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Mediated Identities in the Futures of Place: Emerging Practices and Spatial Cultures

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Editors

Mediated Identities in the Futures of Place: Emerging Practices and Spatial Cultures

Springer

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Preface and Acknowledgements

The motivation for this compilation comes from Lakshmi, having engaged in-depth with socio-spatial implications on identity constructions and negotiations in cities and, also exploring the discourse on media studies and urban spatial practices, and wondering why fewer perspectives from the built environment were highlighted. Using spatiality as a lens, the idea here is to explore diverse disciplinary perspectives, to unravel the labyrinth of emerging identities within the socio-technical geographies.

The second editor NezHapi, was interested in media implications for future cities, as well as in the apparent relevance of media to an ongoing primary research interest in spatio-temporalities. And given the tendency within our built environment field for a greater focus on the technicalities and professional promotion of media tools. There also seemed to be an opportunity in terms of pedagogy, to introduce our undergraduate architectural students, as well as postgraduate planning and urban design students, to a carefully selected range of place-relevant, critical explorations of media technology, featuring disparate perspectives, and linked through a set of phenomenological lenses.

We would like to thank our contributors for their enthusiasm, and for their patience with our 'slow' pace of editing, but mostly for the high quality of their analyses and insights, which has inspired us through this longish project. They are the real core of this book, and we hope we have earned the trust they have shown in entrusting their research to our hands and ruminations.

We also thank our colleagues in the School of Engineering and the Built environment at Anglia Ruskin University, for their encouragement—and particularly Prof. Keith Jones, for his support. Our amazing subject librarian, Martin Case ensured we had access to the best resources.

Finally, but most of all, our appreciation goes to our loved ones and friends, who bore our absences and distractions with grace and patience.

Chelmsford, UK
July 2019

Lakshmi Priya Rajendran
NezHapi Dellé Odeleye

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Chapter 1
Being and Becoming: Emerging Relationalities with Space/Place and Socio-Technical Geographies

Lakshmi Priya Rajendran, NezHapi Dellé Odeleye, Ruxandra Kyriazopoulos-Berinde and Maryam Fazel

Abstract Media technology has redefined our spatial relationship with the physical world as we are largely defined by locations and we no longer are mobile entities (Virilio in The vision machine: perspectives. Indiana University Press, Bloomington, IN, p 74, 1994). With the pervasiveness of media practices, at one end of the spectrum, debates and discourses in architecture and urban design delve into how the role of space and place in everyday spatial practices has been ensconced in superficial connectedness through '*virtual co-emplacements*' (Casey in The fate of place: a philosophical history. University of California Press, Berkeley, CA, p XIV, 1998). And on the other end, scholars argue that performativity through spatial practices, is a compelling notion for re-inscribing oneself in the world (Butler in Gender trouble. Routledge, New York, 2006). This implies the need for understanding potential and emerging alternatives and possibilities of people–place relationships enabled through media technologies. Spaces and places serve as significant realms of becoming and unbecoming which are particularly crucial in contemporary dynamic spatialities. To delve into the complexity of emerging complex relations, this chapter as a first step, discusses how our relationship and engagement with urban environments in cities have been, and are understood and perceived by the changing conceptions of space/place relations and meanings within the urban environment.

The original version of this chapter was revised: One of the missed co-author has been included. The correction to this chapter is available at https://doi.org/10.1007/978-3-030-06237-8_16

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Keywords Space · Place · Media · Being · Becoming

1.1 Introduction: Being-in-the-World, Becoming-in-the-World

Classically, the distinction was made between *space* and *place*, by considering *space* as purely metrical and *place*, as defined by Aristotle, the container of distinct potencies. '*In this sense, it can be said that places radiate out from the exact shape they possess in objective space, the spaces of sites. Places possess us—in perception as in memory—by their radiant visibility insinuating themselves within our lives, seizing and surrounding us, even taking us over as we sink into their presence.*'[1] In the above statement, the distinction is not made any more between *place* and *space*, but between *place* and objective space. The insertion of 'objective' as a source of differentiation between the terms is revelatory for the constant overlapping of the two in recent literature, and especially because phenomenology has introduced concepts such as lived space or inhabited space, which seem to subtly mediate between the Cartesian *space*, on the one hand, anstetd the *place* which is portent of meaning, on the other.

Space/place is nevertheless separated from *site*, an essentially empty locus which cannot be inhabited and resists familiarisation, without possessing any character of interiority. '*For familiarity to begin to set in* [place], *we must project a state of already having inhabited it*'.[2] *Space/place*, unlike *site*, envelops and sustains *in*-habitation, and is one of the conditions for a phenomenological understanding of the world. *Being* in *place/space* and inhabiting *place/space*, were therefore key concepts in the unfolding of a phenomenology of *place*. Heidegger's concept of *being-in-the-world*, for instance, is intrinsically linked to *being in place*: '*one of the features that defines phenomenology's treatment of place is a commitment to the belief that lived spatiality is not a container that can be measured in objective terms, but an expression of our being-in-the world*'.[3] Heidegger's view implies a somehow static understanding of both the physical and the conceptual levels of *place*, his *being* overlooking the wide spectrum of realities unfolding within the realm of *becoming*. These precise multitudes of organic relations existing between the subject and the *space*, which circumscribe the domain of 'lived space', lead Merleau-Ponty one step further from Heidegger's notion of *being-in-the-world*. For him, '*spatiality is not something we are inserted into*, *as though it has existed all along and awaits the subject's arrival*'. He therefore reverses the equation and says that '*rather, being-in-the-world means being placed*'.[4]

However, the classical conception of *space/place* as a fixed and unchanging reality has long and thoroughly been contested. '*Conceiving of space as a static slice through*

[1] Casey, E.—*Remembering: A Phenomenological Study*, Indiana Univ. Press, 2000.
[2] (idem).
[3] Trigg, D.—*The Memory of Place. A Phenomenology of the Uncanny*, Ohio Univ. Press, 2012.
[4] (idem).

time' is essentially a way of taming it. It enables one to ignore *space*'s *'real import: the coeval multiplicity of other trajectories and the necessary outward-lookingness of a spatialized subjectivity'*.[5] There is an open challenge, then, to re-think and re-term the classical assumptions with which phenomenology has revealed the relation between subject and *space*. '*Conceptualizing space as open, multiple and relational, unfinished and always becoming, is a prerequisite for history to be open and thus a prerequisite, too, for the possibility of politics*'.[6] Incorporating these current realities about *place* within a broader phenomenological understanding of self and the world, it would be more than revealing to conceptualize and define new meanings for *becoming-in-the-world* and *unbecoming-in-the-world*, *becoming placed* and *unbecoming placed*. Rather than bemoaning the loss of *place* in our present society, it has become vital to embrace and theorise the new, fluctuating, ever brisk and ever redefined nature of *place* due to the pervasiveness of media practices and find new paths for understanding *becoming-in-the-world* and *unbecoming-in-the-world,* a world characterized by instantaneous and depth-less experiences of *place*. *Being-placed* is no longer a prerequisite for knowing, or even navigating through remote places, spatiality itself is therefore constantly challenged, perception merges with representation and physicality is infused or even confused with immateriality; the prevailing feeling of uncertainty could thus better be grasped by exploring concepts of becoming and unbecoming, or rather the constant and almost imperceptible shift between them.

1.2 Space/Place Dichotomies and Interfaces

In earlier times, though the meanings of space and place have been consistently explored, argued and debated, there was a clear distinction between both concepts. Humanistic geographer Yi-Fu Tuan, in his *Space and Place: The Perspective of Experience*, offered an experiential meaning for both terms, stating that '*place is security, space is freedom: if we think of space as that which allows movement, then place is pause*'.[7] Edward Relph states 'places are basic elements in the ordering of our experience', and place associations are central in understanding identity as they become 'point of departure from which we orient ourselves in the world'.[8] A well-known description of the difference between the term space from place was given by de Certeau (2011) in his The Practice of Everyday Life, where he explained that 'a place is the order (of whatever kind) in accord with which elements are distributed in relationships of coexistence'. Place is thus 'an instantaneous configuration of

[5] Massey, D.—*For Space.* Sage Publications, 2005.

[6] (idem).

[7] Yi-fu Tuan, *Space and Place*, Reprint (University of Minnesota Press, 2001).

[8] Edward Relph, *Place and Placelessness*, Research in Planning and Design 1 (London: Pion, 1976), 43.

positions. It implies an indication of stability' and space is 'composed of intersections of mobile elements'. De Certeau synthesized that 'space is a practiced place'.

Another perspective on the *space* and *place* differentiation was offered by Edward Soja in his work *Postmodern Geographies: The Reassertion of Space in Critical Social Theory*. He argued that '*the organization and meaning of space is a product of social translations, transformations, and experience*'.[9] Coining the term 'spatiality', which reflects the dynamic nature of space, Soja untangles 'naturalness' from material conditions of *place* and suggests that spatiality dynamically affects our life experiences since there is 'an essential connection between spatiality and *being*'.[10]

The above definitions and explanations distinguish as well as explain the relationship between *place* and *space*, acknowledging the inherent qualities of the two concepts. Political geographer John Agnew considers that both *space* and *place* meanings are challenged in contemporary era, based on the idea that '*the world itself is increasingly 'placeless' as space-spanning connections and flows of information, things, and people undermine the rootedness of a wide range of processes anywhere in particular*'.[11] The theoretical viewpoint on *space* have also been altered as stated by cultural theorist and urbanist Paul Virilio, in his work *Polar Inertia,* quoting Werner von Braun: '*tomorrow, to learn space will be as useful as learning to drive a car*'.[12] Spaces tend to reflect the notion of absorbing *place* as subsumed and from the viewpoint of technologies, the notion of *place* is increasingly becoming obsolete, while *space* is gradually conquering *place*.[13] *Space* carries several layers of embedded meanings, as it is '*not simply a container in which modern life is played out*'. The ways we conceptualise and operationalise *space* are products of political, economic and cultural processes. In turn, the organisation of *space* offers opportunities and constraints for the further development of these processes.[14] With the increasing significance attached to *space*, *place* today is '*often associated with the world of the past and location/space with the world of the present and future. From one perspective, place is therefore nostalgic, regressive or even reactionary, and space is progressive and radical.*'[15]

With this changing perception of *space/place* understanding, it becomes challenging and difficult to subscribe to a specific notion. However, what needs to be acknowledged are the blurring and shifting boundaries defining *space* and *place*. From this perspective, the notion of *space* and *place* can be drawn upon the view explained by Robert Sack: '*Place implies space, and each home is a place in space.*

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[9]Edward W Soja, *Postmodern geographies: the reassertion of space in critical social theory* (London; New York: Verso, 2010), 80.

[10]Ibid., 119.

[11]John A. Agnew, "Space and Place," in *The SAGE Handbook of Geographical Knowledge*, ed. John A. Agnew and David N. Livingstone (SAGE, 2011).

[12]Virilio, *Polar Inertia*, 76.

[13]Thomas L Friedman, *The world is flat: a brief history of the twenty-first century* (New York: Farrar, Straus and Giroux, 2005).

[14]Richard Dennis, *Cities in modernity: representations and productions of metropolitan space, 1840–1930* (Cambridge: Cambridge University Press, 2008), 1.

[15]Agnew, "Space and Place."

Space is a property of the natural world, but it can be experienced. From the perspective of experience, place differs from space in terms of familiarity and time. A place requires human agency, is something that may take time to know, and a home especially so. As we move along the earth we pass from one place to another. But if we move quickly the places blur; we lose track of their qualities, and they may coalesce into the sense that we are moving through space'.[16]

Space and *place* are considered here as terms where the boundaries blur and are intertwined into one another, defined by activities and objects. The changing *space/place* concepts play a defining role in a way one understands and relates with the external world. In other words, emerging conceptions of *place* and *space* allow for newer ways of *becoming* and *unbecoming* in the contemporary context. Interestingly, in the present-day context *mobilities* can also be considered as sites of *becoming*, as the experience of *place* is increasingly turning into a process, a transformation. *Becoming*, one of the key concepts in philosopher Henri Bergson's writings,[17] is the operation of self-differentiation, the elaboration of a difference within a thing, a quality or a system that emerges or actualizes in time. *Becoming* can be understood as a constant process of reconstituting oneself through differentiation and negotiation with the physical world. This resonates with the views on *becoming* and *being* offered by architect Lebbeus Woods through an example of a person walking across the room. At any instance, he is 'only' at a particular place in the room, defined by Cartesian co-ordinates. In such a case, when we observe how the person crosses the threshold of the limits of the increment, it happens between co-ordinates; to logically describe such a system would be *becoming*. Woods further explains that simple motion or historical transformation cannot be divided into discrete increments of identity, but flows as a continuum so that at any one point a thing is simultaneously what it *is* and what it is *becoming*. Relating oneself with *place* is a process which is '*transformational, sliding and shifting in an ongoing complex stream of becoming*'.[18] *Becoming/unbecoming* are interesting concepts in the emergent socio-technical geographies, as notions of urban identity in the mobile societies largely need to be understood more as concepts of *becoming* than of *being*.

1.3 Mobilities/Motilities

In the present urban context, different forms of mobility of material and immaterial entities, flows and circulations of goods or information, are bringing and offering new forms of connections and associations with places and objects and contribute more

[16] Robert David Sack, *Homo geographicus: a framework for action, awareness, and moral concern* (Baltimore [etc.]: The Johns Hopkins University Press, 1997), 16.

[17] For instance, in *Creative Evolution* 1907: '*things and states are only views, taken by our mind, of becoming*'.

[18] Lebbeus Woods, "Everyday War," in *Mortal City*, ed. Peter Lang, 1st ed. (New York: Princeton Archit.Press, 1997), 46–53.

than ever in the reconstruction of oneself within the physical world. Sociologist John Urry famously used mobility as an umbrella term that encompasses material and immaterial movement, distinguishing four different kinds of travel, as movement of: *objects, imaginative travels, virtual travels* and *physical corporeal travels.* He argued that urban society is a society on the move, and each mobility, whether it is material or immaterial, shapes specific configurations and relations, and by each reconfiguration of a person's relation to outside world, whether it is near here, or far there, one is exposed to a stage of *unbecoming* followed by the next phase of *becoming*.[19] With urban mobility becoming boundless, the specific concept of *motility* has emerged. Canzler et al. (2008) distinguished mobility from *motility*: '*we use motility for the actors' mobility potentials*',[20] that specifically refers to '*geographical movement*',[21] whereas the former entails a '*change of conditions*'; Thus, in the contemporary urban context people are in continuous exposure to transformation and reconfiguration of their relation with the tangible and intangible entities of urban environments.

Previous to the era of mobility, *place* was perceived more static: with borders, location, and was mainly perceivable as an area of *space* with less external connectivity[22] and more as interior container. Correspondingly, the relation of a person with physical world was firmer and more stable. But now, because there are more possibilities to simultaneously connect to different places, objects, mediums and/or flows, frames that previously captured *place* isolated, can now include flows from inside and outside of that frame. Accordingly, all entities, vertexes, relations and connections that used to define firm relations between a person and physical place, are now in constant configuration. There is a strong relation between *place*, frame of observation and transcendental technologies. 'Transcendental technologies', a concept coined by political scientist Barbara Kellerman, refer to all technologies which help to overcome physical and perceptual borders of understanding (airplane, aerial photography, transportation, information transportation, automobile, telephone, internet, and mobile communication devices), as space-transcending technologies that provide new perspectives on the world by means of altering our knowledge of the world around us through helping us overcome our physical limitations. 'Transcendental technologies' are providing possibilities to change our observational frame, liberating our experience from being grounded to physical places, into a more relational experience. The frames of observation are understood as the frames through which we observe, investigate and understand the world around us. Before the new technologies, observational frames were more grounded in physical places, therefore *place* was understood through borders, actions and interactions inside those frames, but now, because of all newly introduced forms and modes of mobility (material or immaterial) and 'transcendental technologies', understanding of *place* is loosely

[19](Urry 2000: Chap. 3), MOBILITY AND PROXIMITY.

[20]Canzler, W., Kaufmann, V. and Kesselring, S. (Eds) (2008) *Tracing Mobilities: Towards a Cosmopolitan Perspective*. Farnham: Ashgate, pp. (168, 169, 68).

[21]Cited in Andrea Mubi, 2012, Urban studies, New Media and Urban Motilities: A Territoriologic Point of View, sage publication, 49(2) 399–414, February p. (7).

[22]Relph, 1976, 3.

grounded and less contingent on physical locations, while more in relation to other entities (other flows, objects and places). Therefore, understanding *place* is strongly defined in relation to other entities and not statically and remotely observed. Today, we can see intersections of objects, entities, flows of material and immaterial entities inside and outside boundaries of *space,* their interaction constructing new understanding of *place* itself. After all the evolution in society, and the '*growth of movements and flows of goods, capital, people, and information, place cannot be perceived as a fixed portion of space, as an anchoring point of community. […] We have to face new dimensions of place, and see it as an intersection of flows*',[23] as a '*hub, dynamically produced in time*'.

In contemporary societies that are largely characterised by travel and movement, 'just as territorialisations are always shifting, so too identifications remain fleeting and transitory, while always leaving behind traces of their passage'.[24] In a society that is constantly mobile, people tend to spend more time in transitional spaces, hence 'identity can be defined increasingly in terms of departures and impending arrivals'.[25] Today, territories are subject to de-territorialisations, recombined into new assemblages, and re-territorialised. Deleuze and Guattari have influenced relational thinking of space and place, as space and place formed based on relations and, since relations change, space and place are also in constant flux.[26] In this approach of place and space, both are considered 'as performed events, unfolded and played out across distances, by embodied and non-embodied vectors all into a form of assemblage of material and immaterial entities'.[27] By each change and fluctuation in relations, through any possibility of existence or presence of virtual in real, or connecting here (real) and there (real or virtual), the experience of place as event respectively shifts. Physical proximity is not any more the main element in constructing place and space, but is defined through an assemblage of connected or interrelated entities. New media technologies position users in constant relation with other users, at varying scales of relations: individual, objects or places.

Communication studies scholar Adriana De Souza e Silva similarly suggests that one of the implications of these media technologies is to overcome separation of the physical and virtual. She argued that the ability to move around physical places 'always on' and connected to virtual data shifts users' perception of space, and respectively creates 'hybrid spaces'.[28] New media technologies specifically, are acting as

[23] (Shields 1999) cited in Lemos, Andre., Space and Culture: Post--Mass Media Functions, Locative Media, and Informational Territories: NewWays of Thinking About Territory, Place, and Mobility in Contemporary Society 2010, pp. (403–422).

[24] Neil Leach, "Belonging: Towards a Theory of Identification with Space," in Habitus: a Sense of Place, ed. Jean Hillier and Emma Roorksby, Second Edition (England: Ashgate, 2005), 297–311.

[25] Neil Leach, "Dark Side of Demus,". Journal of Architecture. Vol. 3. Spring 1998, (1–12).

[26] Cited in introduction of the Geographies of Communication: The spatial turn in Media Studies, p. 20. Reflection on chapter written by Richard Ek.

[27] Ek, R. Media Studies, Geographical Imaginations and Relational Space. Geographies of Communication: The spatial turn in Media Studies, 2006.

[28] de Souza e Silva, A. (2006). From cyber to hybrid: mobile technologies as interfaces of hybrid spaces. *Space & Culture*, 9 (3), 261–278.

mediating forces in the production and reproduction of *space* relations. In some cases, media connects far apart places by reducing the distance between them. Corresponding to these developments in media and communication technologies, and looking at their effect on *space* and *place*, some scholars with a more pessimistic approach comprehend the experience of *place* through media as a second-hand experience, lacking depth and meaning.[29] Media technologies and communication devices are said to be responsible for an increased loss of sense of place or what Relph referred to as placelessness, in which identity of places is weakened to a magnitude that '*[places] not only look alike, but feel alike and offer the same bland possibilities*'.[30] Media technologies (mainly mass media) convey a standard global image for places, increasing the sense of monotony and lack of authenticity and uniqueness.[31]

Mass media has intruded local values, invading local life and replacing the quality of relatedness with an inauthentic mass society. Examining the role of media, communication scholar Joshua Meyrowitz stated that in our modern 'electronic society',[32] people increasingly have 'no sense of *place*'. Media, by transforming social relations, especially in terms of providing new situations (situational geography), has caused an undermining of the conventional relation of physical settings and social situations. Having a critical view towards media, he addressed that people traditionally come to know about their local places through social roles and hierarchies, but the shift towards electronic communication has transcended the limits of physical settings.[33] In contrast to Meyrowitz's idea that media has put physical space into the margins and that people are consequently losing their sense of place because of openness and permeability of spaces, Moores (2003) believes that our spaces today are more pluralized, rather than marginalized.

From a similar view point, new media technologies introduced recently, mainly referred to as bottom up media,[34] transform users from only being receivers of media information to producers and disseminators of content of media, in which different audiences make sense of their daily life, by adding, adopting and sharing personal views to spaces and places, helping in forming a communicatively constructed identity of *place*.

[29] Relph, same reference, 90.

[30] (Relph 1976, 90).

[31] (Media geographies, 33).

[32] 1985, 6—(No sense of place?).

[33] Meyrowitz, 1985: 308.

[34] Anthony Townsend. "Locative-Media Artists in the Contested-Aware City." *Leonardo*. 2006, Vol. 39, No. 4, (345–347).

1.4 Memory of Place: Dis-Emplacement, Dis-Embodiment

When distinguished philosopher Edward Casey questions how often a memory is either of a place itself or of an event or person *in* a place,[35] he clearly explains the *place*-bound quality of memories (though the degree to which *place* gains significance in a particular memory may vary with individuals). But the vast and enchanting territory of place memory is yet another aspect strongly altered by the fluctuating present nature of *place*, which is worth exploring in this discussion on changing relations with places. Classically, there are two main positions in phenomenological and architectural theory writings on place memory: memory of embodiment and memory of emplacement, both of which are profoundly challenged by the disembodied and displaced modes of experiencing *place* today. To understand these challenges, it is useful to first sum up what has been written on the topic while *place* was still conceived of as a stable ground for thought.

