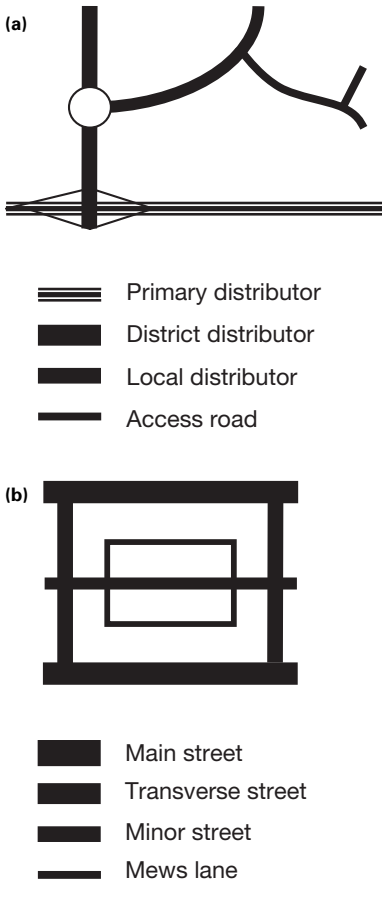

7.13 • Dendritic classics. (a) Classic modern tributary. (b) Classic grid (Craig Plan).

The urban (or disurban) effects of the dendritic constitution are therefore not simply due to the abstract constitution itself, but are significantly due to what types occur where in the structure – in particular,

1. where routes for different modes of movement occur, and
2. where 'streets' fit relative to 'roads'.

The structural concepts of the first half of the chapter can now be applied in the rest of the chapter to explain issues of concern to the design debate.

THE STRUCTURE OF CAR ORIENTATION

The structure of car orientation refers to the way in which the routes and networks used by different modes of movement are related and structured in such a way as to favour cars (and other forms of private motor travel) relative to the combined system of public transport plus non-motorised access. This section focuses primarily on the constitutional aspects that make up the 'the structure of car orientation'.

Arteriality

We saw in Chapter 3 that arteriality is a conventional feature of road networks in general. Arteriality also seems to make sense for public transport in particular. The strategic contiguity afforded by arteriality is positively beneficial for a public transport system, since it ensures that any service connects with the wider network, ultimately upwards to the national level. Ideally, once connected at the highest level, one continues at that level uninterrupted, until descending again towards the destination.

It would also be useful if routes for pedestrians and other access modes also connect 'upwards' to the public transport system. That said, the pedestrian system itself does not necessarily require a hierarchical ranking based on arteriality – in the sense that it is not essential that all of the most 'major' pedestrian streets all connect up contiguously.

Access constraint

Access constraint is perhaps the most familiar structural feature of conventional road hierarchy's dendritic constitution. Access constraint is a desired property for roads in general, since it minimises conflicts, boosting both safety and efficiency. For the car and general traffic, access constraint is desirable, in as far as it means that routes with high-speed traffic have a minimisation or removal of junctions with low-speed roads. A stratified hierarchy is no problem for the private vehicle, since each change in 'level' may require little more than a change of gear (Figure 7.14(a)).