



EMERGING NEW ROLES FOR DESIGNERS AND PLANNERS: ARTICULATING SOFT AND HARD INFRASTRUCTURES

ROBERTO ROCCO

Assistant Professor, Section Spatial Planning and Strategy, TU Delft

Hard infrastructure are often purposed by urbanists to facilitate further economic and societal development. However, the recent protests in Brazil and Turkey against the urban plans told the other side of the story of infrastructure: the design of hard infrastructure alone is not enough. Roberto Rocco, an assistant professor of TU Delft and also a Brazilian, reviews the underlying causes of the protest in Brazil, from which he stresses the importance of soft infrastructure and the political role of urban planners and designers.



The idea explored in this edition of Atlantis, that cities are composed by “hard” and “soft” infrastructure, immediately caught my attention. I was initially not familiar with the work of Edward Malecki, for whom both “public and private sectors, and their interactions, are sustained by networks. To be effective, these networks must operate at the global, national, regional and local scales, gathering knowledge via social interaction, that is, through ‘soft’ networks”.

Of course, these expressions are open for interpretation. Hard infrastructure is easily understandable as the physical environments and places where life occurs. But what is “soft infrastructure”? An understanding of soft infrastructure could perhaps include culture, political structures and institutions or the way these things are articulated and bound together by values, rules, traditions and conventions. Together they conceivably form the soft infrastructure that inhabit (and produce) physical space.

In urban planning and design studies, however, there is a specific way to understand these relationships. We try to understand how governments (and most specially formal spatial planning systems and spatial intervention practices) interact with civil society and the private sector for the production of space. This is called “governance”. Governance is perhaps an effective shorthand to express the complexity of soft infrastructure in urbanism. The relationships among the public sector, the private sector and civil society happen within formal institutions (of which the rule of law is the best expression) and informal institutions (cultures, traditions and customs).

As I hinted in the first paragraph, the correlation between hard and soft infrastructure in the production of space is diachronic and mutual. Hard infrastructure simultaneously produces and is produced by soft infrastructure. Space is

socially constructed, as Henri Lefebvre so masterly argued in his 1974 book "The production of space". Here, I argue that one of our roles as Urbanists is to try and understand the complex relationships between the hard infrastructure and the soft one in order to be able to effectively and responsibly act and intervene in space.

The interactions between society and space are complex and to a large extent indomitable, as they cannot be fully understood and managed. However, in times of "big data" and "smart cities", we must still acknowledge the importance of governments and formal planning as steerers of urban development. We must also acknowledge the role of politics in urban development and accept that urban planners and designers have a political role. Bringing politics back to design and planning studies is crucial in order to avoid the irrational belief some designers and planners seem to have on the effectiveness of architectural and urban designs and plans to "solve" social conflict by themselves; without an understanding of and without real connections to the larger social and economic processes and decision-making structures.

Urban space is essentially the space of politics, as Plato and a host of other thinkers have stated. It is the space of dispute and conflict, but also of negotiation, cooperation and cross-fertilization of ideas (as Jane Jacobs has brilliantly theorized in her book "The Economy of Cities and new economic geographers have been busy investigating ever since). All decisions concerning urban development are political decisions, since they must be negotiated among different parties that often hold conflicting views.

All this became evident to me while anxiously watching recent developments in Brazil and Turkey, where millions took to the streets because of spatial demands, which quickly turned to pleas for better democracies. It is revealing that both movements stemmed from two crucial urban demands: the demand for public space and green in the city and the demand for mobility. In Turkey, a peaceful protest against the construction of a shopping centre in one of the last remnants of green in the symbolic centre of Istanbul quickly turned into a plea for real democracy when authorities turned a blind eye to legitimate demands from civil society and instead repressed demonstrations violently. A similar development took place in my native Brazil, where a peaceful movement for better public transportation was equally violently repressed by the authorities. Demonstrations multiplied and the nature of those movements changed into full-throttle pleas for better democracies, effective government, transparency and accountability.

What is the role of design and planning in all this? It seems evident to me that we, urban planners and designers, can contribute to the debate of what better democracies mean today through the understanding of how to act on urban space democratically and responsibly. Turkish urbanists can design good inner-city parks and Brazilian traffic-engineers are very good at planning bus and metro lines. But there is nothing good design can do against ineffective and corrupt governments or failures in negotiation and implementation. Or is there? Once we have acknowledged that the design of hard infrastructure alone is not enough, is it possible that the design and planning of soft infrastructure can help us attain our objectives?

But before we try to answer that question, let's examine the events in Brazil more closely. What are people so angry about and what do they ultimately want? As I said, the initial demand concerned a plea for free public transportation. An organized movement called "Movimento Passe Livre" (roughly translated as "Free Pass Movement") argues that it would be feasible and even economically beneficial if public transportation were entirely subsidized by public money.

