

**Transformative Knowledge for an era of Planetary Urbanization?  
Questioning the role of social sciences and humanities from an interdisciplinary  
perspective**

*Position Paper*

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*The philosophers have only interpreted the world, in various ways;  
the point, however, is to change it  
(Marx, 1978 [1888], 143)*

*[T]he scientific study of and training in creative conceptual and practical thinking on the relation between  
society and environment at various territorial levels and in the search, development and advancement of  
opportunities for purposeful intervention in that relation to ensure sustainable development  
(AESOP, 1995)*

A few decades ago, Henri Lefebvre (1970) prophesied that human society, under capitalist organisation, would inevitably become entirely urbanised. If, as many argue, that moment has arrived and we live an age of ‘planetary urbanisation’ (Brenner, 2013; Buckley and Strauss, 2016), the problem(s) of the urban – the ‘urban question’ (Castells, 1972; Merrifield, 2014) – are amongst the central challenges facing the world. From a different perspective, the concept of the ‘Anthropocene’, has popularised the idea that mankind has become a planetary force (Crutzen and Stoermer, 2000). Given its dominant urban form, the Anthropocene’s sustainability becomes increasingly a matter of urban sustainability, and that is a major 21<sup>st</sup> century challenge. The New Urban Agenda by UN-Habitat (2016) summarises the main obstacles to sustainable urban development as: ‘the persistence of multiple forms of poverty, growing inequalities, and environmental degradation [...], with social and economic exclusion and spatial segregation often an irrefutable reality in cities and human settlements’.

Awareness of ongoing climatic change has generated growing public concern, but there is widespread uncertainty about whether, and how, environmental (and hence social and economic) disasters might be avoided. Prevailing approaches seem to either confirm potentially dystopian pessimism (see Klein, 2014), or appeal to utopian techno-fixes that rest our hopes in the prospects for smart and intelligent cities (de Jong et al., 2015).

This one-day seminar starts from the idea that the Social Sciences and Humanities (SSH) have a crucial contribution to make, together with the natural and life sciences, in framing our understanding(s) of the problems and crises we are in (ISSC et al., 2016).

Through an interdisciplinary approach, SSH could interact with natural and life sciences to produce and disseminate the knowledge necessary to envision and collaboratively shape ‘sustainable’ futures (Callard and Fitzgerald, 2015). However, at present, mainstream research and education approaches seem ill-equipped to address the major economic, environmental and societal challenges generated by contemporary urbanisation. The social sciences, for example, are dominated by an ‘entrenched empiricism’ (Brenner and Schmid, 2013) that prevents the production of novel, and theoretically/critically informed, paradigms. Disciplinary barriers meanwhile stymie the creation of real inter- and trans-disciplinary knowledge (Harkavy, 2006; Petts et al., 2008; Davoudi, 2010). All in all, SSH have been too focused on studying the past and present (Appadurai, 2013; Adam, 2009) and risk missing the opportunity to shape a ‘sustainable’ future (Bina et al., 2016a). The emerging findings of INTREPID – a COST Action exploring interdisciplinarity in science policy and in practice ([www.intrepid-cost.eu/](http://www.intrepid-cost.eu/)) – suggest that in addition to these substantive questions about the contribution and methods of SSH research today, there is also a fundamental question of policy: SSH need to be more effective in contributing to the definition of underlying problems, and framing the challenges, which increasingly dictate research programming and funding (INTREPID 2017; see also: Birnbaum et al 2017). Continued failure to do so will lead to an increasingly narrow, techno-scientific interpretation of problems and solutions, and a research funding strategy to match.

These difficulties seem especially relevant to urban studies, an inherently interdisciplinary field (AESOP, 2009), but one in which standard practices often fall short of the holistic approaches necessary to equip the next generation with the methodological and conceptual capacities to shape sustainable futures (Bina et al., 2016b). Urban disciplines and mainstream SSH therefore urgently need to develop new approaches if they are to contribute positively to the creation of just and sustainable urban futures (Dimitrova, 2014; UN-Habitat, 2009). The New Urban Agenda (UN-Habitat, 2016) and the 11<sup>th</sup> Sustainable Development Goal call for a balanced, multi, inter and trans-disciplinary reading of our predicament (see Davoudi 2010, for a definition). In this respect, it is important to consider what difference it might make to dominant post-political, managerial and technological tendencies in urban development if, for example, governance, ethics, or the human dimensions of urban change are given greater priority.

