Letter from Australia

A MOVEABLE FEAST

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Moving house is sometimes taken literally in this part of the world. The minimum requirements are a wooden house, only lightly attached to the ground, and a reasonably muscular truck. Such homes, perched on sturdy wooden poles, or 'stumps' are common in Australia, especially in the tropics, and are easily raised on jacks to allow the cradle of the truck underneath. The drivers of such vehicles are not a timorous breed, but where even they are deterred by the slope of the land, the truck is parked alongside, the cradle is raised hydraulically, and the house winched aboard, crabwise. As with many other human endeavours, financial advantage usually provides the motivation. This occurs where an ageing, but sound house has been divorced from land whose value has risen enough to attract younger partners. As in some human partnerships, style and loyal companionship are sometimes forgotten when sirens sing their songs. Faded paint and sagging timbers are easily elbowed aside by young hussies decked in concrete and chrome.

Traditional Australian 'colonial' houses have their own band of ardent admirers however, who invest much energy and money in restoring them to their former glory. This is not entirely motivated by aesthetics and nostalgia, as these homes are well adapted to the environment. The basic design rules are simple—high ceilings, wide verandahs, and central corridors to entice every breeze that might ease the heat of the summer sun, corrugated iron roofing to resist torrential rain and hail, and mesh screens on doors and windows to deter an abundant and committed insect population. And stumps.

The early settlement of Australia often exploited the flood plains of muddy, moody, rivers, which offered the advantages of fertile soil and easy access, but the hazards of regular inundation. A few extra feet above the ground could then mean the difference between temporary isolation, and complete devastation. In estuarine communities such as Brisbane, it was soon appreciated that the best stumps were those provided by the natural elevation of the land, so the tops of local hills were, and still are, highly prized. This not only protects from flood, but allows houses on the 'right' side of the hill to face the North East, and thus catch the afternoon sea breeze which lifts the burden of summer heat. Western walls which must face the unremitting gaze of the afternoon sun have few unshaded windows. No sane Brisbane real estate agent would include 'magnificent sunset views' in their hyperbole.

Aspect and elevation are thus all important, and the strata of wealth and status in such cities generally follow the contour lines of the hills. It also inverts some of the usual affectations of affluence. Those who work in the air-conditioned city towers, and who would not dream of driving un-air-conditioned cars, view homes with similar conveniences, or even those with fans, with suspicion. Just as in earlier times, Chinese aristocracy saw short finger nails as evidence of demeaning manual toil, fans or air conditioning are taken by the climate cognoscenti to mean suspect aspect. A comfortable atmosphere acquired by mechanical device

rather than natural location, is viewed with acclaim as was the use of silicone to enhance other natural attributes.

As might be expected, the higher up the hill, the shorter the stumps, but in wooden houses, they never completely disappear, however grand the position. They remain as ramparts, built to defend, not from climatic assault, nor against a droning, biting insect air-force, but against a tunnelling, nibbling, army. A quiet, army of termites.

Termites are known colloquially, but inaccurately, as white ants, as they belong, not to the order *Hymenoptera*, along with the ants, bees and wasps, but to *Isoptera*, with cockroaches as their closest kin. The misnomer is forgivable, as they closely resemble ants, in both physical appearance and social structure, with millions of blind workers and soldiers living in colonies propagated by a queen of impressive fertility, capable of producing 2 or 3 thousand offspring per day. Remarkably, for a wood eater, termites possess no cellulase enzyme. They rely instead, upon a symbiotic partnership with protozoa which inhabit their alimentary tracts. These supply the cellulase which guarantees regular home delivery of convenience food for the patron, in return for a secure home for the chef.

No wood is totally resistant. Red gums, bloodwoods, and jarrah fare better than most, but even these require an additional protective 'ant cap'—inverted metal saucers which form a further barrier between stumps and joist, and which overlap the stump by an inch or so. These rely for their effect on the disinclination of termites to simultaneously travel horizontally and upside down. It might be thought that concrete or metal stumps would be the obvious solution, but even these give no guarantee. Termites are skilled engineers as well as miners, and circumvent indigestible barriers with mud encased shelter tubes to bridge the gap to the nearest timber. They make their own underground overground.

House timbers, although dear to their owners, are only an occasional snack on the termite menu. Their main diet is found in the hardwood ecualypt forests, the restaurant remaining concealed until the tree is felled or dies, revealing a hollowed out, mud filled central 'pipe'. From such natural nests, winged reproductive castes or alates venture forth in humid weather on colonising flights. They leave through portholes which are rapidly sealed after them, discouraging any second thoughts that home was perhaps not so bad after all. Unlike their sightless siblings, they have vision sufficient for navigation, and wings which stay attached only as far as a suitable tree. The new king and queen have no further need for flight as they set about the serious business of procreation, producing thousands of workers which dutifully burrow down and out in search of food. Tunnels up to 70 feet connecting tree colonies with houses are not uncommon.

