid, 51

¹²⁰ibid,. 50

¹²¹Fildes, Wet Nursing (xerox), 110

¹²²Sharp, Midwives, 1671

considerable space describing how it should be prepared for the infant. Since the methods here can make a very considerable difference to mortality rates, it is worth quoting him further. 'Bread, besides being used dry, may be many ways prepared into food for children. One of the best methods is to boil it in water, afterwards pouring the water off, and mixing with the bread a proper quantity of new milk unboiled. Milk is both more wholesome and nourishing this way than boiled, and is less apt to occasion costiveness. For a child farther advanced, bread may be mixed in veal or chicken broth, made into puddings and the like. Bread is a proper food for children at all times, provided it be plain, made of wholesome grain, and well fermented; but when enriched with fruits, sugars, or such things, it becomes very unwholesome.' It is likely that though the milk may have been dangerous unboiled, at least the water was boiled, and the broth, if fresh, may have been reasonably safe. His advice about meat was also probably sensible, even if the reasons are different from ours. 'It is soon enough to allow children animal food when they have got teeth to eat it. They should never taste it till after they are weaned, and even then they ought to use it sparingly. Indeed, when children live wholly on vegetable food, it is apt to sour their stomachs; but, on the other hand, too much flesh heats the body, and occasions fevers and other inflammatory diseases. This plainly points out a due mixture of animal and vegetable food as most proper for children.'¹²³ If further research shows that people actually behaved in these sort of ways, it would suggest an infant feeding pattern which was more nutritious perhaps than the Japanese one (with meat broth), but less protected against infection. Both, however, were reasonably likely to keep the infant moderately free from disease and malnutrition in its first year.

The general question of the timing and nature of weaning amongst the upper classes has been well surveyed by Fildes.¹²⁴ A particularly important matter is what drink the child was weaned onto. It may well be that up to the end of the seventeenth century, infants very surprisingly drank beer. Alice Clark wrote that 'It must be remembered that before the introduction of cheap sugar, beer was considered almost equally essential for human existence as bread. Beer was drink at every meal, and formed part of the ordinary diet of even small children.'¹²⁵ Likewise Keith Thomas wrote that 'Beer was a basic ingredient in everyone's diet, children as well as adults.'¹²⁶ Polan concludes that 'water was impure, and children who were weaned had always drunk small beer.'¹²⁷ Drummond likewise noted that 'small beer'

¹²³ Buchan, *Medicine*, p.15-18

¹²⁴Fildes, *Breasts*, ch.16, 17.

¹²⁵Clark, *Working Women*, 223

¹²⁶Thomas, *Religion*, 18

¹²⁷Polan, *Consuming Passions*, p.155.

was 'the ordinary table drink even of young children.'¹²⁸ It will be important to find out how small the children were. for instance, are there other references like that to a child of thirty-one months drinking beer.¹²⁹ (cf reference to Molly and Ralph Verney, when ill, being given nothing but 'small Beare').¹³⁰ In the Bedford household, payments were made for 'scurvygrass' to be 'put in the children's ale' in 1653.¹³¹ After the middle of the eighteenth century the widespread existence of a cheap new drink for poorer people, tea, may have had a dramatic effect on infants, who were saved thereby from drinking the dangerous alternatives of unboiled water or milk.

Conclusions.

What then were the consequences of all that we have discovered? In terms of infant mortality, it would appear that the combination of length, frequency and weaning foods in the Japanese case would give considerable protection to the infant and have contributed very significantly to the surprizingly low infant mortality rates in Japan. In England, the effects would also have been significant. The exceptions would be in those rather few parishes in London where children were sent out to nurse. In those cases, there may have been a very high mortality rate of the infants concerned. Culpepper thought that a third of infant deaths were due to bad wet nurses.¹³² Buchan gave an even more pessimistic estimate; 'I am sure I specke within the truth when I say, that not one in twenty of those children live' who were sent to wet nurses.¹³³ This was probably mainly the result of a mixture of poverty, crowding and unhygienic conditions, for as Fildes points out, it was not in the interests of the wet nurses that their charges die. Although some may have mistreated their charges, 'it is unlikely that all, or even many, did so.'¹³⁴

¹²⁸Drummond, Food, p.114.

¹²⁹Clifford, Diary, 55

¹³⁰Ref. Drummond, p.114, - how old?

¹³¹Scott Thompson, Noble, p.77.

¹³² Culpepper, Complete Midwife, p.21

¹³³ Buchan, Domestic, p.3

¹³⁴Fildes, Wet Nursing, p.94; cf also p.72, 102 for some contemporary views. It is worth nothing that Sir Hams Sloane stated that the mortality among 'dry nursed' children was three times that among 'wet nursed' ones. (cited in Roberts, Hygiene, 108)

That mothers continued to breast-feed their own children, despite the pressures which seem to increase as societies became richer and women become symbolic 'goods' to be withdrawn from breast-feeding and other activities, is worth further examination. We might add to the negative feed-backs which Malthus elaborated, another one. As a society becomes richer, there is a tendency for the upper groups to show their detachment from the grosser world of work, 'nature' and the lower classes by various symbolic strategies. One of these is circumscribing women, either by 'purdah', foot-binding or other devices. Wet-nursing is another such practice and tends to spread rapidly. The particular religious and cultural traditions of Protestant Holland, England and ascetic Japan, which dampened this tendency, are unusual. The negative feed-back of higher wealth pushing towards the establishment of more wet nursing, thence higher infant mortality and higher marital fertility, only occurred at the margin.

