



8.1 • Circling the Square. A vehicle causes a variety of environmental impacts in a locality. The degree of displacement, disturbance and danger is essentially related to the type of vehicle and its motion. The impacts arise whether the vehicle is part of a 'flow' or not, or whether the vehicle is performing any social or economic function.

Finally, imagine that the vehicle starts to move, and begins circling round the square, burning up energy at a certain rate (Figure 8.1). The motion of the vehicle means that it claims extra space in front of it, which cannot be used for other purposes.⁶ The motion also blocks the paths of other users of the square, imposing delay on others: the longer and slower the vehicle, the greater the delay. And finally, the faster and heavier the vehicle – the greater its momentum – the greater the accident impact, if it were to collide with a person or anything else.

Every kind of vehicle – whether car, bus or bicycle – can be seen as a displacement of other urban activities; and any moving vehicle is a potential danger to life and limb. The degree of displacement, disturbance and danger will depend on the kind of vehicle: larger, faster and motorised vehicles are typically the worst offenders (Table 8.1, Figure 8.2).

Some scientific-looking items are used in Table 8.1 (velocity: ms^{-1}) in order to 'dehumanise' the vehicle: to emphasise that to the person in the street, a moving vehicle is just a nasty package of physics and chemistry: a potentially dangerous projectile, as well as a potentially noxious chunk of hot metal.

Of course, if we are *in* the vehicle, that vehicle can be a marvellously useful contrivance, and a comfortable, person-friendly environment in its own right. Without vehicles, towns and cities as we know them could not function.

No one is seriously suggesting bringing back the law that required every motor vehicle to travel at walking pace behind a man with a red flag.⁷ For a start, that is sexist. Second, the labour cost might make road travel uneconomic. Finally, the concern that a flag-bearing employee might sue for health damages might make the whole venture prohibitive. The point is that being on a street shared with vehicles can be a risky and unpleasant experience, to a degree that we would not necessarily tolerate in other walks of life.

Mixed blessing

The presence of a vehicle in a particular locale is almost entirely negative. The basic value of vehicles is not the metallic capsules themselves, but the people and goods within them. Whether it is the social or economic function of people going about their business – or the 'surveillance' value of having traffic and pedestrians visible to each other – it is the people inside that count. More or less all the benefits of vehicle flow are effectively embodied in the flow of people and goods; or rather, the ability of those people and goods to access their required destinations. More or less all the

Table 8.1 Environmental impacts relating to vehicle and spacetime factors

Environmental disbenefit	Vehicle and spacetime factors
Landtake	Area (m^2) and velocity (ms^{-1})
Visual obstruction	Profile or overall size (m^2 or m^3)
Noise	Engine type
Poisonous gases and particulates	Engine type
Vibration	Engine type; mass (kg) and velocity (ms^{-1})
Path obstruction (severance)	Vehicle length divided by velocity = time (s)
Risk of injury and death	Mass (kg) and velocity (ms^{-1}); momentum (kgms^{-1})