



a street revolution

Above: Split-level cities with underpasses and bridges – segregation of traffic from people, as proposed by the 1963 Buchanan report

Below: A proliferation of road markings and signage is no guarantee of safety. Fewer directions and more uncertainty could be a safer approach at busy intersections

OUR TOWNS AND cities are changing – and for the better. The changes cannot be said to be happening overnight, but slowly, sometimes painfully slowly, regeneration schemes up and down the country reflect a growing recognition of the potential for quality public space to serve as the key driver for economic prosperity.

But the strains of a more profound revolution in our approach to street-scapes can also be heard. It is less spectacular, less photogenic, than the more magnificent transformations taking place, such as Trafalgar Square in London or Queen Square in Bristol. These headline schemes have been

achieved through winning back space from traffic and reallocating it to pedestrians, cyclists, and to the huge range of social activities essential to successful communities.

This reallocation has been essential to begin to repair the damage wrought by traffic since the 1930s. But excluding traffic from parts of the city is a side show compared to the broader question of how to resolve the relationship between motor vehicles, people and places. It is in this relationship that a significant change may be taking place.

Motor vehicles will remain an essential component of our society for some time to come. The critical issue for most towns and cities lies less in reducing space given over to cars, but in how we adapt their usage to suit the workings of social space.

For most of the past century, the British relationship with motor vehicles has been governed by the assumption, made in Colin Buchanan's *Traffic in Towns* report of 1963, that separate space was required to allow for traffic movement, thus maintaining a safe environment for other activities and for pedestrians. This tradition of separation was also reflected in the professional institutions. Highway and traffic engineering emerged as a distinct discipline, relatively isolated from architecture, urban design and planning. The distinction remains in the structure of most local authorities.

With a few notable exceptions, such as Suffolk County Council, highways departments share few of the traditions, training or values of their colleagues in urban design, architecture or conservation. Theirs is a discipline that requires the application of approved signs and designs that are consistent and standardised across the whole country.

From the late 1960s, a contrasting tradition began to emerge in mainland Europe. Stemming from the pioneers, such as Joost Vahl and Nick de Boer's work on residential streets in the Netherlands, the

'woonerf' principle began to challenge traditional street design. Instead of separation of traffic and social space, street design explored the potential for integrating vehicle movement and social activities.

A new design language appeared, using ambiguity, deliberate uncertainty, and an emphasis on eye contact and slow speeds. It was an idea that spread rapidly to other mainland European countries such as Denmark, Germany and Sweden. By the end of the 1990s, the UK Government began to explore the concept through the introduction of 'home zones'.

Bigger than 'home zones'

Yet the revolution in streetscapes in the UK is not just about home zones. It will not be confined to the odd residential street or new housing estate. The critical change lies in the acceptance that it is possible to combine traffic movement with high-quality public realm throughout our built environment – in the high street, the railway station forecourt, outside the village pub and the urban school.

Pioneering schemes, both in the UK and in Europe, suggest that this is possible and achievable, and will have a profound effect on the nature of the spaces between buildings. But to achieve this crucial revolution, some important changes are required in our understanding of two contrasting types of space, and the ways in which they are designed and managed.

Hans Monderman, the Dutch pioneer of the new approach, defines the two worlds as 'the traffic zone' and 'the social zone'. We could equally well call them 'the highway' and 'the public



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safety or to better use of space. On the contrary, a recent study by the Transport Research Laboratory based on observations of streets in Wiltshire suggested that white lines increased vehicle speeds. White lines reduce the awareness of drivers of the surrounding context, drawing the eye to the distant perspective. Inquiries with all the professional bodies and highway authorities have failed to provide an explanation for their role in built-up areas with good street lighting. They appear simply to have become a habit over many years, a phenomenon we've grown used to and take for granted.

The province of Friesland in the Netherlands has a programme to remove all road markings from towns and villages, along with signs, traffic control systems and other manifestations of the highway. Makkinga was the first village to be

in such a way that we are able to exploit the benefits of both. Poor-quality public space, unsatisfactory streets and unsafe highways occur where the two worlds collide.

Implications for urban design

Marking the gateways between the highway and the public realm, and highlighting the different control mechanisms, lies at the heart of a potential revolution in street design. Such an approach has profound implications for urban design and traffic engineering, and for the role of the State (in all its manifestations) in the control and management of the public realm.

For example, if the State tells us how fast we can drive, where we can park, or who has priority, we no longer need to engage with our fellow citizens and with our surroundings for guidance. The green traffic signal informs us we can proceed; with the lights out of action, we need an entirely different set of observation and communication skills.

Centre-line road markings provide one example of a highway system that has been allowed to extend into the public realm. But why? There is little evidence to suggest they contribute to

Left: Allowing for a mix of uses on our streets creates a need for care from users of the space

Below: Traffic and social activities combine at slow speeds in the Swedish city of Lund

Bottom: All road markings and priorities removed from an intersection in Oosterwolde, Friesland



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realm'. Both are essential parts of our environment. The first allows us to move people and goods rapidly and efficiently. The second is shared space that permits interaction and exchanges that define the nature of any community or society. The contrast between the characteristics and defining features of these worlds is striking (see below).