This seminar brings together a group of mainly early and mid-career scholars to discuss the kinds of transformative knowledge, pedagogy and practice required to contribute to sustainable development in an era of planetary urbanization. This paper is intended to stimulate discussion during the seminar. It is also hoped that this it may inspire responses from participants and form the basis of a subsequent publishing project.

In the sections that follow, we therefore offer four provocations based on the themes that will form the basis for discussion during the afternoon of the seminar (to be held in a world café format). These are not intended to be exhaustive or authoritative but instead to offer some initial stimulation

## 1. Reorganising the social relations of knowledge production?

*“Your planet is very beautiful”, said the little prince. “Has it any oceans?”*

*“I couldn’t tell you”, said the geographer...*

*“But you are a geographer!”*

*“Exactly”, the geographer said. “But I am not an explorer. I haven’t a single explorer on my planet. It is not the geographer who goes out to count the towns, the rivers, the mountains, the seas, the oceans, and the deserts. The geographer is much too important to go loafing about. He does not leave his desk”*

*(Antoine de Saint Exupery, The Little Prince, 63-64)*

Knowledge *matters*. Its production, diffusion and application play a central role in shaping and reshaping the world for better and worse. The development of knowledge economies and societies are now considered fundamental to the realisation of sustainable prosperity, with cities understood as key to their development across the globe. Acceptance of this as an article of faith, part of our ruling common-sense, has generated a range of pressures to rethink how knowledge is produced.

One significant effect has been an intensified level of debate about the role and effectiveness of universities in tackling ‘real world’ problems (e.g. Benneworth, 2013). Powerful political impulses, manifest in research funding priorities and discourses of graduate ‘employability’, promote an instrumental approach, valuing knowledge with immediate and preferably economic ‘impact’. However, such debates may also raise opportunities to ask other questions about the purposes of higher education and to argue for new ways of valuing, developing and using knowledge. In this section we consider some of the tensions and possibilities raised by contemporary attempts to produce academic knowledge differently.

It is notable that a plethora of terms have appeared (or reappeared) in recent years that each suggests the desirability of reorganising traditional boundaries in higher education, both those that separate academic disciplines (e.g. interdisciplinarity, multi-disciplinarity; post-disciplinarity) and those between the academic and non-academic spheres (e.g. trans-disciplinarity, post-disciplinarity, co-production, co-creation, co-design, engaged scholarship, user engagement, participatory action research etc). Each of these terms points towards sometimes subtly different aspects of a widely felt need to rework the social relations through which academic knowledge is generated and put to use in society.

The emergence of this cluster of linked terms betrays frustration with the ways in which the formation of disciplines has fragmented knowledge production and intensified processes of specialisation, rendering academic knowledge incapable of responding effectively to major societal challenges. As the OECD observed, ‘*communities have problems, universities have departments*’<sup>1</sup> (OECD, 1982, 127 cited in Campbell and Vanderhoven, 2016, 31). Even more glaringly, Richard Zare, of BioX initiative, asks: ‘Knowledge is extracted from a fully integrated world. Knowledge is “dis-integrated” by disciplinary units called Departments in Universities. How can knowledge, discovery and dissemination be re-integrated?’ (cited in EURAB, 2004).

It is probably worth recognising at this point that there are still arguments *for* academic disciplines (Wernli and Darbellay, 2016). They can enable researchers to learn and operate with a shared understanding of what kind of knowledge matters, how it can be generated and its truths assessed. However, disciplinary histories, must be read critically rather than purely functionally. In Foucauldian terms, they are the institutionalised products of complex knowledge-power dynamics and produce particular, entrenched ways of knowing, being and relating to others.

