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# Post-Optimal Cities

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## **Abstract**

From within the broad socio-cultural condition here referenced as "Network culture", across the new geographies of the public sphere, and in the use of urban social spaces, a new culture of participation, which is performed through – and often mediated by – acts of augmentation, collaboration, confrontation and appropriation, is challenging the traditional role of public space, the disciplinary methods of urban design, and forces us to face larger issues about decision-making, governance, and, ultimately, democracy. What follows is a tentative exploration of the interlocked, equivocal relations between socio-cultural aspects of

the network society, inertial practices in public spaces, and contemporary urban discourses.

Firstly, I will outline the framework of my propositions, referencing the paradigmatic socio-cultural shift associated with mobility and with the pervasive concept of the "network". Then, I will briefly describe some of the implications of such transformations on the ways public spheres, urban publics and networked publics are produced. Afterwards, I will address the shifting role of public spaces in the experience of everyday urban life and in the constitution and upkeep of urban communities. Finally, I will hint to the possibility of alternatives to the prevalent rhetoric of the "smart city", tentatively sketching what could be called "post-optimal cities", and "refracted cities": while the emphasis in public debate is still on making cities more functional through the deployment of ever new technologies, what can we envision beyond plain efficiency?

## **Author Keywords**

Smart Cities; Post-Optimal Cities; ICT; Architecture; Public Space; Urban Design

## **Network culture**

We are in a moment where we all witness a massive convergence of society, culture, politics, places and things - via the medium of the Internet. Besides the rather technical maturing of web and mobile technologies, we are observing the slow development

of a new and broader societal condition, a paradigmatic cultural shift affecting our economy, culture, public sphere, and subjectivity. Kazys Varnelis, contemporary historian and theorist of the built environment, named such historical phenomenon "network culture", making it different from the more familiar definitions of "digital culture" and "network society" [1]. Employing Charlie Gere's discussion of Digital Culture, in fact, Varnelis argues that whereas "the digital" is fundamentally based on a process of abstraction that reduces complex wholes into more elementary units, in today's culture, connection is more important than division: information is less the product of discrete individual units, than the outcome of networked relations and links between people, machines and places [1]. Whereas in Castells' [2] and Sassen's [3] interpretations of the network society, the production and the transmission of information on networks are the dominant organizational paradigm of the world economy, the network today extends deeply into the domain of culture. Moreover, while they were already present in the now passé and archaic imaginary of the Cyberspace – which gave way to the imagination of a global mind, hyper-connected and infinitely powerful [4] – digital media and network technologies are now part of the performativity of our everyday life. Although networks are not at all new or unprecedented, they are now colonizing our life to such degree that it is impossible to separate out technology from our culture and self anymore. The phenomenon of Web 2.0 in particular, marked by the rapidly evolving domains of e-commerce, social media, and social networking, have affected and reshaped how we form communities and cultures, forge social structures, utilize resources, and engage in politics **Error! Reference source not found.** It has also affected the ways and the materials

we use to construct the representations we share of ourselves. As the Internet has become the backbone of communication, commerce and labor, the public now inhabits multiple, overlapping and global networks such as user forums, Facebook, Twitter, Foursquare, Flickr, blogs, and wikis. With regards to these broad changes, if we are way downstream of the timeless categories – that may never have existed **Error! Reference source not found.** – just focusing on specific new technologies – which can only be always relatively so – cannot be of much help in understanding where we are heading to, or what we want to imagine. Virilio has described our present condition as that of an "eternal present", of unmindful spectacle and consumption, which deprive us of any history [7]. We need to focus on longstanding social, cultural, technical and material domains.

From an urban studies perspective, there is a continuity between the pervasive notion of "networking" and the idea that "(im)mobilities" produce and organize social life across distance, forming (and re-forming) its contours through a subtly choreographed (re)configuration of people, objects, and places [8]. It has been noted that increased and mechanized mobility contributed to converting open public spaces into interstitial crossing points, emptied of any social meaning [9][10]. On the other hand, the same phenomenon has been interpreted as part of dwelling and place-making [11]. Urban life and urban experience have always been synonymous with a partial dissociation from the constraints of locality [12] – it is possible to couple the corporeal travel of people for work, leisure, family life, pleasure, migration and escape not just to imaginative travel – through talk and images moving across multiple media – but also to communicative travel, through person-to-network

contact, mediated through the Internet and the social web. A second continuity is to be found in the history and formats of the data of culture. Gitelman points toward similarities underlining the cultural definition of records and documents as kernels of humanistic thought. Both recorded sound and digitally networked text, for example, emerged as local anomalies that were yet deeply embedded within the logic of public life and public memory [13]. Political life and the emergence of the public sphere, historically two peculiarly urban phenomena, have constantly been affected, and transformed, by the introduction and adoption of "newer" types of media. An urban digital culture emerges within a shared history of communications, media production and publicity. It should add something to the idea of an "intelligent city", that goes beyond efficiency.