In the case of place memory also, the traditional approach tends to have a preference for a well defined, fixed spatiality. Philosopher Gaston Bachelard writes that '*Memories are motionless, and the more securely they are fixed in space, the sounder they are*'.[36] For phenomenologist Paul Ricoeur, the term 'inhabited space' is in itself a paradigm for memory mechanisms, since '*in memories, corporeal space is immediately linked with the surrounding space of the environment, some fragment of inhabitable land*'.[37] Although the discipline known as the 'art of memory' dealt with trained artificial memory, it nevertheless gives important insights into how the mind works with inherent spatiality. In historian Frances Yates' detailed study[38] we find out that in *Ad Herenium*, one of the first antique treatises, the 'art of memory' is considered 'an inner writing', the speeches of the orators being inscribed in the mind by imagining a vast edifice of successive rooms and assigning meanings to each room. The event, the imprinted meaning in the case of the orators, inhabits *place*, residing in the situational relationship between body and surrounding *space*. It is a matter of recreating the situational structure of the body-in-place, the spatialized situation that enables one to re-enact the meanings once inscribed in *space* in the act of recalling. Likewise, in processes of natural spatial memory, places are remembered by re-activating a certain embodiment that once has taken place (Bachelard 1992). Neurologists believe that the same centres are activated within the brain in the moment that a space is perceived by walking through it and when it is remembered, while phenomenologists suggest that the very embodiment of remembering relates to *place* (Casey 2000), since to be embodied is to have a place in which to be situated. This category of embodiment in spatialized memories applies when the mind recalls places that the body had already experienced. However, when perceiving a new place,

[35] Edward S. Casey, *Remembering: a phenomenological study*, 2nd ed. (Bloomington: Indiana University Press, 2000), 89.

[36] Bachelard, G.—*The Poetics of Space: The Classic Look at How We Experience Intimate Places,* MA: Beacon Press, 1994.

[37] Ricoeur, P.—*Memory, History, Forgetting,* Chicago Univ. Press, 1992.

[38] Yates, F.—*The Art of Memory,* Routledge and Kegan Paul, 1966.

that carries its own memory, distinct, although similar, mind mechanisms apply. In classical theory, this was a return to the question of letting oneself be immersed in the aura, the atmosphere, the sense of place, of letting oneself be emplaced.

Casey's eloquent study on *Remembering* dedicates an entire chapter to 'Place Memory', in which he makes very valuable assertions on the self's experience and recollections of a place, but does not go into much detail about the deposited memory layers that are stored in the place itself, as an invisible archive that documents the 'sense of place'. However, in another study, he refers to a scribbled fragment of Joyce's writings from a preparatory notebook for *Ulysses*, with deep implications: '*Topical history: places remember events*'. Casey reads in this short statement an essential questioning that Joyce would suggest a subversion of the classical assertion that memory is essentially time-bound, by implying that '*the active agent is place, and not the historical events, the former actively remembering the latter*'.[39] The question of 'how places remember' is more actively addressed when there is some kind of spatial alienation or an absence of the once-built past, and Joyce's note that 'places remember events' could be a starting point, although it misses the uneventful everydayness of *place*, whose memories '*remain embedded in the form, remain to be unearthed, read and decoded, however imperfectly or incorrectly, whether they exist today as a spatial tangible remain or as a vague yet lingering mental presence*'.[40] Interestingly the dramatic changes in the contemporary *place* experiences open different trajectories for perceiving the above place phenomena.

1.5 Emerging Relationalities

At this point, it is crucial to bring into discussion the transforming relationships with *place*, which enable new relationalities in the present day. *Place* relations today challenge some of the assumptions of *place* and *space* perceptions, for instance that embodiment is necessary in storing and reliving memories of place. If among the traditional conceptions of subject in *place* the body was quintessential in perceiving and remembering, one cannot overlook the growing role that image and video play in the processes of place memory these days. Photographic and filmic practices, nowadays almost omnipresent and embedded into everyday rhythms and habits of interacting with spaces, are becoming disembodied modes of storing memories: the remembrance of being-in-place is transferred from the physicality of the lived body and the recollecting embodied self, into a photo-video external medium. Interestingly, deciding to photograph or record a place in order to remember it in the future may often prove to be self-contradictory. Focusing on the act of recording, one favours ocular perception, as part of a depth-less interaction with place, but the body resists inhabiting it. In turn, it is not any more the body sensorially mediating between

[39] Casey, E.—*Getting Back into Place,* Indiana Univ. Press, 1993.

[40] Trieb M.—*Yes, Now I Remember: An Introduction*, in M. Trieb ed. 2009, *Spatial Recall,* Routledge.

present and past that acts as a trigger for activating place memories that had been stored away as sensations. Instead, today it is the representation of the place through image that is the medium which can (but does not necessarily) store away sensations which one has once experienced within a certain space. In this context, we can understand place memory paradoxically being mediated through disembodiment.

It is intriguing how the vague and metaphoric phrasings used by theoreticians in the past on this topic are nowadays an almost banal description of the mixed media practices that narrate and populate places. *Place* is nowadays commonly perceived and experienced first as a mixture of others' written-visual stories of it, and only then as a physical entity. Therefore, the new media practices seem to have taken on the role of archiving place memories, embedding them in the very experience of *place*, remaining *to be unearthed, read and decoded, however imperfectly or incorrectly*.[41] In this reconsidered context, it is no longer that place memories need to be stored away, either in mind, or within the sensorial body, but the active agent in this recollection is indeed, *place* itself. This indicates the changing notion of *place* and emerging relationality with *place*, where experience and the recollection of a place are no longer a relation between subject and its lived space, instead, they are an immersion into an inter-subjective domain of changing dynamic experiences. Transformed from passive into active, *place* therefore is infused with its own '*simultaneity of stories-so-far*',[42] that experientially condense and represent memories of it in a most comprehensive expression, rendering it with a sense of flux; this sort of fluctuant representation/perception embedded in place itself has been praised by recent theories, which criticize classical fixed representations as being '*static time-slices',* that even '*multiplied to infinity cannot produce becoming*'.[43]

Media technologies introduced in urban living have become one of the main factors that change and challenge the experience of *place*. These technologies are putting the importance of physical place in question. Previous to media technologies, the perception of *place* was strongly connected to physical materiality and material space was the main contributor in constructing the experience, but now the experience of place is less constrained to only physical borders and is rather understood more relationally in connection with entities that may not physically exist in the same proximity instead, space could be experienced with entities outside the physical borders. Sociologist Andrea Mubi Brighenti referred to the new media devices, as '*territorial devices that increase the complexity of all existing territories. Territory should not be conceived as an 'all-or-nothing'object but rather as a multidimensional set of relationships defined by prolongations, affordances and events*'.[44] Richard EK,[45]

[41] (idem).

[42] Massey, D.—*For Space.* Sage Publications, 2005.

[43] (idem).

[44] Andrea Mubi, 2012, Urban studies, New Media and Urban Motilities: A Territoriologic Point of View, sage publication, 49(2) 399–414, February.

[45] Richard Ek, Media Studies, Geographical Imaginations and Relational Space. *Geographies of Communication: The spatial turn in Media Studies*, 2006.

similarly, elaborating on studies regarding *space*, *place* and new media technologies, discussed how the conventional ontology of *space* (as absolute) is questioned in favour of new technologies based on the notion of relational space which has resulted in two main propositions.[46] The first discusses *space* and *place* as events, produced and consumed through performances, actions and interactions. The second challenges the conventional understanding of *space* as constrained to and held in fixed section of *space* or geometry,[47] since it is transformed by each interaction and flux, the final result of *space* respectively is different, therefore entails plurality and multiplicity. '*The meaning of places may be rooted in the physical setting and objects and activities, but they are not a property of them, rather they are a property of human intentions and experiences, meaning can be generated and transformed from one set of objects to another*'.[48] It is important to note here that the concepts of territorialization and deterritorialization are more relational concepts, providing us with useful tools[49] and explanations for the new emerging urban spatialities.

Today, the means to grasp the deeper layers of *place* reside in understanding the simultaneity of flows and situations which traverse its spatial fixedness; '*what is more revealing, and now required, is a discourse on spatial change and space-place characteristics as discovered through other stories and spatial representations*',[50] such as new media practices and technologies have to offer and already alter our everyday ways of urban living. This newly defined constantly changing and becoming nature of *place* illustrates with more accuracy the processes of remembering, perceiving and relating to *place*, surpassing the fixedness of classical representations and notions about the stability of spatiality. The reconstructive process generated by interaction with contemporary spatialities produces a new fluctuating re-assemblage of feelings and fragments. The experience of *place* is not anymore perceived as limited to physical boundaries, exceeding physical limitation. This ever changing and uncertain flux of *place/space* relationalities creates simultaneously opportunities for *becoming* and *unbecoming* through the heterogeneity of spatial experiences.

Consequently, the views offered in this book chapters are driven by the need to probe the ways in which new digital media trends in *how* and *what* we communicate, and *where* this is taking place, are driving/reshaping our everyday practices, and perceptions of contemporary identities, amidst media portrayals of urban transformations. This 'mediatization' (Friesen and Hug 2009) of space with fast-evolving range of communicative platforms and sophistication of digital representations, challenges and destabilises our prevailing societal notions of place-based identity and cultural agency, generating both tensions and possibilities for engagement, urban activism and the evolution of alternative place futures.

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[46] Cited in Falkheimer, Jasper and Andre Jansson (Eds.). Geographies of Communication: The Spatial Turn in Media Studiess, summery of the chapter written by Richard. EK.

[47] (idem).

[48] Stephen Strasser (1967, p. 508) cited in Relph, 1976, p. 47.

[49] Andrea Mubi, 2012, Urban studies, New Media and Urban Motilities: A Territoriologic Point of View, sage publication, 49(2) 399–414, February.

[50] Tewdwr-Jones, M.—*Urban Reflections: narratives of place, planning and change*, Policy, 2011.

The three sections of the book are structured to offer a relatively hierarchical examination of media and people interfaces from micro- (individual and locative) to meso-level (social-network enabling) and macro-level (regional city-systems and platforms). The various interfaces enable readers to appreciate the diverse yet connected levels of technology and people interaction in cities.

In **Section A: Placing Media—Locative Interfaces**, the focus is on the implications of 'locative media' on individual's navigation perception and how this transforms place experiences in diverse contexts. Fazel and Rajendran begin (Chap. 2) our Placing Media foray by providing an interesting framework for understanding theories and literatures of place after the advent of media technologies, through approaching from 'over and above' to view 'from within'. In Chap. 3, Saker develops the exploration of the phenomenology scope of place and its debt to ideas of social relations from de Certeau (1984) and Lefebvre (1991) by providing a critical historical overview of how people use locative media to enhance their place experiences and identity. Kulkarni (in Chap. 4) combines embodied fieldwork, textual critiques and new installations production— to probe a media-based imagination of future urban identities—influenced by Lefebvre's 'total body' as well as the urban geographical approaches of Harvey and Sassen. The section culminates in Lovett's Chap. 5, which uses site-specific moving images to explore an expanded sense of self-identity within the architectural scale, from the habitual and haptic, to historical, cultural and narrative.

In **Section B: Spatial representation—Social Interfaces**, by shifting from the interface of locative media and individual experience in cities, these chapters examine how 'interactive media' constructs and structures social relations in the public realm. Dyer highlights in Chap. 6, new forms of technology-mediated, university spaces to explore emerging socio-technical student identities, drawing on ideas in Latour's Actor-Network Theory, and Lefebvre's notions of the (re)presentation of social space. And in 'how I met my neighbour', Chap. 7: Setton and Eizenberg investigate the role of virtual 'third space' (Steinkuehler 2006; after Bhabha 2004) through play as an interactive identity facilitator using public screens to engage strangers; In Chap. 8, Cameron deconstructs 'Spatial Representation' relative to social constructionism using place-based social networks, digital place making and its role in public space design, to influence the production of physical space and representation/understanding) of place (Lefebvre 1991; Harvey and Braun 1996; Tuters 2004). And finally in Chap. 9, Paredes evokes the potential of a cultural-studies-type, politically-oriented approach in demonstrating spatial representation (from sensed and harvested 'smart' data)—as a critical medium of urban production, transformation and potential resistance.

In **Section C: Spatial Cultures—Technology-mediated interfaces**, the focus moves towards emerging 'technology-mediated' identities, their manifestations and implications at the community, city and policy level. Erickson's drawing upon various interdisciplinary theoretical frameworks such as Foucault's biopolitics of spatial knowledge and Richard Grusin's theory of pre-mediation, highlights in Chap. 10, the problematic role of data-driven practices in generating neighbourhood profiling, fear of the 'other' and spatialized identities; In Chap. 11, Lopez-Marcos's review of the

hegemonic geopolitics of knowledge, extends such applications to some European urban, regional and community-based networks with their virtual counter-laboratory (Agamben 2008) resistance strategies. In Chap. 12, Paris discusses the impacts of media platforms on the identity formation and branding of Milan. Moujan concludes the section (Chap. 13) discussing a more-than-urban condition which requires not only diversity but also, and importantly, entanglement.

Drawing upon the contributions across these three sections, the discussion summaries in Chap. 14 structure our analyses of key themes from their findings and propositions. Concept images are used to express a synthetical view of their salient features concerning mediation at individual, local and urban levels—conveyed as a concluding overview of their import from our theoretical perspective. This hierarchical means of examining technology-based, place-identity and spatial-cultures in the three sections facilitates our analyses and aim of outlining a possible framework in the final chapter.

Chapter 15 concludes by first contextualising multidisciplinary notions of cognition, identity and place, and then integrating their insights with themes from Chap. 14's conclusion, to outline a spatio-temporal concept frame—comprising a structure of dynamic interactions linking identity with mediated processes in the everyday socio-spatial dimensions of place. This includes a number of simple, future-city-scenarios providing selective 'windows' for interdisciplinary discussions interrogating this generic range of 'urban-form' drivers that are shaping mediated identities in the futures of place.

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Part I
Placing Media: Locative Interfaces

Chapter 2
Media Technologies: From Transcending Space to Socio-formative Spheres

Maryam Fazel and Lakshmi Priya Rajendran

Abstract Urban experience has become complex with simultaneous and alternate choices, and experiences are created by the dynamic flows of people, fluidity of material/immaterial entities, goods, information, etc. Drawing discussions from various disciplines, which share similar interests in exploring the consequences of media technology on place-understanding, this chapter explores an architectural approach adopting multiple perspectives, as a way of surveying over and above, and from within. Here, two main sets of understandings are provided, first, mobile media technologies as tools that change the understanding of place by moving from and seeing over and above the physical limitations, thus allowing our understanding to go beyond the barriers of physical borders. Then, by zooming in and seeing things from within (not from above or what we refer to in architecture as the human eye view) we propose technologies as Socio-Formative spheres that could reconstruct our place relationships from within the social and cultural threads. One objective of this is to provide a framework for understanding theories and literatures of place after the advent of media technologies, through approaching from "over and above" to view "from within". Building on the literature that studies aspects of place-understanding in relation to media technologies and juxtaposing existing materials, our approach offers insight into a relational understanding of place that is also contingent on frames of observation.

Keywords Locative · Place · Media · Urban · Architecture

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2.1 Introduction

Highlighting how mobile media technologies are helping to facilitate a different or possibly new, understanding of place, this chapter, tries to re-conceptualize place and define it in relation to technology and frames of observation. What we discuss here is the place cannot be perceived prior to the act of defining frames of observation—a lens/or a selected frame to observe and study the relationship between objects/entities (here it refers to the relationship between media technologies and place) and moving from one frame of observation to another, a different understanding of the concept will be emerged.

Discussing place as a relational concept, the chapter introduces architectural approach as a method to understand how new media technologies not only can be seen as transcendental technologies but after changing the frame of observation they can also be considered as the formative sphere that affects place perception and experiences from within the assemblage. We introduce frames of observation from architectural discipline, to show how the shift from one frame to another generates new sets of information, and opens new possibilities to capture alternative aspects and perspectives. What architects do in order to study or design a building is to provide frames of observation—to define points of observation, scale, and level of viewing, where one can zoom-in or define particular points for viewing the object/building. By bringing architectural tools [mainly those of which that are used for observation, exploration, and viewing] and analytical method of viewing into place understanding discourse, and by looking through the dual perspective of both surveying *over and above*, and *from within* the chapter then provide two main sets of understanding. First, understanding of mobile media technologies as transcendental tools[1]: tools that change the understanding of place by transcending geographical territory and spatiality, and seeing *over and above* the physical limitations, thus allowing our understanding to go beyond the limitations of physical borders. Second, by zooming in and seeing things *from within*, the chapter presents technologies as socio-formative spheres that could reconstruct our knowledge from within social and cultural threads.

By putting place-understanding in relation to the proposed frames of observation and the power of technologies in changing our knowledge, We explain why our understanding of place has shifted from corporeal or personal attachment, to a concept that is more relational—in flux—and is not limited by the borders of materiality.

[1] '*Transcendental technologies*' is a concept coined by geographer Kellerman to refer to all technologies that help to overcome physical and perceptual borders of understanding (airplane, aerial photography, transportation, information transportation, automobile, telephone, internet, and mobile communication devices). Cited in Kellerman, Aharon. 2006. *Personal Mobilities*. Routledge, p. 72.

2.2 Background

Prior to the era of mobility, place was perceived as static and more distinct, with borders and locations perceivable mostly as an area of *space* with less "external connectivity"[2] and network connections, and more as a contained interior. In those days "place was [more] concerned with the individual's attachments to symbolic quality of popular concepts of place which links events, attitudes and places […]".[3] Correspondingly, the relation of a person (corporeal embodiment) with the physical world largely was at the core of understanding and perceiving place. Moving from that arguably simplistic understanding, another perspective was provided by Marxist philosophers (such as Lefebvre), who set out more reflexive and dialogical theories of space that emphasized the dynamic and contingent production of location with place. Here, place is viewed as the locus of intersections of geometries, of socio-political forces. Informed by those philosophers, research into place thus shifted to focus upon processes of production, and to embrace the multiplicity of spaces that are socially produced at intersections of social practices.[4] In that view, place is produced rather than merely being extant.[5]

Later, after technologies of mobility had become an integral part of the built environment, geographer Doreen Massey by exploring how globalization and mobility affects the experience of place, suggested that place-experience does not only occur inside the boundaries of physical geography, and that understandings are constructed on a far larger scale than what we happen to define, for that moment only, as the place itself.[6] Instead of thinking of place as an area with boundaries around it, Massey suggested a "progressive notion of place which is extroverted", which includes a consciousness of its links with the wider world, integrating in a positive way the global and the local.[7] From global to local, from intimate space of the body to the space of the globe, space or place are precarious achievements made up of relations between multiple entities.[8]

For Massey, the elusiveness of place can be understood as a collection of "stories-so-far", where a "multiplicity of trajectories co-exist".[9] Massey conceptualized place/space as a meeting point of sets of inter-relations that do not necessarily all

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[2] Relph, E. C. 1976. *Place and Placelessness*. Pion Limited.

[3] Gibson, Chris, Susan Luckman, and Chris Brennan-Horley. 2012. "(Putting) Mobile Technologies in Place: A View from Cultural Geography', Mobile Technologies and Place," In *Mobile Technology and Place*, edited by Rowan Wilken and Gerard Goggin, 124. New York: Routledge.

[4] Ibid.

[5] Ibid.

[6] Massey, Doreen B. 1991. "A Global Sense of Place," Marxism Today, p. 28.

[7] Ibid.

[8] Hubbard, Phil, Rob Kitchin, and Gill Valentine. 2008. *Key Texts in Human Geography*. SAGE, p. 226.

[9] "Space is the sphere of the possibility of the existence of multiplicity; that is space […] is the sphere in which distinct trajectories coexist; as the sphere therefore of coexisting heterogeneity", (Massey 2005: 9), cited in Hubbard, Phil, Rob Kitchin, and Gill Valentine. 2008. *Key Texts in Human Geography*. SAGE, p. 228.

exist within the same physical place. She provided a perspective on place as an ongoing and perpetually incomplete process, encouraging us to approach it in an outward-looking way rather than being enclosed and defensive.[10] This embraces other definitions or processes that offer different views to place and space understanding. As various forms of material and immaterial mobility have already taken hold of the experience and the condition of contemporary life, affecting the way we communicate, travel, and even experience the world around us, thus the experience and definition of place requires clarification.[11] Massey considered place in an outward-looking way, as a sphere in which distinct trajectories coexist.[12] Similarly, mobile media scholars and geographers[13] highlighted the challenges and potentials of new media technologies in redefining our place-understanding, place-attachment and sense of place. By bringing attention to Massey's viewpoint and by embracing other views offered by scholars, what becomes evident is the need to recognize the power of new media technologies to enable a renewed understanding of place and place-relations.

2.3 Place: From a Relational to Frame-Based Concept

As pointed out earlier, prior to the introduction of electronic technologies, physical materiality was the main contributor for constructing place-experience, but affected by modern technologies, the experience of place is less constrained to physical borders and is rather understood more relationally (relations which run "into" and "out from" location, or which are in connection with entities that may not physically exist in the same proximity). This view which is mainly influenced by the philosophical work of Deleuze and Guattari, on relational thinking of space and place, where the complexity of the urban condition is best recognized and described, and which explains place as an assemblage of a series of connections between entities (natural and social, political, technological, etc.)—what they refer to as actants. Space and place are formed based on relations, and as relations change, space and place are also in constant flux.[14] In this approach to place and space, both are conceptualized as *forms of assemblage* (embodied and non-embodied vectors, material and immaterial

[10] Space is always under construction; "it is always in the process of being made. It is never finished; never closed" (Massey 2005: 9), cited in, Hubbard, Phil, Rob Kitchin, and Gill Valentine. 2008. *Key Texts in Human Geography*. SAGE.

[11] Hjorth, Larissa. 2012. "Still Mobile: A Case Study on Mobility, Home and Being Away in Shanghai." In *Mobile Technology and Place*, edited by Rowan Wilken and Gerard Goggin, 141. New York: Routledge.

[12] Cited in, Hubbard, Phil, Rob Kitchin, and Gill Valentine. 2008. *Key Texts in Human Geography*. SAGE.

[13] Such as Wilken and Goggin (2012), and Gibson et al. (2012).