From such a perspective, it is perhaps unsurprising that research into the challenges of multi, inter, *and* trans-disciplinary research consistently highlight barriers to working beyond disciplinary boundaries. For present purposes, major obstacles can perhaps be organised within two categories. First of all, a knot of *cultural issues* that reflect the difficulties of working with others who understand and engage with the world in ways that differ significantly from our own. Secondly, a set of *institutional factors*. Despite explicitly promoting such modes of work, for example, universities typically continue to evaluate ‘performance’ in stubbornly narrow, disciplinary terms. As a result, the complex and highly challenging forms of ‘*boundary work*’ and ‘*translation*’ involved in moving beyond disciplinary and institutional silos often go unrecognised and unrewarded, with potentially career limiting consequences (perhaps particularly for early career researchers).<sup>2</sup>

Some cultural issues may be *somewhat* less prevalent within fields like urban studies and planning which have always been, to some extent, multidisciplinary and weakly institutionalised within universities – see, e.g., Thomas (2004) on UK planning. The value of multi-, inter- and trans-disciplinary knowledge for understanding and practically shaping urban change has also been quite widely recognised within urban studies (e.g.

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<sup>1</sup> It is important to note parallels here with increasing levels of functional specialization across society alongside attendant forms of ‘professional’ or guild protectionism that contribute to the persistence of siloed ways of working across many types of organization.

<sup>2</sup> This is a crude summary of a large set of literatures. See, e.g., Petts et al., 2008; Bernstein, 2014; Lyall et al., 2015; Campbell and Vanderhoven, 2016; Wernli and Darbellay, 2016.

Davoudi, 2010), leading to regular attempts to integrate such approaches into research and education, albeit with varying degrees of success.

This apparent openness towards more flexible relations of knowledge production perhaps also reflects the *applied* focus of much urban and planning scholarship and its close links to different forms of urban practice. It is also a product of, frequently hard won, lessons from past attempts to ‘solve’ urban problems. These experiences generated an acceptance that the urban is a complex, open system whose persistent challenges are properly understood as ‘wicked problems’ that are not amenable to any definitive resolution and need to be understood from multiple perspectives (Rittel and Weber, 1973). Far from being cause for any level of complacency, however, the persistence and even intensification of the urban as a locus of contemporary societal challenges suggests the continued ineffectiveness of urban knowledge production in shaping action (see too the quote from Laura Saija below, Harkavy, 2006). Even accepting the complex mediations that separate knowledge from action, it is surely vital to question whether the existing social relations of knowledge production are fit for purpose?

Sheila Jasanoff (2004, 2-3) provides a timely reminder that all research is socially *coproduced*:

Briefly stated, co-production is shorthand for the proposition that the ways in which we know and represent the world (both nature and society) are inseparable from the ways in which we choose to live in it. Knowledge and its material embodiments are at once products of social work and constitutive of forms of social life; society cannot function without knowledge any more than knowledge can exist without appropriate social supports. Scientific knowledge, in particular, is not a transcendent mirror of reality. It both embeds and is embedded in social practices, identities, norms, conventions, discourses, instruments, and institutions-in short, in all the building blocks of what we term the social.

If we accept that knowledge is always a product of social relations, we can perhaps move beyond arguments about *whether* researchers should engage differently with the world and its problems. Instead, we are challenged to consider *how, why*, with *who, when* and *where* we produce knowledge, and the forms of action that this makes possible. Answering these questions lays bare the fundamental ethical and political choices that should be at the centre of attempts to reimagine the role of knowledge in producing our urban futures.

## 2. (Critical) theory and the production of the ‘urban’

*I am speaking of a ruthless criticism of everything existing, ruthless in two senses: the criticism must not be afraid of its own conclusions, nor of conflict with the powers that be*  
(Marx, 1978 [1844], 13; emphasis in the translation quoted).

The idea we shall develop in this section, and hence open to inquiry and discussion, is quite straightforward: theory, and particularly critical social theory, is a precondition, indeed a *condition sine qua non*, for transformative action to take place;<sup>3</sup> From this starting assumption, we shall aim to set out some basis for the task of thinking critically about the urban.

