Engels (oude stijl)

Examen VWO

Voorbereidend
Wetenschappelijk
Onderwijs

20**01**

Tijdvak 1
Woensdag 23 mei
13.30 – 16.00 uur

Tekstboekje

Tekst 1

PAPERBACK OF THE WEEK

By Jonathan Bouquet

JACK MAGGS
Peter Carey
Faber £6.99, pp328

This is an immediately comfortable book. A coach pulls into an inn in London. From it alights a darkly swathed stranger who verbally abuses a porter, deposits his trunk and makes his way into the 'sulphurous corruption' of London. Such images sit happily with the reader, for we are at once into the kingdom of Charles Dickens, the greatest chronicler of Victorian London. Maggs inveigles his way into the household of Percy Buckle, a bumptious little upstart, once a grocer, now a man of substance, and comes under the influence of Tobias Oates, journalist, novelist and amateur criminologist. Bit by bit, Maggs's history emerges; bit by bit, his quest, too, is revealed. But the plotting is not what detains you; it is, rather, Carey's eye for the sharply observed vignette – Mercy Larkin, a fellow servant in Buckle's household, is introduced to prostitution by her mother, a stranger taking her virginity in a brutal assault in a doorway; Maggs (nicely redolent of Magwitch in *Great Expectations*) comes under the malign guardianship of Silas Smith, a Fagin-type figure, who uses Maggs to gain entry into country houses by pushing him down chimneys; Maggs being made to see the prematurely-aborted foetus of his first child lying in a cesspit. Carey too has a wonderful ear for Dickens-like names – Mrs Halfstairs, Captain Crumley, Emily Tudball and Wilfred Partridge, the thief-taker who comes to a deliciously bloody end. Admirers of *Oscar and Lucinda* will find *Jack Maggs* a delight; those new to Carey's work will be swept along on a tide of ebullient writing.

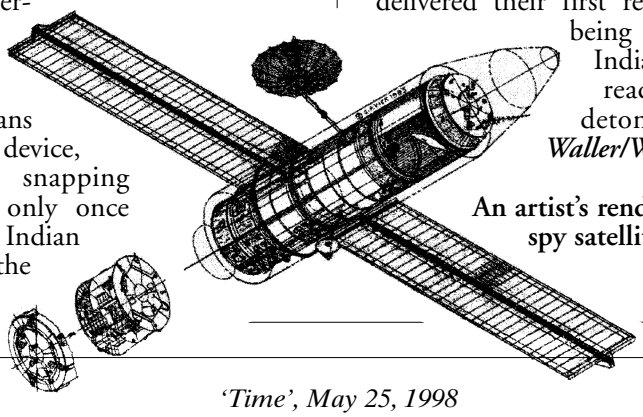
To order a copy of Jack Maggs for £6.99 with free postage and packing, call Observer Interactive on 0500 500 171

'The Observer', May 31, 1998

THE TWO $1 BILLION-APIECE KH-12 SATELLITES the Pentagon has in orbit are like Hubble space telescopes pointed back to earth. From 264 km up, their optical sensors can snap clear photographs of objects no larger than a paperback novel on the ground. The two Lacrosse satellites, same price tag, with solar-power panels that stretch 45 m, have radar-imaging cameras that can see through clouds and even the dust storms that swirl around India's Pokhran test site. In a crisis, at least one of the four birds can be positioned over a target 24 hours a day, sending photos that can be on the President Clinton's desk within an hour.

But the fast service doesn't happen "if your consumers aren't asking for it," says John Pike, an intelligence analyst at the Federation of American Scientists. With the U.S. Administration convinced that India had no plans to explode a nuclear device, the satellites were snapping photos of Pokhran only once every six to 24 hours. Indian scientists, who knew the satellites' schedule, concealed their preparations so the photos CIA analysts scanned in the weeks before Monday's blasts showed what appeared to be routine maintenance.

