2012 January column
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In this column I touch on the special significance of printed ephemera and specifically of candy wrappers. Those I show below have been collected by an intrepid explorer of the big rock candy mountain. In fifty years' time – maybe less – these bits of strange misinformation may well signify much about the fate of the US people and empire.

Then I complete my four-part series on the great British food movement of the 1970s to 1990s, which has now consolidated into solid steady civil society work in the public interest. First though, this month's hero.

My hero: Lynn Margulis
Cooperation, not competition

My celebration of the vision of Lynn Margulis (above, wearing a jacket with a rather hippie motif) has alas become a requiem, for she died in November. Her admirers believe that her understanding of the nature of evolution makes her an all-time giant scientific researcher and thinker. She rejects Darwinist theory (emphatically, not the same as Charles Darwin's own theory) of the evolution of living things (1). She concludes, from her own research and that of many others, that in certain ways Jean-Baptiste Lamarck was right (as Darwin himself did).

Thus: 'Lamarck was incorrect in saying that behavioural changes in the parent generation lead to inherited changes in the offspring'. Baby giraffes are not born with long necks because their parents stretched up for food. 'But dramatic new traits may be acquired in a single lifetime through adaptation and subsequent integration of genomes… The trait by itself is not inherited but the acquired genome that determines the trait is inherited' (1). One of the many mind-boggling implications, is

that 'we are not alone'. That is to say, the micro-organisms inside us and covering us really are part of us, and some can change us.

Consistent with this concept, she is sure that species develop typically not by warlike competition but by peaceful collaboration. Again in common with many others, she thinks that the adaptation of Charles Darwin's own rather tentative conclusions, by the adherents of dogmatic Darwinism, into the notion that nature, and the natural order of things, is 'red in tooth and claw', is a catastrophe. This ideology has encouraged persecution and even murder of the weak and unregulated 'casino' capitalism. It nowis clearly threatening the survival of the human race, and of the planet and the biosphere. Besides, as Lynn Margulis makes clear to any attentive reader of her plain-language books, written with her son Dorion Sagan, this 'alpha male' notion, is wrong. Instead, what usually comes naturally to women, especially as mothers, is right, in the senses both of moral and correct. Nature develops by nurture.

References

1 Margulis L, Sagan D. *Acquiring Genomes. A Theory of the Origin of Species.* New York: Basic Books, 2002.

The female principle
Not hunting but gathering

Reflections on Lynn Margulis and her discoveries and testimony, lead to reflections on the female principle in general. Not enough women! This is one criticism of this column, and indeed of the World Public Health Nutrition Association. Quite right. But the Association is making amends. If you look through the members' profiles posted on our site, you will find that exactly half are women. Probably not good enough, more radical critics may say, because the human gender that best understands food and nutrition in practice rather than in mere theory, is female. This is true too.

The old story that men are abstract and women are practical, that men talk and women act, rings true to me. Listen, it is not my fault that I am male! In my own work I insist on the term 'gatherer-hunter'. This is because at a congress of female archaeologists some years ago, I recall in Chicago (1), evidence was presented to show that in palaeolithic times, diets were plant-based. The feminist fossil poo analysts concluded that most stone age families most of the time mostly ate edible

roots, grasses, vegetables, seeds, fruits, nuts and so on, gathered or encouraged by hard routine work in the field.

Shaggy mammoth stories

Hunting? Here the thinking is more speculative, but suggests that palaeolithic men hung around the cave, gossiped, boasted, and gambled, told shaggy mammoth stories, set the world to rights, invented religions and ideologies designed to philosophise disgrace, massacred neighbouring communities, and ran off with other men's women. When diseased or decrepit sabre-tooth tigers or mastodons staggered past the cave, the men would sharpen their spears, finish them off, carve them up, give the joints to the women to cook, get drunk, and then celebrate their feats in ballads and paintings. Thus, historically meat was not everyday food, but feast food. Yes sure, with exceptions: every nutrition student knows about the Inuit and the Maasai. But their circumstances are unusual.

As a young boy I marvelled at a model of primaeval people, in London's Natural History Museum. You pressed buttons to illuminate key points. There were the dauntless warrior band of men, waving their puny weapons at ferocious vast mammals. There were the docile women, huddled in the cave, nursing children, cleaning pots, and sweeping dirt.