[14] Cited in Introduction Ek, Richard. 2006. "Media Studies, Geographical Imaginations and Relational Space." In *Geographies of Communication: The Spatial Turn in Media Studies*, edited by Jesper Falkheimer and Andre Jansson, 45–56. Göteborg: Nordiskt Informationscenter for.

entities, where everything in the natural or social world is treated in the same terms as elements: actants of the assemblage,[15] unfolded and played out even across distances). In relational thinking, place *is an assemblage of bodies, technologies, social relations, location, materials entering or exiting the location,* where each change, shuffle and fluctuation in relations between those elements—actants—through any possibility of modification or change of those elements or their set of relations, causes understanding of place to be altered. For instance, through connecting here (real) and there (real or virtual) through technology of mobility, as we know, sense of distance, place, and even the value of communication has altered. Richard Ek, elaborating on studies regarding relational approach to place, has argued that the conventional ontology of space (as absolute) is thus questioned in favour of new technologies, in particular, where technology, by showing the flux of materiality/immateriality into and out of a location, challenges the conventional understanding of space as constrained to and held in a fixed section of space or geometry.[16]

One significant example that validates this approach is provided by mobility. In the present urban context, with all its attendant material and immaterial forms of mobility, and because there are more possibilities to simultaneously connect to different places, objects, mediums and flows, frames[17] that previously captured and isolated place can now include flows from inside and outside of that location. Accordingly, all entities, actants, vertexes,[18] relations and connections that used to define firm relationships between a person and physical place are now constantly being configured and reconfigured. As Rob Shields stated, "[With the] growth of movements and flows of goods, capital, people, and information, place cannot be perceived as a fixed portion of space, as an anchoring point of community […] We have to face new dimensions of place, and see it as an intersection of flows", and as a "hub, dynamically produced in time".[19]

By accepting relational thinking about place as a significant theory, best configuring and defining relations between mobility, place and technology, where place is discussed as an assemblage encompassing a series of relations, frames of observation

[15] Text between parentheses was cited in John Law, study of actor network theory and material semiotics, p. 145.

[16] Ek, Richard. 2006. "Media Studies, Geographical Imaginations and Relational Space." In *Geographies of Communication: The Spatial Turn in Media Studies*, edited by Jesper Falkheimer and Andre Jansson, 45–56. Göteborg: Nordiskt Informationscenter.

[17] By frame here we refer to the conceptual boundaries that defines objects and distinguishes inside and outside of an object, entity, or even a concept. Frame has a strong relationship with observation and observer, and without an observer and without the act of observation, frame cannot be perceived. Objects and entities are comprehended differently according to the frames we choose to observe them. In this discussion we use a term, Frames of observation that refers to the frames through which we observe, investigate and understand the world around us and this concept (frames of observation) is employed as a linking concept between technology and place.

[18] Vertex is a metaphor to refer to a line that relates to two things/objects, the concepts of line, vertex, actant, are metaphors that are used to refer to connection and association between entities.

[19] Lemos, Andre. 2010. "Post—Mass Media Functions, Locative Media, and Informational Territories: New Ways of Thinking About Territory, Place, and Mobility in Contemporary Society" 13 (4): 403–20.

is introduced in this discussion in order to understand place comprehensively. Frames of observation in this discussion are understood as a lens through which we observe, investigate and understand the world around us and are employed as a linking concept between technology and place. Interestingly, it can be argued that technology has the power to change these frames of observation, (for example, by expanding the notion of not only being related to location and/or embodiment) technology allows to perceive place, in relation to outside-of-the-frame of location, as series of connections (connections that cannot be spotted if we only focus on embodiment, physical space and location).

Place here is understood as a relational frame-based concept, and is contingent on how we define the frame of observation at any moment in time, and how, based on that frame (where we put it; what the scale is; what it does, undermines or highlights), entities that form place (the assemblage of sets of relations) are respectively reconfigured. The discussion thus explains how place could be understood as a state of sets of relations, but it is also contingent on frames of observation, *plus the power of technology to change or relocate those frames*.

By setting the frame of observation outside physical borders, place relations and understanding is liberated from the physical-material, and from only being a personal/social property. For instance, the technologies of mobility acted as an important factor, which changed our perception of place by putting it in relation/comparison to other places, other people and outside geographies. By freeing our relation to place from its previous attachment to physical borders, frames of observation were no longer grounded in a physical location we used to know as the base or center of our world, changing a person's relationship to the world: due to changes in the frames of observation we were able to see outside the limitation of physical–perceptual borders. So here it can be seen that technology by changing/relocating our frame of observation (from inside a specific location/geography, to, in-between locations/geographies) is changing our relationship and understanding of place.

2.4 Transcendental Technologies, Frames of Observation and Place

There is a strong relation between place, frames of observation, and transcendental technologies. Lash and Urry used a similar term to transcending technologies, in their investigative study of the changes in social notions of time and space, where they refer to cars, trains and buses as devices that transcend what was formally understood as the "tyranny" of distance.[20] Urry argued that urban society is a society on the move, and each mobility, whether it is material or immaterial, shapes specific configurations and relations. Moreover, by each reconfiguration of a person's relation to the outside world, whether it is near or far away, they are exposed to a different perception and

[20]Cited in Green, Nicola. 2002. "On the Move: Technology, Mobility, and the Mediation of Social Time and Space." *The Information Society* 18: 281–92.

experience of place. In a way, transcendental technologies provide new perspectives on the world by means of altering our knowledge of the world around us, sometimes by helping us to overcome our physical limitations. Transcendental technologies provide possibilities for us to change our observational frames, liberating our experience from being grounded in physical places by moving us instead into a more relational experience, one that can be more outward looking, open and welcoming to new possibilities. *The frames of observation as pointed out in this discussion are understood as the frames through which we observe, investigate and understand the world around us.* Before the advent of new technologies, observational frames were more grounded in physical places; therefore place was understood through borders, actions and interactions that took place only within those frames. But now, because of all the newly introduced forms and modes of mobility (material or immaterial) and transcendental technologies, understanding of place is only loosely grounded, and less contingent on physical locations, while becoming more closely tied in relation to other entities such as other flows, objects and locations, relations that take place outside the location. Therefore, understanding *place* is now strongly defined in relation to other entities/actants; always in change and configuration, no longer only concerned with personal attachment, or personal characteristics that could only be explored or discussed on a personal level. Today, we can see the intersections of objects, flows of material and immaterial entities inside and outside the boundaries of space, *and their interaction constructs a new understanding of place itself.*

By each change and repositioning that takes place in our frames of observation, certain sets of social-cultural or political connections will emerge that will define place as the meeting point of those relations. Massey discussed how place is the meeting point of socio-spatial and political relations. And whilst developing David Harvey's concept of time-space compression, Massey used the example of the *satellite* as a tool to explain how "If one moves in from the satellite towards the globe, holding all those networks of social relations and movements and communications in one's head, then each "place" can be seen as a particular, unique point of their intersection". "[…] It is thus place, indeed, a meeting point". John Law argued that the notion of level or scale is a relational concept.[21] With each zoom-in or zoom-out, we observe different sets of relations, and the choice of the frame shows a certain set of socio-cultural or political relations that define place as their meeting point. Configuration of those sets of relations is contingent on the frames of study, and with each change in frame and point of observation the arrangements are reconfigured accordingly. The above explanation also shows how by putting technology outside the frames of observation (although this is now impossible in our contemporary life) place still could be described or defined at a personal level, in relation with rootedness and connection. The reason why all definitions and ontologies of place were contingent on personal relations to the material world before media technologies

[21] Law, John. 2008. "Actor-Network Theory and Material Semiotics." In *The New Blackwell Companion to Social Theory, 3rd Edition*, edited by Bryan S. Turner, 141–58. Oxford: Blackwell. http://bookshop.blackwell.co.uk/jsp/id/The_New_Blackwell_Companion_to_Social_Theory/9781405169004.p.4.

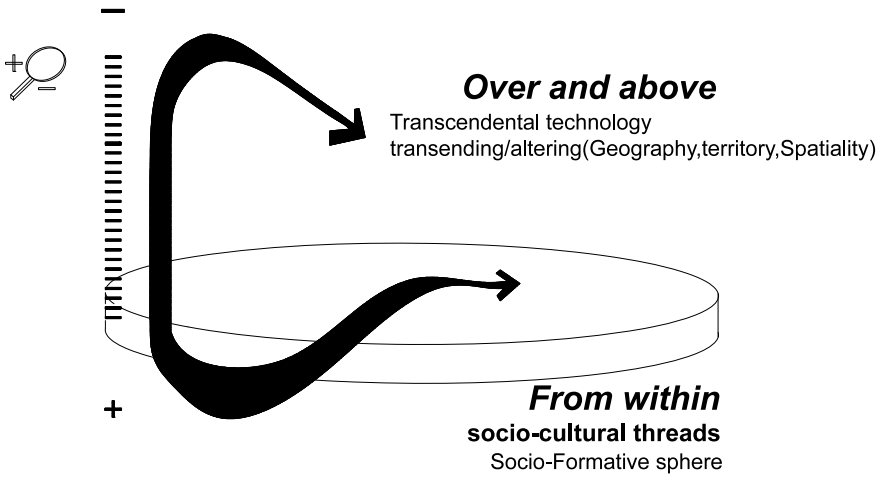

Fig. 2.1 Architectural approach as a method of viewing. Understanding from above/over: locative media as transcendental technologies (transcending geography, territory and spatiality)

(when embodiment was the key issue defining place relations) was because frames of observation were situated within everyday interaction and within the borders of place, in relation to the body or embodiment of the observer. But if we apply mobility or other forms of technology, they re-position the frames through which we observe and understand our interaction with the world around us to a different point of observation. Figure 2.1 illustrates the how architecture approach to viewing is adopted for defining the two frames of observation: Over and above and from within.

Locative media/mobile media (as a type of new media technologies) broadly encompasses another group of technologies that help to change the frames of observation, and in turn change our place-understanding. In the case of locative media technologies, since the information provided to users is related to a location/place/local, this form of media provides sites and occasions for the development of new forms of environmental knowing, spatial and cultural understandings, and arguably constructs new spatial relations with place, or different levels of place-understanding. As a transcendental tool, it has a number of characteristics, the discussion will particularly address three key characteristics: transcending geography, territory and spatiality.

2.5 Transcending Geography

Media technologies (e.g., Foursquare or other form of social media applications) can transcend geographical separations, and provide users with access to local events,

maintain their bonds[22] with detached geographies and communities from/to their place of origin, and discuss and experience places in groups with like-minded people. Hjorth stressed that those technologies, by blurring the boundaries between lived/imagined, local/global and inside/outside,[23] encapsulate some of the other paradoxes of what it means to experience place today".[24] "Mobile-media practices provide insight into the complex and paradoxical ways we imagine, sketch and render places".[25] She referred to those technologies as domesticating technologies,[26] saying "feeling of senses of domesticity may no longer be physically located in an actual home", and understanding of place is not only geographical and physical but also involves "evoking cartographies [which are] of imaginary, emotional, mnemonic, and psychological."[27] In the contemporary urban context people are continuously exposed to transformations and reconfigurations of their relation with spaces, objects, flows and entities, experiencing a constant flux of spatiality and place-relations as a consequence. Media and mobile technologies, as a form of mobility of people and information, have resulted in shifting the popular cultural notion of geographical space,[28] where connection and communication brings closeness and intimacy despite the distance between locations. Many scholars have discussed mobile technologies as devices to transcend the limitations of geography, including those posed by geographical differences in the location of work and home activities. This will be discussed in more detail in the following section.

2.5.1 Territory

The interest of territory here concerns what sociologist Andrea Mubi Brighenti referred to as "territorial devices that increase the complexity of all existing territories. Territory should not be conceived as an "all-or-nothing" object but rather

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[22] Barcus, Holly R., and Stanley D. Brunn. 2010. "Place Elasticity: Exploring a New Conceptualization of Mobility and Place Attachment in Rural America." *Geografiska Annaler: Series B, Human Geography* 92 (4): 281–95.

[23] Hjorth studied the role mobile media played for students to (re-)connect to place—and particularly their *home*—whilst they were away. By studying the Chinese mobile media application QQ, she argued that *these mobile media are reinforcing the multiplicities of what constitutes a sense of place.* Users of the application were able to reconnect to their family and keep their original ties, which were relocated outside the physical space of home.

[24] Hjorth, Larissa. 2012. "Still Mobile: A Case Study on Mobility, Home and Being Away in Shanghai." In *Mobile Technology and Place*, edited by Rowan Wilken and Gerard Goggin, New York: Routledge, p. 140.

[25] Ibid., 141.

[26] Other examples are TV, radio, and their attendant, mobile media.

[27] Hjorth, Larissa. 2012. "Still Mobile: A Case Study on Mobility, Home and Being Away in Shanghai." In *Mobile Technology and Place*, edited by Rowan Wilken and Gerard Goggin, 140. New York: Routledge.

[28] Green, Nicola. 2002. "On the Move: Technology, Mobility, and the Mediation of Social Time and Space." *The Information Society* 18: 281–92.

as a multidimensional set of relationships defined by prolongations, affordances and events".[29] From the telegraph to telecommunications, a new territory, a *third nature*, has been overlaid on top of the *second nature*: the physical geography of cities.[30] With this third nature—telecommunication—information flow creates an informational landscape that almost entirely covers the old territories, where it possibly also redefines or reconfigures the old territories of urban built environment.[31] Lemos referred to control and access as territories created/redefined within places by information and communication technologies.[32] He uses the following example: Wi-Fi network access in a public area/park creates an informational territory (people who have informational power can log on to the Internet to produce and receive information) so that it has to be taken into account when to think about a place and its quality. Nowadays, especially within cities, places are expected to have the bases of access and communicational affordance in order to be seen as a good place. In the case of Foursquare application, a social media application, for instance, one of the users, before entering to a Costa café can put a check-into signal the poor quality of communication in that specific place, showing that user would not be available as long as she was in Costa. This example showed how access to information in an urban context and availability are becoming the bases of what is considered to be a good place: we are developing expectations in regard to communication within a place, which should be fulfilled and if not, users normally find a way to signal that weakness of communication to others if necessary. Another example that similarly shows how media technologies are redefining territories of place within the place itself as a negotiation between physical materiality and informational territory, is when a tourist uses a tourist guide application such as *TripAdvisor* (2000) and looks for a restaurant: only those places that are already signed up to the application are visible and potentially have the chance to be seen, while other places, although they physically exist, have much smaller chances of being explored. This specific example shows that communicational and informational technology covers the old territory of physical and built environment and place transforms as a result of negotiations among territories (e.g., old and new, virtual and physical).[33]

Although limited to users of these media/applications, there are instances in which a different territorial domain/or another form of territory is defined over a physical location, that is practiced through interactions and attitudes. De Certeau (2011), refers to this form of territory as, tactical. Tactical territory can be explained as "how a territory is being practiced, […], the position or actions of those who, do not

[29]Brighenti, Andrea Mubi. 2012. "New Media and Urban Motilities: A Territoriologic Point of View." *Urban Studies* 49 (2): 399–414.

[30]Wilken, Rowan. 2011. *Teletechnologies, Place, and Community*. New York: Routledge, p. 134.

[31]Ibid.

[32]Lemos, Andre. 2010. "Post—Mass Media Functions, Locative Media, and Informational Territories: New Ways of Thinking About Territory, Place, and Mobility in Contemporary Society" 13 (4): 403–20, p. 406.

[33]Lemos, Andre. 2010. "Post—Mass Media Functions, Locative Media, and Informational Territories: New Ways of Thinking About Territory, Place, and Mobility in Contemporary Society" 13 (4): 403–20.

have power but in practice manage to manoeuvre and circumvent the plans made by the strategic entities".[34] For instance in case of Foursquare application, users are encouraged to share their physical location (check-ins) and get rewarded by badges and mayorship. The act of mayorship in this particular occasion can be defined as a territorial attitude.[35] The user, by making claims over a particular place/geographic location, declares that area as their own territory or possession, thus defining his/her relation to/domination over that specific place through the act of check-in. This act does not mean that, the user claims physical ownership of a space; rather, it is more tactical attitude,[36] where, through practice and usage of place, one can express relation to/domination over the place or over the virtual version of the place (as some users believed). Informational territory changes the relation of person to place/and place understanding.

Discussing the influences of media technology on place through explaining them as territorial devices to insert/redefine existing territories of space, to some extent overlap with those discourses that negotiate the spatiality/spatial changes offered by media technologies. But since understanding how territories are created/altered by new media technologies does not necessarily address issues of spatiality, and might not help to perceive new media technologies as a spatial tool, thus another characteristic which is spatiality demands attention provide evidence of how these media are spatially transcendental.

2.5.2 Spatiality

In examining the spatiality characterized by locative media, one most closely descriptive view can be borrowed from Janson, as *textural affordance*, by which he discussed each space has a spatial-communicational affordance and it offers an specific level of spatial communication—and by changing that affordance, media transcends or alters that spatiality. By providing different visual and sensorial experiences and by connecting the here and now to there and then (old times, old memories or collective memory), new media technologies and mobile media (such as Street museum application) can extend spatiality outside the conventional approaches anchored to embodiment and direct interaction. These new media technologies provide the possibility of having mediated and immediate experiences simultaneously and because of this potential to transcend presence and bring past or other memories or even other spatial possibilities to present, they could be seen as spatial transcendental technologies. McCullough, whilst discussing how these kinds of media technologies

[34]Farman, Jason. 2013. *The Mobile Story: Narrative Practices with Locative Technologies*. Routledge, p. 128.

[35]Term used by Brighenti, Andrea Mubi. 2011a. "New Media and Urban Motilities: A Territoriologic Point of View." *Urban Studies*, April, 0042098011400771.

[36]Farman, Jason. 2013. *The Mobile Story: Narrative Practices with Locative Technologies*. Routledge.p.128.

are throwing the importance of physical place into question, asserted that although they imply aspects of disembodiment and cause trouble for place and space as we know them, they become spatial in operation and place-based in content.[37] Another evidence of new media technologies, influencing the spatiality and spatial experience, is evident in transit spaces, where, those media technologies are appropriating urban spaces, and possibly change them from being only transitional spaces (or as no places, or as places that users feel their time is wasted), to meaningful spaces providing users with new forms of engagement, communication and new senses of place and connection. For example, offering chances to meet with strangers, new forms of engagement, communication and new senses of place and connection, and probably offers different levels of experience through. transit applications, applications that update you with traffic news, applications for making the most of your time in places through suggesting shortcuts or by giving useful transportation information or being able to keep records of things happening around us, are all examples and consequences of using new mobile media. Everyday mobile media use encourages people to encounter and "appropriate" existing urban spaces in different ways—interactions that suggest a subtle but increasingly rapid process of "spatial hybridization",[38] where experience is formed through combination of physical material and virtual information.

Today, the means to grasp the deeper layers of place reside in understanding the simultaneity of flows and situations (material and immaterial, representational medium lived spaces, etc.) which traverse its spatial fixedness. As Mark Tewdwr-Jones argues, "what is more revealing, and now required, is a discourse on spatial change and space-place characteristics as discovered through other stories and spatial representations",[39] such as what new media practices and technologies have to offer and how they already have altered our everyday urban living practices. This newly defined, constantly changing nature of place illustrates with more accuracy the processes of perceiving and understanding place, surpassing the fixedness of classical representations and notions about the stability of spatiality. The process generated by interaction with contemporary spatialities produces a new fluctuating re-assemblage of place-relations.

The spatiality that these media provide is resulted from overcoming the separation of the physical and virtual (representations of spaces) and creating a hybrid format of space. By bringing representation of space and representational mediums (e.g., medium of map), users of these technologies (e.g., social media applications that use map, for instance: Foursquare) are practicing to experience space, in mediated formats. "Map", in its new formats, does not serve only as an abstract representation of the physical-material world, it also communicates with place-experience in new

[37] McCullough, Malcolm. 2006. "On the Urbanism of Locative Media [Media and the City]." *Places* 18 (2). http://escholarship.org/uc/item/84x6m3nf.

[38] The term is used by Silva, Adriana de Souza e. 2006. "From Cyber to Hybrid Mobile Technologies as Interfaces of Hybrid Spaces" 9 (3): 261–78. Also see, Anne Galloway's Ph.D. Available at: http://www.purselipsquarejaw.org/dissertation.html.

[39] Mark Tewdwr-Jones. 2011. *Urban Reflections: Narratives of Place, Planning and Change*, Bristol: Policy Press.

ways and can furnish users with new forms of social interpretations and social-spatial understandings. For instance, in case of Foursquare users can feel the presence of other users, they can track friends movement in space, get update of their daily interactions without needing to communicate with them directly.

The possibility of implementing a map and other forms of visual materials with GPS tracking and monitoring systems has opened up new ways of interpreting the map as the medium of representation. In the case of Foursquare, it contributes to an understanding of place that is experienced beyond the conventionally defined borders of space. In this model of experience, the user experiences materiality of a place, with physically absent others, who simultaneously are present through mediated channels and mediums (maps, feedback, notifications of their actions, etc.). Through Foursquare application, users of locative media can become aware of others' presence through provided mediums. In this format of interaction beyond physical borders, users are consistently aware of others, and interact with them, whilst they might not necessarily be in physical proximity. By changing the format and the conventions of interaction, these applications expand and enlarge the context of our activity and social relations beyond physical borders, mainly into mediated formats.

2.6 Moving the Frames of Observation into/Within the Socio-cultural Threads: Understanding Locative Media as a Socio-formative Sphere

Taking the frames of observation to *within the cultural and social threads of everyday life* certain other aspects of media technology particularly with reference to their operation or impact *from within* in relation to social, cultural and everyday practical and collective issues are explored in the following discussion.

Dourish and Bell state that the best view from which to study media technologies, from the angle of everyday life, and from within the cultural logics, where they discuss that media technologies are not acting in a different spheres, but rather that they are produced and consumed within the cultural logics or "series of collective understandings through which space, spaces, and their representations take on particular kinds of meaning".[40] The emphasis here is to see locative media, not as transcending spatiality, territory or geography, but rather as a formative sphere that works within the cultural threads and context of everyday use. Instead of discussing geographical or territorial effects, the discussion here focus on media as formative spheres defining everyday interactions.

