

Cosmograms in urban development

Jonas Bylund, JPI Urban Europe Management Board

We need cosmograms. *Urban* cosmograms. But ‘the urban’ is too complex to present in all its aspects in one contained statement or story. Even urban specialists have a tough time to actually talk about it. This found one of its most striking expressions at the SEiS-MiC launching event the other month.¹ At the event, the New Heroes presented the outcome of their project where SEiSMiC actors shared their dreams and desires for cities to artists who drew an interpretation. To signal the below reflection, New Heroes were in charge of sketching, drawing together new cosmograms for urban Europe. However, an aside to the presentation was that of all actors, the urban professionals seemed to have most difficulties in describing and sharing their visions. Is it because they are too used to more textual space or that find it hard to simplify the urban complexities? Either way, it points to our need for cosmograms.

The JPI Urban Europe *Strategic Research and Innovation Agenda* (SRIA) currently in an intensive development phase – it is to be published in September, 2015 – certainly deals with this challenge. Hence it comes with an effort to visualize the main ideas into one infographic – a cosmogram. But how do we develop this further?

Our practiced and drawn realities

I’ve been fascinated, enthralled by urban plans, drawings, and visions since I was a kid. Maybe because my mother drew plans for a municipal planning agency (although this was before my aware childhood). Maybe because my father worked with architects and city builders. Maybe because of my interest in all kinds of science-fiction, where cities are rendered more or less, and in various media, imaginatively extraordinary or peculiar from my common urban environs. But the fascination has been accompanying me through schools and university and it is still with me. Now, with the SRIA, we are about to produce a piece of visionary meaning, even if more schematic and abstract than ‘realist’ urban images and designs.

These images are an instance of what anthropologist John Tresch calls *cosmograms*: that is, ‘external depictions of the elements of the cosmos and the connections among them’ and they ‘have been built [or drawn, designed, composed] in order to make explicit what a “cosmic thing” can be shown to imply’.² What is a ‘cosmic thing’? It’s an artefact

¹ See ‘Being SEiSMiC, or how to understand this eruptive urban project?’ <<http://jpi-urbaneurope.eu/being-seismic/>>.

² Tresch, J. (2007) ‘Technological world-pictures: Cosmic things and cosmograms’, *Isis*, 98(1), p. 92.

that contains and defines the cosmos for a group or society. So, the wonderful example list of cosmograms Tresch offers is quite long and yet it could be made much longer:

...think of Lucretius's epic of the things of nature; Tibetan mandalas, at once temple blueprints, metaphysical maps, and meditation aids; mosques that unite God with creation beneath their domes without directly representing him; cathedrals' pictorial narratives of creation and salvation and the labyrinths that lead the pilgrim into their hidden meaning; Dogon rites that wrap a cube crowned by a cone in a blanket to enact the fusion of heaven and earth; Hindu palaces situating the king precisely amidst people, government, and gods; Newton's *Principia*; Bacon's high-tech reinvention of Solomon's Temple in *New Atlantis*; encyclopedias, maps, and trees of knowledge of all kinds; university ground plans; information architectures and search engines; Joyce's *Ulysses*; Darwin's *Origin*; Charles and Ray Eames's *Powers of Ten*; Philip K. Dick's "How to Build a Universe That Won't Fall Apart Two Days Later"; the space between two steps in Buenos Aires that contains the "secret and conjectured object whose name is common to all men but which no man has looked upon—the unimaginable universe."³

Cosmograms, then, are about how we compose and trace connections that we hold to be the world we live in (including ideals and parts not 'materialized' currently). They deal with our sense of how and with what we perceive our world works. To add an explanation of how central cosmograms are in human lives, consider geographer Gunnar Olsson's understanding of maps and the human preoccupation with them as the central element of our sixth sense of culture that we use to navigate and orient ourselves in cosmos.⁴