Satellite photos taken of the site six hours before the blasts finally revealed clear evidence of the preparations. They were beamed back to the National Imagery and Mapping Agency in Fairfax, Virginia. But the agency was on a routine schedule for processing photos from India. Congressional investigators will now probe whether that Pentagon agency was paying too much attention to foreign military bases instead of political targets like India. CIA photo analysts got their first glimpse of the incriminating shots when they strolled into work Monday morning. By the time they delivered their first report that Pokhran was being prepared for a test, the Indian government had already announced the detonations. *–By Douglas Waller/Washington*



An artist's rendition of the American spy satellite known as the KH-12

'Time', May 25, 1998

Tekst 3

Bio bias

I WAS interested to read in 11 October's issue ("Genetic food board's 'bias' is questioned") that "enthusiasm" is now to be considered a disqualification for serving on an independent advisory committee, in this case for releases of genetically modified crops to the environment. I suppose that definite and ignorant bias against something is going to be the new millennial requirement for such public service in future.

"Links to the food industry" is, unfortunately, a price to pay for having such good experts in the area. We cannot expect them to remain in an ivory tower, refusing all requests from industry to comment, consult and advise. We expect them to declare interests and that is exactly what they do, if the situation arises. This negative whingeing attitude and vandalism against crop biotechnology are doing no one any good. Biotechnology has a significant contribution to make to food quality and safety.

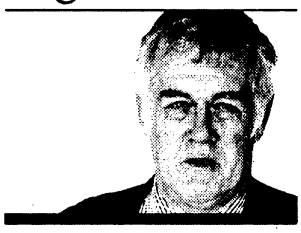
MEREDITH LLOYD-EVANS
Cambridge

'The Independent on Sunday', October 18, 1998

[redacted] Tekst 4

Not since the days of Julius Caesar...

Richard Ingrams



ON THE EVE OF THE ANNIVERsary of the death of the Princess of Wales there may not be many hacks who will want to be reminded of what they wrote a year ago. Could Libby Purves, for example, recall without a twinge of embarrassment her account of watching Earl Spencer's speech on TV: 'Sewing name tapes on to socks through a mist of tears.'?

But it would be a mistake to think there was anything unusual about this phenomenon. It was only an extreme example of something which has been with us for as long as I can remember – the suspension of all critical faculties which afflicts the average journalist when confronted by anything royal.

Claud Cockburn used to tell a story about a newspaper reporter who was sent to cover Queen Victoria's funeral. Returning to his paper from the Abbey he shut himself up in his room to write his piece. As the deadline approached and he failed to emerge, his colleagues became more and more frantic. Finally they broke into his room where they found our man slumped over his desk, an empty whisky bottle at his side. On the floor were lots of crumpled pieces of paper, on which were written the opening words of his story: 'Not since the days of Julius Caesar...'

Nothing much has changed. The monarchy has not changed. Deprived of Diana, the hacks will write the same kind of stuff only about the others. The Queen Mother – what a marvel! Hats off to Prince William. The royal soap opera goes on.

Diana is dead.

Long live the royal family.

'The Observer', August 30, 1998

Tekst 5

De onderstaande tekst bestaat uit het eerste hoofdstuk van de misdaadroman "The death of Amy Parris", van T.R.Bowen

September 1991

Three miles offshore a yacht thumped through the waves. The wind, westerly and soon to veer northerly, pressed it over as it cut and lurched its way into the darkness that was coming down over the Wash. The boat's engine grumbled on low revs to keep it pushing on where, under sail alone, it might have been stopped short by the steep seas that develop quickly off this coast.

Snugged into his bunk, riding with the boat's motion, the owner knew he should unhook the lee-cloth supporting him, pull on his sweater, struggle aft, open the hatch and check that all was well. Something had woken him.

'Ah, sod it. She knows what she's doing.'

A heavy man, uneasy about his own condition, he rolled on to his back. In the dim red light he stared at the deckhead a few feet above his face. His head was thick from the wine he'd shared with his young crew. He reached out for the plastic water bottle he'd remembered to leave on the saloon shelf. He swigged it laddishly, then swilled it between the gap in his front teeth. He wondered if this trip might make some sort of article for one of the yachting mags. He wasn't exactly fond of the yachtie mag culture, preferring the newsroom where he thrashed out a living. It wasn't even paid properly; but it was bunce, fun scribbling, something different.

He glanced across at his wife who had retired to her bunk as soon as the sea began to pick up. She was seasick.