The natural reaction of the householder to the tell-tale shelter tubes of mud linking ground and timber, is to destroy them on sight. This is understandable, but inadvisable. Any breach in the tube disgorges a wave of soldiers who furiously threaten with impressive, but ineffectual jaws, their military prowess dependent mostly on the use of sticky toxic secretions. This attack causes humans no harm, and is intended for their main foe, the authentic ant. Destroying the tube is satisfying but futile, as the breach is easily sealed, and another, probably less conspicuous assault is soon mounted elsewhere. This is often close to leaking plumbing, as water is needed to wash down dusty lignin, and make mud for the tubes. An effective counter-attack requires the help of a pest control expert who will insufflate the pipe with a small amount of a powdered arsenic compound.

This unsportingly exploits the fact that termites communicate by fleeting touch. This resembles the symbolic peck on both cheeks used by western socialites and eastern potentates to greet each other. Termite soldiers returning from the breach, tell the usual warrior's tales of daring deeds. The word is spread, and with it the arsenic. A wave of death by handshake washes over the colony.

Some termites are jobbing builders, others have vision. The cathedrals of the termite world are to be seen in drier country areas, where mounds 10–12 feet high dot the landscape. Like cathedrals, most take a long time to built and last, for many years, perhaps as many as 150. Others are more quickly built, and pilots of light aircraft hoping to land on unpaved, emergency airstrips, may be alarmed to find that a new block of termite apartments has appeared on the runway since the last touchdown. Aspect also seems to be as important to some termites as it is to some humans. As their name implies, *Hamitermes meriodionalis* of the Northern Territory, has a fine sense of direction, carefully constructing 'compass' mounds with a long axis pointing North–South, and an internal network of chambers apparently orientated to maintain constant temperature and humidity throughout the year, whatever the angle of the sun's rays.

To the untutored European eye, an Australian wooden house perched on stumps, standing in splendid isolation in a garden or 'yard' stripped of trees is a rather stark sight. No matter, ambience is soon added—stumps are hidden behind partition walls to give extra living space, fast growing eucalyps are planted close by, flowering creepers adorn the walls, gardens are landscaped with timber steps and pine bark, micro-irrigation systems keep everything moist and fertile.

Below the earth, the quiet army mobilises, unable to believe its luck, as it prepares for a little house moving of it's own. Bit by bit.

CORRIGENDUM

On p. 438, para 2 of vol. 24 the opening sentence of *Letter from Australia* should read: This will cause no surprise to those who have tried to raise Darwin's flag in the creationist camp, but like all good studies, it *poses as many questions as it answers. These students must* possess a remarkable ability to quarantine conflicting thoughts, accepting or rejecting *empirically established scientific evidence, not according to the quality of the science, but to* its compatibility with religious doctrine.

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Book of the Quarter

A HISTORY OF EDUCATION IN PUBLIC HEALTH: 'HEALTH THAT MOCKS THE DOCTORS' RULES'

Edited by Elizabeth Fee and Roy M. Acheson, Oxford University Press, 1991, pp. 349 £35.00.

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THE NEED FOR THIS BOOK

The editors of this multi-author volume felt they were filling a gap in the information market. Although the history of science and the history of medicine were both well-established disciplines, there had been no comprehensive account of education in public health. In particular, the notable contrasts in the development of training in the USA and UK had not been adequately addressed. However, Elizabeth Fee and Roy Acheson did not simply see themselves as making a contribution to the historical record. They envisaged teachers of their subject throughout the world making practical use of such a text in deciding how to set up their own, local arrangements. It would, the editors must have fancied, serve as a kind of cookery book from which deans and professors could pick and mix ingredients to suit their scholastic requirements. It may not have been the authors' intent, but the cautionary tales in this compendium also provide lessons on how not to manage the public's health for it turns out that the contents do not merely offer check lists for the convenience of curriculum planners but supply parables based upon the internecine struggles between clinical doctors, whose primary business is the care of the sick, and public health workers, whose prime concern should be prevention.

CONTRASTS AND SIMILARITIES

In both the UK and the USA the history of public health is characterised by conflicts, the most fundamental being that between clinicians and public health practitioners. Within public health itself, there have often been unresolved tensions between research-orientated academics and the workers in the field who have found aspects of their initial training to be inappropriate. Underlying the struggles over status and prestige there have been successive disagreements amongst teachers over what to include in courses, as the field has been repeatedly modified and redefined in response to changes in society. Scarce wonder that the syllabus must seem to some students as a confusing rag-bag of old and new elements.

It was the perceived impact upon health of rapid industrialisation and urbanization which originally brought home the necessity for public or state intervention in both countries, though the process started later in the USA than in the UK. As medical practice expanded in the USA, it was in a personal, entrepreneurial fashion and fortunes could be made by popular physicians. The writers in this book repeatedly point out how this has continued to be the American situation,

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