This throws some doubt on the thesis of a major shift in the eighteenth century from wet-nursing to maternal feeding, which was widespread enough to explain the dramatic decline in infant mortality in the eighteenth century. Such a theory has been put forward by Benedictow, for instance. 'It therefore seems that the greater part of the decline in infant mortality between 1680 and the breakthrough of modern scientific medicine must be ascribed to the change back to immediate breast feeding, a change that was strongly recommended in the proto-scientific works on medicine produced by physicians and midwives during this period.'¹³⁵ This view has also been implied by Fildes in her major works on the subject. (XXX) Clearly something **did** happen. Contemporaries were aware of a major change in maternal, neo-natal and early infant mortality. Thus we are informed that Lettsom believed that 'in the nurture and management of infants, as well as in the treatment of lying-in women, the reformation hath equalled that of the smallpox (through inoculation).'¹³⁶ Statisticians noted the rapid decline in early infant diseases.¹³⁷ Recent demographers, particularly Roger Schofield (XXX) have noted that the major reason for the decline in the death rate in eighteenth century England was a very rapid decline in maternal mortality and death in the first three months of infancy. Yet it difficult to see how this could have been caused by changes in breast-feeding. This is unlikely to explain the rapid decline in maternal mortality, and given the fact that wet-nursing was only widespread in less than five per cent of the, mainly urban, and upper class, part of the population, it is difficult to see how changes could have changed the mortality rates at the national level.

In fact, it seems likely that the explanation lies in a combination of those other factors which I have already discussed - housing, clothing, water supplies. The increasing drinking of tea and changes in the whole social environment. The factors which lead to maternal and infant mortality are complex and

¹³⁵Benedictow, Milky (xerox), 28

¹³⁶Razzell, Essays (xerox), 163

¹³⁷cf Black, Arithmetical, 159

numerous. Some of them were summarized by Black, and his list reminds us of how many variables have changed. The general causes of infant diseases and mortality may be referred to the sudden and violent changes after birth in its tender machinery; to weakness and injuries from tedious and laborious parturition; delivery before the end of the ninth month; hereditary debility; diseased parents; foul air of cities; improper food and drink; scarcity of food and milk; ill formed nipples; the tongue tied or retracted; errors in quantity or quality of nutriment; too long continuance of vegetable and ascescent food; foul stomach and intestines; acidity in its stomach.¹³⁸ These were just a few, to which could be added 'errors of the mother or nurse in food, drink, rest, exercise, excretions, passions of mind, from ill temper, hystericks, addiction to raw spirituous liquors and drunkenness, diseases, fasting too long before the infant sucks; unwholesome milk; adulterated milk and bread; neglect of cleanliness, and suffering the infant to lay too long in wet cloaths; insufficient exercise and also too violent agitation of the infant; the ligatures, bandages, and pins too tight, and tormenting the infant; improper positions and positions; cold cloathing and habitations; beds, and scarcity of fuel, especially in northern regions, and in winter.'¹³⁹

As the urban and industrial 'revolutions' occurred, new pressures emerged from a combination of new food stuffs and the demand for women's labour. Artificial sucking bottles had been known in the West from at least the thirteenth century,¹⁴⁰ and cases of their use or that of spoon-feeding occur occasionally in later centuries.¹⁴¹ At the end of the eighteenth century the glass infant feeding bottle was invented and in the nineteenth century preserved and condensed milks were manufactured.¹⁴² Yet they only came into widespread use when large cities were being supplied with animal milk, improvements in drying and freezing and glass manufacture had lowered prices, and it became economically sensible for a married woman to leave her infant to be artificially fed at home in order to earn wages in a factory or mine. This was noted by Greenhow in the middle of the nineteenth century. The withdrawal of children from their mother's care, and the consequent substitution of artificial feeding for the natural diet of infancy, which is probably one at least among the causes of a large infantile mortality in places where the female population are largely engaged in factory labour, is possibly an evil inherent in the modern factory system.¹⁴³ It was something new, however. In the countryside the older traditions continued. In a

¹³⁸Black, *Arithmetical*, 223

¹³⁹Black, *Arithmetical*, 223

¹⁴⁰ King-Hall, *Nursery*, p.11

¹⁴¹ e.g. Rawdon, *Diary*, p.3; *Pleasures of Marriage*, p.93; Wright, *Autobiography*, p.106

¹⁴²*Anthropology of Medicine*, 189

¹⁴³ Greenhow, *Papers*, p.133

mid-nineteenth century Oxfordshire village, we are told that 'once when a bottle-fed baby was brought on a visit to the hamlet, its bottle was held up as a curiosity.'¹⁴⁴ Even at the end of the nineteenth century the vast majority of the population breast-fed their own children.¹⁴⁵ The pressures eased off, presumably, in the later nineteenth century in England. The continuing controversy over dried milk in the Third World shows that the problems have spread to other societies, and they are re-emerging in the west as maternal breast-feeding comes under pressure.

¹⁴⁴ Thompson, *Lark Rise*, p.126

¹⁴⁵Smith, *People's Health*, 84