Monderman's work is premised on ensuring that the transition between these two contrasting worlds is handled

THE TWO WORLDS

Public Realm	The Highway
Culturally defined	Regulated
Personal	Impersonal
Spatial	Linear
Multi-purpose	Single purpose
Constantly changing	Consistent
Unpredictable	Predictable
Contextual	Systematic
Cultural/social rules	State controlled
Eye contact	Signs and markings



Saïke Eizenga



redesigned. In place of white lines and signs, the historical development of the settlement, morphology, pedestrian desire lines and context are emphasised by the surface treatment and design of the streets.

The gateways into the town are marked by distinct transitions; the road markings vanish, the road widths reduce, the surface materials change to reflect the distinct geology and history of the place, and the lighting reduces sharply in scale. The result is not spectacular urban design – but it does point the way towards an entirely new approach to the integration of traffic into the built environment.

In terms of safety, the removal of signs and road markings has actually led to an improvement in casualty figures in parts of Holland, Denmark and Sweden. The deliberate use of ambiguity and uncertainty leads to reduced speeds and improved safety. ‘To make an intersection safe, you must make it dangerous!’ is a favourite phrase. In place of kerbs, bollards, road markings,

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signs and traffic signals, engineers are using the absence of clarity and an emphasis on urban complexity to change behaviour.

The results are startling, and suggest that counter-intuitive thinking might help in our debate about speeds. A busy intersection at the centre of the Danish town of Christiansfeld witnessed an average of three people killed or seriously injured each year during the 1990s, despite traffic signals, warning signs and road markings. In a bold move, every trace of traffic engineering has been removed, and the junction resurfaced to tie in with its role as the focal point of the town. Movement and priority for all traffic, cyclists and pedestrians rely solely on the use of eye-contact, and vehicles cross the intersection at speeds of 10-15mph.

In the two-and-a-half years since

completion, the scheme has seen no serious accidents and, to many engineers’ surprise, the capacity of the junction appears to have improved.

Realisation that traffic flows and journey times in towns can be improved through lower speeds comes as a surprise to many. But, given that most delays are caused by intersections, and we know that traffic flows more smoothly around junctions at slow speeds, there is no magic to this apparent contradiction.

A new language for streets

All of these principles underpin the new regional guidelines for street design to be published by English Heritage later this year. They point towards a new language for roads and streets, across the everyday junctions and spaces that constitute our built environment.

For many areas, this will constitute a transfer of control and responsibility from the State to local communities, so it should come as no surprise that this transition will be slow and difficult. Yet, many local authorities and progressive developers are already exploring a new language for street design and safety.

There are traces of the approach in the work of people like Colin Davis in Devizes and Shrewsbury, and David Lock Associates in Milton Keynes. The public realm strategy for the regeneration of Ancoats and New Islington in Manchester, prepared by Martin Stockley Associates and others for the Ancoats Urban Village Company, is based on the new approach, as are the proposals, still at an early stage, for Julian Road, Bath.

The villages of Stiffkey and Starston in Norfolk, and of Seend and others in Wiltshire, also illustrate the benefits to be gained from the removal of traffic

engineering, markings, signs and so on. But this new philosophy needs endorsement and support from the professional institutions and from Government. It is a change that requires new procedures and intelligent flexibility, with profound implications for such mechanisms as the safety audit and requirements for highway adoption.

Traffic engineers, urban designers, architects and planners have the opportunity to develop a new joint language that can facilitate the successful integration of traffic into the built environment. It will be a language based on distinctive interpretation of each place, in which drivers must engage with other users of space, the circumstances and context, using the same skills as in their everyday social lives. White lines, road markings, standard signs, speed cameras and traffic control systems play no part in such engagement.

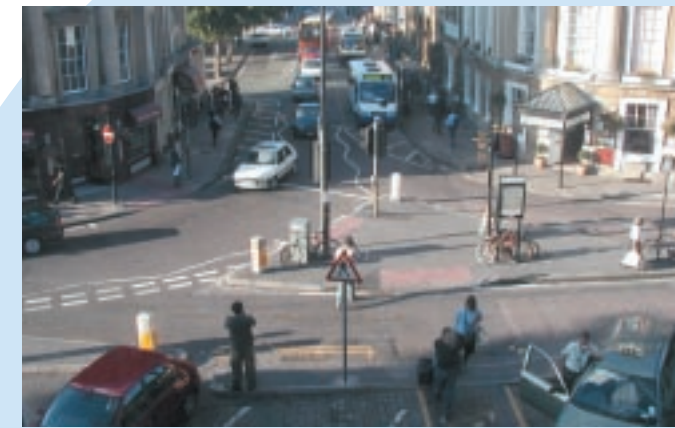
The true revolution will occur in an acceptance that a new approach to ‘shared space’ is possible across the infinitely varied streets and intersections across the country’s towns and villages.

Pictures by Ben Hamilton-Baillie, unless otherwise stated; illustrations by Paul Boston

Left: Segregation or integration of space in cities – the choice is ours

Below: The gateway to the historic city of Bath from the station – a muddle of signs, markings and other street furniture

Bottom: Confusion lessens speeds, permitting eye contact between lorry and cyclist here in Opeinde, Friesland



Hans Monderman