

Les transformations des villes et les technologies « vertes »

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L'infrastructure de l'urbain



“Imagine grabbing Manhattan by the Empire State Building and pulling the entire island up by its roots. Imagine shaking it. Imagine millions of wires and hundreds of thousands of cables freeing themselves from the great hunks of rock and tons of musty and polluted dirt. Imagine a sewer system and a set of water lines three times as long as the Hudson River. Picture mysterious little vaults just beneath the crust of the sidewalk, a sweaty grid of steam pipes 103 miles long, a turn-of-the-eighteenth-century merchant ship bureau under Front Street, rusty old gas lines that could be wrapped twenty-three times around Manhattan, and huge, bomb-proof concrete tubes that descend almost eighty storeys into the ground” (Robert Sullivan's introduction to Harry Granick's *Underneath New York*, 1947).

Un « génie urbain » en mutation

- Comment les technologies « vertes » et la recherche d'une ville durable contribuent à transformer les grands réseaux et les villes ?
- Quels pourraient être les impacts du développement des systèmes décentralisés ou alternatifs aux grands réseaux ?



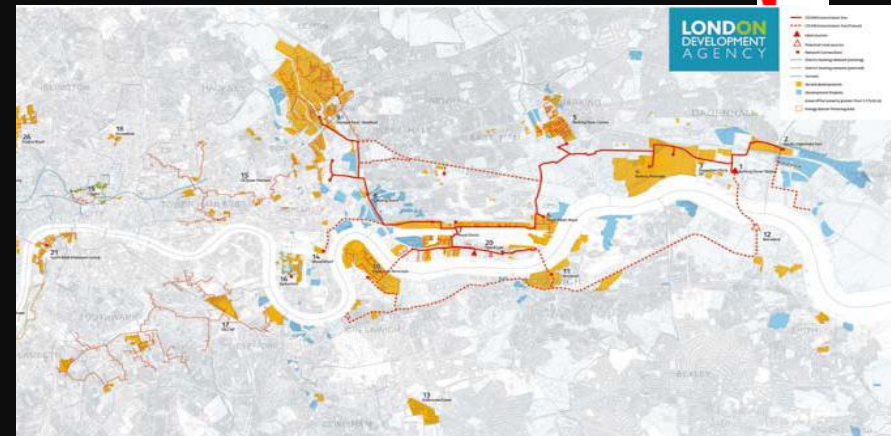
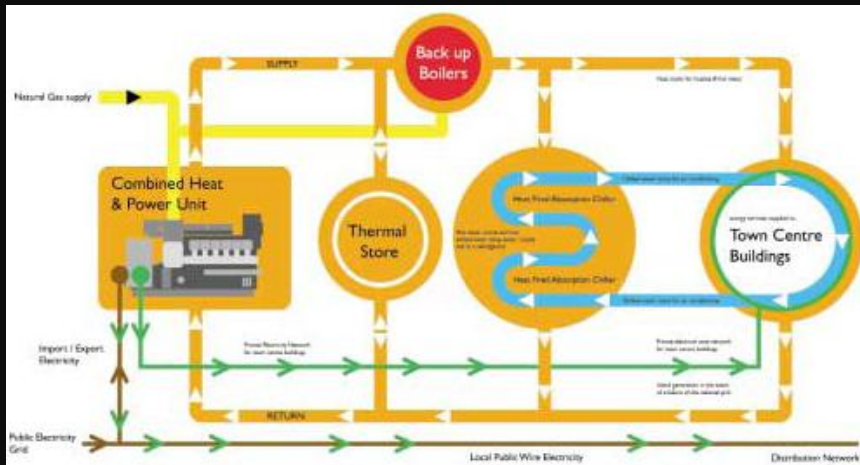
Dans la lignée des travaux précédents

- Réseaux et territoires : comment les réseaux organisent et sont organisés par l'interconnexion des espaces et la forme de territorialité qui en résulte
- Les réseaux comme un instrument fondamental des gouvernements et de la « gouvernabilité » urbaine
- *Splintering urbanism* : la fragmentation par les réseaux



