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ECOSO EXCHANGE NO 4

Sept. 1973.

(Incorporating "IRREGULAR NO 54")

SPECIAL TRANSPORT ISSUE.

Note to Reader: Why transport again, you ask? No apologies are needed.

For too long "transport" has been dealt with as a "service" like sewerage or gas; or as a disrupter of the neighbourhood in the shape of a physical impact by way either of traffic congestion or freeways to relieve congestion; or as a threat to the ecology by way of pollution.

Transport certainly embraces all these aspects but it is its social aspect that determines so much how people live and work and think that gives it a position of central importance.

As we go to press, three topical events point up these issues - (1) the Whitlam-Cairns announcement of Government control of the whole car industry for economic and social purposes (29th August)

(2) the Symposium at Melbourne University to review the "National Program for Urban Public Transport Improvements" (3-4 Sept) and

(3) the publication by Mr. J.L. Loder of a Report on "Automated Personal Transportation" (A.P.T.) (June).

How do the trends expressed in these events measure up to a proper understanding that the motor-vehicle is the corner-stone of consumerism and that consumerism is a way of life that poses the real threat to the ecology on one side and man's humanity to man on the other side.

We invite you to re-read ECOSO Guidelines.

Contents:

1. A "LABOR" CAR BUT WHERE'S A "LABOR" TRAIN?

The Whitlam-Cairns announcement of 29th August was described by "The Herald" as "the most sweeping reorganisation in the history of the Australian motor industry".

It includes the possibility of a Government-made car at The Fishermen's Bend Government Aircraft Factory; Australian equity in G.M.H., Ford, Chrysler & Leylands; an invitation to Nissan and Toyota to set up a plant at Albury/Wodonga with possible Government partnership and more Australian content in the cars. This is in line with the Labor Party's traditional and historic role as a Party of Australian economic nationalism and to the extent that it indicates a determination to have major decisions on Australian car-making made in Canberra rather than by overseas directors in the U.K., the U.S.A. or Japan, all to the good.

But how is it contemplated that Australian car-policy is to be so much better than car-policies dictated by overseas investors?

1. Cars are to be safer.
2. They are to have "effective" anti-pollution devices.
3. There is to be a reduction in the number of models.
4. There is to be joint use of resources.
5. There is to be relatively greater manufacture of light cars.

There are marginal advantages ecologically and socially to have more safety, smaller cars, less pollution and less fashions, but the objectives, according to Mr. Whitlam, are to produce "cheaper and better cars for Australia" and as The Herald commentator points out "Dr Cairns conceded that the expansion of the Australian car industry through the addition of the two Japanese makers, could lead to the use of more national resources by the car industry".

Perspectives thus seem to be for the expansion of the car industry: if cars are to be cheaper more people will buy cars, and the addition of two and maybe three extra major car plants will give an impetus in the same direction.

So what is made up on the roundabouts is to be lost or more than lost on the swings. More safey, less pollution and less energy per car can be cancelled out by a greater total quantity of cars which could even lead to a greater degree of ecological and social damage.

In this respect, the Whitlam-Cairns proposals bear some similarity to Naderism! They teach the big car corporations the lessons they need to be taught to survive. They moderate the excesses of fashion, lack of concern for safety, and the more obvious and direct pollution effects.

What we want to know is what the Minister for Fuel and Energy has to say about conservation of energy and why he is not asking Cairns and Whitlam to cut down on car manufacturing instead of expanding it? And why is not the Minister for Conservation not asking the same? And why is not the Minister for Transport brought into the act and, together with Whitlam and Cairns, proposing joint plans for a really workable public transport expansion at the same time as car manufacting is dealt with? And why is not the Minister for Tourism and Recreation calling for less mobile (and more satisfying) holidays and recreation instead of the conventional promotion of this new "industry" in its familiar mobile move-on-each-day fun motel-to-motel form?

Is the Federal Government to be a democratic-radical economic-nationalist 1940's-style government, or an ecologically-conscious, multi-disciplinary integrated team needed for 1970's-style of life where more and more humans are shouting for a life style that draws them together instead of alienating each from the other?

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2. CAN WE BE TRAPT BY A.P.T.? (Contributed by Ruth & Mauric Crow)

In June 1973, Loder & Bayley, Consulting Engineers and Planners of Melbourne, published a report by Mr. J.L. Loder on "Automated Personal Transportation", sub-titled: "An APT Solution for Australian Cities".

As the A.P.T. Report thus starts with a play on words, we respond in similar vein:-

> "Don't be trapt by A.P.T.
> As a package-deal car-wrapt!!"

