THEATRUM MUNDI

Dancing in the Streets: how choreography and engineering can help urban mobility

Format Article
Published 14 August 2018
Author Luke Gregory-Jones
Project Choreographing the City
Related Choreographing the City: improvisatory design
Share Twitter Facebook Email

See

The immediate and emergent crises faced by the contemporary city demand a trans-disciplinary approach; one that connects and collaborates across distant and seemingly unconnected fields, sharing and challenging ideas, methods and solutions. Each diverse and invested field of expertise has its role to play in bringing into existence a more emancipatory city; one that is sympathetic and intuitive towards the diverse movements and heterogenous needs of its citizenry.

All solutions to the crises of the contemporary city must be framed by an understanding of movement and urban mobility. Cities, citizens, cultures and ideas are in an permanent state of flux. Whether the acceleration of urban transport infrastructures across continents, the movement of migrating peoples across national borders, or the reserve armies of labour that traverse from the peripheries to the centres of cities each day, the contemporary city must be defined by its relationship to movement. We see even with High Speed Rail 2 and the expansion of Heathrow that politics is now played out at incredible speeds.

As such, much of engineering's creative responsibility is concerned with how to maximise and make more efficient the many infrastructural networks and mechanisms that facilitate the everyday movement of people (and commodities) in and through the urban landscape. This central mobility-problematic already has emergent tensions. An understanding of the urban transport machine already contains a quantitative logic: increasing the speed and quantities of transport services, whilst reducing costs and maximising the positive economic impact on the benefitting

industries. In some respects, the contradictions of the mobility-problematic present themselves to engineers as a set of problems and puzzles. Which in turn presents the engineer with the opportunity to use the language, logic and epistemology of engineering to provide concurrent answers. For engineers, their Cartesian Dualism is the balance of *problem* and *solution*.

There is also an entirely different lens through which the urban mobility-problematic can be considered. Namely, understanding the transport network from a qualitative perspective, and seeking to fundamentally understand urban space and urban transport from the perspective of experience; do I feel safe? Is this train comfortable? Does this bus accommodate for disabled access? With politics and economics playing out across transport infrastructures – in the Global South as much as in the Global North – it is radical to invert this by focusing on human experience. Taking as a starting point the infinite micro-interactions between bodies, transport networks and cities, we can begin to understand the urban mobility-problematic from the perspective of the everyday. This challenge to quantitatively-considered urban politics suggests that the city itself does not exist singularly at the macro levels of politics and economics, but instead is made and remade each day by the citizens who constitute it.

Being a part of such an expansive and productive urban transport machine has a direct psychological impact on each user, whilst also contributing to a wider mobility culture across the city – do we live in a city where we are encouraged to explore, or to commute? Do we live in a city that has isolated areas, that is unsafe or unaffordable to traverse? Transport is perhaps the greatest democratic mechanism within the city. It allows for the emancipatory qualities of urban life; the Bermanian right to reinvent yourself and create new and dynamic social bodies; 'to go on endlessly creating the world anew', [1] to be accessed and savoured by all, independent of the barriers of class, gender, sexuality or race. Transport can be the great egalitarian leveller. But, this liberalising infrastructure is predicated on a type of network and culture that maximises accessibility – in its quantitive *but* also qualitative forms.

The *Choreographing the City* project led by Dr Ellie Cosgrave at UCL STEaPP and Dr John Bingham-Hall at Theatrum Mundi thus invited practitioners from both choreography and engineering to participate in a workshop that sought to explore *choreographic* ways of designing urban mobility. The intention of the research was to create a new discourse – directly between active practitioners of choreography and urban engineering – that, firstly, uncovered the fundamental logics of each discipline, and secondly uncovered the latent possibilities of collaborative action. This workshop followed five initial research interviews each pairing one choreographer and one expert in urban transport. These pairings were then invited into a space that embodied the urban mobility-problematic; Kings Cross, Euston, Warrant Street and Great

Portland Street stations, as well as Byng Place. Within these spaces, the participants were asked to complete two tasks; firstly to describe the space and secondly to plan an intervention into the space. The intention of these two tasks was to expose the three fundamental phases or moments of creative production: firstly, epistemology and knowledge gathering, then the act of design itself, and finally the assessment process.

These discussions, embedded within urban space, provided valuable insights into each disciplines' role within the urban mobility-problematic; how they see and understand urban mobility, what solutions they can imagine and also their role within these. These site-visits were then completed by a joint interview, offering the opportunity to gain parallel insights into both disciplines simultaneously. Insights into engineering were in constant conversation with insights into choreography. This format was also self-reflexive, offering the participants the opportunity to reflect on their interpretation and performance of the tasks, and also in turn offering broader and more phenomenological analysis of their discipline and industry.

As the workshops slightly evolved and developed with each new pairing of participants, we were able to attune the research to the emerging themes and categories of analysis. Each new pairing brought new and exciting contributions to the research, but it was clear that there were emergent points of analysis that were actively unfolding. As such, five categories of analysis presented themselves as self-evident within the research: Description, Agency, Modelling, Design and Assessment. These categories, present throughout each of the workshops and interviews, provide fundamental insight into the real-world workings of both disciplines, and also each points towards the latent possibilities of collaborative action.