'As usual …'

He was glad, mind, that Ellie'd buggered off. Or she'd have been on to him for chatting up the lass. Harmless diversion but he'd not have heard the end of it for days. Little punishments … he knew them all. Boring. Not that he'd got anywhere with the girl. Pleasant enough, but some sort of maths boffin. Patronizing or what? She'd said she'd interface the Decca navigation system to the autopilot, something he'd never even tried. Well, there you go, she'd done it, the snooty bint. As he turned over in his warm sleeping bag, he touched the wart on his forehead as if it were a charm; an old friend. He could hear from the cockpit, above the force-five wind, the ratcheting of the toothed rubber belt as it spun the wheel, balancing the boat on its electronically determined course.

'Clever little cow,' he murmured to himself. He listened briefly to the steady beat of the engine and went back to sleep, satisfied that all was well with his boat. All was indeed well with his boat. The Decca receiver was picking up undisturbed signals from the chain of transmitting stations that ring the North Sea. Assessing them against the waypoints plotted into its computer, it transmitted instructions in turn to the autopilot. The autopilot's fluxgate compass sensed the boat's heading. Its electric motor spun the toothed belt, turning the wheel.

The boat was set fair to continue its uncomfortable journey as far as Spurn Head without further human attention. In fact, until the owner woke later and came on deck, the boat would receive none. The cockpit was empty.

Amy, the clever little cow, was dying, miles astern in the cold sea. In about ten minutes she would be dead. She was beginning to drift into the merciful warm dream which precedes hypothermal unconsciousness. In the distance the indifferent eye of Haweshead light rhythmically spread and disappeared, soon to be replaced by the greater light which signals the dying human brain.

Country life

Let's be honest

Leanda de Lisle

I was fortunate enough to have been brought up by parents who had many foreign friends: Europeans, Chinese, Arabs, Persians and Indians, but no Africans, or people of African extraction – and I myself have only one black friend. Is that surprising? I don't think so. Britain has a very small black middle class. There were no black girls at school with me and only two in my college at university (one of whom is the friend I've referred to). While I worked in London I was made an NUJ[1)] equality officer for the simple reason there were no non-white journalists in the area and I was the only woman. Then I moved to the countryside, where, after seven years, I met our first black neighbour. She had just married a local landowner and her colour was the cause of much comment. Nothing __6__ I hasten to add. Rather, she was the subject of natural curiosity.

But how do you suppose it feels to be black in a predominantly white country? To walk into a room and know you are being seen, not just as a woman, but as a black woman? Not very nice, according to the American feminist, Patricia Williams, who gave the Reith lectures this year. Not very nice at all, according to the supermodel Naomi Campbell. It doesn't take much imagination to see this may be true. __7__ commentators have roundly condemned them both for expressing this view. The argument seems to go that these women are successful, therefore they have no right to whinge on about racism. But this surely misses the point. Their success must emphasise the __8__ of being black in a world that gets whiter as you go up the social scale. And it allows them to explain what it feels to be a member of a minority and be heard.

Now, I realise racism isn't a specifically rural issue, but perhaps living in a rural area gives one a different perspective. There are very few Afro-Caribbeans living in villages and white town dwellers are likely to spend more time than we do worrying about whether they are being fair and pleasant to blacks. Which may, in part, explain why some seem to regard any complaints from black people as __9__. 'But look how much we've done for you,' they say. 'Stop whining' – the tone of which suggests we've done too much already. Which I suppose is rooted in the belief that blacks are being overprotected and over-promoted by the politically correct.

A year or two ago, police in London released statistics which indicated that large numbers of muggers were black and there was an outcry from self-styled community leaders. Am I wrong in suspecting that, since then, some newspapers have taken special pleasure in publishing photographs of __10__? Perhaps it's easy for me to say this, living away from muggers, but the criminals who have had the most negative impact on our way of life in Britain are white burglars and white paedophiles. And, surrounded as I am by people who speak their mind without concern for what is politically correct, I do think we should ask ourselves whether black people aren't right to be concerned that, in drawing attention to violent black crime, we may __11__ the belief that black men are all Othellos with vicious natures hidden under a civilised veneer.

Then there is the matter of positive discrimination. It has been disconcerting to see how ready people are to __12__ 'scientific' evidence which indicates that blacks have a lower IQ than everyone else – which leads to the obvious conclusion that blacks who are successful in intellectually challenging fields are either __13__ or owe their good fortune to the charity of whites. Charming for them, I'm sure. There is no space here to discuss nature versus nurture or the advantages and disadvantages of positive discrimination, but I do wonder to what degree people's views have been influenced by the fear of competition and the hope that blacks are at the bottom of the pack because that is where they deserve to be.