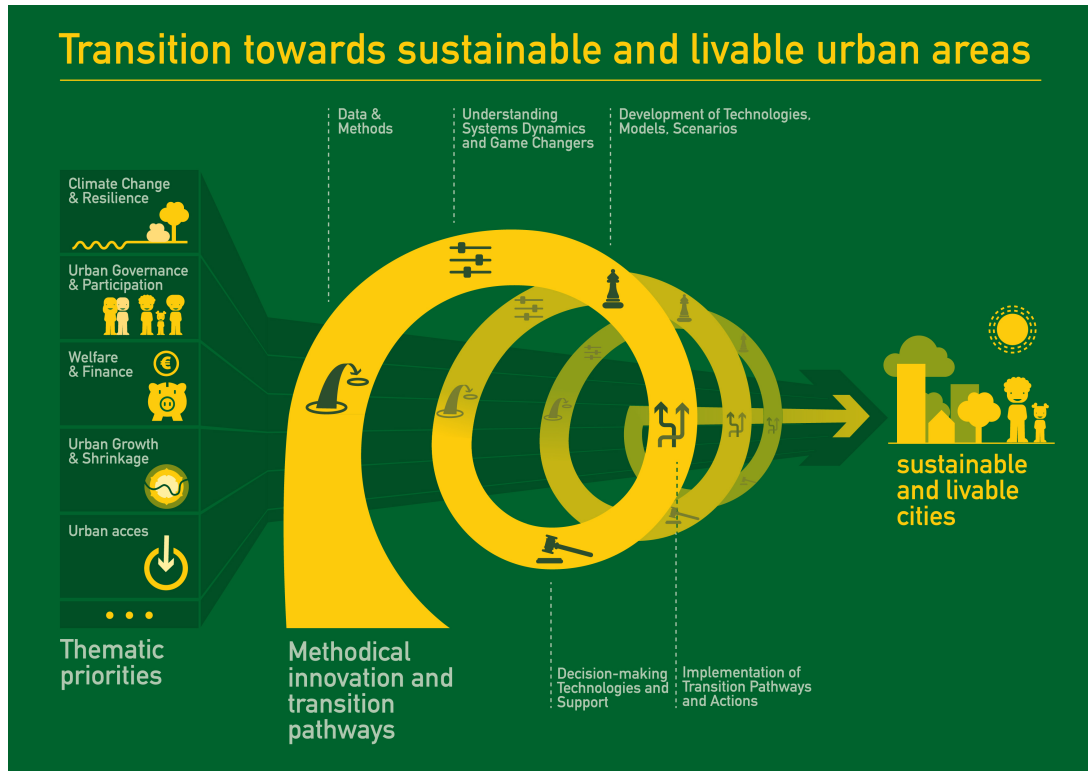
I could also exemplify the importance of cosmograms with an example from an earlier post: it probably makes a big difference in how we act to support research and innovation if we think of innovation in terms of a production line input-output machine from basic science to end-user OR to think if innovation in terms of many small push-pull and intricate dynamic relations in an ecosystem.⁵ These depictions also turn into cosmograms when we use them to talk about our lives and worlds and what we do – and *what is meaningful to do*.

It is easy to see that cosmograms are a quite common practice in urbanism: think of the iconic master plans for cities, from Vitruvius over e.g. Corbusier's Chandigarh to contemporary strategic planning documents for various European urban functional areas –

³ Tresch, pp. 92–93.

⁴ Olsson, G (2007) *Abysmal: A critique of cartographic reason*, Chicago: University of Chicago Press

⁵ See 'Systemic eco-innovation for urban sustainable development?' <<http://jpi-urbaneurope.eu/systemic-eco-innovation-for-urban-sustainable-development/>>



The SRIA infographic by December 2014.

not to forget the now ubiquitous digitalized outlines and designs for urban districts or neighbourhood planning. Smart cities is one current such image of how to do urban life.

So, to add some more technical jargon, these kinds of urban cosmograms are intended to be a kind of ‘boundary object’: artefacts and devices that shape an interface for communication and translation between groups – particularly epistemic communities – who are not used to share everyday and/or professional languages.⁶ Think of how your IT-support tried to explain to you what went wrong when you tried to print the other week.