Related to our grounded theoretical framework, our research was aware of the live and dynamic nature of the research. As such, we have attempted to continue building on, playing with and expanding the emergent categories of analysis. Each one has its own implications for collaborative action in the contemporary city, and each one points to the real possibility of a *choreographed* city. The category that our research has perhaps been able to explore most comprehensively so far has been with modelling.

Engineering modelling – as we learnt through our interviews with practicing urban engineers – is limited and curtailed by impending deadlines, budgetary restrictions and an over-reliance on the unquestionable validity of the computer simulation. As such, we have seen the primacy of computational modelling reduce attempts at either real-world modelling or human-scale modelling. UCL's Pedestrian Accessibility Movement Environment Laboratory seeks to challenge the singular preeminence of computational modelling in favour of human-scale modelling that takes place within a laboratory setting and accounts for the broadest, most qualitative

understanding of the human body, human movement and human experience. Within the epistemological framework of engineering – namely the dualism of problem-solution – there is little scope given to allowing design to be guided by experiential, affective and qualitative intentions. This therefore raises the imminent question: what would urban transport be if it was specifically designed to enhance and enrich human experience? And, following on, what impact could this have on the (mobility) culture of a city?

In order to bring to the surface these real and latent possibilities, we invited award-winning choreographer Hagit Yakira to run a workshop within UCL's PAMELA to explore, choreographically, urban mobility and improvisatory design. The workshop was attended by a broad spectrum of active and practising engineers, from the fields of architecture, academia, consultancy, computational modelling and the civil service. The first part of the workshop saw the participants explore the Laboratory space (which was staged to replicate a concrete pavement), with Yakira guiding and shaping an improvisatory workshop that focused on movement. Yakira was able to isolate the issue of speed – an issue endemic to the urban mobility-problematic – and explore alternative modes of movement guided by different rhythms and values. The participants were asked to slow down and then speed up, to walk close together and then far apart. The conditions of experience inherent to commuting or riding a bus were recreated, and then transformed into a plastic, malleable experience that the participants (or as Yakira insisted, "authors") were able to control.

Yakira then led the participants outside of the *stage* within PAMELA, and out into the world. The participants were now exploring notions of speed and mobility across roads and pavements, navigating parked and moving cars as well as pedestrians and cyclists. Yakira once again introduced basic movement rules, limiting speeds and interactions, whilst allowing for a different experience of *moving through* urban space. This workshop intended to open up and explore the politicality of urban mobility; how movement through a city doesn't have to be choreographed by the logic of commuting, but instead can point to a more interactive, more sympathetic, human experience.

This also introduced the participants to Yakira's improvisatory design. This workshop was part of a broader choreographic research project by Yakira entitled *If One Keeps Walking*. For Yakira, the creation of the choreographic work, as with our movement workshop at PAMELA, follows an open-ended process that allows for form to arise from improvisation. This process-led approach is, in many ways, the diametric inversion of the engineering dualism of problem-solution.

With this specific and targeted workshop concerning choreographic modelling, we aimed to reflect on the emergent themes of our wider research. Modelling is the essential connection between the original epistemological act of gathering

knowledge about the world-as-it-is and then the designing an intervention into this. For engineering, it is clear that modelling frameworks are at risk of being over-reliant on quantitatively driven computational models. This would, given the urban mobility-problematic, significantly reduce the ability of engineering to seriously engage with our contemporary crisis. However, the first steps taken by our research intends to expand engineering's theory and methods. We see already with Yakira's improvisatory design workshop the role that choreography can play in expanding, challenging and collaborating on issues of urban mobility. We see the real potential – inspired by choreographic methods – to challenge the dominant values, rhythms and shapes of movement within the city. This form of modelling also plays out at a human scale, allowing real and genuine human interaction to guide the creative process. Computational simulation operates on the narrowest possible definition of human actors, with no scope to allow for the fullest, richest and most diverse of human actions. As one participant explained, some simulation models don't include commuters carrying luggage or women with pushchairs; instead opting for the most basic and reductionist human actor.

What PAMELA and Yakira's choreographic techniques indicate is the very real possibility – within the context of an urban mobility crises – of a modelling process that centres human interaction to the creative production of the urban landscape.

Each category of analysis produced by our research has its own potential implications for collaborative action. We have seen with modelling the real and practical ways in which choreography and engineering can act collaboratively against the urban mobility-problematic. Each moment of collaboration – not just been choreography and engineering – within the contemporary city works towards a unitary theory of urbanism. This trans-disciplinary approach brings together the full tapestry of interested disciplines and expertise, and intends to bring into existence a city that is more attuned and sympathetic to its citizenry, and specifically for the urban transport network to play a central and liberational role in the unfolding of urban freedoms.

This article was written by Luke Gregory-Jones in his role as a research intern working on the Choreographing the City, based at UCL STEaPP, following his involvement in the workshop Improvisatory Design. @LukeGJ

---

1. Berman, M. 2010. All that is solid melts into air. London: Verso, p. 288.

1/3 Improvisatory Design workshop led by Hagit Yakira (Image credit: Luke Gregory-Jones)

2/3 Improvisatory Design workshop led by Hagit Yakira (Image credit: Luke Gregory-Jones)

3/3 Improvisatory Design workshop led by Hagit Yakira (Image credit: Luke Gregory-Jones)