Neither Patricia Williams nor Naomi Campbell accused us whites of being a bunch of Nazi pigs. They __14__ asked us to accept that we are not colour blind and invited our sympathy and suggestions. Instead, they were damned as a pair of whingers, whose success makes them living proof of __15__ fair and generous natures. It strikes me that it is the commentators, not they, who protest too much. And if we want open debate we should make it honest as well.

'The Spectator', May 3, 1997

noot 1 NUJ: National Union of Journalists

So early cannibalism was all about vegetables?

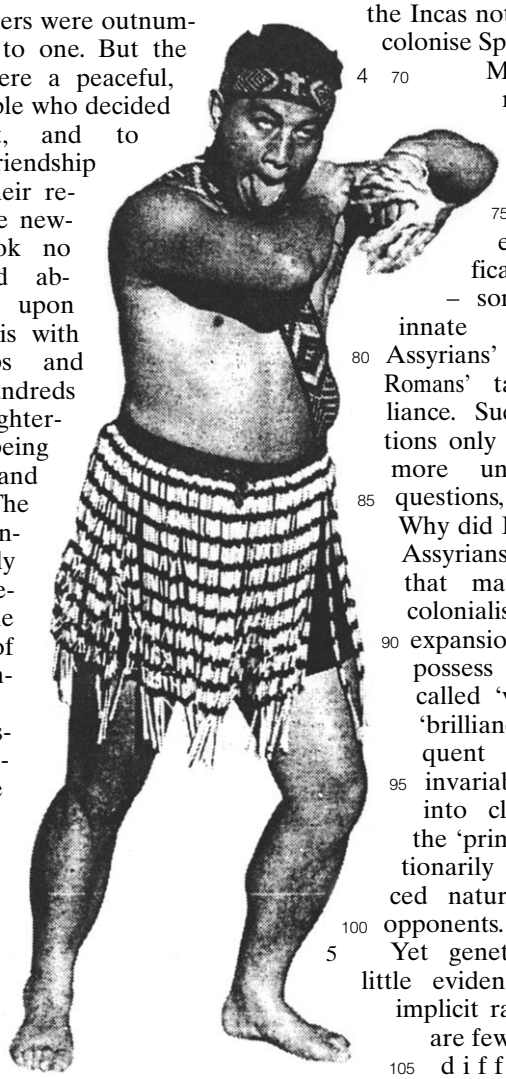
ROBIN McKIE
reviews
GUNS, GERMS AND STEEL: A SHORT HISTORY OF EVERYBODY FOR THE LAST 13,000 YEARS by Jared Diamond
Jonathan Cape £18.99, pp480

On 19 November 1835, a boat carrying Maori tribesmen – the vanguard of an invasion force of almost 1,000 warriors – landed on the Chatham Islands, a remote archipelago, 500 miles east of New Zealand. The local Moriori people were now slaves, they were told.

The invaders were outnumbered two to one. But the Morioris were a peaceful, simple people who decided to submit, and to proffer friendship and half their resources. The newcomers took no notice, and abruptly set upon the Morioris with guns, clubs and axes. Hundreds were slaughtered, many being cooked and eaten. The rest were enslaved, only to be executed at the whim of their conquerors.

'Not one escaped,' recalled one Maori. 'Some ran away, those we killed, others we killed – but what of that? It was in accordance with our custom.'

This grim 'custom' is not new, of course. The bloody acquisition of food and territory has been repeated like a malignant mantra for millennia. Maori eradicated Moriori, Spaniard subjugated Inca, and Bantus became African overlords. In the process, we have created an absurdly lopsided world in which West European cultures now dominate the planet's resources. But why? How did this global inequality come about? Why did Maori vanquish Moriori, and not the other way round? Why did the Incas not invade and colonise Spain?



Most historians respond in terms that stress – either specifically or tacitly – some kind of innate superiority: Assyrians' vigour or Romans' tactical brilliance. Such explanations only beg further, more uncomfortable questions, of course. Why did Romans and Assyrians, and for that matter British colonialists and Nazi expansionists, possess this so-called 'vitality' and 'brilliance'? Subsequent responses invariably descend into claims about the 'primitive evolutionarily less advanced nature' of their opponents.