What do we mean by ‘critical theory’ in the first place, and what is its role for understanding the ‘urban’? Brenner (2009, 198) summarised the *analytical* dimensions of ‘critical urban theory’, by focusing on the way theory seeks explanations for what he terms the ‘current condition’ of cities (idem): while what we could label ‘mainstream’ urban theory tends to consider the current condition of cities a-historically as the output of inevitable processes of socio-economic development; critical urban theory emphasises ‘the politically and ideologically mediated, socially contested and therefore malleable character of urban space’ (Brenner, 2009, 198). Critical urban theory sees societal arrangements and urban space as the product of specific, historically determined and politically shaped socioeconomic relationships.

Beyond its analytical dimension, critical urban theory has an inherently *normative* character, in that it seeks to question – as opposed to simply ‘study’ – the prevailing order of things (cf. Morton, 2007, 111); it focuses on exposing existing power relationships in order to ‘change’ them. In this sense, Brenner (2009) reminds us that critical social theory is historically specific, in that it is generated from the needs and demands of particular historical conjunctures. Critique can however travel across time (and space, see next section), if necessary precautions are taken – see Morton’s attempt (2007) to historicise Gramsci’s thought and employ it to explore contemporary patterns of uneven development.

What is the potential of (critical) theory for transformative action? Marcuse (2010, 7-8), focusing on the links between academia and social movements, highlights five dimensions that make theory necessary for practice: ‘illuminating the roots of problems’; ‘illuminating organisational strategies’; ‘illuminat[ing] the pros and cons of various programmatic proposals in the light of history and prior experience’; ‘help[ing] avoid the danger of co-optation’; ‘directly help[ing] politicise struggles’.

Saija (2015, 427-428), focusing on the links between planning practice, research and education, summarizes the relation between different levels of action and reflexivity through the idea of ‘cubed change’:

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<sup>3</sup> Much discussion on this topic can be found in the journal *City* and particularly in two special issues dedicated to ‘spatial justice’ (13[2-3], 2009: *Cities for People, not for Profit*; 14[6], 2010: *Seeking Spatial Justice*).



If we define planning as an activity performed by communities aimed at conceiving and implementing innovation (change<sup>1</sup>), then we can think about planning research as an activity aimed at improving planning itself; that is, the way planning is performed by communities. This is like saying there is a second dimension to that change or change<sup>2</sup> (squared). Action research, which is a change in research paradigm both epistemologically and ethically, is an innovation in the way researchers perform their work, and a change in how they think they can affect planning practice. This is like saying change<sup>3</sup> (cubed). In a context where both change<sup>1</sup> and change<sup>2</sup> do not work – where, for example, planning practice fails to improve reality, and where inductive or deductive planning research hardly produces more than the evidence of the failure of planning practice – then it is worth trying change<sup>3</sup>.

To make things more complex, opening up a field of *critical* thinking about the urban means engaging a great complexity of conceptualisations of power relationships – and strategies to deal with them. In this sense our theories are always enmeshed in the ongoing politics of urban change and themselves seek to influence them. This is well-evidenced in the now decades-long confrontation between deliberative and agonistic approaches to (liberal and pluralist) democracy.<sup>4</sup> The discussion between Soja (2010) and Marcuse (2009) on whether the struggle for ‘justice’ should be overtly spatial or socio-economic is another example of the ways urban studies are informed by different takes on critical theory with potentially divergent political implications. The existence, and indeed necessity, of different paradigms for pursuing transformation (or, with Saija, change<sup>3</sup>) leads to an incessant search to adapt, improve, and ‘ruthlessly criticise’ epistemological and methodological approaches; particularly where one’s goal is to think globally whilst avoiding universalistic explanations and norms, finding ways of knowing that enable us to act for progressive change at particular moments.

### 3. In search of new epistemological and methodological approaches

*Most social scientists conceive it as their exclusive task to discover and stress regularities, stable relationships, and uniform sequences. This is obviously an essential search, one in which no thinking person can refrain from participating. But in the social sciences there is a special room for the opposite type of endeavour: to underline the multiplicity and creative disorder of the human adventure, to bring out the uniqueness of a certain occurrence, and to perceive an entirely new way of turning a historical corner*  
(Hirshman, 2013 [1971], 21).