Dourish and Bell have argued that our knowledge of the environment is shaped through the way we encounter space, and is mainly framed by *cultural logics* which

[40]Dourish, Paul, and Genevieve Bell. 2011. *Divining a Digital Future: Mess and Mythology in Ubiquitous Computing*. MIT Press, pp. 130–131.

help to shape particular meanings. These logics themselves are a product of socio-cultural encountering—constructed on action-reaction bases in our everyday life—and this is exactly the context and explicit point at which information technologies meet cultural logics in our everyday social encountering: *Not as a separated sphere, but rather as a socio-spatially constructed interaction.* "Technological mediation supports and conditions the emergence of new cultural practices, not by creating a distinct sphere of practice but by opening up new forms of practice within the everyday world, reflecting and conditioning the emergence of new forms of environmental knowing".[41] Supporting the emergence of new cultural practices and manners *from within*, Rosenberger used the term *field composition* to refer to the potential of mobile technologies as a constituting medium to recognize and organize the overall structure of one's field of awareness "that *constitutes a part of the manner* in which the user's experience happens […]. The notion of field composition points to a change in the user's overall awareness that occurs as she or he takes up a particular technologically-mediated relation to the world".[42]

It is important to note here that places mediated by technological mediums (locative media) do not stand separately or apart from our everyday life, and indeed as Dourish and Bell argue, they provide a new set of ways (sites and occasions) for the physical world to be practised and understood (Dourish and Bell refer to them as technologies for the development of new forms of environmental knowing).[43] Locative media technologies open up possibilities of interaction in the context of our everyday world (practices).[44] Lefebvre—as one of the main contributors to how we understand place in relation with practice—noted that space is a social product, and each society—more precisely, "each mode of production, along with its specific relations of production"[45]—produces a space. Moreover, as "each mode of production has its own space, the shift from one mode to another must entail the production of a new space".[46] Dourish and Bell discus how the dissolving of virtual information into the physical world does not happen within the uninhabited spheres; it rather enters into spheres that have already been inhabited by users' everyday practices.[47]

One of the applications that is relevant to this discussion is, application of Foursquare. In this specific application, virtual/abstract spaces, coupled with lived spaces, produced spatiality and socio-cultural practices that work within the cultural logics of the every day. Here, representational medium of this application (as a form of abstract medium), when used as the basis of everyday interaction, provided

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[41] Dourish, Paul, and Genevieve Bell. 2011. *Divining a Digital Future: Mess and Mythology in Ubiquitous Computing*. MIT Press.

[42] Rosenberger, Robert. 2010. "The Spatial Experience of Telephone Use." *Environment, Space, Place* 2 (2): 63–77.

[43] Ibid.

[44] Ibid.

[45] Lefebvre, Henri. 1991. *The Production of Space*. Wiley, p. 31.

[46] Ibid., 46.

[47] Cited in online journal, written by Michel de Lange, available at http://www.themobilecity.nl/2011/07/27/review-paul-dourish-genevieve-bell-divining-a-digital-future/.

alternative forms of sociability, new ways of understanding other users' patterns of behaviour in space. Locative media technologies (especially social networking media), were shown to be socially situated,[48] alter socio-spatial relations and regulations: now people can communicate, feel, and socio-spatially exist in/through those environments/spheres. By opening up the possibility of imagination and "presenting the un-presentable"[49] and by extending the virtual beyond the limits of representation, by bringing representation into habitable spaces, these forms of media are becoming formative mediums of communication and spatial perception.

Locative media are referred here as socio-formative spheres. First they are *socio-formative*, because they collectively and communally construct meanings (e.g., through accumulated social information, shared with friends and family members). And *formative*, because these media have an instrumental effect on *regulating* activities such as meetings, scheduling, visiting friends; *appropriating* time and space interactions; coordinating social activities that affect the way users might communicate and arrange their times based on the possibility of others to be in close physical proximities; and (en-) *framing* the conventional possible ways by which places were known or experienced. By all these things, a user can experience a constant presence of people who are physically absent. These media technologies are contributing to changing relations of physical presence and absence in newly formed urban spaces, and a changing subjective understanding of what Giddens calls "presence-availability", or what was referred to as *mediated social co-presence*.

Third, the term sphere is used to embrace the notion that we are passing beyond that stage where these forms of media were used only as entertainment tools. Now, users of such applications live inside this environment/sphere, communicating with non-corporeal presence. It has become a fixture of everyday life where users of these services regulate their activities (meetings points, networks and possibly mobility decisions) by exercising these mediums and by being simultaneously within these spheres whilst in contact with people who might only be virtually accessible. As evidence of those media becoming constructive spheres, Scott Lash has argued that software and code are no longer just mediating social associations and interactions, but that they constitute those interactions.[50]

The idea of the socio-formative sphere is to direct focus onto the constitution of new social appropriations and functions that articulate socio-spatial properties and perceptual implications of integrating mediums of communication and locative media practices in everyday life. This theme helps to discuss from another perspective how locative media can influence place-understanding, through framing interactions; as

[48] Adapting the term used by Rowen, here it refers to technologies engaged with social parameters, and issues related to community and place. Wilken, Rowan. 2011. *Teletechnologies, Place, and Community*. New York: Routledge, p. 137.

[49] Term used by Niall Lucy 2000 Cited in Wilken, Rowan. 2011. *Teletechnologies, Place, and Community*. New York: Routledge, p. 137.

[50] Cited in Heywood, Ian, and Barry Sandywell. 2014. *The Handbook of Visual Culture*. Berg, p. 572.

Heidegger stated, our world is en-framed by technology, taken together with a logic of socio-technical systems".[51]

In some scenarios, locative media deals with practicing and understanding everyday places, and by providing information about the physical places in different set-ups, that additional information means that places are possibly constructed, or revealed, in new ways to users, causing different levels of environment-knowing.[52] From other observational frames, as we outlined in previous section, it affects socio-spatial interactions, and the way users appropriate daily practices. For example, in Foursquare application, users are able to adjust their interaction and navigation of their personal/social life through representational medium (through check-ins, uploaded images/comments they have shared, etc.). Frissen used the term *space-adjusting technologies* to articulate ways in which mobile media provide the means for understanding a sense of place and relationships in both professional and private life.[53] However, transcendental technologies are not just space-adjusting technologies or spatial tools, but based on the frame of observation and viewpoint, they could be understood differently, and that specific choice of word represents only one aspect of that media seen/viewed narrowly and one-dimensionally. Frith (2013), and similarly, Fazel and Rajendran studied Foursquare from the users' point of view and focused on mayorship and badges.[54] They observed and analysed how people may make mobility decisions because of Foursquare usage, and addressed the impacts of application as a filtering tool that influences personal mobility[55] and the ways in which people decide about their mobility actions (i.e., whether to visit a friend or avoid unwanted encounters mainly through other users' check-ins) and showed how a new urban explorer uses the application as a way of filtering unwanted encountering[56]; as a tool/tactic to navigate space/territories.

By bringing representational medium, personalizing and adopting locative media, users appropriate social interaction: for instance by applying *Foursquare* as a filtering system, a user can avoid unwanted interactions or places. Users can have selective attention to places and avoid places by becoming aware of their existence through

[51]Cited in Arnold, M. 2003. "On the Phenomenology of Technology: The 'Janus-Faces' of Mobile Phones." *Information and Organization* 13 (4): 231–56. https://doi.org/10.1016/s1471-7727(03)00013-7.

[52]Term used by Dourish, Paul. 2006. "Re-Space-Ing Place: 'Place' and 'Space' Ten Years on." In *Proceedings of the 2006 20th Anniversary Conference on Computer Supported Cooperative Work*, 299–308. CSCW '06. New York, NY, USA: ACM. https://doi.org/10.1145/1180875.1180921.

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mediated interaction on a screen-based map[57]: if there is a specific activity in any part of a city that a user is not willing to encounter, by checking their location and their further plans of movement, they can act selectively and choose alternative routes (e.g., traffic guide application). It is also noticeable in some other scenarios, when a celebrity tweets her/his location, how this act of sharing information concerning their physical location becomes the motive for fans specifically to interact differently and maybe affect the traffic stream.

Accommodating maps to representational medium of applications has opened up new ways of knowing about the life routines of others, promoting the sharing of opinions and new ways of socializing. Relevant to the current discussion, acknowledging that by adopting location-based applications (*Foursquare* for instance), users can discuss all steps of decision-making within the single environment of the *Foursquare* application (all-steps-in-one): possibilities of meeting up, by filtering choices based on destination/interests, sending a place's homepage to friends/families, commenting on those choices, and finally coming to a decision. They also provide the possibility of checking the availability of others without directly contacting them (through their check-ins) or negotiating the time at which places will be reached, and many other issues only through adopting locative media technologies into conventional interactions and ways of everyday life.

One interesting aspect of these media technology (Foursquare) is the possibility of representing ourselves through location/check-ins and by checking into places, telling others that we found a place that is worth visiting, thus validating some places and appreciating others less; this way we are giving values to places and making them visible to every member of our contact lists. Locative media platforms are becoming more and more integrated as part of the conventional social mechanism, through which we read the city, validate places, define the mobility of agents, and give legibility to locations/places.

Hence, locative media technologies, by acting at a practical level in appropriating everyday practices, are becoming formative spheres, forming and (en-)framing our interactions. These media platforms, as discussed are becoming an integrated part of social systems through which people read the city and validate places: they are becoming legibility lenses.

2.7 Conclusion

The chapter approached a number of discourses regarding place-understanding after new media technologies and mobility. One objective of the chapter was to provide a framework for understanding theories and literature of place, after the advent of media technologies, especially those theories that discuss place as a relational concept. Relational understanding of place provides generative understandings of

[57] Frith, Jordan. 2013. "Turning Life into a Game: Foursquare, Gamification, and Personal Mobility." *Mobile Media & Communication* 1 (2): 248–62.

relationships between technology and place and shows how technology is more and more becoming an undeniable element of the assemblage defining place. Adopting the existing approaches and further expanding them by employing new analytical/conceptual tools, the chapter presented two main sets of understandings regarding how technology and place interact. In addition to that, these analytical tools/tactics have facilitated in identifying/considering/choosing the best way to delineate these locative media technologies: Should they be pronounced as transcendental technologies (technologies that transcend the limitations of materiality and perception)? Or rather, are they better characterized by locating them within and in relation to other socio-cultural aspects of every day: as formative spheres? Considering the analytical tactics employed, the chapter argued that the best approach to study locative media and to explain the effects of technology on place and place-understanding is to first define a frame of observation, because the knowledge that is gained is intertwined with the frame that is chosen and it changes from one frame to the other.

Drawing insights from a number of disciplines the chapter explored the consequences of media technology on place-understanding (often discussed from only one aspect of spatiality or geographical effects of media, communicational aspects, social aspects, and so on). Here, by borrowing the method of viewing from architecture, as a way of surveying *over and above*, and at the same time able to zoom-in and see things *from within* (in detail), the discussion served to provide a better understanding of how place is perceived differently after the development of new media technologies and mobility, and why place-experiences are less contingent on physical embodiment, and more perceived as a relational yet frame-based concept. This chapter contributes to the existing knowledge by highlighting that place-understanding cannot be perceived prior to the act of defining frames of observation, and in order to get a better insight into place, it is important to put place-understanding in relation to both power of technologies in changing our knowledge as well as frames of observation. And as a result the chapter also adds to place-understanding by examining and presenting its interconnection to technology, and frames of observation which also forms the crux for approaching the multiple perspectives adopted in this study. These multiple perspectives provide a comprehensive framework for studying and approaching place-understanding after media by bringing different kinds of thinking into consideration: *from over and above* and *from within*.

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Chapter 3
Personalising the Urban: A Critical Account of Locative Media and the Digital Inscription of Place

Michael Saker and Leighton Evans

Abstract Drawing on original qualitative research on both the seminal location-based social network (LBSN), Foursquare, and the hugely popular hybrid-reality game (HRG), Pokémon Go, the purpose of this chapter is to provide a historical and critical overview of the different ways in which people have utilised these locative applications to enhance and personalise their experience of the urban. In doing so, we pay close attention to how the spatial impact of more recent HRGs can be contextualised through recourse to earlier LBSNs. This research advances along three lines. First, the research explores whether the underpinning game mechanics of these applications might lead participants to traverse their environment using modified routes. Second, the research explores whether participants frequent new places that they perhaps otherwise would not visit outside of both applications. Third, the research examines whether potentially reshaped mobilities are supported by the pleasure participants experience through locative play. It is the contention of this chapter that locative media has not simply enhanced space by making physical environments easier to navigate or more playful to interact with; more significantly, locative media has enabled people to personalise their experience of the urban through the digital inscription of place. This potentiality is commensurate with both older and newer forms of locative media.

Keywords Locative media · Game · Mobility · Social · Place

3.1 Introduction

The notion of "place" and how we understand it takes on an additional layer of meaning when it is conceptualised through media technologies. As Wilken (2008) rightly notes, "[a] common refrain in much of the critical literature from the 1980s

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and 1990s has been that electronic media affect dramatically (and negatively) how we experience and understand place" (p. 29). This refrain, of course, continues today. Significantly, but perhaps not surprisingly, mobile phone usage across the globe has increased over time (see Parasuraman et al. 2017). Mobile telephony is now embedded in the modern urban aesthetic (Sterne 2012). Equally, as mobile media continues to become a ubiquitous part of our daily lives, the potential for "places" to be altered, or modified, through technological engagement is more pronounced than ever. Symptomatic of this, and again, not unexpectedly, a common sight in any given city involves large gatherings of people, in a variety of contexts, staring—oftentimes impassively—at their mobile devices. This spectacle is frequently found in those "in-between" spaces, such as bus stops or train stations, where the confluence of strangers and the ceaseless use of mediating technologies effectively sees users transform their surroundings into "non-places" (Augé 1995).

While the application of mobile devices in these examples might seem, on the surface at least, explicitly antisocial, and an argument could indeed be made as such (see Deacon 2016), this is not necessarily the case. The increase in mobile telephony has also provided people with new ways of maintaining social connections with friends, family, colleagues, and so on, without having to physically occupy the same space (Licoppe 2004). For Gergen (2002), this situation is indicative of what he refers to as "absent presence". In these instances, individuals are physically present in the context of inhabiting a concrete space, while also cognitively absent by engaging with a virtual plane of sociability that extends beyond their immediate surroundings. Just as non-digital forms of mobile media, such as the paperback novel, for instance, have traditionally been used to forge intangible zones of privacy in public spaces (see de Souza e Silva and Frith 2012), so too can mobile phones be called upon to serve a similar purpose regarding social interactions (Habuchi 2005). In this vein, it would be reductive to simply suggest mobile telephony has cheapened social acts. More accurately, mobile telephony has elicited news modes of sociability that are predicated on different forms of spatiality and temporality (see Evans 2015; Saker and Evans 2016a, b).

Of course, the impact of mobile phones also extends beyond merely socialising with physically absent contacts. For Ling (2004) and Weilenmann (2003) another noteworthy effect of mobile phones revolves around the coordination of social gatherings. With the clear majority of people today carrying mobile phones on their person, social arrangements can be readily adjusted on the fly (see Ling 2004; Ling and Yttri 2002). To this end, Ling and Yttri (2002) suggest that mobile telephony can be employed to "micro-coordinate" sociability, with a by-product of this organisation being the "softening" of mechanical time (p. 6). The advent of mobile phones correspondingly means that social arrangements are potentially more fluid that they used to be because concomitant details no longer need to be set in stone. On the one hand, users have more freedom over the actualisation of social interactions and this is a good thing. On the other hand, individuals no longer need to be punctual because the option of "micro" adjustment is available. Depending on which side of this fluidity you find yourself, "micro-coordination" can either be exceedingly helpful, or exceptionally frustrating.

For the purpose of this chapter, what this very brief *dérive* through the history of mobile telephony importantly reveals is that mobile phones can affect how individuals approach and experience their environment. This tendency was clearly identified by early research on the public use of mobile devices, which often focused on the propensity of these devices to distract users from their physical environment (de Gournay 2002; Gergen 2002; Katz and Aahkus 2002), in certain instances cause pedestrian injury (Nasar and Troyer 2013). Likewise, research on the distractive potential of mobile phones also encompasses vehicle accidents (McEvoy et al. 2005), with offending drivers causing all manner of calamities because they were more focused on their mobile device than the road ahead. Health and safety issues aside, what we wish to draw attention to here is the fact these devices can explicitly reshape how people interact, engage and personalise their physical setting. And this impact has only increased as mobile phones have continued to incorporate new features and functionalities (see Evans and Saker 2017; Saker and Frith 2018).

Following the transition from mobile phones to smartphones, research in this field has markedly moved away from conceptualising mobile media as necessarily distracting users from their immediate surroundings and has instead begun to explore how these devices might complement and create new revealings of place (see Campbell 2018, for a longer discussion of this argument). In the context of this smartphone movement, the incorporation of the global positioning system (GPS) in most of today's handsets, as well as the development of the mobile web, are noteworthy (Evans and Saker 2017). For de Souza e Silva (2006) this confluence has led to what she refers to as "hybrid space", which occurs when real world environments are overlaid with digital information that can then be accessed through smartphones. This "hybrid space" "has given rise to new embodied experiences and social connections in space, [using] applications dedicated to harnessing location and social ties" (Evans and Saker 2017: 4). Notable examples of early locative media include, Can You See Me Now? (2001), Botfighters (2001), Mogi (2003), Pac Manhattan (2004), Foursquare (2008), Shadow Cities (2010), and Ingress (2012). In the context of this chapter, what these locative applications readily demonstrate is the potentiality of hybrid space to alter how users engage with their surroundings.

Moving forwards, this chapter focuses on two prime examples of locative media: the early location-based social networking sites (LBSN), Foursquare, and the more recent hybrid reality game (HRG), Pokémon Go. It is our intention to provide a historical and critical overview of the different ways in which people have utilised these applications to enhance and personalise their experience of the urban, paying particular attention to how the spatial impact of more contemporary locative media can be contextualised through recourse to earlier locative applications. In both cases, we draw on original research. Regarding Foursquare, this chapter reports on a project designed to explore the spatial and social experiences of LBSN users. The study took place between August and December 2012, and involved 22 users of Foursquare situated in the Southeast of Britain. Regarding Pokémon GO, this chapter reports on a project similarly designed to explore the spatial and social experiences of HRG users. This research was conducted between May 2017 and July 2017. It used an online survey that received 375 responses from Pokémon Go users geographically

spread across the globe. Both research projects involved a post-research thematic analysis of interview transcriptions, where material was highlighted that resonated with the underlying conceptual bent of these studies.

More specifically, this chapter reports on how Foursquare and Pokémon Go can enhance and personalise experiences of the urban along three lines. The chapter pays particular attention to whether the playing of these locative games led to participants approaching their surroundings using pathways that differed from their usual routes. The chapter also considers whether this reshaping of participants' daily mobilities saw them move through different and potentially new environments. Lastly, the chapter examines whether the mediation of space and place through these locative applications led to participants experiencing a heightened sense of pleasure that extended beyond their usual ambulation. In the following section, we outline the theoretical framework that underpins this research. For the most part this involves the work of de Certeau (1984) and Lefebvre (1991), both of which examine the extent to which physical and social relations impact the phenomenological experience of place. We then detail the body of work that has gradually coalesced around locative media in the thematic context of this chapter, before outlining suitable frameworks for approaching locative media. We then detail the gamic mechanics of both Foursquare and Pokémon GO, before providing additional information about the methodological design of these studies. Finally, we present our findings.

3.2 Spatiality Is not Simply Given (And Neither Is Locative Media…)

Within his seminal work, *The Practice of Everyday Life* (1984), de Certeau discusses his visceral reaction to witnessing Manhattan from the 110th floor of the World Trade Center. As he explains.

> Beneath the haze stirred up by the winds, the urban island, a sea in the middle of a sea, lifts up the skyscrapers over Wall Street, sinks down at Greenwich, then rises again to the crests of Midtown, quietly passes over Central Park and finally undulates off into the distance beyond Harlem. A wave of verticals. Its agitation is momentarily arrested by vision. (de Certeau 1984: 91)

From this position, de Certeau was outwardly able to aesthetically grasp New York in its totality, with the unravelling, and oftentimes "erupting", city below him being momentarily "immobilised" by his eyes, and taking on the quality of a text to be deciphered. As Buchanan (2000) puts it, "[from] this dizzying vantage-point the entire city was spread out before him like a map … if he wanted to he could read it like a map" (p. 110). However, it was not necessarily the cartography of the city that gripped de Certeau's attention per se, but rather the inability of the city to be *read* from such an abstracted position. As he ponders, "[must] one finally fall back into the dark space where crowds move back and forth, crowds that, though visible from on high, are themselves unable to see below?" (de Certeau 1984: 92).

For de Certeau, the vista from top of the World Trade Center presented an image that was, on closer inspection, conceptually inconceivable. "[The] constellation of lives that make a city what it is, the actual experience of the city … is not contained in the concept of the city" (Buchanan 2000: 110). Thus, the city in its geometric form, at once totalises the urban text, in its anthropological shape, or "urban *fact*" (ibid, p. 94), while failing to untangle the many pedestrian pathways and perspectives ceaselessly written below at street level. As de Certeau concurringly clarifies "[the] ordinary practitioners of the city live 'down below,' below the thresholds at which visibility begins" (ibid, p. 93). As a corollary to this, the *experience* of the "urban *fact*" endlessly surpasses the feigned solidity of cartography where, "something always slips away" (Buchanan 2000: 110). What is required, then, is a perspective on spatiality that engages with the *lived* experiences of those individuals who configure the urban experience. To this end, Lefebvre's triadic understanding of spatiality provides another way of conceptualising the *lived* experience of the urban setting.

For Lefebvre (1991), a notable problem with early social theory was its perpetual focus on issues pertaining to temporality, rather than spatiality. This situation was itself symptomatic of Kant's suggestion that time and space were merely *a priori* vessels of experience. Following this, spatiality was rendered as little more than a hollow conduit for experiences to flow. Consequently, "Kantian space, albeit relative, albeit a tool of knowledge, a means of classifying phenomena, was yet quite clearly separated (along with time) from the empirical sphere" (Lefebvre 1991: 2). To temper this, Lefebvre proposes that space should be understood in three converging, but not irreducible, ways. This triad includes: *spatial practice, representations of space and representational space* (ibid, p. 2). As Elden (2004) explicates.

> The first of these takes space as physical form, real space, space that is generated and used. The second is space of savoir (knowledge) and logic, or maps, mathematics, of space as the instrumental space of social engineers and urban planners, of navigators and explorers. Space as a mental construct, imagined space. The third sees space as produced and modified over time and through its use, spaces invested with symbolism and meaning, the space of connaissance (less formal or more local forms of knowledge), space as real-and-imagined. (p. 190)

From this position, space is simultaneously perceived, conceived and lived. In other words, Lefebvre establishes this triad to bring together the mental, material and social. Were one to consider this configuration through the eyes of de Certeau (1984) it would appear in the following way. The *perceived* space of Manhattan would be the city itself, in its vibrating, and ceaselessly evolving totality; the *conceive*d space would be the abstracted cartographic map overlaying the sprawling streets and back allies; and finally, the *lived* space would be the phenomenological experience of *being* within the city—of configuring oneself within the flows and forces that emanate from street level.