Yet genetics provide little evidence for this implicit racism. There are few meaningful differences between the innate abilities of the world's peoples, though the notion of racial superiority remains seductive. As Jared Diamond says: 'Until we have some convincing, detailed, agreed-upon explanation for the broad pattern of history, most people will continue to suspect that the racist biological explanation is correct after all.'

Hence *Guns, Germs and Steel*, a book of extraordinary vision and confidence which seeks, with considerable success, to demonstrate how environmental factors created our modern world of affluent Americans and impoverished Ethiopians, the fate of the Chatham Islands being particularly illustrative.

As Diamond says: 'Moriori and Maori history constitutes a brief, small-scale natural experiment that tests how environments affect human societies'.

For a start, the Morioris and Maoris were both recent descendants of the same seafaring people. Neither had time to diverge biologically, showing that the seeds of the Morioris' destruction did not reside in their genes, but elsewhere. And Diamond knows where.

'Those ancestral Maoris who first colonised the Chathams may have been farmers, but Maori tropical crops could not grow in the Chathams' cold climate, and the colonists had no alternative except to revert to being hunter-gatherers. Since as hunter-gatherers, they did not produce crop surpluses available for redistribution or storage, they could not support and feed non-hunting craft specialists, armies, bureaucrats and chiefs.'

Thus the Morioris were doomed. And on a larger, equally unforgiving scale, so were civilisations that evolved away from farming's birthplace,

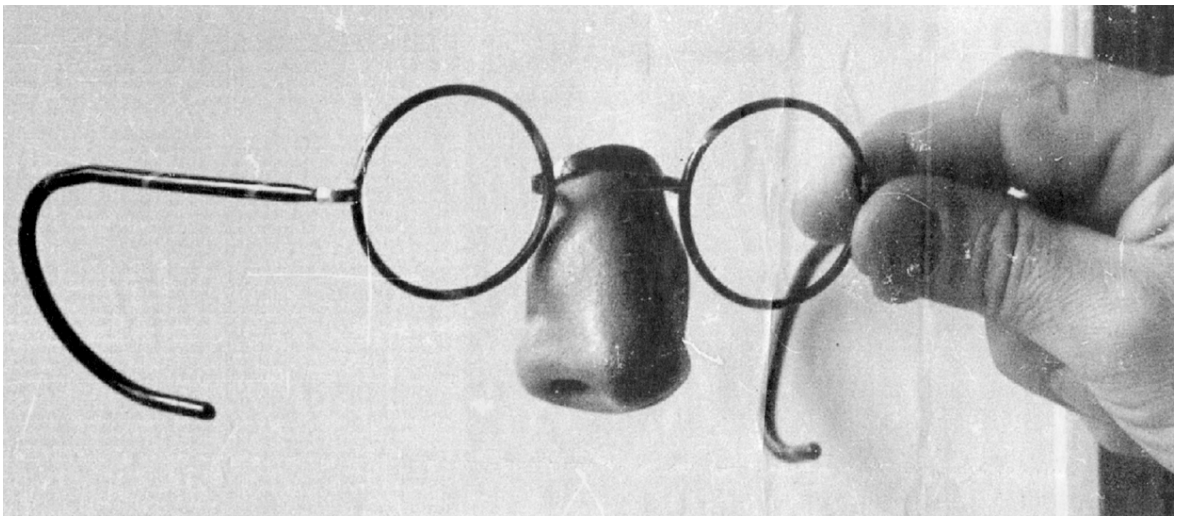
the nurturing ground of the Middle East's Fertile Crescent. Of course, agriculture did develop elsewhere (China, the Andes, West Africa and New Guinea, for example), but these regions lacked the rich variety of Middle Eastern crops: wheat, barley, lentils, peas, and flax.

11 Similarly, Eurasian peoples inherited many more domesticable wild mammalian herbivores – dogs, sheep, goats, pigs, cows and horses – than did the rest of the world. As a result, land that once supported only dozens of hunter-gatherers, now fed thousands. Stores needed bureaucrats, and fields required armies for protection. Wheels were invented and horses were yoked to chariots – though we 'gained' more than mere martial advantage from domestic animals, says Diamond. We also acquired measles, tuberculosis, smallpox and malaria microbes which were once pathogens of cattle, pigs and chickens.

12 These were 'Europe's sinister gift to other continents – the germs evolving from Eurasians' long intimacy with domestic animals.' It was a deadly combination, as we can see from the fate of the Incas.