"Do not puzzle too long over this but say it over again when you have read to the finish of our comments. Incidentally, distinguish the letters A.P.T. used by Loder for the scheme described below from the same letters used by British Rail to stand for "Advanced Passenger Trains" which are to be in extensive use in a year or two and which are to have an operational speed of 150 mph and a top speed much higher travelling on conventional rail tracks).

The A.P.T. scheme proposed by Loder claims to be a radical one. In some aspects it certainly is. It could, in effect, be a new "mode" of transport that would displace both the extensive freeway system and the modest updating of trains, trams and buses proposed by the Metropolitan Transportation Committee at a cost claimed to be half that of the M.T.C. plan costs.

A.P.T. consists of an elevated track or "guideway" on a mile square grid with computer-controlled "vehicles" or rather "pallets" propelled by electric motors (probably working on induction with no moving parts) each moving independently of all other pallets, with one thousand stations for Melbourne and one million possible stations to station trips. These pallets would be multi-purpose and would carry either:-

(a) "captive" carriages fixed to the pallet and used as public transport.

(b) private cars of a smaller size than today's average - standardised to fit the pallet.

(c) freight (including rubbish) in off-peak.

On pressing the button for the destination required, the pallet would travel on the one-way guideway track by the computer-determined shortest route at 34 mph non-stop to the station required. Stations would be on loop-lines so that by-passing pallets could continue uninterrupted at a steady 34 mph.

The private car would be driven onto the pallet at a station (separated from the station for pedestrian use) and driven off at the station of destination. There would also be a dial-a-bus system of mini buses to take the public transport user to one of the nearest four stations. The route selected and the particular station selected would depend on determination by a computer taking into account all of the demands for service at any particular time.

The one thousand mile or so of elevated tracks could be either 7'6" ~~wide~~ or 15' above the ground (depending on whether trucks had to go underneath) and about half of guideway tracks would be carried on railway reservations along creek courses or electricity easements. The other half would be along one-side of 66 foot roads suitably screened against overlooking of residences by thick banks of trees planted for the purpose.

New Techniques Important.

It should be said at the outset that the essence of this transportation offers a new technique which could not fail to be of considerable value, and to dismiss it out of hand on the grounds of its radicality, its expense, or because of the strangeness associated with overcoming difficulties of a transition period, would be quite wrong.

Advantages. Consider this:-

1. It is a system of grade-separation of transport. Pedestrians, cyclists, and motor vehicles would pass underneath the tracks which would also pass either underneath or over itself at intersections.

2. The elevated grid can be built to cover any conceivable pattern of urban development.

3. It does not require drivers or conductors (electronic devices and the computer take over such functions).

4. It is adaptable, as it can be readily used either for freight or passengers.

5. Except for exceptional peak conditions there would be no constant stopping and starting because each pallet would move non-stop to its destination delayed only enough to "wait its turn" at intersections if turning into a stream of other pallets travelling at right-angles.

Illustrations taken from A.P.T Report.