The images seethed with ideology. They implied that men have always been in charge. Sooner or later we all, women and men, learn in our own lives that this is not true, except in societies that oppress and suppress women. But what Lynn Margulis tells us, is that this was never the natural order of things. Which reminds me of the theory that the original gods of preliterate societies were female (2). Perhaps I will link this with public health nutrition in a future column.

Note and reference

1 Can any reader help me on this? I feel sure this congress occurred, and that one of its decisions was to declare that the term 'hunter-gatherer' should be replaced by 'gatherer-hunter', with all this implies for the social sciences and for human nutrition. But I can't find a reference. Can you? If so please use the response resource at the end of this column.

2 Shlain L. *The Alphabet Versus the Goddess. The Conflict Between Word and Image.* New York: Penguin, 1998.

Candy. Labels and history
Sliding by on sweet grease



Candy labels. Usually screwed up and trashed; but in time images like these will be used by historians to help explain the decline and fall of the West

My young friend Louisa-Claire Dunnigan has done a wonderful thing. Having left the nest in Stokie (North London's Stoke Newington) she is reading English and French at Keble College Oxford, and last September she completed a ten-week student exchange stay in the US at Dartmouth College in Hanover, New Hampshire. Among her many deeds, she collected and photographed wrappers of (much of) the candy she (mostly) ate, and here they are above. Then she told an aspect of her story through them. She called it 'tracking time through tooth decay' (1) but there is more to it than that. Here is what she wrote:

The good is the bad

'What better way to look back on my time spent at Dartmouth than through the treats I consumed? I started collecting wrappers at the very beginning of my stay, because they were different from the ones in England, or because they were fun, or because I thought I would use them for something. I was not diligent about the collection, so this is only a fraction of the diabetes-inducing selection I consumed

over the course of my stay. I'd like to add that I didn't eat all of these by myself. Most. But crucially, not all).

'Sour Patch Kids. These were the first thing I spent dollars on in the US. Flattened sugary children in alarming colours (of which, unusually, the orange is the best) that at first I found utterly foul. Sometime in July I discovered them in Topside and felt a jolt when I realised how familiar they had become – they reminded me how long I had already been in Dartmouth. I bought them and reassessed my first opinion; still foul, still garish, and yet so good in the way that only things that are really bad for you can be.

'Mini Wrappers. America loves you. It lets you know this by putting bowls of candies at every till, on every counter, and in every reception you come across. At first, I wasn't sure how to react to this. Like a sugar-crazed 5 year-old I would sidle up to the counter and try sneakily to grab handfuls of sweets while looking innocently in the opposite direction. By the end of two months, I had learnt the American way, and unashamedly took the tiny bars while making friends with sullen receptionists and cashiers – which is probably the bribing purpose of the sweets in the first place.

'Oreo Cakesters. Everyone loves Oreos. So when we found these on an exciting trip to Walmart, we had to buy them, using the reasoning that Oreos as cake could only be better. We were wrong. We sat on the bed with our spoils (including the Goldfish and Cracker Jacks). After the first bite, Hamish refused to eat any further. Intrepidly, I carried on in the spirit of scientific experiment. Be warned: the cream is the synthetic consistency and colour of some kind of Unicorn secretion, and the "cake" was labelled such by someone who has never eaten cake.

'Goldfish. These seem to be the most beloved of American snacks. Before I ever saw them in a shop, I had been told about them at least a hundred times. They're essentially those mini-crackers you get given on aeroplanes, except instead of diamonds and clubs you get little fish with cheeky smiles and an overpoweringly cheesy flavour. In the sterile air-conditioned atmosphere of the library, it feels almost sacrilegious to eat them, but people do, and the stink of cheddar and rustle of wrappers accompanies greasy fingerprints on books.

'Cracker Jacks. At least something good came from the Walmart trip: Cracker Jacks are one of the best things America has to offer. Caramel = good. Popcorn = good. Peanuts = good. Put them all together and you have a product that is awesome. Not to mention that they include a PRIZE. I can't understand why we don't have these in England.