13 *Guns, Germs and Steel* is history scrubbed clean of its idiosyncratic participants: Alexander the Great, Lenin, Buddha and the rest, an omission for which Diamond makes no apology. Instead, he has tried to create a discipline based on science, rather than humanities, and has backed his bid with an impressive knowledge of molecular biology, evolutionary theory, plant physiology and sociology. The result is a prodigious, convincing work, conceived on a grand scale, and thoroughly executed, perhaps a little too thoroughly. Certainly, the book is thick with detail, a history that is still 'one damn fact after another' – though in this case, they are damn interesting facts.

'The Observer Review', April 13, 1997



Striving for physical improvement has become a valid part of the American dream.

I'm not sure it's quite me…

Cressida Connolly

reviews
VENUS ENVY: A HISTORY OF COSMETIC SURGERY
by Elizabeth Haiken
Johns Hopkins £20.50, pp301

1 In 1936, leading British plastic surgeon Sir Harold Gillies was approached by a young general surgeon who was considering specialisation in the discipline. 'Really I do not think you have a chance, my boy,' he was told. 'There are four plastic surgeons in the country and I can't think there can be room for more.' Sixty-odd years later, Sir Harold's words seem almost comically misjudged: in Britain about 70,000 people a year now elect to undergo cosmetic procedures. According to a recent report in the *Times*, some women – 90 per cent of patients are female – are now being given corrective operations as Christmas presents: Bupa hospitals say January bookings for such treatments are up by 15 per cent on last year.

2 *Venus Envy* (great title) is a timely history of this extraordinary growth industry, which focuses on its development in the author's native America. Haiken makes a convincing case for her belief that the discipline was not, as is often thought, born of advances in reconstructive surgery deriving from injuries sustained by soldiers in the First World War. While acknowledging that the war made cosmetic surgery respectable – even heroic – she sets out to prove that an interest in 'beauty surgery' predates 1917.

3 Haiken's contention is that cosmetic surgery has always tried to escape the charge of profiteering from vanity and insecurity by medicalising itself. By clinging to the idea that it was born from the noble cause of repairing the disfigurements of brave servicemen, it lent itself gravitas and respectability. The treatment of burns with skin grafts following the Second World War gave further weight to the by-product of cosmetic work. But over the years, it has taken hostages by pathologising flaws that might properly be regarded as quite normal. Double chins, big noses, thin lips and drooping breasts have all come to be regarded as deformities; as deserving of correction as conditions such as cleft palates or harelips. This trend Haiken ascribes to two things; the evergreen desire for self-improvement enshrined within the American way of life and, rather less probably, a mass collective adoption of psychoanalyst Alfred Adler's inferiority complex.

4 She has unearthed some remarkable, disturbing findings. A chapter on ethnicity and cosmetic work reveals the alarming statistic that in 1990 alone 39,000 Asian patients in America underwent operations to create Western-style 'double eyelids'. In the build-up to the Vietnam war, scores of native women had breast augmentations in order to attract US servicemen posted in their country. Perhaps most scandalous of all is the fact that – unknowingly – US tax-payers were, during the 1970s at least, contributing between $1 million and $6m annually on free cosmetic operations for the wives of military personnel.

5 Too much of this book is taken up with the 'how' of cosmetic surgery. How the early surgeons organised themselves; how liquid paraffin predated silicone and eventually collagen as an implanting agent; how Barbra Streisand didn't have a nose job, despite the vastness of her snout, and how Michael Jackson did, despite the modest size of his. (Haiken's admiration for Streisand's early rhinoplastic restraint is boundless. The singer is mentioned again and again, in the warmest tones. Odd, then, that the author has not remarked on Streisand's

remarkable youthfulness, nor her fullness of upper lip and ski-slope straightness of nose. Reassuring to note that, even to the eye of a historian of facelifts, love remains blind.)

6 Elizabeth Haiken is assistant professor of history at the University of Tennessee and a high level of scholarly and thorough research is everywhere evident. This is not a populist book. It reads like a very well-written PhD thesis. The problem with such an approach, though, is that cosmetic surgery is a populist subject. Much as I rue the triumph of opinion over knowledge which characterises so much contemporary writing, this book errs so far in the opposite direction. The fascination of cosmetic surgery lies not in how it developed, but in why: what *Venus Envy* cries out for is conjecture.