Opening a discussion about the search for ‘new’ epistemological and methodological approaches with a 40-years-old quotation may seem quite odd. But not only are Albert

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<sup>4</sup> For a positioned summary, see Mouffe (1999). For an attempt at a reconciliation of the debate see Bond (2011).

Hirshman's ideas still innovative four decades on; most importantly, they serve to remind us how debates in the social sciences go through cycles as 'fashions' come and go – how many times has the 'death of positivism' been declared and then retracted? Concepts tend to recur, often wrapped in new clothes; concerns tend to have a long history, though they change over time and space: 'the "new" is never so new as we think, yet the "old" is never so persistent as we fear' (Tulumello and Healey, 2016, 13).

The struggle for 'novelty' cannot then be disconnected from the critical and normative endeavour of seeking what is useful and necessary to 'change' the status quo. In the current conjuncture, and against the backdrop of 30 years or so of postcolonial and poststructuralist thinking (cf. Chackrabarty, 2000; Santos, 2010), urban studies can only think genuinely 'new' approaches if they are capable of embracing the tensions between 'divides' that SSH have tended to either recursively adopt or reject. Here we might refer, for example, to the need to recognise the powerful postcolonial critique of universalizing models of modernist of development while avoiding the trap of particularism and localism (cf. Healey, 2012). This is closely connected to the risks of transforming the 'West'/'South' divide from a normative idea of diffusion of developmental or modernising strategies into a rigid epistemological divide for explanatory theories – bluntly, how to avoid replacing Western domination with the idealisation of learning from the 'good South' (as, arguably, in certain aestheticisations of informal settlements). Another binary that might be rethought to question rigid epistemological boundaries is the long-held, Cartesian and Illuminist, one between 'society' and 'nature', which is being increasingly questioned in the growing field of world ecology (see Moore, 2015).

Moving beyond such divides means, in operational terms, thinking simultaneously in terms of vertical (multi-scalar) and horizontal (place-to-place) relations, working at the intersections between structural and contextual explanations (cf. Flyvbjerg, 2004). Robinson (2016) provides us with useful insights as to how urban studies might become truly 'global' by adopting a looser (but not less rigorous), approach to conceptualising comparison. She suggests moving beyond 'quasi scientific' explanations, accepting that it is not just 'similar' cities that can be compared, and 'focusing on the specific flows, networks, connections, influences, circulations which add up to what has been called "globalization"' (ibidem, 12).

While Robinson focuses on horizontal comparisons between places, another dimension of this endeavour involves thinking the ways concepts and theories 'travel' from place to place (see Healey, 2012; Peck and Theodore, 2015). At the 'planetary' scale of knowledge production (cf. Pease, 2004), ideas produced outside of global circuits can also be 'translated', circulate and generate impact (or not) (cf. Minca, 2016). In this way, it becomes necessary to rethink how the 'world' is constructed and conceptualised through urban scholarship (cf. Lévy, 2008), opening our understanding to a more 'diffuse' and 'varied'



understanding of contemporary processes of capitalist urbanization (Rossi, 2017), whilst also keeping in mind that:

part of the work of postmodernity as a set of discursive practices over the last two decades has been to fragment and sever connections. In some instances this proved a wise, important, and useful strategy to try unpack matters (such as those of sexuality or the relation to nature) that would otherwise have remained hidden. But it is now time to reconnect (Harvey, 2000, 16).

Harvey reminds us that deconstruction is an important endeavour, but that it is ultimately pointless without an aspiration to reconstruction. The deconstruction/reconstruction nexus means that methodological and epistemological innovation only makes sense if it enables us to find ways of understanding our pasts and presents as a way to envisioning and shaping futures.

#### **4. On the role of SSH in envisioning and shaping futures**

*At this rate, we'll never get to the future.*  
(Chuck Palahniuk, *Invisible Monsters*, 40)

Recent years have seen a resurgence of interest in getting to the future.