A good example of the kind of *lived* space de Certeau (1984) envisages from the 110th floor of the World Trade Centre is the practice of flânerie which emerged in Paris at the turn of the nineteenth century, and which introduced a new urban figure: the *flâneur*. For the *flâneur*, the erection of the Arcades coincided with an emerging relationship with the urban setting based on scopophilia and mobility. No

longer were the city streets merely pathways from one place to another, but instead became the canvas upon which the *flâneur* developed an aesthetic relationship with his surroundings. "In an embodied sense then, what the *flâneur* highlights is the various ways in which any given space is itself constructed precisely through the engagements that make it up" (Saker and Evans 2016a, b: 4–5). Drawing heavily on the work of both de Certeau (1984) and Lefebvre (1991), space is never just an empty container that provides room for experiences to materialise. Spatiality, is, of course, more than this. Just as any given map unremittingly fails to account for the *lived* experiences that configure notions of "place", spatiality co-constructs experience through the various physical and social actions that experiences are centred on.

In the context of locative media, it is fitting to posit that different locative applications have the power to modify how users interact with, experience, and personalise their physical surroundings. Fortunately, this suggestion is unambiguously supported by a growing body of work that now surrounds locative media (see de Souza e Silva and Frith 2012; Evans 2015; Evans and Saker 2017; Frith 2015). As we have mapped out elsewhere (Evans and Saker 2017) research in this field readily demonstrates that locative applications have the power to reshape how users experience their physical setting. The endless contact with communal ties that locative applications provide, as well as the interminable possibility of forging serendipitous social interactions based on the physical proximity to networked friends, are just some of the features that comprise modern mobile media. Equally, it has been our suggestion that an important element of many of these applications is the various ways they dexterously intermingle "ordinary life" with play (Saker and Evans 2016a), and therefore challenge traditional understandings of play that suggest this phenomenon is spatially and temporally cordoned off from "ordinary" life and contained in what Huizinga (1992 [1938]) refers to as being a "magic circle".

Moving forwards, then, and following on from the theoretical framework developed above, this chapter reports on how Foursquare and Pokémon Go—in both instances, locative media that incorporates gamic elements—can enhance and personalise experiences of the urban environment along three lines outlined above. While locative media have been studied in the context of spatiality (see Evans and Saker 2017; Saker and Evans 2016a, b), as previously detailed, and has thus questioned the impact on mobilities and so on, there is a lack of research that explicitly draws on research pertaining to different instances of locative media separated by time. It is therefore the intention of this chapter to demonstrate how the spatial impact of earlier locative applications, like Foursquare, can be used to understand and interpret the spatial impact of more recent HRGs, like Pokémon Go. In doing so, we hope to add contours to related research within the canon of locative media. In the following section, we outline the gamic mechanics of both Foursquare and Pokémon GO, before providing additional information about the methodological design of these studies, and then presenting our findings.

3.3 Foursquare

Foursquare was developed by Dennis Crowley and Naveen Selvadurai in late 2008, launched in 2009, "and had 50 million registered users by May 2014" (Evans and Saker 2017: 5). In late 2014, however, Foursquare began concentrating more on place-based recommendations, with its check-in functionality, which is a central part of this chapter, being moved to a separate application, Swarm. Prior to this shift, Foursquare ostensibly functioned in three broad ways: it allowed users to "keep up with friends", "discover what's nearby", and "save money and unlock rewards". Put differently, it functioned in a social, locational and playful manner. Regarding the social side, Foursquare allowed users to share their location with a defined list of friends by "checking in" at a venue or location through the application. This could thus create the opportunity for ad hoc social interactions, and so on. Regarding the locational side, users were able to leave place-based suggestions, or "tips", which could be seen by other users when they were physically nearby. Further, users checks-in were stored within the application itself, and thus became akin to a locational diary. Regarding the playful side, Foursquare effectively "gamified" "ordinary" life by awarding points for check-ins, and allowing users to become the "mayor" of any given establishment if they checked-in more than any other users over a 60-day period. Mayors could then enjoy "real" world rewards, such as special offers and discounts, as well as the knowledge that other users could see their status. In addition, Foursquare also awarded various badges for different check-ins, and combinations of check-ins. It is this original version of Foursquare that we are discussing within this chapter.

3.4 Pokémon Go

Following its release on the July 6, 2016, Pokémon Go has been downloaded over 750 million times (Kinsley 2017), and become the most popular HRG to date. In contrast to Foursquare, Pokémon Go is an augmented reality (AR) application. Using the camera functionality of smartphones, alongside the global positioning system (GPS) and gyroscope found in the clear majority of smartphones, users are presented with an image of their surroundings that is then superimposed with Pokémon. The aim of Pokémon Go is to capture Pokémon. Here, players must physically traverse their environment to discover and then apprehend Pokémon. Once a Pokémon has been found, the process of capturing it involves flicking a Poké Ball in its direction through the AR functionality of the game. If players are successful, the Pokémon will then be under theirs. Outside of capturing Pokémon, players will also be presented with Pokéstops and gyms. Pokéstops are where players can collect items such as eggs and Poké Balls. These items can be used to support the process of apprehending Pokémon. Pokéstops are commonly found at noteworthy places, such as historical sites, monuments and art installations. Gyms are where Pokémon trainers battle each other. Gyms visually appear on players' screens in the form of colourful towers, and

are similarly found near places of interest. On entering a gym for the first time, players are required to join and pledge their allegiance to one of three teams. Having done this, players can then battle at both "friendly" and "rival" gyms. Battling at a "friendly" gym helps strengthen the team by increasing its "prestige" through the acquisition of "prestige" points. In contrast, successfully battling at a rival' gym lessens the enemy's prestige. When the enemy's prestige is reduced to zero, the friendly team take control of that gym.

3.5 Method

The data used in this chapter is based on two original research projects, one focusing on the seminal LBSN, Foursquare, and the other focusing on the more recent and hugely popular HRG, Pokémon Go. In both instances, these research projects were designed to respectively examine the impact of LBSNs and HRGs on spatiality, mobility and sociability. Accordingly, research questions revolved around these themes. To be clear, we were not interested in making wide-ranging generalizations about LBSNs or HRGs, but were instead concerned with gaining rich data on how "ordinary" people employed different locative media in their daily lives. With this in mind, both projects adopted a qualitative methodological approach. The first involving semi-structured interviews and the second involving an online survey.

Regarding the first project on Foursquare, research was conducted between August and December 2012. In line with the methodological bent of this project, a purposeful sampling strategy was adopted. Here, researchers were interested in speaking to a wide range of users. In sum, 22 Foursquare users, all of whom lived in the Southeast of Britain, were recruited through Twitter, and then subsequently interviewed. This area was specifically chosen so the researchers could conduct face-to-face interviews, where possible. In total, 22 Foursquare users were interviewed in person, and 2 further interviews were conducted through Skype. Participants included 5 women and 17 men, with ages ranging from 19 to 65. The mean age was 32. Interviews were semi-structured and focused on the impact of Foursquare on how participants moved through their surroundings and engaged with others. In the main, interviews lasted roughly 60 min, with the view being that "anything going much over an hour may be making unreasonable demands on busy interviewees, and could have the effect of reducing the number of persons willing to participate" (Robson 2002, p. 273). Aside from the 2 interviews that were conducted online, interviews took place in venues that participants frequently checked-into on Foursquare. All interviews were recorded and then transcribed by hand.

Regarding the second project on Pokémon Go, research was conducted between May 2017 and July 2017. We used an online survey that received 375 responses from Pokémon Go users geographically spread across the globe. Users emanated from the following countries: 235 from the UK, 75 from the US, 17 from EU countries, 4 from Australia, 2 from Canada, and 1 from Hong Kong, Kuwait, and India. Forty respondents chose not to state their location. 213 respondents identified themselves

as female, 157 as male, 1 as gender fluid, 1 as bigender, 1 as nonbinary, and 1 chose not to disclose. The survey included both closed and open-questions, and congruently revolved around issues pertaining to on spatiality, mobility and sociability.

Both research projects concluded with a post-research thematic analysis of interview transcriptions and survey data. Here, material was highlighted that resonated with the underlying spatial and social bent of these studies. An interpretive stage was subsequently employed to tease out meaning from the marked material, before interpretations were hierarchically ordered in terms of their thematic significance.

3.6 Findings

3.6.1 Modified Mobilities

Our research on both Foursquare and Pokémon GO found that these locative applications explicitly pushed participants to spend more time outside engaging with the "real" world, and less time in doors. As Mark, a then 18-year-old undergraduate and early adopter of Foursquare explained.

> I started wanting to go out more, to check-in to places and to get like points and things like that. I think it"s made me want to go out a lot more for some reason. (Mark, 18, male, Foursquare)

In the main, the reasoning behind Mark's desire to spend more time outside was proportionate to his desire to *play the game*. More time spent moving through his physical setting meant that he had more opportunities to "check-in" to different places, and thus more opportunities to gain additional points. Significantly, then, Mark's wish to send more time outside implicitly challenges traditional understandings of play's relationship with ordinary life (Huizinga 1992 [1938]). The overlaying of Mark's physical setting with digital information has explicitly made his ordinary life *feel* more playful, which has subsequently motivated him to spend more time in the outside world.

> This increase in the time spent outdoors, as an effect of locative play, was similarly echoed by Pokémon Go participants.
>
> Playing after work instead of just going home.
>
> (Rhiannon, 24-35, female, Pokémon GO)
>
> I leave the house after work instead of just stay in.
>
> (Yareli, 45-54, female, Pokémon GO)
>
> Aside from going to work and back, I make extra efforts to go out every day to keep up my pokestop/catching daily bonus. I find on day's off I will also go out far more than I ever used to.
>
> (Tilly, 18-24, female, Pokémon GO)

> I go outside a lot more than I otherwise would and often take alternate routes that I otherwise would not for the purposes of finding a particular Pokémon, pokestop, or gym.
>
> (Brian, 18-24, male, Pokémon GO)

For Brian, a marked by-product of his engagement with his HRG, was that he would decisively choose different pathways and routes between point A and B, to increase the likelihood of him discovering new Pokémon to capture. From this position, the merging of physical space with digital information (de Souza e Silva 2006) through Pokémon Go functions in a similar manner to the construction of the Parisian Arcades at the turn of the 19th Century. This deepening of space—albeit digital space—co-constructs a new kind of environment to inhabit, with the scopophilia in this instance oscillating between physical space and the mediation of physical space through the digital interface of the smartphone. The purposeful decision to choose routes not previously taken, was similarly touched on by other participants. As these extracts readily attest.

> Travel different routes to pass more stops, go out to catch rare Pokémon.
>
> (Lucy, 25-34, female, Pokémon GO)

> I intentionally direct my routes, when completing daily errands, to go through areas with less common Pokémon or to include pokestops or gyms.
>
> (Nada, 35-44, female, Pokémon GO)

> I alter my walking route to and from work to hit gyms or stops. I also have found decent routes with high Pokémon density to catch.
>
> (Liam, 25-34, male, Pokémon GO)

The intentional reshaping of common routes was also experienced by participants who used Foursquare. As Paul notes

> I remember there was one specific day, where it went mental. We went on a massive walk around the city, checking in at the parks as we walked through them, we would specifically go to places, extra shops, just to check-in. That was a particularly slow day that allowed us to do that, but it was a good laugh.
>
> (Paul, 24, male, Foursquare)

At the same time, and as touched on by Paul, in many instances participants were not simply choosing *different* routes between one location and another per se, although this was, of course, part of the decision process, but were more importantly choosing to take lengthier routes to increase their chances of happening upon a greater volume of Pokémon.

> My walk to work takes significantly longer. I take a lot of detours now.
>
> (Flo, 18-24, female, Pokémon GO)

> I may take longer routes to places or go for walks which I may have not gone on otherwise.
> (Bryony, 18-24, female, Pokémon GO)

> I may take longer routes to places or go for walks which I may have not gone on otherwise.
> (Denise, 18-24, female, Pokémon GO)

> I always make time to play and sometimes go a certain route that may be slightly out of the way (Mike, 35-44, male, Pokémon GO)
>
> Choosing routes that were 'out of the way', was something similarly touched by Amy, a then avid user of Foursquare with a penchant for collecting badges.
>
> We went out of our way to go past Wembley Stadium so I could get a football badge. (Amy, 37, female, Foursquare)

This idea, then, of taking a *longer route* is immediately noteworthy, as it runs counter to the kind of decision making processes that one would assume usually underpin urban ambulation. For the most part, taking the quickest route between A and B is typically deemed to be more valuable to pedestrians than choosing a pathway that is markedly longer. In this vein, what our research demonstrates is the power of locative media to symbolically reshape the urban aesthetic, and with it the mobilities that support notions of place, just as it underlines the socially constructed nature of space (de Certeau 1984; Lefebvre 1991) and its malleability. Within the context of locative play, participants might choose to spend more time moving through their environment following different routes, as this temporality comes with rewards that extend beyond locative efficiency. Regarding Foursquare, this meant participants had more opportunity to check-into more places. Regarding Pokémon Go, this meant participants had more likelihood of coming across Pokémon to add to their collection. Because of this, participants found that their everyday mobilities overtly increased when they engaged in locative play. However, this increase was particularly felt by Pokémon Go participants.

> I walk everywhere now. Any excuse to pop out of the house is welcomed and we try to discover a new park or place each week
>
> (Parker, 25-34, male, Pokémon GO)
>
> Walk more and go to places I wouldn't normally go
>
> (Alice, 25-34, female, Pokémon GO)
>
> I have lunch at the cafe in range of the nearest gym. I regularly go for extended walks to play the game which I would not have done previously.
>
> (Evan, 18-24, male, Pokémon GO)
>
> I walk more, and I plan errands around gyms, especially now with raids
>
> (Jackie, 45-54, female, Pokémon GO)

Echoing recent studies of Pokémon Go that have suggested this HRG might improve the health of players by significantly reducing sedentary behaviours (Nigg et al. 2016), our research similarly found that a symptom of Pokémon Go was that participants became more physically active.

3.7 Frequenting New Places

In both cases, our research on Foursquare and Pokémon GO also revealed that further consequence of using these locative media was that participants began frequenting

new places and environments that they had not been to before. As the following extracts about Pokémon Go demonstrates.

> Going to new locations never been before on a weekly basis to get gyms and pokestops
> (Tallulah, 18-24, female, Pokémon GO)

> Our downtown area I really never visited a lot, and it's where or best spawns are, but I go at least once a week now.
> (Carly, 35-44, female, Pokémon GO)

> Explore more of my local area regularly. Makes me want to cycle to places (work etc.) instead of drive so I can catch a few Pokémon, spin stops etc.
> (Uriel, 25-34, male, Pokémon GO)

In these examples, the gamic mechanics of Pokémon Go does not simply push participants to move through their surroundings following longer and oftentimes more convoluted routes, but can also push some participants to inhabit new places that they have not been to before. Both Paul and Samantha implicitly touch on a similar spatial tendency relating to Foursquare.

> I remember there was one specific day, where it went mental. We went on a massive walk around the city, checking in at the parks as we walked through them, we would specifically go to places, extra shops, just to check-in. That was a particularly slow day that allowed us to do that, but it was a good laugh. (Paul, 24, male, Foursquare)

> There was one day when we went to town, we went shopping, and literally every shop we went into we checked-in. We checked-into West Quay, we checked-into every shop, then we went for food, we went for lunch, and then we went to a bar, checked-in there. It was just constant. Trying to get the points. (Samantha, 22, female, Foursquare)

However, just as the likelihood of frequenting new environments is an inherent feature of the gamic mechanics of Foursquare, so too can this facet of LBSN usage mean that a change in circumstances surrounding daily mobilities can push participants to reassess the value this activity confers upon their quotidian ambulation. Regarding the use of Foursquare, Samantha, a then 24-year-old "serious user" of this LBSN, found that her desire to check-in gradually lessened after she had graduated from university, and was thus less able to spend days exploring her surroundings to obtain locative points. As she explains

> I'm not a student anymore so I don't go to as many different places, and I'm not going to check-in to work every single day or something like that. When I first started using it there was a lot of competition in our group of friends; who could get the most points, trying to get each other's mayorships and things like that, so that's what made us use it a lot more.
> (Samantha, 22, female, Foursquare)

In a similar vein, Henry, a then 37-year-old "casual user" of Foursquare, also found his proclivity to "play the game" waned over time.

> Well at the beginning, it is because it's a game. You get the points and the badges. So, in the beginning I was quite hooked on the game, so I wanted to be the first one of my friends to get the most points, so I was checking in everywhere that I went. I got over that. It was only

> really the first few months I used it like that. Now I really only check-in to places that are interesting or exciting, or if something exciting is happening like, for example, when I'm going on holiday I'll check-in at the airport and say I'm going to Spain tomorrow, and if I'm on holiday and I'm in a really nice restaurant or a good place then I'll check-in to those places, but I wouldn't just check-in to Starbucks, today, without you here.
>
> (Henry, 37, male, Foursquare)

In the context of both projects, then, and as one might assume, the temporality of play associated with both Foursquare and Pokémon Go differed. In many ways, this variance is symptomatic of the different affordances related to LBSNs and HRGs. Whereas the former might incorporate gamic elements, much like Foursquare did, these elements are not usually as pronounced as they are with HRGs, nor are they as subject to change. Consequently, over time players become used to the digital space that encompasses their physical setting. Once the initial novelty of locative play has worn off, players are seemingly less motivated to continue playing the game. This is what we found with our research on Foursquare (Evans and Saker 2017). In contrast, Pokémon Go is markedly different. First, the gamic elements of this HRG outwardly extend beyond the initial novelty of locative play. Second, the game itself is frequently updated with new Pokémon to catch, as well all new events. And it is this second difference that we suggest is noteworthy in the context of "hybrid space" (de Souza e Silva 2006) and the canon of locative media. While early forms of locative media were predicated on this intermingling of the physical and the digital, the latter often displayed a temporality that was more enduring and less mobile. In contrast, emerging HRGs like Pokémon Go utilise a different kind of digital space, one that is more fluid, dynamic and subject to change. And it is precisely this difference that enables players to continually produce new revealings of place. It is, therefore, our contention that in the context of more recent HRGs, space is no longer simply "hybrid", it is also markedly dynamic, and it is through this dynamism that the relationship between the physical and the digital is able to develop and offer players more rewarding experiences.

3.8 Joy Through Play

Finally, our research on both Foursquare and Pokémon GO found that participants experienced an explicit sense of joy through locative media that extended beyond the immediate pleasure of symbolically reworking physical space, and being rewarded for check-ins or capturing Pokémon. As Sarah, a then 35-year-old "super user of Foursquare" who suffered with myalgic encephalopathy (M.E) explains.

> I am the typical fan girl of foursquare. We're getting married next year and its even part of the wedding. We're going to give out little mayor pin badges. We've just got little business cards that we got printed off that says 'you're the mayor of our hearts' with a little mayor pin badge. Nina, she's like the community manager and she deals with all of the Super Users and stuff - this is top secret by the way - she's going to create an event just for the wedding. So rather than just being able to check-in at the venue I'm going to be able to check-in at my

> own wedding. It's possible, as well, that I might be the first person to unlock the 'wedding' badge that they're working on, so it's all very exciting. (Sarah, 35, female, Foursquare)

More importantly here, for Sarah the use of Foursquare signified something meaningful about how she was coping with her illness. As she continues.

> I'm registered disabled with M.E. and I'm mainly housebound. I liked the look of Foursquare, and started using it as a sort of incentive to get out; like a pedometer makes you want to walk more steps, using Foursquare made me want to break my boundaries a bit; try and go out a bit more than what I did. So, Foursquare was just an incentive to get out and get mayorships, and to tell friends and family that I'm out, rather than having to ring them and say I'm at such and such a place today, they can instantly see, when I published my check-ins, where I was and that I was getting out. (Sarah, 35, female, Foursquare)

Interestingly, we found that Pokémon Go served a comparable function for participants who also suffered with disability.

> I am disabled and would normally spend the day asleep on the settee
>
> (Yasmine, 35-44, female, Pokémon GO)

> I'm a disabled mobility scooter user - the desire to get a pokestop every day means I push myself to get out every day when I may not have before.
>
> (Yalanda, 25-34, female, Pokémon GO)

> I get a great deal more exercise and have gotten to know my own neighborhood better. My back doesn't hurt anymore due to the increased activity.
>
> (Mickey, 35-44, genderfluid, Pokémon GO)

For these participants, then, Pokémon Go did not simply produce different revealings of spatiality (Evans and Saker 2017; Saker and Evans 2016a, b), but also different identity based revealings through the mediation of space and place through locative media (Saker 2017). For other participants, however, the pleasure of Pokémon Go simply revolved around a reduction in sedentary behavior.

> Before playing the game, I was literally sitting on my couch all day (on days off work), watching videos/TV. I wear a FitBit, and would be lucky to get 1,000 steps on days off work because I just sat all day. The game has gotten me off the couch on days off, and I'm now taking as many or more steps as work days -- 15,000+.
>
> (Zara, 25-34, female, Lansing, MI)

> I walk around more in the day outside of work. I use Facebook more frequently for the POGO pages etc. and I've met some great people playing it. Even my other half plays it as much as me - what more can a man ask for?!
>
> (Boris, 18-24, male, Pokémon GO)

Boris indicates that everyday play has had several benefits: increased mobility, more social networking, meeting new people and socialising with his partner. While these benefits (and those described by other participants) can be considered independent of the intrinsic mobility of the game play of Pokémon Go, we argue that this mobility is intrinsic to these benefits. For participants that integrate the game into their everyday practices of mobility, they may experience benefits that go beyond the accomplishments and achievements of levelling up or capturing new Pokémon.

3.9 Conclusion

The research presented within this chapter has revolved around two prime examples of locative media: the early location-based social networking sites (LBSN), Foursquare, and the more recent hybrid reality game (HRG), Pokémon Go. From the offset, it has been our intention to provide a historical and critical overview of the different ways in which people have utilised these applications to enhance and personalised their experience of the urban, paying attention to how the spatial impact of more recent forms of locative media can be contextualised through recourse to earlier locative applications. More specifically, we have sought to demonstrate how the spatial impact of earlier LBSNs can be used to interpret the spatial impact of more recent HRGs, like Pokémon Go.