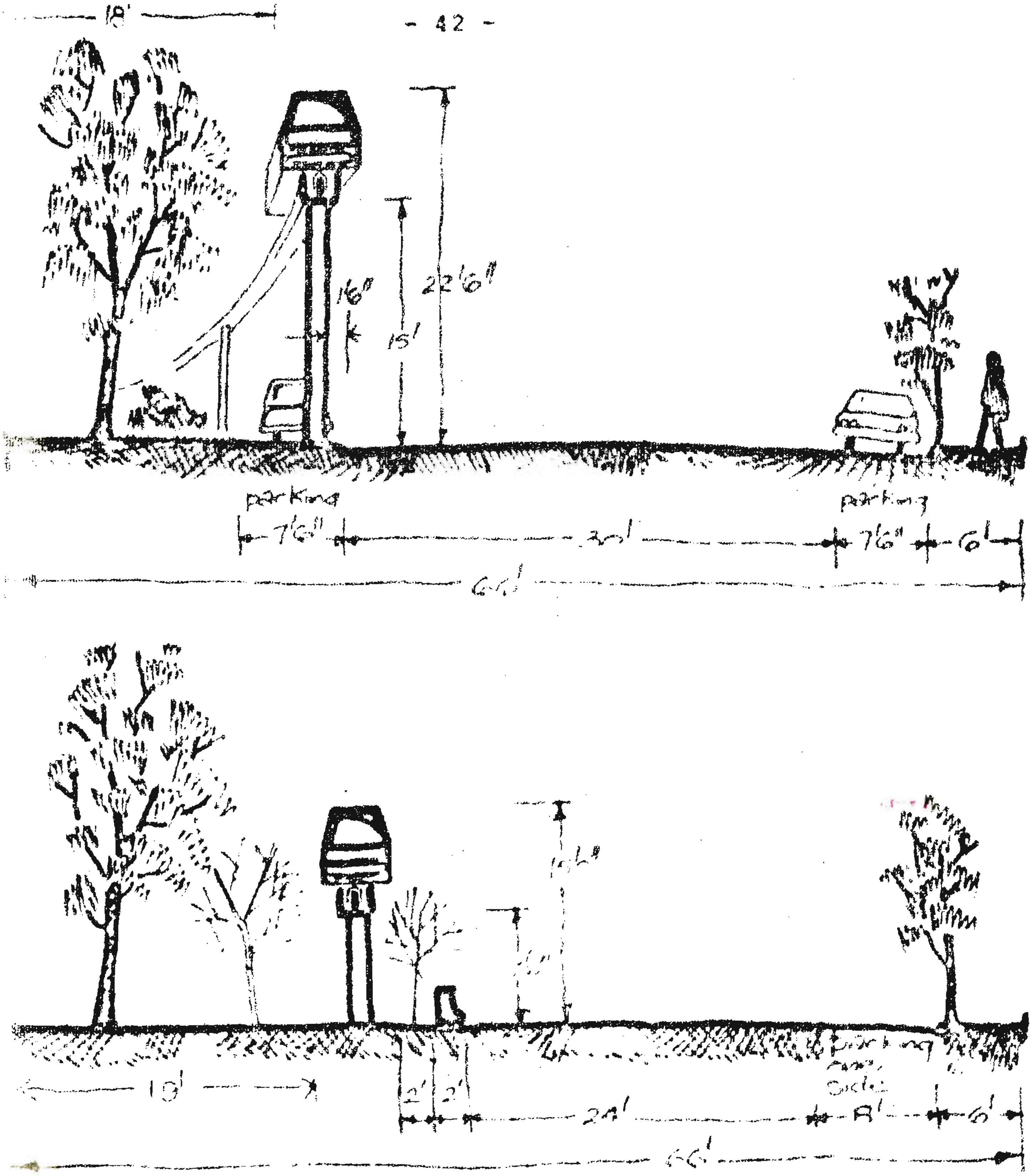

Figure 8

Street Cross Sections

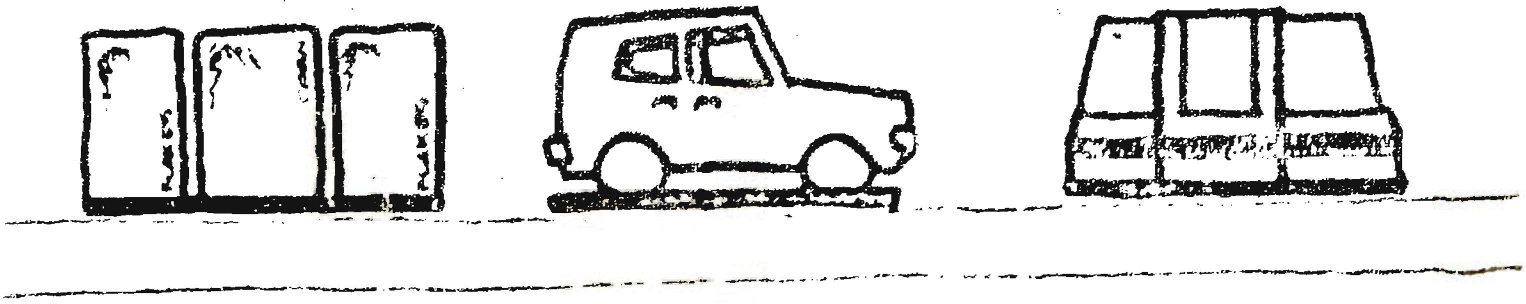

Figure 2

Various Pallet Uses

6. If it could carry cars (as is proposed) it could obviously even more easily carry cyclists, prams, shopping jeeps or luggage.

Clearly, such advantages are almost certain to earn for this new proposed mode of transport a lasting place in the scale of transport modes that range from walking to jet-propulsion. Although experimental work on such devices has been proceeding in Germany, Japan and the United States, there is no reason whatever why Australia should not be the first country to actually adopt a new mode.

Is the Loder Adaptation of APT a Wise One?

To lavish such praise on the brave new technology however, is not to **lavish** praise on the Loder adaptation of it for Melbourne however much we may be indebted to the Report for popularising the latest overseas technical developments.