The existential threat posed by ecological crises and the logical impossibility of indefinite growth on a finite planet has, for example, generated a profound sense of urgency. Time is running out to take action. However, its normal flow also seems to have been reversed. Innumerable threats now seem to stream back towards the present from a damaged future that we are responsible for creating yet seem incapable of avoiding (Latour, 2013).

In economic terms meanwhile, the long-drawn out unfolding of the Global Financial Crisis of 2007-8 has produced an eschatological mood amongst some critical theorists who wonder aloud whether capitalism's time might finally be up but also question whether anything can take the place of the inequality, austerity and precarity that have become normalized as promises of growth-fuelled prosperity have unraveled (Streeck, 2016). Others, however, offer more optimistic accounts of the bold new futures that are now emerging as 'disruptive' socio-technical innovations promise to accelerate the transformation of our cities, our lives and even what it means to be human (Srnicek and Williams, 2015).

Such contrasting diagnoses of our present moment and its emerging futures illustrate the challenges of understanding and generating knowledge to shape what is yet-to-come.

They are a reminder that the future is inherently elusive and unknowable, neither empty and open nor fixed and given (Urry, 2016, 86). Its very intangibility means that all attempts to think futures are speculative and normative, imbued with the affective atmospheres within which they are generated (whether hopeful or fearful; pessimistic or optimistic), but also potentially performative and capable of shaping how we act.

Perhaps for these reasons, mainstream social science has long had a problem with the future. Empirical research has been geared towards understanding the world as it has been and is, but there can be no observable facts about the future. Recent scholarship in sociology (Adam, 2008), anthropology (Appadurai, 2013) and psychology (Seligman et al., 2013) has called for a centering of attention on the wide variety of practices through which all individuals and societies construct futures as ‘social’ or ‘cultural’ facts, enabling them to be understood and acted upon in the present by, for example, building hope and aspiration or taming fear and uncertainty. Others have sought to return to utopian traditions as a means of critically understanding our present moment, the futures we want, and the pathways by which we might get there (Levitas, 2013; Wright, 2010). Such calls arguably share a common set of concerns. First, that the futures societies are currently producing are intensifying inequalities, injustices and unsustainability. And, secondly, that collective capacities to control the socio-technical and economic forces at work or to shape alternative possibilities seem worryingly limited.

The production of urban futures is often understood in similar terms. Represented as the preserve of powerful economic actors who operate beyond the political control of cities and states; shadowy forces that circulate hegemonic visions of ‘smart’, ‘creative’ or ‘eco-futures’ which function, above all else, to reproduce dependence on the impossible promises of endless growth. Meanwhile, path dependencies literally built into urban infrastructures are understood to have locked-in patterns of unsustainable development that pose huge challenges for any attempt to re-shape complex urban systems.

Faced with such powerful intellectual pessimism, it can be hard to retain an optimism of the will. The idea of a normatively committed scientific practice directed towards changing the world has, arguably, been more widely accepted within critical urban studies than in some other areas of social science, and may offer some, limited grounds for hope (e.g. Harvey, 2000). Planning too is often defined by a commitment to linking knowledge and action, necessarily entailing a ‘future orientation’ (Healey, 2010) that has profound consequences for the forms of future-shaping knowledge we might generate and value (Campbell, 2012).

However, despite growing interest in ‘visioning’, ‘scenarios’ and associated tools and practices (Myers and Kitsuse, 2002), active consideration of what the future orientation of planning entails remains underdeveloped (Freestone, 2012). Whilst warning of the

complexity of processes of future-shaping, Urry (2016), presents six possible methods to generate knowledge that might assist in the task and which also suggest the potential value of bridging the physical sciences, the social sciences and the humanities: first, learning from past visions of the future; second, studying failed futures; third, developing dystopic thought; fourth, constructing utopias; fifth, extrapolation of current trends and finally, building scenarios of possible futures. Even combining such methods, it is not possible to *know* the future. But it might be possible to build better understanding of what is probable, possible and preferable.

And, crucially, what we can do about it.

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