'Froz Fruit . Topside sold these, and I could have spent my entire meal-plan on them. I bought them after lunch on sweltering days, and ate them on the green, licking melting coconut or strawberry pulp off my fingers and watching through-hikers

playing frisbee before afternoon classes began. (A through-hiker is a special brand of grubby, dread-locked hiker who stops over in Hanover while walking the Appalachian Trail).

'Nerds. Interred in my room for 24 hours as the predicted hurricane didn't rage around us, these tiny balls of sugar sustained me through the boredom, and also had me bouncing off the walls, my blood sugar levels off the scale, unlike the damp breezes outside the window.

'Soon I will be leaving the US for good old Blighty where there are laws about things like sugar levels and colouring. Rest assured, I will make the most of the Land of Plenty before I go'.

The stories told by lists

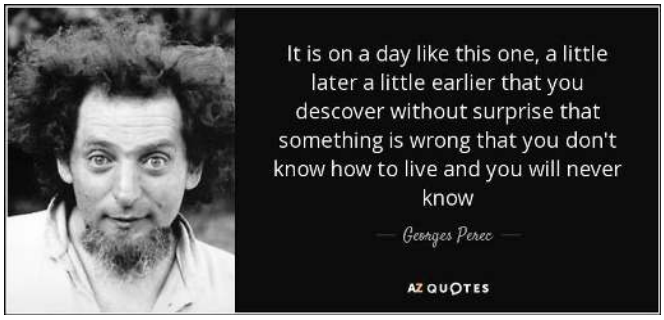
This story and record presses my buttons. Soon after leaving Oxford, where an intimate friend was the poet Ian Hamilton of Keble College, already then also a critic and editor, one of my first big buys from Better Books (or was it Zwemmer's) in Charing Cross Road was *Printed Ephemera*, published by the master printers WS Cowell of Ipswich (3).

Here below from that book are four labels for tobacco. The one on the left, from 1700, also shows a still to make rum. The three on the right, 'blackamoor' labels advertising 'superfine shagg' as recently as 1960, is a reminder that the city of Bristol was built from slave trade profits, and that English is a living language. My main point here though, is that printed items that seem trivial at the time, later gain significance. The images here speak worlds of the British Caribbean empire, the triangular trade involving slaves from Africa and tobacco and rum from Virginia and the West Indies, attitudes to race, and how supply drives demand. In the same way, future historians who want to explain the reasons for the collapse of the US empire, will illustrate their thesis with pictures of candy wrappers, perhaps from the Dunnigan Collection.



Tobacco labels. After time, these printed ephemera now speak worlds to us about empire, trade, slavery, white supremacy, liver cirrhosis, lung cancer

Another reason why I adore what Louisa-Claire has done (next time no slacking, all of them please, and only those you devour!) is that lists are insights into the human story. Some of the most valuable records from the first Fertile Crescent civilisations are accounts written on clay tablets. Some of the most powerful passages in Robert Fisk's epic (4) on the evil done by those who have commanded the invasions of countries in that region, including Iraq, are lists of the names of soldiers who were incinerated on the Mutla Ridge that he found on bodies and in mass graves.





Plus I am a fan of Georges Perec (above), the playful literary anthropologist of himself and others, real and imaginary: for example, his inventory of the Rue Vilin in Paris, and best of all, the list of everything he ate and drank in 1974 (5). This includes: 'Five rabbits, two rabbits *en gibelotte*, one rabbit with noodles, one rabbit *à la crème*, three rabbits *à la moutarde*, one rabbit *chasseur*, one rabbit *à l'estragon*, one rabbit *à la tourangelle*, three rabbits with plums. Two young wild rabbits with plums'. (Then hares, then pigeons).

There is an opportunity here for methodical nutrition researchers. Records of what populations eat are very crude. Some are even based on 'food frequency questionnaires' that include a mere 80 posted questions for subjects whose answers the subjects may remember and may also forget or overlook. Worse, the records kept are in terms of nutrients. No, that's not correct, it's only those nutrients now believed to be relevant to public health; or, to be exact, relevant to avoidance of deficiency and chronic diseases, which is not the same as health.