Amener la ville durable par des systèmes sociotechniques décentralisés

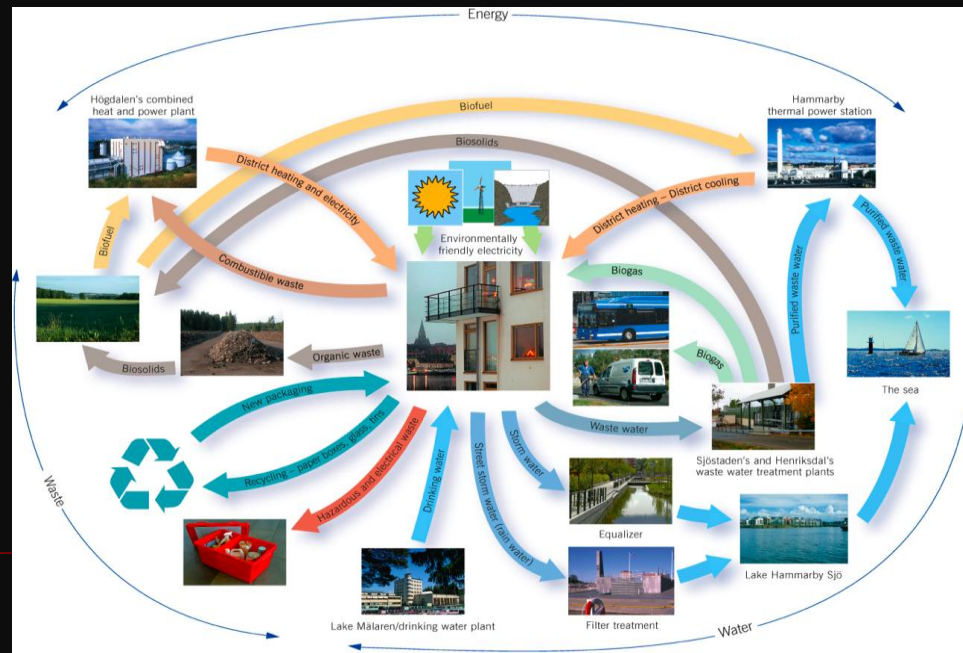
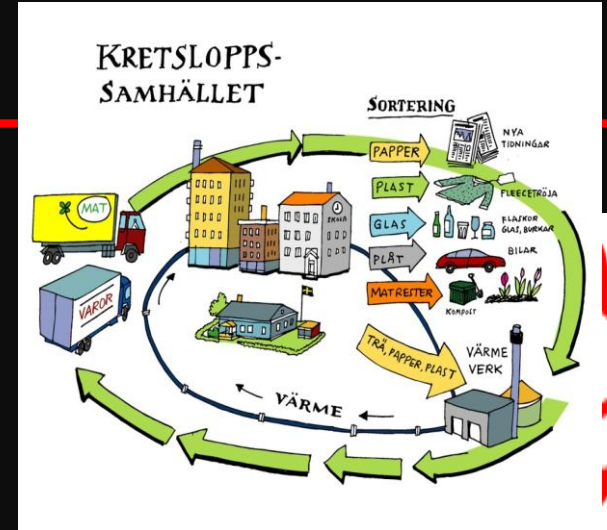
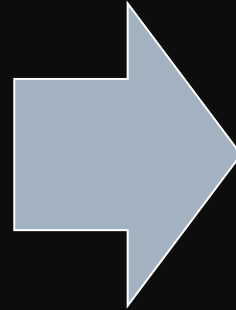
- Diversification des solutions techniques
- Recherche de la « bonne » maille

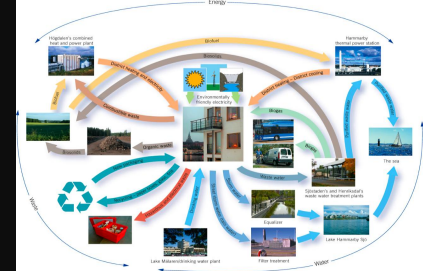
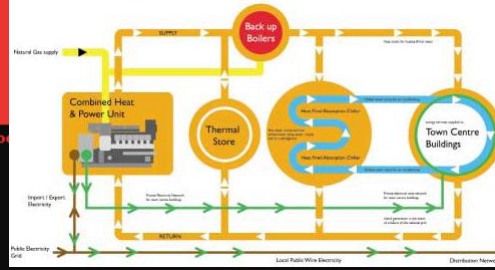


