

why is it so difficult to take away street space from the private car?



One of the benefits of travel – which many of us are missing at the moment – is that we sometimes see things that are very different from our usual experiences. It really does broaden the mind. This of course covers many areas, but in terms of transport we sometimes see an innovative project and instantly know that the approach could be useful elsewhere.

Although there have been calls, over decades, for greater sustainability in transport, they have not usually been reflected in the space given to different users of the street. If you look out of the window, you will usually see that most of the space on the street (or, more accurately, the highway) is given to the private car. How this has come to be is fascinating in itself: the street has been given over to the car since the 1950s, involving a complex set of actors and processes,¹ and this seems difficult to remedy. Changing the allocation of space on the street only highlights wider tensions in society. We mostly all agree that we should address climate

change and social equity problems and encourage active travel as this will lead to very positive health impacts, yet we are not willing to give up the space given to the private car on our streets.

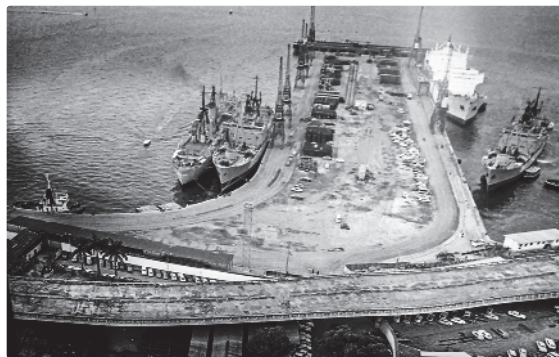
There are some well known progressive examples where streets have been redesigned to create improved footways and cycling and public space, ranging from small street sections and intersections to entire streets and multiple streets – including some experimental projects.² At the larger scale there are some examples of removing highways or repurposing them to give less space to the car – highway removal projects such as the Harbor Drive Freeway, Portland (1974); Embarcadero Freeway, San Francisco (1991); Cheonggyecheon restoration, Seoul (2005); Interstate-93 'Big Dig', Boston (2007); and the Calle 30 and Rio Project, Madrid (2011). All of these removed traffic capacity, or at least buried the highways, and replaced them with new public space. But they remain exceptions that prove the rule – the rule that the street is still mainly used as a thoroughfare for the car.

In the UK there are few similar projects, if any, despite the relatively large technical and financial resources of city authorities. Should this type of street space reallocation project really be so difficult?

This article examines the redevelopment of important street spaces in Rio de Janeiro, which



Fig. 1 Praça Mauá and Porto Maravilha



Left: Early motorisation in Rio de Janeiro. Right: The old Perimetral elevated highway, traversing through Praça Mauá

perhaps are not so well known, but equally offer much inspiration – in the area around the Praça Mauá in the Porto Maravilha neighbourhood, extending into Rio Branco, leading south towards the historic city centre. The streets and the port area have been much improved, through the removal of an elevated highway, the building of a tram line, and enhancements made to streets, public space, and surrounding new redevelopment (see Fig. 1 on the preceding page).

Rio de Janeiro is a fascinating city, with a spectacular natural setting, but huge contrasts and social inequity, including high-income neighbourhoods and unplanned favelas located adjacent to each other, and high levels and perceptions of crime. It is the second-largest city in Brazil, founded by the Portuguese in 1565, with a current population of nearly 6 million. Parts of the city are listed as World Heritage Sites, and the natural topography, beaches and landmarks make the beach-front truly unique. Beyond the landscape, inequality is perhaps the city's most prominent feature, with high levels of segregation, including differential access to transport systems and activities.

There are high levels of traffic congestion, and highways dominate many urban neighbourhoods, with motorisation developing from the 1960s onwards, including the building of the infamous Perimetral elevated highway along the coastline of Porto Maravilha. Buses are the main form of public transport, and there have been recent investments in the subway, trains, tramway, bus rapid transit and cable car systems.

Fare levels are perceived as high relative to the quality of service provision, and fare rises often lead to public controversy. The state of public transport is central to many public protests, alongside wider concerns over education, health, social welfare, and corruption. Differential access to public transport makes participation in employment and other activities

difficult for low-income and other disadvantaged groups. Average journey distances and times are lengthy, with many public transport passengers travelling more than two hours every day for the commute into the city centre. But, even in this context, there are significant efforts to remove highway capacity.

Praça Mauá and Porto Maravilha

Praça Mauá is a public square found in Rio de Janeiro's historic Centro district, linking to Porto Maravilha ('beautiful port') and, via Rio Branco Avenue, the city centre. The port area originates from the early 1900s and was used to bring freight ships and passengers, including migrants and tourists, into the city. It was the gateway to the city and one of the most important and vibrant parts of Rio de Janeiro, overlooking Guanabara Bay. It is the site of many important buildings, including *A Noite* (The Night), the first skyscraper built in Latin America, completed in 1927, using the then new building technique of reinforced concrete and influenced by the Art Deco style and the Modernist movement. It was originally used as headquarters for the city newspaper *A Noite* and also hosted the Radio Nacional.

From 1957 to 1978, an elevated urban highway, the Elevado do Perimetral, was gradually constructed over the Avenida Rodrigues Alves, crossing directly over Praça Mauá. It was built to give greater capacity for traffic movements, connecting the Rio-Niterói Bridge and the north of the city to Santos Dumont Airport, the city centre, and the waterfront neighbourhoods to the south.