First, the findings of these projects demonstrate that the use of both Foursquare and Pokémon Go led to participants moving through their environment using modified routes. This was particularly the case for Pokémon Go participants, with many participants discussing purposefully taking longer routes between A and B to increase the likelihood of coming across new and previously undiscovered Pokémon. More generally, participants also suggested that a by-product of using this HRG was they spent considerably more time walking than they would outside of the locative experience. Second, the use of both Foursquare and Pokémon Go led to participants frequenting new places and environments that they would not usually happen upon were it not for the gamic mechanics of these locative media. Consequently, some participants mentioned gaining a better understanding of their surroundings that extended beyond their usual pathways. Interestingly, for participants who used Foursquare the propensity of this LBSN to push them to experience new places was relatively short lived. For the most part, this tendency gradually dissipated as the novelty of locative play waned. In contrast, however, for the participants using Pokémon Go, the desire to continue playing and thus explore new environments was notably more enduring. It is our assertion here that this is both symptomatic of Pokémon Go being a HRG, as well as better understanding of what constitutes an enduring locative experience and the need for hybrid space to be more dynamic. Third, for some participants the use of both Foursquare and Pokémon Go extended beyond the immediate pleasure of symbolically reworking their physical surrounding. This was particularly the case for disabled participants. In either case, both Foursquare and Pokémon Go served as motivating forces that pushed participants to be more physically active than they usual would be. In other words, the playfulness of these applications seeped into areas of their "ordinary live" beyond the immediate pleasure of locative play.

In sum, our findings readily demonstrate that locative media—be it early LBSNs or more recent HRGs—do not simply enable users to more easily navigate their physical surroundings, or more playfully engage with space and place—although these are, of course, factors. More importantly, these locative media enable users to personalise their experience of the urban via the digital inscription of place, as detailed above. Through a confluence of both digital and physical space, then, our participants were able to symbolically reshape their surroundings in a manner that resonated with

their personal needs. For some, this meant embarking on new routes to discover rare Pokémon; for others, this meant inscribing their locality as an indicator of an identity abstracted from illness. In either case, these practices revolved around forging a bespoke locative experience. Accordingly, more time should be spent contextualising emerging locative media through recourse to earlier locative applications, as this not only underlines the applicability of existing theoretical frameworks, it also adds contours to extant understandings of locative play.

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Chapter 4
Mise-en-Scène

Nayan Kulkarni

Abstract Contemporary solid-state lighting combined with advanced networked control systems means that scenic effects, once contained within theatrical and cinematic production, have infiltrated urban space. Mise-en-scène provides a method to articulate the urban atmospheres that have emerged through the new relationships between media interfaces and the construction of urban space. At night, the techniques of ambient lighting, surveillance systems, media surfaces and architectural feature lighting coagulate with physical space. These processes amplify the spectacle of the nocturnal nightscape's 'total work' through overdetermined, embodied subjective urban experiences. The tension between the analytic and productive dimensions of mise-en-scène is expressed in and through bodies. As an urban practitioner, I am implicated in the production of these nocturnal atmospheres. In attempting to locate an urban subject through mise-en-scène, this paper starts by turning a light on in the city of Kingston upon Hull; subsequently, it takes a walk along a fictional street, pauses by a wall in Whitehall and reflects an opera and a movie.

Keywords Urban · Lighting · Installation · Media · Corporeal

4.1 Light on

There are three layers of urban lighting in the city of Kingston upon Hull. The underlying layer is that of the streetlights, providing even uniform illumination: a ground. The second layer is more associated with the production of a civic atmosphere. This could be characterised by tree uplighting, seat lighting and the static illumination of significant building façades. The language of the latter would tend towards the framing of and emphasis to building outlines. As much a product of practicality, this illumination tends to either hang on the building or come from the ground, much as you would expect to see from the effects of stage footlights. This approach reinforces the proscenium nature of the city where the door and façade are emphasised

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and framed.[1] Intercutting this quite familiar approach to urban lighting is a network of light instruments that deploy a theatrical mode of illumination through the technique of the profile and spotlight. These light systems precisely frame architectural elements, control colour and tint and create extremely precise modelling of shadow.

I will start by turning one light on and dimming some down. To change the mood, I will shift the tint in Queen Victoria Square towards a cool colour and, to add a little drama, shift a sculpture high on a distant rooftop from darkness into a beam of blue light (Fig. 4.1). As the electronic protocol enables me to communicate with the

Fig. 4.1 *The Golden Hour*. Kingston upon Hull. Production detail. 2017

[1] At least since the Baroque period, the proscenium theatre arranges the audience on one side of a frame, the stage on the other. The frame loosely correlates to the front elevation of a building. Often the ghost of the ancient Greek temple structures the scenic architecture with the applied image of columns and entablature.

Golden Hour controller from anywhere, I do this from the comfort of my studio.[2] This installation is the result of my vision for a connected lighting infrastructure that enables ambient, accent and architectural lighting to perform in much the same way as a contemporary theatre or cinematic sound stage. The artwork was conceived at the level of infrastructure in order to have an impact on the retinal experience. Underpinning this logic of space is the ability to make significant changes to the lit environment. In other words, the *Golden Hour* is the morphology of the lit city image. It proposes that stable ambient street lighting should be considered as simply one nocturnal scene amongst many. Any shift in the emphasis of light exposes the urban infrastructure; it brings it to the sensible.

The visibility of the sources is this artworks crystallisation. If an observer fails to look up then they are in an 'iconic' work. As soon as they do look up and observe the lights they move into a 'crystalline' work.[3] It appears that to see something in the urban contemporary it first needs to be removed. If a system of experience, in this case a system of illumination, is stable, unchanging, then it tends towards a disappearance, and it becomes normative. When this atmosphere, or scene, is turned off or changed to another scene, then the artifice of the atmosphere is also exposed. But the atmosphere generated also makes an image of its own production. The important distinction that the work in Hull makes is that the sources of light are mostly located in plain sight, a refutation of cinemas removal of technical elements from the frame.

4.2 An Optical Street

> Cinema requires an extreme degree of organization of its material and extreme regular work on the part of the model actor [naturshchik], and these are arranged in the plastic category for single point of view (the lens) and in the temporal category for the rhythm of a single projector. In the theatre things are arranged for a hundred eyes and a hundred ears. Theatrical measure for us, would mean chaos, theatrical artificiality, death. (Kuleshow 1922)

As an artist concerned with the effects of the cinematographic imaginary on the built environment, the application of mise-en-scène as an analytic method is a repurposing

[2]The title refers to the hours where the sun is low over the horizon creating raking shadows and a redder and softer quality of light. The articulation of shadow and the angle of light are much favoured by cinematographers and photographers alike.

[3]I am taking Matthew Wilson Smiths simple formulation of the iconic and crystalline. The iconic work conceals its production mechanisms. Conversely, the crystalline work 'exposes and celebrates its technology' (Smith 2007: 47).

of practice in the field to the studio.[4] In theatrical and cinematic production mise-en-scène is placing what might be required for work onto the stage, or into the frame. As an analytic tool, it can help us to see beyond the narrative and through the sensually effective embedded in the image, in order to see how it is fabricated and which mechanisms are working and to what ends. The value of a mise-en-scène is that it can include all production items: sets, lighting, framing, actors and the script. The analytical movement from stage and screen to public space is as fluid as turning one's head away from the action on stage, standing up and walking into the street whilst continuing, in my case, to hold the same question in mind: how is this image I inhabit controlling me?

> Our society is one not of spectacle, but of surveillance; under the surface of the images, one invests bodies in depth; behind the great abstraction of exchange, there continues the meticulous, concrete training of useful forces; the circuits of communication are the supports of an accumulation and a centralization of knowledge; the play of signs defines the anchorages of power; it is not that the beautiful totality of the individual is amputated, repressed, altered by our social order, it is rather that the individual is carefully fabricated in it, according to a whole technique of forces and bodies. […] We are neither in the amphitheater, nor on the stage, but in the panoptic machine, invested by its effects of power, which we bring to ourselves since we are part of its mechanism. (Foucault 1977: 217)

As my feet hit an imagined pavement Michel Foucault echoes in each step reminding me that even though the pavement's stable footing allows movement, the image of the street trembles as it unfolds in front of me. I have to concede that as a practitioner I am inculcated in the production of this image in a number of ways. Sometimes I have been directly involved in the corporate decisions that shape the pavement or light the street.[5] At other times the night-time city provides me with a found sound stage or film set for the production of other kinds of works. I use the urban contemporary as material putting it to work again. Underlying this is Foucault's demand that I see my willing participation as a mechanism in the panoptic machine. I must look through the comforts of architectural typologies, the assurances of accepted practices, the multiplicity of statutory regulations, the banal apocrypha that public space is an amphitheatre or stage, in order to radicalise my relationship to the images that I inhabit.

Foucault then allows me to steer this mise-en-scène from a formal analysis towards something more divisive. Setting its limits is also to set my own. Understanding my

[4]Mise-en-scène is summarised by John Gibbs as the interpretation of cinematic visual style through analysis of a scene's contents and its framing (Gibbs 2002: 5). In cinematic analysis less attention is brought to bear on what is excluded from the frame, out of shot in the space of the sound stage. The individual elements which form the composition and potential meanings of the city are not homogenous, neither do they arrive in space at the same time. Cities are compiled in layers of time and material. Instances of image making in the city are unable to hide production equipment in the occluded space of a sound stage. Rather, framing is constructed spatially, the production equipment de-emphasised with techniques of distraction, covering and amplification. Enveloped in the radiance of the night, the physical and the immaterial fold are together into images that, like in cinema, arrive to experience through the exposure of the urban subject to light. In this way light frames the scene, animates its contents and functions as actor and object.

[5]City Councils, Private corporations, Housing Associations, etc.

investment, I have to state with him (after him) that each element in this image is fully loaded. As I ponder the street light above me, the bench that I am sitting on is a device of power, which absolutely positions my body in space. Then following a slow panning gaze across the street I find myself to be at an apex of a triangle; my head, the street light, a surveillance camera. In this three-shot sequence the pavement, the bench, the street light, the surveillance camera and my head are all that have been brought to the mise-en-scène. There are no place in mind and no particular image; these objects inhabit a kind of emptiness. In this apocryphal image the qualities of the place remain hidden. It would appear to have no outside; the surveillance camera is producing the final shot, the light enabling its production and the bench situates this subject in relation to a light and a lens.

> Morals reformed—health preserved—industry invigorated—instruction diffused—public burdens lightened—economy seated, as it were, upon a rock—the gordian knot of the Poor Laws not cut but untied—all by a simple idea in Architecture! (Bentham 1791)

'Is not prevention better than punishment?' (Bentham 1791, Sect. 15.) ripples through history from Jeremy Bentham's panopticon to Thomas Mathieson's *poliopticon* [my phrasing] (Mathieson 2013: 47). Bentham's architecture is one that has an optical centre around which prisoners are arranged in 'cells [that] are divided from one another […] in the form of radii issuing from the circumference to the centre' (1791, letter 2.). An eye is at the centre of a vortex described by Foucault as 'visibility [is] trap' (Foucault 1977: 200), the presence and non-presence of a constant observer guaranteeing 'that the perfection of power should tend to render its actual exercise unnecessary' (1977: 201). The panoptic architecture arranges the prisoners—actual bodies—around the occluded uncertainty of the warden at its fulcrum. A may or may not be present eye is surrounded by the must be present prisoners' eyes (1791, letter 6.).[6] These lines of sight are individuated in the direct vector between the centre and the cell, these lines between one and many are all lines between a one and a one. The panopticon functions just as well with only one prisoner and no present warden, as it would if it held an infinite population and one present warden.[7] The force of these gazes is centripetal, each subject locked in place, in isolation. Each cell is isolated from the others. There is no potential for a prison community to emerge; however, morally reformed they might become.

Sitting here in the line of site of the camera one is at least notionally within a physical space, Bentham's walls and cells, grills and partitions, dissolving into the fabric of the urban contemporary. The paradigmatic architectural shift has more than inverted or turned inside out: the spatial relations between the two subjects; prisoner now at centre, warden as multiplied satellite/s. The movement is one from

[6] 'I flatter myself, there can now be little doubt of the plan possessing the fundamental advantages I have been attributing to it: I mean, the apparent omnipresence of the inspector […] combined with the extreme facility of his real presence'.

[7] Bentham does concede in letter 5 that the prisoner should be under actual inspection as much as is possible. '[…] but the greater chance there is, of a given person's being at any given time actually under inspection, the more strong will be the persuasion—the more intense, if I may say so, the feeling, he has of his being so'.

the centripetal to the centrifugal, the prisoner subjected to a dance of observation and communication. In this morphology what was once a cell is now a screen, camera, prosaic public realm surface, devices of exchange: skein surfaces. This surveillance camera is connected, the optical centre atomised, dispersed into a 'polyoptical profile' (2013: 47) that inverts Bentham's logic by hiding the optic nerves of this distributed eye within its own digital apparatus. It is the skein that sits just below the pavement in ducts or passes through the air (and our bodies) in electromagnetic waves. I who sit under the street light is aggregated by this one/many eye, archived in order to be commodified for the few, to the many. The ordering of space is now conceptualised and concretised around an image, a composite image, where the signs that I carry (embody) are ordered, sorted, distributed, multiply aggregated in order to be put to other kinds of work.

The urban subject finds its body in this atmosphere. Andreas Philippopoulos-Mihalopoulos' (2015) Deleuzean apocalyptic conception of *Spatial Justice* situates the rupture of atmosphere as a necessary force to break the enclosure of the law. His use of the term 'Lawscape' (a tautology between space and law) proposes a totality of law within which everything is contained. The interplay between the lawscape's invisibilisation in atmospheres, the matter of space itself, provides a neat triad of terms within which the embodied image of this wall can be articulated: lawscape, atmosphere and spatial justice. Atmospheres are emergent spaces produced through the fluid relations between everything that can come into contact with anything else: bodies. In a multidirectional flow of sensory, emotional and informational events, these bodies circulate and construct atmospheres. This formulation of atmosphere is useful because it points us towards the thing that directs us away: the lawscape seeks to become atmosphere, seeks to be naturalised, to become eternal, fixed. *Spatial Justice* is the rupture, a possibility of withdrawal from the compelling manipulations and securities of atmospherics.

I am atomised, aggregated elsewhere and then re-aggregated in the street. In one step I am here and everywhere. As Jameson (2012) observes 'spatial distance is now translated into a virtual temporal simultaneity, and in which, in other words, here too space abolishes time', [and] 'the passage of time has been virtually eliminated' in our postmodern temporality. The explicit temporality of architecture of power has apparently coalesced with its infrastructure, the prosaic town square disabused of its time, its material and its finitude.

4.3 Building Interface

In 2010 works were completed in Whitehall to create a 'cleaner, safer and brighter environment for all users' (Westminster.gov. 2010) resulting in widened pedestrian spaces in the environs of the Cabinet Office. The proportions of road to pavement and the relationship of building front to street changed. This more generous approach created a larger pedestrian platform and an improved interface with the building's neoclassical façade making the spaces more open and accessible. In between the

Fig. 4.2 The Cabinet Office. 2017. Whitehall. London

road edge and the facade sits a long low wall and a series of bollards (Fig. 4.2). This wall is not so low that it can be comfortably sat upon, but certainly low enough to see across and detailed in order to be able to be seen through. This slightly too tall wall is installed immediately above one of the main fibre-optic channels that make up Whitehall's data infrastructure. There is no surface detailing that would point the casual observer towards this conduit.[8]

> European Parliament, Article 1 in the Framework Decision of 13th June 2002 on Combating Terrorism: each member state shall take the necessary measures to ensure that intentional acts referred to below from (a) to (i), as defined as offences under national law, which, given their nature or context, may seriously damage a country or an international organisation where committed with the aim of: seriously intimidating a population, or unduly compelling a Government or international organisation to perform or abstain from performing any act, or seriously destabilising or destroying the fundamental political, economic or social structures of a country or an international organisation, shall be deemed to be terrorist offences: (d) causing extensive destruction to government or public facility, a transport system, an infrastructure facility, including an information system, […]; (2013: 89)

The wall then addresses the law of the framework decision and the street through a partial dissimulation, seeming to be landscape architecture even as it covers its other defensive qualities.[9] It is a soft and hard defence. The wall is soft in respect to its

[8]However, if you walk regularly in and around Whitehall eventually a service maintenance engineer will turn up and expose the concealment.

[9]Partial because, after all, a wall is always a means of defining an edge, separating a space, it can still also be simply prosaic. This seems to map in an approximate way to the successive 'radical

spatial separation of the building edge to the main thrust of the street, it is permeable to the pedestrian. It is hard in respect to the countermeasure that it provides against the truck repurposed to deliver an explosive package.[10] This is a wall at least twice. The manner and style in which it stitches the pavement together, ordering the long linear spaces, speaks of conviviality, walkability, of street furniture and urban landscape design in the context of a contemporary street: placemaking.

In Whitehall one would seem to be, if only potentially, a subject that appears without a trace; Mathieson's (2013) 'lone wolf'. In the 82 s on 22 March 2017 when Khalid Masood indiscriminately targeted pedestrians on Westminster Bridge, we witnessed two things: The horror of murder, and simultaneously, more evidence that integrated global control systems, coupled with distributed networks of surveillance and extra-state intelligence, cannot make up for the problem that predictive algorithms (2013: 99) are not yet time machines, or crystal balls.[11] It is of no consolation to the victims on the bridge that this attack failed to penetrate the physical heart of the Palace of Westminster. Anecdotally, it is possible to glean that through the defense measure of the 'polyoptical profile', most subjects appear with a trace; they appear through and in their digital archival materials. This of course means the traces gleaned in advance of an effect cocoon the surveillant society with the promise that most do not get through. The extra-state stacks the odds in our favour. It remains to be seen what this 'our' might become as the global—horizontal—integration of systems, Mathieson's *Lex Vigilatoria*, 'looses its grip on knowledge of the practical and the concrete, it looses touch with the happenings of the real world' (2013: 201).

If we are now free to allow the atmosphere of Whitehall to bombard us knowing that most corporeal threats do not get through, is it then possible to reintegrate our eyes into our bodies? And 'is not prevention better than punishment?'; minded that it is an 'I' who might be punished, as it is 'I' who might just be 'plausibly' guilty (2013: 201).[12] The 'we' that constitutes a public, formed in advance by their traces, remains stable as long as it performs predictably. The reveal (apocalypse) is the moment of judgement (justice), the choice to accept the atmosphere and participate in it, or to renegotiate one's terms of engagement with it. Philippopoulos-Mihalopoulos's formulation flattens the relationships between human agents and plastic spaces, atmospheres are produced by bodies and in bodies. The moment of

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negation of the sign as value' in Baudrillard's (1998) successive phases of the image, the movement between 'evil appearance: of the order of malfice. In the third, it plays at being an appearance: it is the order of sorcery'.

[10]The devices I am concerned with are not aimed at pedestrians. Rather, this mode of attack is aimed at buildings and their occupants, communication cables, the spatial and technical supports of the political infrastructure.

[11] 'New norms are being established inside the systems—norms that emphasise a future-orientation involving control patterns over whole categories of people and which develop risk profiles for entire groups' (Mathieson 2013).

[12]Mathieson situates this 'probably guilty' directly within inbuilt error or uncertainty in the systems of surveillance and interpretation. In this sense the surveilled subject can produce the evidence of their own guilt, as Chamayou (2011) argues in 'Drone Theory', is erased in the moment of their own extra-juridical destruction, both subject and evidence erased in the 'probable'.

withdrawal is a resistance to the atmospheric synthesis of the lawscape. For us, it is a means to see under the surface of Foucault's lawscape, rendered in the image of the panopticon, to see through this wall.

Seeing through the wall is the moment of spatial justice that reveals the lawscape. The wall's Portland Stone heritage skin conceals its engineering logic which constitutes a moment in the invisibilisation of the tactics of defence and the normalisation of globally distributed terror. The defensive measure that is at first temporary, seen throughout London in the form of mobile barriers placed after attacks, becomes stable within the image of Whitehall as a polite space of civility. As the wall civilises, its constituting logic renders 'being' into 'seeming'. This is 'being' predicated on immanent death arriving in the form of a van at speed. The wall is an infinitesimally small materialisation of a new biopolitics, described by Mbembe (2003) as the 'death-worlds' of a *necropolitics.* In Whitehall, it arrives as a folly in stone: a *necroimage*. Here the technological construction and structuring of social relations in the public realm is not that of a digital morphology dissolving built surfaces into a play of images. Rather, it is a play of form and surface as defense constructed as a permanent physical element of the street, the 'lone wolf' eternalised in stone: a memorial made in advance of its event.

4.4 Back to the Street

Returning to the imagined bench that positions me in the cross hairs of a distributed optic. I look back again at the street light, it is night (Fig. 4.3). The street lights combine to create an undulating lit surface of concrete, stone and tarmac. These lights are in a line, they open up the nocturnal urban contemporary and entice me to walk into it. They create a space of activity in an image of light. In this production of an image that slips almost seamlessly into the production of space, we can glean something of what Adorno (2005: 80) observed in Richard Wagner's operatic productions: '[that] inside the illusion dwells disillusionment'. Adorno's critique of Wagner's conception of a cosmos is that in the production of its enclosing totality—the total work of art—is also a 'radical alienation' from the natural (2005: 86). The Wagnerian *Gesamtkunstwerk* sought to unify production fragments into a 'second nature'. In spatial terms, this helps us to see a movement from an origin, the place of transmission, towards an enclosure or the directional to the omnidirectional. This proliferation of production fragments needs a 'radical process of integration, which assiduously draws attention to itself, [it] is already no more than a cover for the underlying fragmentation'. This is a 'cosmos [that] has no reality' (2005: 93). It is an enclosing atmosphere that demands our trust. In order to produce this unified mise-en-scène, the production mechanisms have to remain hidden. This cosmos can suffer no evidence of its making. It seeks to negate analysis.

