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Planning for environmental quality

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The Building Science Forum Committee organising this year's conference has published a Preview of the Conference, asking us to discuss, examine and identify current Australian problems in environmental control and urban development.

It is only in the last year or two that these problems have been taken up by the mass media and the electorate as a whole.

This conference's Organising Committee states that: "The current situation in urban areas in Australia is fast approaching crisis proportions and desperate efforts in the fields of planning and technology are urgently required to ensure a quality environment fit for human habitation."

As I was welcoming the recruitment of building scientists to the up-until-recently thin ranks of my colleagues, the urbanists and environmentalists, I also happened to be reading a new book, *Coprophilia* (literally "The Love of Filth") by Terrence McLaughlin (Cassell, London, 1971). This documents the, to us, astonishing filth, disease, squalor and discomfort in which the flower of European urban civilisation has been immured for the last thousand years. People (even rich people), buildings (even palaces) and towns (even the finest cities) have been traditionally bug-ridden, rat-infested, stinking, foully awash with sewage and sillage, and a prey to high disease and mortality rates, for a thousand or more years of English history.

Until quite recently, city streets were what we would call in today's jargon "universal, multi-purpose channels", providing for social meetings and retailing, mixing foot and wheeled local and through traffic, sewage, drainage, and all other wastes. In eighteenth-century Edinburgh, the early morning was a particularly hazardous time: "Far overhead the windows opened, five, six or ten storeys in the air, and the closet stools of Edinburgh discharged the collected filth of the last twenty-four hours into the street. It was good manners for those above to cry 'Gardy-lool' (Gardez l'eau), before throwing. The returning roysterer cried back, "haud yer han", and ran with humped shoulders, lucky if his vast and expensive full-bottomed wig was not put out of action by a cataract of filth." The City Guard were supposed to

clear the muck away, but rarely did so. Municipal services have apparently always been laggard throughout the history of urbanisation.

In the nineteenth century, urban atmospheric pollution, caused by massive and inefficient coal burning, reached levels of intensity which seem higher than anything we experience today. Urban housing and traffic congestion, shortages of urban services and amenities—all these crises were typically far worse right up until the early twentieth century than they are today. Even royalty suffered bed bugs, lice and rats, while national and world population growth was held in check by disease.

How then, are today's urban and environmental crises worse than the continual crises of the last thousand years?

Until very very recently, the great majority of Australians believed that we had no such crises, and that this kind of history was dead. Australians are still voting with their feet by preferring the "economies of scale" of life in Sydney and Melbourne, to their still nascent "diseconomies of scale" pointed out by the decentralists. It is possible that a majority of members of the Building Science Forum believe that today's urban-environmental crisis-mongers are exaggerating. Certainly, most of our Federal Cabinet Ministers appear convinced that there is no call for Australian national recognition of the existence of any significant urban or environmental problems.

A number of demographers, biologists, chemists and other scientists are now pointing out that our biosphere is limited in resources and that our current and future crises differ in scale from anything in previous history, because world population growth and local metropolitan concentrations pose a very real threat to the capacity of space-ship earth's life support systems. In the long run, they must be right. How long a run we have, I personally don't know.

What I do know, however, is that, even disregarding the doomsday prophets, we can still vastly improve our planning, on national, regional, and local levels, for the achievement of more physically pleasant, more economically efficient, and more socially equitable arrangements for living. There seems to me no

cause for despair, but a pressing need for more determination to manage our twin tasks of development and conservation much better than we do at present.

I don't believe that history is dead. We can and must learn from historical studies, particularly from the study of urban history and of the history of technology. For example, the mass production of the water closet in the late eighteenth century was a technological innovation comparable to the motor car. The urban environmental and social consequences of the first hundred years of the water closet are quite comparable to the consequences of the first 50 years of the motor vehicle. For example, Melbourne suffered its sanitary crisis in the late nineteenth century and the M.M.B.W. was set up to deal with that particular crisis. Sydney and Melbourne are suffering their motor traffic and pollution crises today. Perhaps history will repeat itself, and the nineteen seventies will a similar massive organisational and technological attack on the problems of public transport.

I quote McLaughlin on the consequences of the water closet. Compare these with the consequences of the motor car, or with today's problems of industrial wastes:

"... as an improvement in the generally unpleasant standard of eighteenth-century life, its value was undeniable. But there was no concept of collective planning at the time (and if there had been, sectional interests would have stifled any effective action). Having designed a fairly reliable means for removing excrement from the houses of the well-to-do, the water closet manufacturers did not see any responsibility to enquire where the sewage should go then. The closets mostly discharged into sewers or even open gutters running through the streets, and ultimately into the rivers. A large amount of sewage that had previously been confined to earth closets or carted away by nightmen for use on the land was now suddenly added to the already foul waterways. In London . . . the end of the century saw an increase in the number of deaths from typhoid that paralleled the installation of the closets. In fact, the death-rate, which had been falling with the advent of cleaner streets, more water, and the establishment of hospitals, rose again dramatically as the typhoid epidemic spread.

