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Editorial

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This special issue is concerned with highways; how they are provided and maintained, and how this should be financed. Highways are important, not only in themselves, but for what they facilitate. They are the routes that link communities, allow the transport of food from field to market, and facilitate transport of goods from one area to be traded with people in another.

Societies around the world, from pre-history to the present, have built their reputations, expanded their power and left their mark upon the landscape by the highways they created. A glance at almost any civilisation reveals that the issue of provision, maintenance and financing of the highway network has taxed (metaphorically and literally) our predecessors as often as ourselves.

For highways to have utility they must be fit for purpose. The papers within this special issue discuss many aspects of this issue. Several papers discuss provision and maintenance while others discuss how this can be managed and financed. A book review discusses the philosophy of layout and functions of a highway. These papers cover a wide area of the subject but far more can be said in both scope and detail on all aspects of the topic. It is hoped that the papers will encourage debate among practitioners and researchers alike because highways not only facilitate the transport of resources, they consume a lot of resources, and it is our role as engineers to make best use of those resources.

The book review of *Streets and Patterns* mentions the Buchanan Report.¹ Re-reading that report today is like reading a report from a different age. There has been a dramatic change in how roads are used and designed. The review argues for a more meaningful highway classification, but the Buchanan report itself heralded its own changes and also argued for different classifications. Just because a topic has been resolved at one moment in time does not mean that it is resolved for all time. It seems just as fashions in clothing go in cycles and repeat again and again, so do issues in respect of highways.

The paper on stone paving for heavy traffic loads addresses an issue that many might have imagined would have been resolved decades ago. Who uses natural stone paving when more modern materials are available? Plenty of places now use it to give a sense of location and visual appearance. However just because an 'old' material is reused it does not mean that the 'old' rules still

apply and the paper makes useful recommendations for the current period.

The paper on street washing is about another technique that many may have thought had ended. But local authorities in the fast-developing cities of China are engaged in the process. Again they are not using the 'old rules' determined in previous years but instead using modern high-pressure pumps and delivery machines that require new rules to be developed.

Of course these 'new' activities carry all of the 'old' problems of financing the construction and maintenance. The aptly named paper 'Using planning agreements to fund transport infrastructure' discusses the issue of planning gain and the methodologies used by a number of local authorities around the UK to obtain new resources. Similarly whatever is built has to be maintained and the paper from Portsmouth City Council outlining how they have implemented a pioneering private finance initiative highways management contract shows one way forward for UK local authorities.

Maintenance should be more than a simple patch and repair. The real art of maintenance is deciding when to intervene and what to do. Those old enough to recall the Marshall Report on highway maintenance² may have thought that this question had been resolved 35 years ago. However the paper on condition based capital valuation outlines methodologies to determine both thresholds and timing of intervention. Although written in the UK the paper suggests how this methodology can be used in a variety of situations in many countries. This is further developed and underlined in the paper on the 2005 highway maintenance code of practice. It remains to be seen how long these two important pieces of work will last before they too are overtaken by fresh approaches.

Knowing how and when to intervene is not the same as knowing what exists and where it is in the highway. The paper on ground radar discusses another, important, new tool for the highway engineer to enable non-intrusive and large-scale investigations into the structure of the highway. The paper on global information system-integrated infrastructure management shows methods that can be used to ensure that the information gathered is available for use and retrieval when required. Both of these techniques are tools that our predecessors would have given a fortune to have had.

This special issue may appear, at first sight, to be on a topic that has been discussed at length and long since decided upon, but as long as societies develop and people and goods move around, this topic demands and deserves attention. It is too early to know when the next special issue will be required on this topic. It can, however, be confidently asserted that it is not a question of 'if' but 'when'.

REFERENCES

1. COLIN BUCHANAN & PARTNERS. *Traffic in Towns*. Her Majesty's Stationery Office, London, 1963.
2. MARSHALL A. H. *Report of the Committee on Highway Maintenance*. Her Majesty's Stationery Office, London, 1970.