What's needed for proper understanding, and for analysis at some time in the future when knowledge of nutrition is less primitive, is lists of foods, and of the recipes used to make meals, and of the names of ultra-processed products. All can be analysed at the time and also later. Louisa-Claire has a glittering future in front of her. Next time we need a complete list *au* Perec, with numbers and samples. It's a PhD thesis. It's a research centre department. It's the beginning of a new world of nutrition science. Give some scholars a grant which is enough to buy three lots of their food and drink for a year. They consume one lot (5). The other part of the job is a minutely detailed inventory. The other two lots are put by, one to be analysed at the end of the project and the other in say 2100. Meanwhile, Louisa-Claire's wrappers and her account are glimpses of why the US is collapsing under its own overweight.

References and note

1 http://louisa-claire.tumblr.com

2 There are laws about chemical colours and other additives in the US too, but Big Snack manufacturers hire lawyers to argue that any regulation of what they want to do is an infringement of the First Amendment which, they say, includes freedom of *commercial* expression. There are however no laws about the amount of sugar that can be poured into ultra-processed products, in the US or in the UK, thanks to the power of Big Sugar. Thus epidemic obesity.

3 Lewis J. *Printed Ephemera. The Changing Uses of Type and Letterforms in English and American Printing*. Ipswich: WS Cowell, 1962.

4 Fisk R. *The Great War for Civilization. The Conquest of the Middle East*. New York: Knopf, 2005.

5 Perec G. The Rue Vilin. Also, Attempt at an Inventory of the Liquid and Solid Foodstuffs Ingurgitated by Me in the Course of the Year Nineteen Hundred and Seventy-Four. In: *Species of Spaces and Other Pieces*. London: Penguin, 1997. It is possible that the work is a joke, but the listing of '*n* miscellaneous wines', after 186 bottles of named wines, while frustrating (*n* = 20 or 200?) suggests not. On the other hand, his masterpiece *Life. A User's Manual*, which uses the same technique of exact naming, is a novel.

6 There is a confounder here, though. The quantity and quality of the year's food and drink will be affected by the size of the grant. A scholar granted say $US 250,000 would be more likely to eat out in fancy restaurants and drink vintage wine, than a wretch granted $US 25,000 only one-third of which was for personal consumption. A way round this would be to award say ten grants ranging from $US 25,000 (or less) to $US 250,000 (or more) for a project whose master thesis was on the impact of available income on nutritional status. This could generate hundreds of high-impact papers.

History. Policy. London Food Commission, National Food Alliance

This great movement of ours? (4)



'Red' Ken Livingstone, London mayor; Tim Lang, London Food Commission; Tim Lobstein, Food Commission; Jeanette Longfield, National Food Alliance

This is the my fourth and final recollection of what PhD student Jerrell B Whitehead of King's College, Cambridge, has termed *Food and Health Campaigning and Cooperation in England's New Food Movement, c. 1976-1996*. As one of the campaigners, I liked the idea that I was part of a food movement. Very high fibre. Many memories came to mind. This was a period much of which was darkened by the governments of Margaret Thatcher and her successor, dedicated among other immoral policies to the privatisation of public health and public goods. So I felt that these stories of the 1980s have resonance now, during what an even more repressive and reactionary period in Britain and internationally.

My previous three linked stories outlined the creation and success of the Coronary Prevention Group, the suppression and revelation of the NACNE report, and the consequent 'food scandal' (1). In parallel with these phenomenal events, a group of socialist activists (2), linked with the British Society for Social Responsibility in Science, began to focus on the politics of agriculture and food, and to a lesser extent of nutrition (3). Their liveliest publication was a vividly illustrated 40 page pamphlet with a splendid title: *Our Daily Bread: Who Makes the Dough?* This came out in 1978. It held up the semi-monopolistic British bread and flour industry as an object of scorn and derision, and rapidly went underground. Alas, I have mislaid my copy.

Red Ken's gold

Enter 'Red Ken' (left, above) and Tim Lang (next picture). Ken Livingstone, still a potent UK politician, was in the early 1980s leader of the Greater London Council, a position like Mayor of London, which he much later became. Margaret Thatcher, then UK prime minister, abolished the GLC and thus ousted Ken. However, Robin Jenkins, an ingenious GLC commissar, somehow managed to sequester £1 million before all the GLC funds were confiscated. Red Ken's Gold was used to set up the London Food Commission (LFC) launched in 1984 and chaired throughout its six-year life by Tim Lang.