It is now commonplace to pass the observation that [illegible], scientific and technological knowledge is, in itself, morally neutral; it is only the use to which men put science or technology which make it moral or immoral, good or bad, wise or foolish.

To split the atom is a marvellous technological advance but to use this for nuclear weapons, or even for nuclear-power stations giving rise to acute pollution disasters, is another matter. So too the petrol-driven motor vehicle is a marvellous advance in mobility but its use for virtually all purposes of movement at groundlevel is a crazy inefficient waste of energy and resources because it is trying to use a mono-mode for all purposes instead of choosing "horses for courses". Moreover such an attempt is a socially dangerous exercize, continually unsettling stable human associations. The car style of life is serving to disintegrate society, alienating people still more from each other, driving them to consumerism and tourism as the only escapes.

Does this adaptation of A.P.T. serve the crying need of the times for integration of people into more satisfying and creative groupings?

<u>No it does not.</u> <u>It does the opposite</u>.

<u>It is openly and obviously an adaptation of a new technology to deliberately prolong the universality of the car style of life</u>.

<u>Consider</u>:

1. <u>The Private Element in the Publicly-Owned Network Deliberately Retained</u>.

The pallets do not <u>have</u> to be used to carry cars - but the Report proposes that they do so. It deliberately rejects the alternative of using "small public vehicles hired from and delivered to the guideway stations" (p29). The proposal, as one would suspect from this, is quite openly based on the acceptance of trend. "The majority of the community of voting age are car drivers and despite the current freeway fracas, the majority want to use their car or something equally convenient". (p21).

2. <u>Speed Not Used to Tackle Car Predominance</u>.

Modern techology, if applied to transport in the form of superior speeds, and if coupled with appropriate regional urban patterns, could be deliberately used to defeat the senseless all-purpose predominance of the car but this scheme, by its very grid nature has to opt for a modest 34 mph as recommended by the West German Demag - MBB Company for a complex network. Such a speed barely betters that of the car, let alone outstrips it so as to offer a genuine alternative.

3. Dispersal Effect the Same as Freeways. .

Like the proposed freeway network, the A.P.T. network is a grid larger than and overlying the basic metropolitan road grid. In fact functionally, to the extent that it carries cars, A.P.T. is identical with a freeway network, the guideway stations operating like freeway on-off ramps. Loder's A.P.T. therefore would have precisely the same effect that freeways have in accentuating the trend for cars to scatter people intensive urban components. Dispersing rather than clustering facilities is inevitable in car-based systems because if facilities are bonded together (as in the C.B.D.) they become inaccessible by car but, if they are scattered, with each well separated from the other, they become more accessible by car. Thus the problem of how to re-integrate the lively centres of human activity is not even acknowledged as a problem and cannot be. Therefore it follows:-

4. Guideway Interchanges Not Social Centres.

Guideway interchanges would be extremely poor places for social centres. This is so because (a) car drivers would not leave their cars and become pedestrians but drive straight onto the pallet: (b) only those using public transport (in the full sense of the word) would become pedestrians at these points but these are seen as a shrinking minority: (c) public transport users arriving by mini-bus would not come to the same station every-time, but would be conveyed to the most convenient of four different stations depending on computer-determined decisions

In fact, the Report shows that far from desiring guideway interchanges being social centres, the exact opposite conditions are needed to give the system its maximum efficiency.

"In a 1,000 mile system with 1,000 stations and 1 million possible station to station trips, the probability of large numbers of trips originating at the same station at the same time and going to the same destination is small. Large vehicles designed for the rare occasions when this occurs would penalise the whole system by increasing guideway size and reducing line capacity in vehicle per hour" (p29).

Just so! Lack of large numbers of people at the one point at the one time is seen as an advantage not a potential dis-advantage. The more dispersal there is of people-intensive points of attraction the better: The optimum would be an even dispersal in 1000 different locations matching the 1000 stations. The high densities of "compact pre-automobile urban areas" as Loder describes them tend to be seen as a nuisance in this car age. For him it is the city way of life that must change not the car way of life. So for Loder, A.P.T. is fashioned as a car-supportive system and the C.B.D. and local social centres and other antiquated "pre-automobile" places can go hang!

5. Expansion of Total Number of Cars Facilitated.

Because it thus re-inforces the exact conditions that are optimum conditions for car travel and because it would take through-traffic cars off the present arterial road system, A.P.T. would function precisely the same as a freeway network: it would provide an enormous expansion of capacity for more cars to be moved around the present built-up metropolitan area. The Report is quite categorical about the inevitability of having to cater for more and more cars. "As wealth increases car owner-ship will rise..." (p10) (on emphasis). The question whether "it should" or "should not" is not asked.