### **Besides efficiency**

The rapid urbanization across the globe creates multiple challenges in planning, development, and operation of cities; a key idea is currently to find ways that data and information from the city is systematically monitored and used to manage the city more effectively economically and environmentally [14]. This explains why IBM, Cisco, General Electric, Siemens and many other global companies have become all at once interested in cities and their destiny: they like to portrait any urban future as "smarter" - being the ones in the position to supply the necessary hardware, software or related services: sensors, actuators, processing power or analytics, for example. The urbanized portion of the world is indeed increasingly covered and wired up by networks of several kinds (optical fiber, 4G, WiFi, sensors) and is finally

resembling the open-air computer envisioned by many radical architects of the 60s [15]. Environments can be programmed and services made more efficient, from many points of view. This is a great commercial opportunity and, as big companies entered the stage, a formerly radical discourse on the (often uncanny) relationships between people, technology and environment, is actually moving to the mainstream, driven by technology and market interests only.

Whereas determinist assumptions and language saturate the writings of many technology advocates and the business pages of many popular magazines, it is arguable that a society's technology alone does not drive the development of its social structure and cultural values. It is, rather, an "intertwining", whereby technology does not determine but operates, and is operated upon in a complex social field [16]. Moreover, following the theory of social construction of technology, the ways a technology is used cannot be understood without understanding how that technology is embedded in its social context [17]. From this perspective, it becomes evident how the social construction, adoption and adaptation of new communication technologies cannot point solely to developments in the direction of what has become to be known as "smart cities", a technocratic dream of a fully manageable and controllable urban system. The ubiquitous deployment of information technologies not only afford new levels of efficiency, pushing us towards "optimality", but offer new platforms for social engagement and action, whose spatial and architectural implications are still matters of speculation. The possibility of imagining and prototyping "post-optimal cities" steams from the affordances of our network culture and moves beyond functionalism, entailing and

resulting from augmentation, collaboration, confrontation and appropriation. New techno-social practices are showing the potential to generate new hybrid spaces and forms of public participation that reconnect the material dimensions of urban public space with the affordances of the networked public sphere. To move away from the focus on technological systems and seamless design, an ethical shift in considering "what a city is" is implied. As Dan Hill puts it: "We don't make cities in order to make buildings and infrastructure" [18]; with an exponential increase of the world population - soon to reach 8 billions - the most prominent environmental qualities cannot be anything but people [19]. Pervasive Computing and the Internet of Things, instead, rather than putting the humane at the center of their vision, appear today to promote technological mediations, while engaging citizens as consumers. People could instead be seen as active and productive nodes in the vast network that comprises the city. The situated interactions of individuals and groups of citizens across the geographies of public spaces shape experiences, imaginaries and identities. They are built performatively, but also rely on memory, perception and attention –the domains of information – by which they are increasingly affected [20]. The challenge, for both citizens and designers, cannot be limited to crafting individual experiences, nor to building a sense of community at a local level, and should extend to reawakening meaningful public space and public life in the city as a whole.

### **Typologies of situated interactions**

Public life – and in particular political life – as Hannah Arendt has described it, pretends careful attention to geographical considerations and to the virtues of

particularity [21]. Following Arendt, Kenneth Frampton criticizes contemporary architects who emphasize the envelope, leaving the tectonic form and the spatial aspects of the built form aside. What is missing in these cases is the 'space of appearance', a term derived from the philosopher's "The Human Condition" [21][22]. For Arendt, the space of appearance corresponds to the polis, to that space "where I appear to others as others appear to me." Such public space of appearance can be always recreated anew wherever individuals gather together politically, that is, "wherever men are together in the manner of speech and action" [21]. However, since it is a creation of action, this space of appearance is highly fragile and exists only when actualized through performance and the utterance of words: "Wherever people gather together, it is potentially there, but only potentially, not necessarily and not forever" [21]. The space of appearance must be continually recreated by action; its existence is secured whenever actors gather together for the purpose of discussing and deliberating about matters of public concern, and it disappears the moment these activities cease. It may arise suddenly, as in the case of revolutions, or it may develop slowly out of prolonged change [23]. The type of political life described by Arendt is essential for the production of a public sphere, where citizens can confer about matters of general interest, including the management of civic resources. This is apparently not compatible with the type of discourse that many among the advocates for the "intelligent city" seem to favor, for whom "the data is the data". The industry's language produce autonomous systems acting on perfect knowledge. Yet, as argued by Greenfield, the word "goal", that we can too often find in "smart cities" literature, is an indicator of a profound misunderstanding of what a city is [25]. How can anything as heterogeneous in composition as