7 The most interesting passages are gleaned from the writings of social historians. Warren Susman's theory is particularly sound: that nineteenth-century values on 'character' gave way, early this century, to an emphasis on 'personality' – in other words an onus on inner spiritual qualities became replaced by outer magnetism and charm. As society became more urbanised and competitive, the community was displaced by the individual. First impressions became a commodity. Then as now, good looks improved career prospects. (A pair of research economists found, in 1993, that good looks improve earnings by 5 per cent, whatever the occupation.) Striving for physical improvement thus became a valid part of the American dream.

8 So much for the early days, but Haiken does not address enough attention to the current state of cosmetic surgery: although one chapter is called 'The Michael Jackson Factor', she makes no attempts to address the bizarre psychology which drives his bid for transformation. The only conclusion she reaches is that Jackson suffers from self-hatred. She could surely do better than this.

9 For a wider and more convincing investigation into the American obsession with youthfulness, readers will have to search elsewhere. Robert Bly (scorned creator of *Iron John*) has addressed the issue in *The Sibling Society*, and many feminist commentators, from Naomi Wolf's *The Beauty Myth* onwards, continue to question the mores which fuel the search for eternal youth. What does this mania for youth and beauty say about a nation's moral health? About the value of sexual desire? About the life of the soul? What worth does a society with such superficial preoccupations put on the wisdom of age? What might be lost by forgoing senescence, and might anything be gained?

10 These are the sort of questions which anyone buying *Venus Envy* will surely be interested in. The pity is that Elizabeth Haiken does not come closer to answering them.

'The Observer Review', January 11, 1998

SOCIOLOGY

CONSUMING FEARS

1 In recent months Britons have been told they might get the brain-destroying Creutzfeldt-Jakob disease from eating sheep, a bowel disorder called Crohn's disease from drinking pasteurized milk and a damaged immune system from dining on genetically modified foods. Consumer groups, newspapers and broadcasters have acted as though lives were at stake. Yet in the first two cases, the Department of Health described the risk as negligible, and the genetic crop worry last August was later admitted to be bogus – a scientist had muddled the results of a colleague's research, confusing rats from two different experiments.

2 These incidents were only the latest in about 15 years of food scares in Britain. People were scared about salmonella in eggs; listeria in cheese; *Escherichia coli*, antibiotics and hormones in meat; and pesticide residues and phthalates (benzene-related compounds) in just about everything. And of course, most infamous was the scare about beef from cows infected with bovine spongiform encephalopathy (BSE). Besides creating panic, food scares can wreak havoc with the agricultural economy – sales of beef have only recently returned to their pre-BSE levels.

3 Whereas genuine outbreaks of food poisoning are not uncommon, the reactions in Britain seem particularly out of line with the threat. A large part of that, notes food-safety expert Derek Burke, stems from the handling of the BSE outbreak. The ongoing inquiry has caused the complete collapse of public faith in food-regulating authorities, such as the Ministry of Agriculture Fisheries and Food (MAFF) and the Department of Health, as well as in politicians and scientists.

4 For instance, MAFF admitted that it knew in 1986 that prions, unusual proteins that are thought to cause BSE, might be able to infect humans and cause Creutzfeldt-Jakob. Not until 1989, however, did it introduce legislation to ban specifically high-risk material – brains and spleens – and only last year did it ban the material from use in pharmaceuticals and cosmetics. More recently, press reports last September indicated that MAFF turned a blind eye to abattoirs that flouted BSE safety requirements. "It is going to take years to get rid of that problem of public mistrust," says Burke, who served as chairman of the government's Advisory Committee on Novel Foods and Food Processing.

5 Lynn Frewer agrees. She is head of the risk perception and communications group at the Institute of Food Research, which works for, among others, MAFF and the European Union in multilateral research programs. "Fifty years ago science was equated with progress. It was trusted and seen as properly regulated. But in the past 50 years there have been many symbols of it getting out of control, such as DDT, thalidomide and, more recently, BSE," she concludes.

6 Frewer adds another reason for the escalating concerns about foods. Many once-feared illnesses, such as polio, smallpox and scarlet fever, are preventable or curable now. That has prompted people to magnify other worries instead. Burke quips that there would be fewer food scares if war broke out.