The idea of the LFC was to protect, improve and promote London's food systems and supplies. Its work was more opportunistic than this mission suggested. In its field it was a sort-of Friends of the Earth without any direct action. Mostly what it produced were well researched and energetically promoted radical reports prepared by members of the team engaged by Tim. One ferocious example in 1985, I remember, was a 56 page onslaught on food irradiation prepared by Tony Webb. In its areas, the LFC usually set the media agenda. Faced with the choice of scaling down to keep going indefinitely and the big bang option, the LFC imploded in 1990.

Sustaining food activism

Enter Tim Lobstein (next picture). With Sue Dibb, who also had previously worked for the LFC, Tim set up the Food Commission, a smaller outfit with a bigger scope.

This is one of the public interest groups that arose from the ashes of burned-out predecessors, which still operates. Its *Food Magazine*, available by subscription, quickly earned a reputation for thoroughly researched, vividly written and presented stories with edge, designed to inform citizens and protect customers (4).

The Food Commission is housed beside the Islington offices of Sustain (the Alliance for Better Food and Farming) whose co-ordinator is Association member Jeanette Longfield, right, above). Sustain began in 1985 as The National Food Alliance; I am proud to have been its chair during the 1990s, before its merge (5). The NFA was and Sustain is the 'umbrella group' for what became over 100 national organisations concerned with agriculture, food and nutrition policy. Its survival and the success of Sustain, is mainly owing to Jeanette. She and Tim Lobstein have similar characters and stories. Both are conscientious and methodical. Both are scrupulous about giving credit to others – and it is characteristic of Jeanette to insist on her title as co-ordinator and not director. Both are committed to supporting local communities, as well as engaging in big issues.

One of these, originating in the UK with the Food Commission and the National Food Alliance, and at first driven forward by Sue Dibb, has been the campaign to stop the abusive use of advertising and marketing to hook children on to ultra-processed products, sometimes known as kiddie-chow. How well I remember the first proposals for what became a carefully documented onslaught on transnational and other giant manufacturers. 'This is massive and we can win', I recall exclaiming. So far I have turned out to be half-right.

So the 'new food movement' which Jerrell Whitehead dates as between 1976 and 1996, has not stopped. But it has slowed. Sustain, the Food Commission, and other organisations with many associates in common, such as the Caroline Walker Trust and the International Obesity Task Force have come into being, and because of being run by prudent people and nt at pell-mell pace, have kept going. The thrill has gone, and that's probably just as well. Have these groups done great work? Certainly.

Are tens and perhaps hundreds of thousands of British people in better health because of this work? Maybe it's millions. Has the public health and nutrition of the UK population as a whole improved, compared with the period specified by Jerrell Whitehead? It is no blame to the valiant activists celebrated here, that the answer surely is no. The greatest praise is deserved by those prepared to keep going in hard times. Some say that it is darkest before the dawn.

References and note

1 Walker C, Cannon G. *The Food Scandal.* London: Century, 1985. (This is the revised, updated and enlarged paperback version).

2 Food activists'. Ah! As many have said before, is this really a pejorative term? If so, do we prefer 'food passivists'? As from the mid-1980s, public affairs companies hired by Big Food, Drink and Snack companies in the UK, earned fat fees by dreaming up more misleading descriptions, such as 'food police'(surely also not all bad), 'food terrorists' and food Leninists'. A wag suggested 'food lentilists'. I learned recently in Chile that a new term is 'food Taliban'. Gosh, what next? 'Food ghouls'? Well, let's run that up the flag and see if it flutters…

3 There is a parallel here with the US. Michael Jacobson co-founded the Center for Science in the Public Interest in 1971 originally with broad objectives; quite soon it morphed into what is now far and away the leading US food and nutrition consumer protection organisation.

4 Much of Tim Lobstein's work now is for the International Obesity Task Force, and in particular for the IOTF on-going campaign to check the advertising and marketing of ultra-processed products to children.