a city be said to have unitary goals? Besides “means”, “ends” – and what about “principles”? – should be discussed and negotiated, within a public sphere.

As originally noted by Habermas, in a large public body this kind of communication requires specific means for transmitting information and influencing those who receive it [24]. Today the Internet is among the media of the public sphere. We mentioned already how the public now inhabits multiple networks – if not spaces – through forums, micro-blogging platforms, social networking services and wikis. The content users share on such spaces, is created and consumed mostly in urban environments. Drawing on Frampton’s critique of an architecture that is only present in its envelope, how can we imagine an urban political space that considers the multiple “spaces of appearance” of the contemporary urban experience, beyond screens? Can we imagine typologies of situated interactions? In the city, confrontation and disagreement are continuously ongoing. It lives in a condition of contestation and dissensus, that is fundamental to democracy, rather than in one of consensus and rationality. Is it possible to imagine contemporary designed things that do the work of agonism [26]? Can we build typologies to ask questions and raise issues in society and culture?

### **The city refracted**

In April 2014, I started an experimental design project in Ard el-Lewa, an informal settlement West of proper Cairo, Egypt. The project was hosted by an independent art space, Artellewa, and conducted with Giuditta Vendrame. An attempt to sketch collaboratively prototypes of “post-optimal cities”, Cairo Refracted borrows its name from an optical

phenomenon - refraction - that often occurs when waves travel from a medium with a given refractive index to a medium with another at an oblique angle. At the boundary between the media, the wave's phase velocity is altered, usually causing a change in direction. This results in optical phenomena that affect our visual perception of reality. Cairo Refracted aims to understand how representations of an environment – or a future condition – are developed and negotiated within a community, across different media, with different results and “refractions”, to explore their constructive potential. In a first stage, we documented through a series of interviews how the community in El Mutamidiya, across the ring road from Ard el-Lewa, in the first three months after the 2011 revolution self-organized itself and mobilized resources to build to good standard four road ramps to the ring road, which was previously completely disconnected from the community. We collected the original footage that documented the construction process, which a local public coalition had already used to convince the authorities of the quality of their crowd-sourced (and then open-sourced) piece of infrastructure. Without judging nor the quality nor the appropriateness of the intervention ourselves, we used the collected materials and a preliminary study of the process and of the organizational structure emerged from the construction, to foster a new production of projective images. We organized two workshops and engaged voluntary local participants in Ard el-Lewa around the topic of “future infrastructure”. Local participants mapped actual infrastructural systems in Ard el-Lewa, with video, in order to use their features as starting point for infrastructure fictions. Videos were shot in the streets, whenever infrastructure related activities were encountered: a wagon pulled by donkeys transporting

gas cylinders, waste pickers collecting garbage, or residents burning trash. Facts were then mixed with fictional narratives, produced using design methods [27], mixing interviews with news titles, unusual patents with vernacular designs, sci-fi with local crafts, and presented at the art space. Many prototypes were documented in short videos where the participants described everyday life in Ard el-Lewa, as if their ideas and designs were already real. We listed a school that takes place through a mobile multi-channel communication system, and a postal system run by the independent tuk-tuk drivers. Currently the community only has access to poor-quality water, but not during the frequent blackouts. They imagined a decentralized on-site solar power plant and a localized and modular water-collection system disconnected from the existing network. They imagined a way to manage at the level of their street a dispenser of high-quality drinkable water, connected to the previous system. They imagined they could produce energy from trash, "as in Germany". Many people in Ard el-Lewa come from rural Egypt, and some of the participants thought of ways to live in high-density contexts with farm animals. Some wanted more police and stricter control; some imagined there should be none. Some imagined ways to connect secluded neighborhoods together, or an escape plan from the city. Two students, finally, described the museum of the city that will never be built. We agreed that it would tell a lot about the current condition of the city, at least as much as its actual environment.

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