. . . For the mass of the people, the eighteenth century closed little better than it had started. . . .

Many of the improvements of life did not reach the poor at all: the rich had the water closets, the poor merely got more sewage in their drinking water. . . ."

Compare today's problems of "co-ordination" between authorities, and of consensus between radicals and conservatives, and today's problems of private land ownership, with the English nineteenth-century crisis of industrial slum formation:

"... It is easy to sneer at one side or the other—to see the manufacturers and landlords as wicked melodramatic villains complete with top hat and riding crop, or the workers as rather vicious sheep.

. . . Society was studded with men of goodwill at all levels, from the intelligent men in 'fustian jackets' whom Engels met in working men's institutes, all the way up to the head of government, in the person of that devious, hard-working, kind-hearted genius, Benjamin Disraeli. But goodwill could not cut through the tangles of private property, parochialism, departmental jealousies, and inertia that made up the British system of government and law. Before even a survey could be made of London's decaying sewers, let alone any actual improvement, eight separate departments had to be consulted and mollified, and finally concentrated into one Board of Commissioners. While poor people in the crowded courts were suffering all the stink and disease arising from the piles of dung in the middle of the yards, there was a serious legal battle going on to decide whether it was stealing to take away the heaps. One party claimed that the heaps belonged to the landlord of the property, another that the people who had created the filth had the ownership rights to it. In either case it would obviously have been against all equity for the state to take away such a valuable possession, which could be sold to a farmer for profit. In the factories, measures for safety or comfort met with similar difficulties, because there was a general reluctance to make national legislation.

The local doctors might suggest an improvement, and a good-hearted manufacturer might be prepared to institute it, but if it cost money, and were only applied locally, competitors in other towns would take advantage of the situation to undercut.

Thus, spending money on welfare might in the end only produce more unemployed. . . ."

McLaughlin concludes his book by saying:

"... Our attitudes, in fact, are no different from those of the eighteenth-century gentry who fitted water closets in their houses, but did not bother where the contents went after they had pulled the chain. Cars, cleaning products, pet foods and glossy packages are not bad things in themselves, any more than the water closets were bad things, but our priorities are misplaced: we are making our homes elegant and convenient while making our

whole environment more shabby, dirty, and ultimately hostile to human life. A love of ostentation and luxury is natural to human beings, and is a very likeable human weakness. Perhaps we can direct this basic impulse to the creation of cleaner and more beautiful cities, an unlittered countryside, water fit to drink and air fit to breathe."

I now stand revealed as a fairly conservative radical. We all surely believe we can improve our techniques for planning and building physical environment of higher "quality" by which I mean more physically pleasant, economically efficient and socially just dispositions of land uses, transportation and utility systems, buildings and amenities. Surely we can all learn faster by seeing current "crises" in the illuminating perspective of historical parallels.

The word "environment" means something more tangible than it used to. Surely we all now must see every neighbourhood, every town, every commercial and industrial centre, every recreational resource, every urban region, our entire Australian continent, and our space-ship earth, as interdependent "systems" in which action on any one part effects changes on all other parts.

Systematic "planning" today means foreseeing future contingent problems and opportunities, deciding and winning consensus on objectives, policies and priorities, and thence marshalling and managing resources of men, material and money to pursue those priorities, policies and objectives.

Most Conference members are probably now asking—What practical application does this sort of credo have in the rough and tumble of politics, planning and building in Australia in 1971?

I want us to continue to try to abolish "either/or" type propositions. We surely want to have our cake and eat it too. We want products, processes, systems and environments that give us a balance between physical amenity, most social justice and maximum economic efficiency.

At the Conference, I would like to make some specific proposals for balanced programs of action under the following headings:

- 1) A national, long-term-evolving strategy and short-term action priorities for the future distribution of population and economic activity throughout Australia, combining support for existing metropolitan regions and a limited number of new cities.
- 2) Strong regional strategies for balance between economic growth and conservation in each region covered by our national strategy.
- 3) Strong local government leadership in detailed planning for both preservation and enhancement of environmental quality in local neighbourhoods, municipalities and cities.
- 4) More effective partnership between our three levels of government to prosecute our environmental strategies.
- 5) More effective partnership between governmental and private enterprise, investment and management.
- 6) More effective balance between research, practical planning and actual investment in urban development.

Construction Operations in the City and Other Urban Areas

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This can increase materials handling capacity and speed up construction. In some situations the tower part can be set going quickly while retaining, underpinning and basement work is done.

Designs which relieve the criticality of service installation have the potential of great time savings. Any method which places the lift motors and heavy gear off the roof (since the plant room is likely to be finished late) is to be taken seriously despite the short and long-term costs involved; likewise with air conditioning it helps to get as much plant in the lower parts of the building as possible. Designs which

are modular and which use a maximum of pre-finished fitting-out components are then needed to complement the time savings in services.

Finally

Despite the best advances in building technology these alone will not solve the problem of building in the city. A change of heart in the community is needed which calls for a full restructuring of our cities. This will help to remove many of the undesirable aspects of city dwelling and will make the urban areas easier to build.