They claim that mobility is a fundamental right and that by providing free transportation to the poor, the government would be greatly advancing their life chances, allowing them prompt access to jobs and services frequently located far from where they can afford to live. They argue that the economic benefits of such a scheme would far surpass the costs of subsidizing transport, and have even produced studies demonstrating the viability of their proposals.

Mobility is a serious issue in Brazilian metropolises. A heated economy means that more and more people have access to private cars. As car ownership is already high and public transportation ineffective, traffic jams are inevitable. On the other end of the social spectrum, the poor must struggle with inefficient but expensive transportation systems that highly limit their possibilities of social and economic advancement. As radical as the proposals of 'Movimento Passe Livre' might seem, they have played a big role in steering opinions about the role of the State, the nature of urban rights and the importance of urban mobility.

After the initial grotesque and violent repression of demonstrations for free transportation, other sectors of society got mobilized. Perhaps the Passe Livre Movement's ideas seemed undoable, but they certainly had the right to demonstrate and propagate their views. More demonstrations were called, and more violent repression by the military police took place. There we had the recipe for a full-fledged movement for the right to protest, much like what had already happened in Turkey.

Rapidly, the movement grew in scope and in numbers, as people expressed their dissatisfaction at services being delivered by governments, like transportation, health and education. A new focus emerged: why would we have all these new stadiums being built for the World Cup in 2014, when we do not have good schools and hospitals and our subways and bus systems are so deficient? FIFA, the international governing body of association football, has very strict standards about the quality of World Cup Stadiums. People in Brazil felt that, if the country could afford such high level venues, certainly it could afford "FIFA-standard" hospitals and schools? On top of it all, several stadiums had largely gone over budget and Brazilians were weary of public money going into the pockets of corrupt officials and equally corrupt developers. Here we had the ultimate paradox: Brazilians, for whom football is second nature, were angry about having to pay so much to host the World Cup. So, Brazilians went out in the streets in great numbers asking for effective, transparent, accountable, democratic governments.



In short, Brazilians felt that the country's prosperity was not reflected in the quality of the services and environments they got. According to the World Bank, Brazilian economy is currently ranked 7th in the world in terms of total GDP output, just behind that of the UK and ahead of Russia's. But the GINI coefficient (the index that measures social inequality) is very high (54.7 according to the World Bank, similar to Guatemala and Zambia) and the Inequality Adjusted HDI (Human Development Index) is 0.53 (which puts Brazil as 70th in the world in terms of social equality, closer to Suriname and Vietnam, rather than to countries with a similar GDP per capita and culture, like Argentina (43th) or Costa Rica (54th). Clearly, economic prosperity is not reflected in the population's well being, despite the enormous gains of the last decade, when millions of people were lifted out of poverty.

The World Bank recognizes that "*Brazil's conditional cash transfer (CCT) program [also known as] Bolsa Família helped millions out of the poverty and is among the most effective social protection programs in the world, having helped raise approximately 20 million people out of poverty between 2003 and 2009 and well as significantly reducing income inequality*". However, it was not the very poor who went to the streets. Largely, it was the traditional middle classes, who have seen few if any gains in the last decades, who took to the streets. Rapidly, it became clear that those in the streets were not asking for basic services. They were asking for *better* services, which would match the level of economic development of the country. Although Brazilian cities are generally vibrant and economically viable, livability is low and problems concerning mobility and environmental quality, as I mentioned earlier, are very serious.

This put the focus on the *ability* of the government to deliver services and better urban environments. Inevitably, we must ask ourselves about the possible roles urbanists, as members of governmental institutions, deliverers of physical proposals and professionals directly involved with policy making, can have in delivering public goods. This brings us back to our question, is it possible that the design and planning of soft infrastructure can help us attain our objectives?

It is my profound belief that our task is not only to deliver the plans and designs that will shape the physical world (the hard infrastructure), but we must also simultaneously design the soft infrastructure that will allow those designs and plans to take place effectively and democratically. But what do I mean by the design of soft infrastructure?

I believe that while understanding governance is crucial, it is not enough. We must be able to design new relationships between civil society, the private sector and governments in relation to the plans and designs we wish to propose. For instance, if a new housing scheme is put forward in the form of drawings and regulations, we must, as designers and planners, be able to answer the questions of what, by whom, when and how these designs are going to be implemented. Designs and plans must be anchored on a firm understanding of the role of stakeholders and the socio-political context where these plans and designs will take place. We must understand legal systems and existing forms of partnership and financing. But most importantly, we must also be able to propose new forms of partnership and financing, and new roles for stakeholders and ourselves.

Research is essential. Nothing can be done without knowledge about the context, the issues present and the solutions that have been tried elsewhere. **But research is not enough!** We must also be able to reach out to other forms of knowledge that are not in books, papers and statistics, but in the minds and doings of people, investors, politicians and citizens. There must be a large measure of activism involved in Urbanism, as we move away from the utterly ridiculous idea that we (acting alone) have an answer for everything through our spectacular designs and plans. Without understanding and acting upon the soft infrastructure of the city, we will not be able to deliver hard infrastructure that works in the real world.

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