Matthew Wilson Smith offers the concept of the *estrangement device* that is 'not ultimately reincorporated back into the totality of the work' (Smith 2007: 186). It is as if an Adorno fragment has the potential to resist its total synthesis. A device

Fig. 4.3 Ropemakers fields. East London. 2015

that both propagates the cosmos and acts as a mode of resistance to it incorporated into its own infrastructure. After all, it is the infrastructure that binds and connects. However, Smith's analysis of the 'total work of art' problematises the efficacy of any potent critical reflection within the 'organic spectacle', that is, the process of the re-absorption of the medium into the 'organic' totality of the work itself. In the end, Adorno's integration is only tempered by Wilson Smith's re-integration, a 'being' transforming into a 'seeming'. Any moment that a fragment resists, or is revealed, is simply the moment when it becomes recombined in the 'total work'. As we have seen in Philippopoulos-Mihalopoulos, the lawscape is always becoming atmosphere: the 'total work'. This suggests that the possibility of critical reflection can only be found fleetingly in the transition of the *estrangement device* into the totality.[13]

[13] At the root of this formulation we find a trace of Marx's Grundrisse, where he marks a 'pure loss' in the temporal moment in the circulation of capital; the time that passes 'before the commodity makes its transition into money; or the time during which it remains a commodity, only a potential but not a real value'. As long as the value remains suspended in commodity it cannot be realised: 'Capital

'Piccadilly Lights', central London, is a massive advertising panel that has recently replaced an array of smaller screens.[14] It lights up much more than itself and the circus. It has is *brightness*, as Böhme (2017: 206) asserts, this is the fundamental phenomenological fact of light. This form of screen arrays constitutes a fulmination of architectural hoardings that through successive stages of technological development skin cities. 'Piccadilly Lights' is not integrated into the façade, it is applied crudely. The intense radiance makes no distinction between architectural surfaces and human bodies. It does not matter what is on the screen or what product plays in its moment in light. Products disappear in the power of light, colour and change. Screen is real estate, each of the 11,858,400 pixels a space for rent. Time on screen is a pure income stream, the highest bidder occupies the largest territory for the longest time. Hidden sensors log the date, time and climatic conditions, a look up chart is referred to, an algorithm of product applicability through a function of rent/time chooses the product scene, makes the cut from one to another.

Phototropia is a way of framing the causal relationship between the production of a 'total work' and the suppression of a withdrawal from it. Urban media interfaces are aimed at the subject, lurking within them is an occluded distributed optic and the self-propelling logic of late capitalism that seeks to commercialise every square metre of the city, there can be no unused surface, no dead space.[15]

4.5 Stage to Screen

In the theatre, at the 'fiery frontier between fantasy and reality' (Bazin 1967: 101), footlights remain as a trace from the Baroque period (Schivelbush 1995). This thin wall of light is a marker of the transition between a space of viewing and a space of activity. As the house lights dim the corpus of the audience, a metonym for the external social world congeals into a *scopic crowd*. This theatre crowd was distinguished by Bazin through two modes of 'mass mentality': the cinematic and theatrical (1967: 99). The theatrical is an 'active individual consciousness' and the cinematic is a'passive adhesion', or, a shift between the effects of a theatrical excitation and a cinematic

by its nature drives beyond every spatial barrier. Thus, the creation of the physical conditions of exchange—of the means of communication and transport—the annihilation of space by time—becomes an extraordinary necessity for it.'.

[14] Landsec, the owner of Piccadilly Lights, has replaced the original patchwork of screens with a single state-of-the-art 4 K LED digital screen and live technology hub, which allows the screen to react to certain external factors, such as the weather or temperature. This feature enables brands to display creative and innovative content, such as weather-appropriate clothing (piccadilylights.co.uk).

[15] 'Concentrated' spectacle is characterised by Debord (1998: 31–33) as the mode of bureaucratic capitalism that 'imposes an image which subsumes everything that officially exists, an image […] concentrated in a single individual, the guarantor of the system's totalitarian control.' 'Diffuse' spectacle seeks to articulate the 'undisturbed development of modern capitalism' in which commodities will always fall short of the 'qualities attributed to the whole'. Each commodity instance (fragment) is 'irreconcilable' with the 'absolute realisation' of the 'general commodity form'.

calming.[16] The difference between illusion and objectivity is propped up by the architectural relations of stage, auditorium to the preferred ocular subject that is inscribed into the arrangement, 'because, without any physical instrument other than architecture and geometry, […] it gives power of mind over mind' (Foucault 1977: 206).

Over the 3 h that *Don Giovani* unfolded around a slowly rotating stage at the Royal Opera House, all the contemporary modes of stage lighting were mobilised producing a clear model of the contemporary image space of a media architecture.[17] Keeping time with a kinetic architecture, the dynamism of the projected and spatially mapped animations framed, reconstituted and morphed the physical structure of the space. Not one element had to disappear for this image to work. Whether the machines are stage left, right or high in the fly tower, or stacked in with the audience, they are included in so far as they are peripheral, outside of the frame of the image; the audience's attention is the masking; this *scopic crowd* is spatial and spatialised. Somewhere in this barrage, through an act of profound bodily excess, Dorothea Röschmann reasserted her voice, its resonance cut through both the light and dark, rending space, penetrating us.

This stage should be understood as an optical architecture predicated on lens morphologies and projection that were fully integrated into the production mise-en-scène. The optics were the producers of the effects, active agents in the performance and the means of their own capture and redistribution. Luminal power was used to spin *Don Giovani* into a vortex of light and voice. The lenses' mutability and mobility are architectures that constantly re-aggregate the *scopic crowd*. It was a manifestation of the troubling phantasmal desire of a completed media architecture. One that seeks the full transmission and display of the immanent text of a city's human participants upon its surfaces. Each message, extracted from a 'polyoptical' aggregation (Leporello's notebook containing the names of Don Giovani's victims) individuated for each civic subject, returning to us that which we desire, or at least can afford.

> More than 1,200 sweating spectators had squeezed into the humid, marble-walled caucus room of the Senate Office Building. Before them klieg lights glared; six movie cameras were trained on one vacant chair. Michigan's Senator Homer Ferguson, a man with a reputation as a prosecutor, stood behind a little forest of microphones and an underbrush of wires, and kept his eyes trained on the main door. […]. Sensing the crowd's restiveness, Homer Ferguson announced reassuringly: "Mr. Hughes will be here." (Time Magazine. 18/08/1947)

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[16] Bazin provides a basic formulation of *seeming* and *being*. For the cinematic and theatrical which locates for us the problem of a palpable and an empathic body. On stage, the real body acts as bar to the desiring male gaze; there is a desiring body on stage, it desires so I can only observe the desiring. The cinematic body conversely provides a geometry of gaze that allows an imaginative replacement, a space of empathy, I desire through the projected gaze, the physical bar of the actor's body (an impediment to my fulfilment) is removed and thus I am calmed.

[17] Seen by the author, live at the Royal Opera House and again on a large projection screen. Amphitheatre H-59, 25th June 2015. Music: Wolfgang Amadeus Mozart; Libretto: Lorenzo da Ponte; Director: Kasper Holten; Set designer: Es Devlin; Video designer: Luke Halls; Costume designer: Anja Vang Kragh; Lighting designer: Bruno Poet; Choreographer: Signe Fabricius.

A Klieg Light produces and signs a powerful observation. It is a light made for a camera. It might well be the case that in contemporary cinematic production nothing rendered as an image needs to have anything to do with the palpable. Digital compositing can both replace the physical space of action and even, in some *Avatarian* spectacle (Cameron 2009), the removal of any necessity for a camera at all. With modern production infrastructures, the technical assets and actors can morph in perfect focus across the time and space of the image. The point of view is now another mutable element that can seemingly fly, liberated from the problematics of gravity. At a time when this was not possible the Klieg carbon-arc lamp offered to cinematographers an intense controllable beam of light that extended the possibilities of depth of field. However, two figures are not yet present under these Klieg lights: Howard Hughes and not Howard Hughes, *Citizen Kane*.

The vacant chair is structured by the apparatus of broadcast and distribution, the chair is in the Senate Office and also already outside of it. Their visibility, inclusion in the frame, points to the 'crystalline' *gesamtkunstwerk;* a total work that exposes its means of technical production. The inquisition in light through a camera in this televisual image is metonymical of the judicial state apparatus. An empty chair is only empty in so far as it frames the architecture of the inquisitorial machine. Lights and cameras are at least as prosecutorial as Senator Ferguson, the 'forest of microphones' amplifying and distributing justice, guaranteeing through media a full transmission of evidence. The reality, or at least a story of justice, is then an effect of this crystalline image, which in turn is propelled into the repeatability of a generic mise-en-scène: a style of justice, the atmosphere of a state. There is always one more camera included, it is the camera that frames all the cameras, a point of view that purports to see it all, the aggregator of a 'reality effect'.

If a 'normal' visual reality is formed through the mental aggregation of peripheral vision and optical fragments, *Citizen Kane* asserts a perspectival architecture of vision that allows Pallasmaa's (2014: 29) 'hectic eye' a space in which to roam. Pallasmaa's conception of the 'hectic eye' correlates to the lens of a mobile camera. In 1940, the eye that moves was still embodied in the audience. In rendering the proscenium image with a maximally resolved depth of field the audience is invited to flit through a space where the expression on a distant actor's face—distant in the space of the frame—is granted the authority of legibility. *Citizen Kane's* 'reality effect' is a point of view that purports to see it all, and in doing do shows only what Wells wants us to see.

Stage 19 is the definition of an optically determined architecture, where complex points of view and deep focus could be constructed to make *Citizen Kane's* new form of cinematic representation.[18] Whilst the infrastructure remained invisible the whole set could be rendered in the plane of focus. Wells' and Tolland's notion of realism had nothing to do with a lived reality or even any kind of cinematic naturalism.[19] The movie provides a rendered other place that is predicated on Wells's conception of a

[18] *Citizen Kane's* sound stage and set: Stage 19, Paramount Pictures, Hollywood, USA, 1940.

[19] In his article in American Cinematographer Tolland writes of a cinematographic 'reality' as an analogue to the world outside.

space which Kane would first conquer then to another to which he would inevitably retreat: Xanadu, a media architecture formed through the collection of signs of power.

It does not end well for Susan Kane. In *Don Giovanni*, it was Dorothea Röschmann's voice that broke through the scenic effects and cut through the play of images. Through *Citizen Kane*, we experience another kind of cutting, also in the mode of a female's singing voice. Kane's will to control his image extended to the control over all images and to transform the nature of the other—in this case his wife Susan—into an object that reproduces his self-image. The turning point in the narrative is the moment when Susan Kane failed to sing convincingly in the opera staged expensively, lavishly and precisely in order to re-make her as image. In a single screech Susan shatters the illusion of Kane's control, his compelling blindness is exposed providing a limit to the plausibility of his image. In Susan failing to sing the image fails revealing its incomplete power over her body. Under the glare of the Klieg Lights, Susan is disaggregated and metonymically so is Kane's world.

Then what of rupturing these atmospheres through willful acts of seeing? The piercing of civil ambience with an aberrant voice? The subject who appears without a trace sets a diabolical limit to *phototropic* potency, but their destructive force repropels *phototropia*.[20] It is in *Citizen Kane* that we find a clue to what a rupture could be: a discordant gesture. Being unable to sing is fortunate because then, with Susan Kane, there is a possibility of our withdrawal from atmosphere; but only at the expense of our veracity. But the wall remains a wall; its limit is set by a skin of stone.

4.6 Urban Lighting: A Media Interface

> […] actions and opportunities highlight steps towards a more human-centred night-time design: 4. Design inclusive environments for a wide demographic profile, including strategies to foster positive behavior and minimise anti-social actions. (Lam 2015: 48)

I return to the complicity announced at the commencement of this text: as a practitioner I am inculcated. That is 'not guilty', perhaps a witness, or rather the one that seeks to turn on a light, or the oscillation between mise-en-scène as production and analysis, to bring both into play. Accepting that we are neither in the amphitheatre nor on the stage but in the *panoptic machine*, what instruments might help us to see through the image that 'pervades all appearing', as Jonathan Beller formulates it? An image that the 'denizens of capital labour to maintain [themselves] as image' and 'we labour in the image' (Beller 2006: 1). For Beller, we are folded into an image space that is both for us to make and made in advance to enable this making.

Urban light is an assemblage of many lamps strung along and across space; bolted down, connected, labelled, registered. It is a distributed singular, an entity that is

[20]The heliotropic is the tendency of organisms to respond to natural light, this can be seen dramatically in mimosa pudica's furling and unfurling as it changes. The phototropic is a generalisation of the phenomena, the same effect but with an attraction to any light source.

best observed from above, a glowing lattice, an image of its own structure. The multiplication of lamps too easily obscures its singularity, its physical manifestation masking a body. It might well be a network; it might even illuminate networks, but it is a singular expanding object. This is a luminous body, a siphonophore; a multicellular-codependent colony of elements floating through time, but not through space.[21] As this siphonophore feeds, its nocturnal supping seeps into our experience through light. The siphonophore is a total light work. A work so banal and ubiquitous that it barely registers as a work at all, its 'second nature' so complete that it replaces first nature.

Instead of light on–light off Sean Cubit proposes an *infinite gradation*, a spatial and temporal dialectic of light and dark providing the space for us to ask, 'what might it be to witness in our time?' (Cubit 2014: 267–269). For Cubit we have to recognise the slavery of our ancestors in the 'systems that are even now designed to preserve privilege, hide the virtual future and deny the potential that lies ready to realise it' (2014: 270). For us the systems are the control, not the effects that they have in space, these effects simply sensual outcomes of a technical procedure. The *infinite gradation* causes us to doubt the certainty of a figure and a ground, a civic subject in space, civilised in the sense that the pavement is lit and upon it we can perform and continue to labour.

The journey back from a theory to a practice of urban light then is simply to re-see, that is, to render in light, to draw attention to space, again and again. This is to point, to direct the gaze at the familiar object and pull it from relative obscurity. Even if only for a while, the light joins a wondering eye to the relative immutability of matter. At this very moment in the scene change, in the light shifting, dimming, brightening and tinting, the siphonophore city starts to break up and dissolve; the single-cell rears forwards and starts to assert the possibility of autonomy. It breaks off. In the infinite gradation there is only emphasis not ascendance. The dissolution of, disruption to, the total work is a procedure of another total work, the iconic and the crystalline. That is two total works operating in the same space, a phase shift within the infrastructure, an infrastructure designed and maintained to allow two modes of aggregated stability, one unmoving and the other dynamic.

I theorise cinema light and theatre light as a city's light. Objections: unpredictable; non-uniform; too dark; too complicated; too unmaintainable; too subjective; too partial; too authored. Who asked for our light work to be exposed? It is not a plaything, it is our identity, our stability, our Law. Tolland's technical apparatus coupled with Welles's conception of *Citizen Kane* correlate to the more prosaic technical desire for an adequate ambient urban lighting. This demands that we create a nocturnal ambiance, which is convivial to human economic production; protects real bodies from harm; ensures facial recognition at certain distances and guarantees that surveillance cameras have adequate light to work effectively. Urban lighting is a profound

[21] Most famously an Atlantic Portuguese Man O'War: Although a siphonophore may appear to be a single organism, each specimen is in fact a colonial organism composed of small individual animals called zooids that have their own special function for survival (https://en.wikipedia.org/wiki/Siphonophorae).

Fig. 4.4 *The Golden Hour*. 2018. Kingston upon Hull. Production detail

expression of the polis and the civis, it is temporal only in so far as it seeks to de-temporalise the city. In the replacement of celestial time with 'shades of night' (Lam 2015) modes of labour fold into images of civility that grant each subject the authority of optical legibility.

The low wall in Whitehall presents a particularly blank face to the pedestrian. This is an interface that, even in receding from attention, continues to communicate. Stone is slow and fixed, but it also functions as an image. *Don Giovani's* spectacular textural projections, skinning both stage and singer, reinforce the narrative and in doing so fold architecture into a vortex of moving light. The audiences' eyes are captivated. In the rapidly developing field of media façades and responsive light architectures, the fantasy is that, even as pedestrians tear their gazes away from portable screens, the fabric of the built city can respond and become screen: flat.[22] The speed of image

[22]This can be seen in many recent design briefs for public realm projects. In the outline brief for Strand-Aldwich Public Realm Improvements specific references are made to these themes. The designer is tasked to consider: 'developing new ideas for how the space is navigated by different users groups thinking primarily through light or sound; Interventions that cater for primarily for night time users of the space, creating an environment that feels safe and inviting to all user groups; Technologies that enhance opportunities for participation and contribution to the physical and visual environment with users somehow leaving a digital shadow or footprint in the space' (LDA. Strand-Aldwych Artist Brief_Final, Appendix 2). The fixed surfaces of the public realm are proposed as the site for a responsive interactive media interface.

is only limited by the speed of the material conduit; a morphology of built surface. Whether abstract or loaded with product, the dancing screens of media architectures dissimulate their fixity through the play of light and image (Fig. 4.4). Digital signage may well flood space in moving coloured light but changes space only in so far as the urban mise-en-scène is rendered through the aura of advertising, so bright that space perceptually recedes, and bodies become screens.[23]

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[23] As the cost of large array external media surfaces decreases, we can observe that static passively illuminated advertising hoardings are rapidly being replaced with extremely large and bright screens. As the economics of media surfaces develop, we can speculate that entire building technologies could become simply the frames upon which media is served to the urban spectator. In this way the outward face of cities propel the luminous economy. This would mark a transition from signage that is added to built surfaces to forms of total surface signage in light where glass and concrete are replaced with embedded responsive technologies: all surfaces can dance.

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Chapter 5
Expanded Architectural Awareness Through Locative Media

Sarah Breen Lovett

Abstract Moving Image projections onto architectural surfaces can be considered a powerful form of locative media. The interplay of real space and virtual image can highlight overlooked relationships, we have with architecture and make one hyper-aware of the location of one's physical body and the space one is within. The types of installations discussed here are very different from locative media that use gps, virtual mapping or other locative devices, and contemporary mapping projection practices onto buildings, which may aim to transform the look of a façade with illusion and spectacle. Instead, this low-fi approach has its dual lineage in both: experimental architectural practices that aim to examine or subvert relationships to architecture, such as works by Dan Graham, Bernard Tschumi, Diller and Scofidio; and installation practices that employ awareness of self and the projection environment as by UK Expanded Cinema artists William Raban, Nicky Hamlyn and Tony Hill. Referring to these historical examples, six contemporary installations by the author will illustrate how various locational relationships to architecture can be explored with moving image projection. They will examine how such a practice enables a shift in the experience of the body between the architecture and moving image. That is, the practice holds the attention at a point of wavering between moving image and architecture, between haptic experience and habituated expectations. Within these works a heightened experience of location emerges, this can be thought of as a disjuncture between the architecture and the re-presentation of a new relationship with the architecture.

Keywords Expanded architecture · Expanded cinema · Installation · Moving image

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5.1 Introduction

Creating and experiencing a heightened experience of self in relation to architecture, through moving image installation, and wanting to understand this further has been the driving motivation for a series of six installations presented in this chapter. These works can be considered a low-fi locative media, in that they examine the interplay between architecture and self through moving image projection. This interplay results in, what we shall refer to as an *expanded architectural awareness*, that is an increased awareness of architecture, and the self in relation to and defined by architecture. The focus on expanded architectural awareness is not motivated by a desire for synthesis between self and place. Rather, it examines the various disjunctions between self and place as defining factors of moving image installation reception. In these works, the seemingly static, stable architecture is layered with moving images that necessitate the physical body re-stabilising or re-orienting itself. Hence, awareness of an architecture is not only created through a haptic experience but also an awareness of self in normative or habituated relation to the architecture.

In this chapter, *haptic*, is used to refer to an experience of the physicality of the body as affected by different parameters of architecture and moving image installation, such as physical dimensions, angled geometries or material quality. It is understood that various combinations of these parameters affect the experience of the body and can, in part, be embodied as a physical experience. Haptic experience is seen as a combination of a 'sense of touch, the perception of position and motion (proprioception) and other tactile and kinaesthetic sensations'. (oed.com) This understanding of haptic also extends from its Greek root word, *haptikos,* which means 'able to come into contact with' (etymonline.com). This means the body is able to come into greater contact with architecture and moving image installation through embodied haptic experiences.

While *habitual* is used to describe various relationships with architecture that are learned through experience and repetition but become overlooked because they are repeated so often. *Habit* is from the mid-fourteenth century Latin word habitare: 'to live, dwell', and is a frequentative of habere 'to have, to hold, possess' (etymonline.com). Habit is also related to the term *habitus,* which is used to describe the embodied consequences of habit, how the habit is incorporated into the schema of the body. The etymology of the word *habituate* comes from the 1520s Latin word habituatus and is a past participle of habituare: 'to bring into a condition or habit of the body' (etymonline.com). Building upon this etymology, this research uses of the terms habit and habituated relationship with architecture also refer to the notion of having. That is the architecture, is *had* by the inhabitant; it becomes part of the inhabitant through its habituated use.

5.2 Architecture

The use of creative practice to reflect upon haptic and habituated ways of relating to architecture, can be considered and extension to well-known experimental architectural works by Dan Graham, Bernard Tschumi, and Diller and Scofidio. These practitioners have been concerned with critiquing normative ways of thinking about our relationships with architecture through speculative and realised architectural projects involving live video feed or drawings around ideas of the moving image.

Dan Graham's *Picture Window Piece* (1974) and Diller and Scofidio's *Slow House* (1991), both examine and critique the impact of habituated relationships to architecture. Through the proposal of live video feed image from interior to exterior, these works assume certain specified relationships to architecture for the *meanings* of their works to be understood, meanings normally unspoken or taken for granted. These specifically relate to situating the self in the dynamics of the interior/exterior dialect. While, Tschumi's *Manhattan Transcripts* (1976–1981), utilises drawings generated out of the language of moving image, which deconstructs architectural form, focusing instead on the actions that take place within the built environment (Tschumi 1994).

While theoretically relevant, both of these techniques can be considered to have their limitations in regard to the ambitions of the contemporary works to be discussed. By carrying out their inquires through live video feed or post-structuralist de-constructed diagrams, these practitioners are aiming to diminish the subjective role of the author. That is, these works attempt to create an objective re-presentation of relationships to architecture by using systems that take the subjective determining factor of the author out of the equation. In contrast, this chapter argues that the relationship of the author to architecture during the act of making is an unavoidable determining factor for works that explore this area of concern. Hence a survey of structural filmmakers and expanded cinema artists who explore various processes of self in relation to architecture during the making the work becomes important.