7 Although questions of food safety occur in the U.S., they do not cause as much panic. Americans hold a less equivocal attitude toward science than Britons and other Europeans do. That might explain why most Americans are not too bothered by genetically modified foods. The crops – mostly corn, potatoes and soybeans – are designed to produce their own insecticide or to withstand herbicides and can turn up anonymously in such prepared products as french fries. Because no evidence has been found that genetically modified foods are dangerous, the Food and Drug Administration does not require any special labeling for them.

8 Britain, like most of Europe, however, feels differently – after all, many argue, there is no evidence they are safe over the long term, either. Moreover, transgenic crops can lead to unpredictable environmental consequences: a maize trial, for instance, ended up killing off lacewings, which are beneficial crop insects.

9 Perhaps not surprisingly, therefore, the actions of ecoterrorists, who have destroyed at least 30 of more than 300 crop trials in the past few years, take place in a blaze of admiring publicity. Prosecutions are rare for fear of copy-cat action and adverse press.

10 The reactions to the possible hazards of food, real or imagined, have raised questions about exactly what the public should be told and when. Both the scientific community and consumer groups agree that the current ad hoc system of reporting food concerns is inadequate. For instance, a report from the Food Commission, a British lobbying group, states that some nut imports are contaminated with deadly aflatoxins, a potent liver carcinogen. MAFF has admitted the problem, but the finding has gone almost unnoticed and unreported. Tim Lobstein, co-director of the commission, pins the blame on the news media.

11 To streamline food regulation and the reporting of threats, the government wants to establish a food standards agency. Exactly who pays for this agency and whether the bill authorizing its creation is passed in the next legislative session are still up in the air. It may be a while before Britons look at their dinner plates without apprehension once more.

– Peta Firth

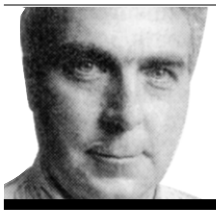
PETA FIRTH, *who was an award-winning journalist for the Hong Kong daily newspaper the* HK Standard*, is a freelance writer based in London.*

'Scientific American', January 1999

Tekst 10

Poor, poor Dolly

Robin McKie



'SO FAR, SO GOOD,' 'Dolly's doing fine.' 'The world's most famous sheep is shaping up.' So ran the headlines marking the first birthday of the Earth's most distinguished clone.

In a few weeks' time, Dolly will be three. But this time round, the greeting may be a little more muted – for Dolly has a problem. Her telomeres have come up short.

Sounds nasty and you might be right. Telomeres are the bits of DNA that cap the ends of the chromosomes found inside the cells of all living creatures. Every time a cell divides, it sheds a little bit of telomere. You can judge an animal's age by the lack of length of its telomeres.

And Dolly's have been found wanting. They are 20 per cent too short for a three-year-old sheep, and are more like those of a nine-year-old – a striking finding given that Dolly was cloned from a six-year-old sheep's udder cell. She appears to have inherited all the wear and tear that would normally be found in her 'mother's' cells.

And that is a crucially important finding for two reasons. First, it suggests that Dolly is destined to play a critical role in understanding that most baffling and dispiriting of phenomena: ageing. Scientists have wondered whether it is a cellular business. Do the building blocks of living beings contain the seeds of their own destruction, and after their allotted span, just die out, triggered by telomere depletion? Or is it more to do with larger processes; the failure of repair mechanisms to correct the accretion of physiological flaws, for example?

Dolly offers us a chance to find out. Sheep, when not merged with mint sauce, live for about 14 years. Dolly has 11 to go, and if she fails to make it, her stunted telomeres may be blamed. Equally, if she lasts through to her sheepish dotage, then scientists will also have learned an important lesson.

'Sheep, when not merged with mint sauce, live for about 14 years'

There is, however, a second point to be noted from the discovery of Dolly's truncated telomeres. When her creation was announced in February 1997, the world and its pundits went into a lather of pipe-sucking hysteria about the creation of human clones. It was assumed a monstrous regiment of Identikit humans would soon be marching in step towards global domination. In vain, scientists tried to point out that it took 277 attempts before they succeeded in making Dolly.

And now comes news of Dolly's telomeres. Clone a 50-year-old man and by the time his 'son' is in his teens, his cells could have the age of an OAP's. Not much cop really, or as Dolly's creators put it last week, 'It's another good reason to stop talking about human cloning.' And not before time …

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