5 A family tree of the great food movers in this period would look like Peter Frame's fabulous organograms of rock bands and stars over the decades. Sustain is formed from two organisations, the other one being the SAFE (sustainable agriculture, food and the environment) Alliance, chaired by Tim Lang. Later Tim became the founding director of the food policy department of Thames Valley University, and then of London's City University, where he is now.

Lynn Margulis
Only connect

Terms used by Darwin, and the number of times these terms appear, include: 'beat/ beats – 17; death/ dying – 16; 'destroy/ destroyed/ destruction'- 77; 'exterminate/ extermination' – 58; 'individual' – 298; kill. killed/ killing' – 21; 'perfect/ perfection' – 274; 'race/ races' – 132; 'select/ selects/ selection' – 540; 'species' – 1,803. By contrast, the following terms are absent from The Origin of Species: 'association, affiliation, cooperate/ cooperation, collaborate/ collaboration, community, intervention, symbiosis.

Lynn Margulis (1938-2011)
Acquiring Genomes. A Theory of the Origin of Species (2002) (1)

The analysis above (2) is a revelation. Charles Darwin was a man of his times, which were of the triumph of capitalism and imperialism. It also is a reminder that all scientific structures have ideological foundations. In a real sense, no conclusions,

however meticulously derived, are objective. In the case of Darwin, and more particularly the 'Darwinists' who ever since have used *The Origin of Species* to rationalise extermination of 'lesser breeds without the law', the idea that evolution of any kind depends on competition was not so much derived from evidence, as taken for granted. This was, after all, a feature of the world as dominated by men and machines.

The great insight of Lynn Margulis, my hero this month, is that to the contrary, evolution depends on collaboration. This woman's view is now backed by very impressive and consistent evidence. In his *Guardian* obituary (3), Steven Rose says: 'When, as a junior academic in 1966, she wrote a paper that many biologists at the time regarded as a wild evolutionary heresy, few would have predicted her subsequent eminence and the extent to which her theory would transform our understanding of evolution, becoming so mainstream that it now features, entirely uncontroversally, in school biology textbooks.

'Then, as now, the leading evolutionary theorists were committed to the idea that the main motor of evolutionary change was competition – between organisms within a species, and between species. Margulis instead expanded on an idea that had been first proposed by the Russian anarchist Prince Peter Kropotkin in 1902 in his book *Mutual Aid* and then developed by Soviet biologists in the 1920s – that co-operation is as important a feature of evolutionary change as competition…

'Margulis's great insight was that, in the early history of life on earth, some 3.5 billion years ago, when the only living forms were single-cell creatures without complex internal structures, evolutionary success could arise through increasing cellular complexity. This complexity could emerge through symbiosis between organisms of different species. The most effective form of symbiosis occurred when the two cell types merged, each contributing to the creation of a harmonious living whole ...

'Margulis recounted how the paper was rejected by around 15 leading biology journals before being published in the *Journal of Theoretical Biology* in 1967. It took more than a decade, however, before she was vindicated…. She argued, once again against the evolutionary mainstream, that organisms are not passive 'vehicles'… ground between the upper and nether millstones of genes and environment, but are instead active self-organising constructors of their own destiny…

'When, in the 1960s, James Lovelock developed his Gaia concept of the earth as a self-regulating living organism, Margulis embraced it enthusiastically, although not in the more mystical form. [She saw] the planet as an integrated self- regulating ecosystem. However, at the same time, she looked dourly forward to the prospect of humanity's extinction through our insistence on trying to dominate, rather than live harmoniously with, nature and thus upsetting the self-regulatory processes. At that

point, she argued, those great evolutionary survivors, the lowly slime moulds, would inherit the earth'.

It is time we all paid full attention to Lynn Margulis's insight, which is of the meaning of life (4) and of our place on the planet. Let us hope that it is not now too late.

References

1 Margulis L, Sagan D. *Acquiring Genomes. A Theory of the Origins of Species*. New York: Basic Books, 2002.
2 Caldwell D. Post-modern ecology – is the environment the organism? *Environmental Biology* 1999, 1, 279-281
3 Rose S. Lynn Margulis obituary. *The Guardian*, 11 December 2011.
4 Margulis L, Sagan D. *What is Life?* Berkeley: University of California Press, 1995.

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