Du métabolisme linéaire au métabolisme cyclique



cyclique





Urban significance and implications

- (How) will these reconfigured infrastructure systems rearticulate the historical driving forces of network development?
 - Governability: the socio-political adequacy between forms of political regulation and forms of provision of essential 'urban' services
 - Financing: what new business models to ensure the economic and financial viability (profitability) of infrastructure, both centralized and decentralized
 - The (post) networked forms of territorial solidarity
 - The environmental 'performance' (however construed) of hybrid or decentralized technological systems



Un axe qui recoupe des projets en cours

- ANR « Syracuse » (Coutard)
 - Symbioses réticulaires adaptées à des contextes urbains soutenables
- Projet pluriannuel structurant (UMLV) « Gouvenus » (Jaglin / Rutherford)
 - Gouvernances énergétiques urbaines Nord et Sud
- ANR « Termos » (Jaglin)
 - Trajectoires énergétiques dans les Régions Métropolitaines des Suds
- ADEME « Composite » (Rutherford)
 - Comparaison des systèmes d'innovation territoriale énergétique en France et en Allemagne



From networked to post-networked urbanism: new infrastructure configurations and urban transitions

- Un séminaire international à Autun, juillet 2012
- 20 papiers, 40 participants
- Publication collective

Unité mixte de recherche CNRS 8134
Université Paris-Est
(Ecole des ponts / UPEMLV)

LATTS Laboratoire Techniques,
Territoires et Sociétés

Call for papers

**From networked to post-networked urbanism:
new infrastructure configurations and urban transitions**

International roundtable workshop, Autun (France), 17-20 July 2012

Organisation:

Olivier Coutard and Jonathan Rutherford

LATTS (Laboratoire Techniques Territoires Sociétés)

Université Paris Est Marne-La-Vallée, Ecole des Ponts ParisTech, CNRS UMR 8134

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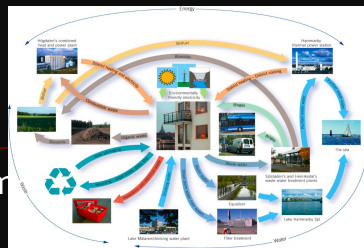
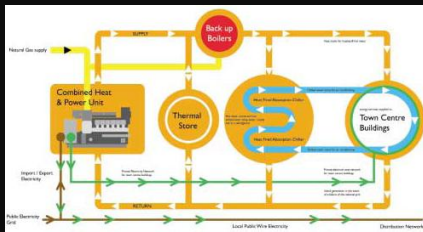
"...to what extent [will] the cities of the future continue to depend on the infrastructure technologies of the nineteenth century, and to what extent [will] they incorporate new and more flexible technologies" (Tarr and Dupuy 1988: xvi)

"Tomorrow's city will be networked" (Gérard Mestrallet, Chairman and CEO, GDF-SUEZ 2010)

"Of all the policies I have introduced as Mayor, I am certain that the recent steps we have taken to introduce decentralised energy in London will turn out to be among the most crucial to London's long-term well-being." (Ken Livingstone, former Mayor of London, 2006)

Post-networked urbanism in its dual sense

- As a set of evolving urban configurations and practices which demand analysis of new forms of 'decentralised' infrastructure systems and their articulation and recombination with traditional large centralised systems
- As a richly evolving sub-discipline which demands exploration of the state and the future for urban infrastructure studies in the wake of the ongoing dominance of analytical frameworks of 'splintering', 'disruption', 'failure', 'security', etc.





Science 'ghost town' to test out green technologies

19:05 7 September 2011

Green Machine Green tech

Niall Firth, technology editor

It will be 52 square kilometres across and big enough to house 35,000 people. But a brand new city set to be built in the middle of the New Mexico desert is going to be pretty quiet: no one's going to live there.

Instead the \$200 million facility - known as the Center - is to be used as a test-bed to let firms try out their renewable energy technologies, intelligent traffic networks or smart grid systems, [according to the Associated Press](#). It will have roads, office blocks and residential areas just like any real city. Just no people.

Technology firm Pegasus Global Holdings, based in Washington DC, announced the scheme today and claim the city will let scientists test out green technologies in a realistic setting.

The firm's CEO Bob Brumley told the AP: "The idea for the Center was born out of our own company's challenges in trying to test new and emerging technologies beyond the confines of a sterile lab environment."

"The Center will allow private companies, not for profits, educational institutions and government agencies to test in a unique facility with real world infrastructure, allowing them to better understand the cost and potential limitations of new technologies prior to introduction."