An urban cosmogram for an urban transition towards sustainable and liveable urban areas?

Actually, the whole of the SRIA is a cosmogram, including the text and all. It deals with the problem of how to balance comprehensiveness and priorities. Of course, that is the point of a strategic agenda.

Since a picture of everything – which is what true holism and integration would call for – would not be very helpful in terms of navigation and sense of meaning. All the examples of cosmograms by Tresch above are works that foregrounds certain aspects and downplays or hides others. A picture each of every sector, element, or aspect involved in contemporary urban life will not be very useful either. Our cosmogram will have to show

⁶ Star, L. S., & Griesemer, J. R. (1989) ‘Institutional Ecology, “Translations” and Boundary Objects: Amateurs and Professionals in Berkeley’s Museum of Vertebrate Zoology, 1907–39’, *Social Studies of Science*, 19(3), pp. 387–420.

the priorities and main movements necessary to support urban transition and help close the implementation gap. In other words, a cosmogram that helps out in doing the super-wicked issue of urban sustainable development well, by showing the bite-size chunks with which we may actually deal with it.⁷

But the SRIA infographic is thus a case in point. One element of how we visualize – yes, how we look upon and see issues and potential actions – urban challenges now. The barebones now are a longitudinal approach (the spiralling arrow towards sustainable and liveable cities in the infographic) to tackle the big issue of how we understand and implement sustainability. Then the shorter term transverse priorities (the accompanying ‘blocks’ on the left in the infographic) that will feed in the results of integrated research and innovation into the longitudinal dimension. A key element not yet discernible in the infographic is that both dimensions will, in various ways, be operationalised as transdisciplinary co-creation with urban practitioners and stakeholders.

When we started the design of this cosmogram, we didn’t want a box on top of other boxes. That would be too static to give a meaningful sense of urban development and transition. We didn’t want a big circle-of-arrows-going-round-round. Where’s the change, the transition, or progression in that. At an early stage, the concept was even depicted by a fish skeleton. Obviously, we don’t want to associate the ambition to transition urban areas into liveable and sustainable places with dead fish.

What the infographic does more than being a table to deduce what we aim to do is to gather and align our visions. The plural here is quite intentional. Both as a focus for our energies but also to help coordinate the somewhat disparate landscape of actions and programmes.

How to keep the urban cosmogram plastic enough?

What we hope to achieve by this cosmogram is an understanding of our curious position in-between two strands in and around the urban field today. One that perceives ‘sustainability’ to be a thin façade for unleashed entrepreneurial predatorship (‘economic growth above all else’). At the other extreme, one strand that associates ‘sustainability’ with a stronghold for red-taping regulatory leftists. If the notion is to be a platform to allow them and other positions to communicate at all, how do we visualize it? How do we shape this boundary object to become a dynamic interface and not a ‘here be dragons’ sign?

Since the SRIA is not supposed to be a one-timer. It is intended to harbour a longer term commitment, we need to keep it alive to iterations and revisions. The same is obviously required for the urban cosmogram that is generated by the agenda.

⁷ cf. Law, J. (2014) ‘Working well with wickedness’, in Klingan, K., Sepahvand, A., Rosol, C. & Scherer, B. M. (eds.), *Textures of the Anthropocene: Grain vapor ray*, Berlin: Revolver Publishing, pp. 157–176; Urban Nexus (2014), *Follow-up report: Integrated urban governance*, Urban-Nexus WP6 Synthesis Report.

For instance, noting the centrality of integrated research and innovation, it probably requires some reflection on how the SRIA cosmogram deal with science-with-politics.⁸ And to our experience, science-with-politics still requires much navigational help according to our experiences so far!

⁸ Instead of the now redundant apprehension of science-vs-politics, cf. Latour (2013), 'Telling friends from foes in the time of the Anthropocene', Draft of the lecture prepared for *Thinking the Anthropocene*, Paris 14–15 November 2013.