The highway carried 40,000 vehicles per day and was seen as an important connection. However, it cut through many urban neighbourhoods, including Caju, Santo Cristo, and Gamboa, and created a huge severance problem, blocking views and using space on the waterfront. The surrounding areas suffered from noise and air pollution, and the space immediately



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Public square at Praça Mauá, with the Museum of Tomorrow in the spur to the left

under the highway was dark and became dangerous to visit. Many important historical areas, landmarks and neighbourhoods were ruined, including the small streets around the National Historical Museum and the old municipal market.³

The elevated highway became unpopular with the public, and removal was debated for over 20 years. It was eventually demolished between 2013 and 2014, as part of the port redevelopment and wider revitalisation of the city in advance of the 2016 Olympic Games. A road tunnel was built in replacement, removing the severance problem. Praça Mauá was redesigned as part of the urban renewal, with a much improved pedestrian environment and public realm and a tramway running along Avenida Rodrigues Alves and through the square. The Rio Art Museum (Museu de Arte do Rio) was refurbished and extended, and a new museum was built, the Museum of Tomorrow (Museu do Amanhã), designed by architect Santiago Calatrava. Praça Mauá is now an important destination for residents and tourists in the city, with a high-quality public realm, a much improved pedestrian environment, and access to street art, landmarks, and historic buildings.

The new streetscapes in Praça Mauá and its surrounds are part of the wider revitalisation of Porto Maravilha. This is a huge regeneration project, implemented over decades, and surrounded by much debate and controversy. The plans began in 2009 as part of the urban renewal element of the World Cup in 2014 and the 2016 Olympic Games. There has been much controversy over associated corruption and mis-spending of public funds for the public events, including the priority given to hosting

sporting events in a context of widespread urban poverty.

The waterfront urban renewal attempts to use the public events to redevelop decaying urban neighbourhoods, following the example of Barcelona and the transformation of Port Vell alongside the 1992 Olympic Games. The plans for Porto Maravilha are impressive in scope, aiming to reconnect the historic waterfront to the surrounding neighbourhoods, with new commercial development, homes, offices, and leisure space. The area is to be repopulated, with the port area accommodating upwards of 100,000 people compared with its current 32,000 population.⁴

There are huge complexities with a project of this size, implemented in a city such as this. Major redevelopment projects are, of course, difficult to plan, implement and complete on time, to cost, and to specification. There are serious concerns over who benefits from the investment and urban renewal. In Rio de Janeiro, this is ever more evident. It is likely that the low-income residents of Morro da Providência, the city's oldest unplanned favela, which sits adjacent to the port area, will be displaced to outer parts of the city as land values rise. The favelas are surrounded by new development and infrastructure, but gain little from it.⁵ There are many difficulties to be resolved concerning population displacement, gentrification, and social equity – and many will remain unresolvable.

In terms of transport, funding is scarce, and there are concerns that central infrastructure projects will gain most focus, at the expense of investment in transport modes that will be used by lower-income and disadvantaged residents, many of whom are



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New tramway and public space alongside Porto Maravilha

found in the outer urban areas. Huge sporting events give deadlines for redevelopment, but often the investment priorities – focused on real estate speculation and financialisation of development, with a tourist and high-income orientation – are controversial. The removal of the Perimetral is a great step forward for transport planning in Rio de Janeiro, reducing the priority given to the private car, but the distributional impacts of transport interventions and the associated urban redevelopment need much more serious consideration if social equity problems are to be resolved, or at least reduced.

Rio de Janeiro is a beautiful and complex city – it is beguiling for urban and transport planners to examine what has been achieved and what else might be done. The recent developments offer many lessons in terms of the approaches to urban planning, urban design, conservation of historic buildings, transport planning, and public participation, and the complexity of the neighbourhoods involved.

In terms of highway removal, Rio de Janeiro is inspirational in showing what can be done even in difficult contexts. For the UK, it shows what might be done with seemingly important traffic routes into city centres. Think of London, where there are many highways that seem never to be tackled: the Embankment could be a wonderful park hosting the new cycle lane; Oxford Street and Regent Street could be pedestrianised; the Royal Parks could be traffic free; Euston Road, Cromwell Road and many of the difficult arterial routes could lose a traffic lane, at least, for improved walking and cycling facilities. Maybe they could be ‘cut and covered’ at key locations. Think of similar busy highways in

many of our wider cities and towns – many could implement this type of project, at different scales, taking space away from the car and giving it back to public transport, walking, and cycling.

These projects seem difficult to plan and deliver. Most things, of course, are difficult before they become easy – but we should at least dare to dream of similar innovative street space reallocation projects in the UK.

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Notes

- 1 PD Norton: *Fighting Traffic. The Dawn of the Motor Age in the American City*. MIT Press, 2011
- 2 L Bertolini: ‘From ‘streets for traffic’ to ‘streets for people’: can street experiments transform urban mobility?’ *Transport Reviews*, 2020, Vol. 40(6), 734-53
- 3 G Villela: ‘Perimetral Elevator was inaugurated twice: by JK, in 1960, and Geisel, in 1978’. *O Globo*, 2017
- 4 DJ Keeling: ‘A picture is worth 1000 words: urban revitalization in an Olympic City: the Perimetral in Rio de Janeiro’. *Focus on Geography*, 2015, Vol. 58(4), 194-5
- 5 V Mitch McEwan and AP Pimental Walker: ‘Brazil: Twenty-first century architectures of the mega event’. *Avery Review*, 2015, No. 9. <http://averyreview.com/content/3-issues/9-9/6-mega-event/mcewan-walker.pdf>