5.3 Expanded Cinema

Rather than using live video feed, or diagrams to examine ideas round expanded architectural awareness, the contemporary installations to be discussed in this chapter are concerned with ways to re-present and shift architectural awareness with pre-recorded moving image installation. For this reason, the concept of drawing attention to the *here and now* of a projection environment, through moving image and as articulated by UK expanded cinema artists becomes useful (Le Grice 2001). These ideologies are drawn on as a way to encourage the audience to be critically aware of themselves and architectural assemblage that they are situated within when viewing moving image installation. This notion is most evidenced in the works of Tony Hill, William Raban and Nicky Hamlyn.

Tony Hill's distinctive approach to filming and re-projection divorces the movement of the camera from its normative embodied use, as evident in single screen works such as *Downside Up* (1984) (Nardelli 2009). Hill is also noted for filming people and places from unusual angles and re-projecting these onto different architectural elements such as floors, ceilings and walls. This tactic is seen in works such as *Floor Film* (1972), *2nd Floor Film* (1972), *The Doors* (1972) and *Ceiling Film* (1973). Hill's single screen and expanded cinema works show that mechanical techniques of filming and re-projection enact a reinforcement of the viewer's relationship to architecture. Specifically, Hill's work can actually return the spectator to an awareness of their self and the architecture of the installation space (Hill 1973, 2013).

Similarly, Nicky Hamlyn's series of works called *Silver Street* (1974/5), *Window Lapse* (1975) and *Windows* (1975), along with his more contemporary writings provide a variety of ways to understand the consequences of moving image projection on an awareness of self in relation to architecture. As summarised by Hamlyn, his work 'can be seen as an interaction between a given architectural feature and its cinematic re-presentation, in which film and feature are both illuminated and obscured' (Hamlyn 2004).

Further, William Raban's structural films such as *Angles of Incidence* (1973), alongside expanded cinema works *Pink Trousers* (1976), *After Duchamp* (2003) and *Duchamp's Dissent* (2011) investigate how the reflexive relationship between site and architecture during the act of filming directly impacts upon the viewer's spatial experience of the work and the architecture. Raban's practice also highlights the role of multiplicity in exploring corporeal and cognitive relationships to architecture with moving image projection.

Building upon these historical architectural and expanded cinema precedents, the contemporary installations discussed in the next section form the idea of expanded architectural awareness through four intertwined and multilayered approaches to a low-fi locative media. The first approach draws attention to the *here and now* of various habituated relationships we have with architecture; this is done by reinserting filmed footage from the exact site of the installation. The second approach draws awareness to various haptic relationships to architecture with footage filmed from elsewhere on the site. The third approach allows other subjective or metaphorical elements to be layered in the work. While the fourth approach actively engages with other people's narratives to examine how this can inform the work. In essence, the practice began by trying to adhere to an understanding of expanded architectural awareness that was strongly informed by habituated relationships to architecture and it evolved to acknowledge the value of other modes of engaging with architecture, contributing to what an expanded architectural awareness maybe.

These contemporary installations will now be introduced and discussed in relation two specific locational experiences: the first is being in transitional zones, that is: the areas of architecture that are at the threshold between two spaces, and the second is being split between interior and exterior, that is: being physically located in one area, but thinking of another space that is exterior to the space that one is in. Both of these approaches may seem similar, but the variety of examples within each will

illustrate the precise nature of moving image installation on architecture as a form of locative media.

5.4 Transitional Zones

The first works to be discussed focus on spaces of transition between one area in a building and another; such as in stairs, corridors and doorways, it is an interstitial zone between destinations. These types of architectural assemblages are rich with potential for locating one's body and mind between two spaces. One can be physically in a transitional zone while simultaneously thinking of where one has come from, and where one is going to, and the activities that occur between both.

The technique that is used in the exploration of transitional zones is the filming of the architectural assemblage and then reinserting the edited filmed footage back into the place where it is shot. This is similar to William Raban's notion of *reflexivity* (Raban 2011) where adjusts his processes of filming in the location of the projection but he also projects from the exact space that he films, such as *Pink Trousers* (1976), *After Duchamp* (2003) and *Duchamp's Dissent* (2012). This creates dialogue between the experiences of the artist to the architecture during the act of filming, with the experience of the spectator to the architecture during the act of watching.

In contrast to Raban's minimally edited approach, some of the works in this section use digital editing between the filming and re-projection to order and grid the footage prior to re-projection. This part of the approach can be considered an extension of the works of Nicky Hamlyn, who films in a series of grids and or sequences in order to divorce the movement of the camera from the body's parameters (Hamlyn 2006). Mixing a reflexive filming technique with a sequential or gridded edit of the footage may seem like a contradiction in approaches. In these works, however, an attention to place and the body's relationship to it during the act of filming is drawn forth, edited and re-projected to become part of the new architectural experience. These concerns and techniques can be seen most clearly in the following works Still Stair (2010), *Corridor* (2011) and *Openings* (2013).

5.5 Still Stair (2010)

A white-washed timber stairs sit between two walls. There is silence. A projected image of black and white stripes begins to scroll across the floor toward the stairs. The image slides up the first vertical stair riser and across the horizontal tread. Up again and along again, over and over, until the image reaches the top of the stairs. The projection now fills the entire stairwell, the sidewalls and ceiling above. Gliding up and over all that is seen. The endless scrolling loop is an abstracted pattern of the timber slats of the stair, reduced and simplified. As such, it is not an image of another place and time, it is a layering of existing parts of the architecture back

over itself, the cast chiaroscuro: light and shadow slowly reveals and conceals the details of the stair's timber grain, cavernous gaps between slats, protruding nails, carvings on the handrail and peeling paint on the wall. In climbing the stairs, one becomes aware of a sense of instability. The body's relationship to the architecture no longer seems secure, but rather, it emerges as slippery and uncertain. The edges and boundaries of step, wall, ceiling and handrail alternate between visibility and invisibility. Standing between the projected image and the stairs, one's shadow is caught between the moving lines of light and the physicality of the stair run. While the body is located on the tread one is standing on and around the handrail one is holding, the mind is free to roam; it wanders, backtracking downstairs to the space where the journey began and is cast forward, upstairs where the projection is leading. The mind expands outward to perceive the location of the stairs in the room and one's body on the stairs, while it also zooms into focus upon multiple details of the stairs highlighted by moving image projection.

Still Stair (2010) was selected from an open call for proposals in an exhibition called *Emergency Display* curated by artist/curator Alex Wisser, at the artist-run gallery *The Vanishing Point* in Newtown, Sydney. Wisser's open curatorial approach meant that the work could be created anywhere within the gallery space, so the stairway was chosen. This zone intersected the front and rear gallery spaces and also provided access to the residence above the gallery (Fig. 5.1).

The habituated relationship that the work highlights is that a stair is a static and non-moving element designed to be traversed by a moving human body. The body's physical movement within a stair is that of ascend or descend, we are moving upstairs or downstairs, we are moving and fluid within a stair. A stair is a place for transition between two zones, two places and two-time frames; then and now. The architectural awareness of a stair is held in a state of transition and expectation, between where

Fig. 5.1 Sarah Breen Lovett, installation view of *Still Stair*. 2010

we are going and why we are going there. One can have a multiple spatial awareness while on a stair: upstairs, downstairs, on stairs, in stairs and above stairs. In *Still Stair*, the implied physical relationship to the stair is reconstructed, instead of a static space used for a body in transition between places it becomes a space animated by its own image, reflected within the confines of its own parameters, observed by a static body.

The silent image projected was abstracted footage of the stair itself, a simple camera pan across the striated surface of the stair soffit. This footage was animated as high contrast black and white imagery so each striation could be read clearly and in contrast to each other; it was then animated on a loop, appearing as a never-ending scroll of black and white lines. Double projected and reflected in three angled mirrors around the stair, the image projected was on a path *that mimicked the* trajectory of a body navigating the stair. The mirroring of image results in simultaneous striations moving up the stair, across the soffit, the walls, the handrails, around the architraves onto the landings. The multiple mirror reflections create a *stagger* effect, the lines no longer appear to scroll in a synchronised manner across the various surfaces of the stair but rather stagger and alternate so the multiple projected images are essentially *woven* together, reflected and refracted from the mirrors. In *Still Stair*, the pattern of the stair soffit being reused in the projected imagery and the spectator's body being physically placed within the crossfire of the projections draws attention of the spectator to the details and construction of the stair, as well as their physical location within it.

The next work will discuss another transitional zone: corridors, they also hold the same locational potentiality that stairways do. This is because they are points that we move between to get to another space. However in addition to this locative device, in a corridor, there are also potential metaphorical undertones that may be layered into the experience of the occupant.

5.6 Corridor (2011)

At the end of a long corridor, one can see a projected light which at once terminates the space and becomes a visual extension of the corridor. The silent projected image alternates slowly, almost imperceptibly between one which is temporarily decipherable as the architectural space one is standing in, with perceptible floor, walls and ceiling; this shifts to an out-of-focus image that becomes a blurred light at the end of the corridor - a light that flickers and grows as it is focused into its new position at the next stage of filming. Through the pulsating, morphing image at the end of the corridor, a re-presentation of the time-space experience of the past and future is created.

Corridor (2011) was created as part of the *Expanded Architecture* Exhibition 2011 at the CarriageWorks building in Sydney. The brief to all artists in the exhibition was to respond to the existing architecture. In collaboration with photo media artist Yvette Hamilton, we chose to make a moving image installation in one of the long, dark tunnel-like hallways. As such, *Corridor* was created to draw awareness to being in

spaces of transition, between one place and another. To do this, it was decided to create a work that literally focuses upon the light at the end of a corridor and move toward it in the filming sequence (Fig. 5.2).

This filming sequence took place in one-metre intervals from one end of the corridor to the other. At each filming location, the focus on the camera was shifted from a clear image to a blurred image. When these parts of filming were edited together the physical transition from one position to the next was lost in a blur. The footage was then projected back into the place it was shot. In *Corridor* (2011), **the**

Fig. 5.2 Sarah Breen Lovett and Yvette Hamilton, installation view of Corridor (2011). Photograph by Yvette Hamilton

light at the end of the corridor moving in and out of focus can appear to have subjective, metaphysical undertones. This could be read as the light at the end of a tunnel that one hears about in a near-death experience or as a metaphor for the end of long arduous journey. This layering of metaphoric meaning of was not foreseen or planned in the installation, but it could be considered to be something which enhanced it and opened up the notion of what an expanded architectural awareness maybe - an awareness which is responsive to various culturally constructed metaphors.

Building on the metaphorical aspects of location, in relation to transition zones, the next work engages with the architectural assemblage of doors. In this work, it has been carried out specifically in places of worship to explore how this rich context can impact on the sense of location in relation to the architectural assemblage.

5.7 Openings (2013)

Standing in a small sandstone church with raked ceiling, one can see a double arched doorway leading out of the space. The dark, cool, heavy weight of the walls contrast sharply with the glaring light visible through the cracks in the doorway. Directly above the door, a projected image of the same doorway slowly begins to appear. The perimeter of the projected doorway is amplified and multiplied around itself over and over again. A silhouetted body appears in the projected image of the doorway, and begins to open and close the door, in a number of different ways. This projected door amplification and action, at once draws attention and consciousness to the act of moving through the door way, and the multiple ways this can be done.

Openings (2013), was made in response to an invitation to contribute to the Cementa 13 Festival in Kandos in rural New South Wales, curated by Ann Finnegan. The work was made over two venues: a local church (Fig. 5.3) and convent, both of which had obvious historical, cultural and metaphysical overtones. Initially disregarding this aspect of the site, the work was created to explore locational relationships to doors and openings. Both of the works were created by filming existing openings in each building and duplicating multiple copies of themselves inside of themselves. This act was two-fold, to firstly amplify the transition zone between inside and outside, and to re-construct a new image out of the re-presentation of the existing architectural assemblage.

The first part of *Openings* was filmed in a church and included the act of filming myself walking through a door and closing the pair of doors in seven different configurations because this was the number of different ways it was possible to close this set of doors. This footage was then multiplied inside of itself seven times so the editing process mirrored the interaction with the architecture while filming. The second work was created by filming footage in the convent's various hallways and doorways and then edited, duplicating each image inside of one another so the work becomes a reconstruction of the architecture born out of its multiplication.

Fig. 5.3 Sarah Breen Lovett, installation view of *Openings*. 2013. Photograph by Yvette Hamilton

While *Openings* was made as a solo work, it had an accompanying soundscape by artist Gregory Reeves, called *Quartet 4* (2011). This electronic ambient track was made up of a series of continuous harmonic tones. This soundscape allowed the shifting imagery of openings to be drawn forth from the projection space, while the higher pitch tones highlighted the points of tension in change from one opening to the next.

It must be noted here, the inclusion of a body in the footage was something that had been previously avoided because it was believed that if a person was present in the footage, the first-hand experience of the spectator in relation to the image would be compromised. That is, because of a person being in the footage the work could appear to be *representing* an architectural space rather than creating new architectural experiences. This was partly in reaction to Nicky Hamlyn referring to people reading some of his works as autobiographical when he is included in the footage, such as *Windows* (1975) (Hamlyn 2012, 2013). It could be argued that although there is footage of a body in *Openings* it is autobiographical because this is not the focus of the works. Also because of the close proximity to the original filmed architecture, the presence of a person in the footage also became reflective of the viewer's relationship to the architecture. This aspect of the work also builds upon the works of Tony Hill, who uses footage of people in the same architectural situation projected back into the architectural construct.

Because *Openings* was located in a church and convent the religious connotations of *openings to other worlds* was prevalent in many of the visitor's comments. While this subjective/narrative aspect of the work was not the goal of the practice in some

ways it can be considered unavoidable in this context. Interestingly, if it had been another location it would be devoid of such connotations or they at least would be diluted. This work continued the exploration of the way we relate to architecture is not just in a locative, objective, ergonomic or haptic manner, but also subjective and metaphoric.

5.8 Interior/Exterior

Shifting from filming and projecting in transitional zones within architecture, such as stairways, corridors and doorways, the following works look more specifically at the interior/exterior dialect. In these works, this is done by filming elements of a building and projecting onto another part of the building. In all of these works, there is a common aim to shift attention from where one is situated (either interior or exterior) to the opposite place where they are not. This is to create an expansion of the corporeal experience beyond the physical location that one is within, to a metal experience of mapping the space.

This work developed out of the idea that a habituated and haptic relationship to architecture can be heightened through the visual perception of interior and exterior. While one is exterior to one space, one's mind can be in another part of a building, one's relationship with a building is simultaneously here and there. Conceptualising in this manner leads to the ambition of amplifying how different parts of a building can be thought of as physical and experiential openings between the interior and exterior, between the physical place of where we are now and the visual space of what we can see.

This work relates extends notions of interior/exterior in Dan Graham's in *Picture Window Piece* (1974) and Diller and Scofidio's *Slow House* (1991). This is because they propose an examination of location, and explore how this plays a role in the experience of architecture. The way this work pulls apart the different architectural elements could be considered akin to Bernard Tschumi's *Manhattan Transcripts* (1976–1981) because it fragments and deconstructs various elements of the architectural experience through moving image. But instead of Tschumi's diagramming techniques, this work uses installation and instead of attempting to create a new architecture reassembled out of these components it considers the reconstruction complete in its fragmented and pulled apart state.

In all these contemporary works the spectator views the moving image installation, the space and their relationship to both from an exaggerated distance, further amplifying the interior/exterior dialectic and their position to it. By occupying the constructed space in the installation, the minute architectural threshold space between interior and exterior is amplified.

The first interior/exterior dialogue to be discussed is actually within an interior space, however, because some of the spaces are physically inaccessible, and only accessible by the vision it gives the feeling that one is located on the outside to where one may like to be.

5.9 Between Here and There (2011)

Standing on the second floor of a three storey warehouse, a disengaged lift shaft with small grated window lies ahead. From a distance a faint flickering light can be seen. Moving closer, the grated window is just out of eye height, so one must stand on tippy toes to see though. Once peering inside, one can see a projection scrolling upwards. The imagery is in high contrast black and white, and appears to be silhouettes of little creatures from another world. Because of the extent of the projection into the depth and height of the lift shaft, it is impossible to see where the projection is coming from and where it is going to. The location of oneself is on the outside of a space, forbidden entry by the body, but only accessible by the mind.

Between Here and There (2011) was selected by *Fraser/Queen Street Studios*, Sydney as part of an artist's residency. During a 3-month period, the space was occupied and documentation began on parts of the architecture that were habitually overlooked. This lead to forensically filming and photographing every detail of the interior. One day while filming, a simple shift in the focus of the lens revealed the dust particles that were caught between the floorboards. This was considered to be evidence of how we habitually do not notice small details in our architectural spaces. The dust was reminiscent of various occupations of the architecture, that are unnoticed and built up over years of use in the building.

This finding evolved into a detailed documentation process of every crack in the floorboard seen from the upper floors of the building. Filming at night with the lights on the storey below enabled as much detail as possible to be seen between the floorboards. To make this work there was experimentation with many types of filming, such as making a special rig for the camera to sit on the end of a broom so that the camera can be used to film during the act of sweeping. It was hoped that the act of sweeping the floor could expose the un-noticed detail that lay beneath; however, this action did not have a high enough level of detail. The best way to capture the landscape of dust and particles trapped between the floorboards was to individually photograph the cracks in two-centimetre-wide sections per photograph and piece them together digitally.

The act of documenting the gaps between the floorboards enticed such a level of anticipation and satisfaction by gaining visual access to a space that is normally overlooked that the feeling of a secret being simultaneously revealed and held was evoked. Spaces that can be entered with the eye but not with the body translate into a voyeuristic satisfaction. This experience of making the work was so potent that it became a primary driver for choosing the location of the installation. It was decided to use the residency studios extremely large abandoned lift shaft that was boarded up with timber doors on each floor. Access to this lift was strictly out of bounds but visible through a metal viewing mesh panel on each floor. In this installation, the silent footage was projected into the lift shaft, so through these apertures, it could be seen scrolling vertically from the bottom of the lift shaft to the top of the lift shaft, over the three stories of the building (Fig. 5.4). This was to position the viewer in relation to the overall height of the building, but also in an interior/exterior dialect.

Fig. 5.4 Sarah Breen Lovett, installation view of *Between Here and There*. 2011

Focusing again on the gap between timber boards as the threshold between interior and exterior, the following work heightens the locational experience of being interior yet potentially affected by the exterior world.

5.10 Ex/Enclosure (2013)

Walking through an ancient rainforest, amidst the sound of bird call and density of foliage, one can see a small timber cabin on the path ahead. Approaching the cabin, a loud crackling sound from inside invites the door to be pushed open. Once inside this dark protected space, the eyes slowly adjust to see a single bed, table, chair and hearth. One can see small light cracks in the openings between the timber slats on walls and roof. Slowly a single projected line emerges from the edge of the hearth and begins to traverse horizontally across the undulating corrugated walls and cooking pots. One by one more lines join in, until the sleeping hearth is filled with a sea of lines, and appears active once more. The lines appear to be magnified versions of the real cracks in the walls and ceiling, which turns one's mind to the outside and the lack of true separation from interior and exterior.

Ex/Enclosure (2013) was selected by an advisory board to be part of the *Sculpture at Scenic World* Exhibition, sited within a 1880s coal miner's hut in a world heritage listed Jurassic rainforest in The Blue Mountains (Fig. 5.5). This work explores the threshold between inside and outside, where the minute details of the miner's hut were amplified becoming an immersive projected space. The work was described by Gail Priest, art critic for *Realtime* as 'the only truly site-specific piece […] It is conceptually a complete use of the space' (2003). This work was specifically created to explore what it might mean to occupy a miner's hut and the impact that the interior/exterior dialogue might have on someone inhabiting the space. In the

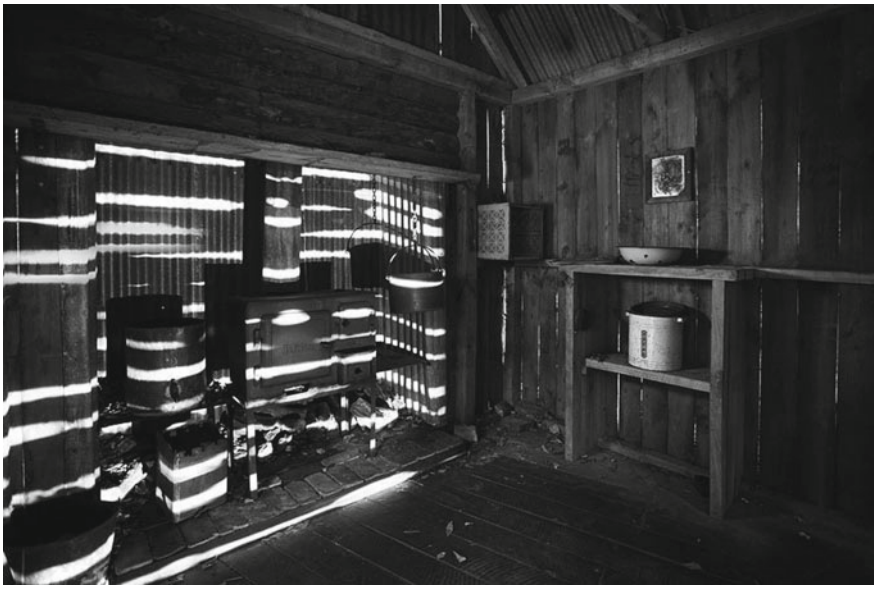

Fig. 5.5 Sarah Breen Lovett, installation view of *Ex/Enclosure*. 2013. Photograph by Keith Maxwell

wilderness of the rainforest, the sanctity of the miners' hut is a world on its own and the shifting rays of sunlight through the cracks in the walls can be seen as a form of visual stimulation as well as weather and time-telling device.

In order to reflect upon the significance of these shards of light, each crack in the wall was filmed individually using the parameters of the body to arc the camera from the ceiling to the floor along the vertical crack lines. These images were then edited to create a series of horizontal lines that run counter direction to each other and were re-projected back onto the fireplace hearth. Reflecting upon the way that the digital moving image has replaced the fireplace as the heart of the contemporary home, the gridded lines of light slowly traversed the fireplace–revealing and concealing overlooked fragments of the hearth. The accompanying sound was a recording of the effort to pick up an AM radio station, which was inevitably out of reach. The crackle of the sound and the shards of light served as a representation of the physical relationship to a space so remote.

Unlike *Between Here and There* this work not only represents a physical relationship to the cracks in the walls or floorboards, but it also refers to a specific historical reading of the architecture. It inevitably refers to how the miner's hut may have been occupied and what significance the light through the cracks in the wall may have had.

The final work to be discussed has the most complex locational interior/exterior device being used, while one is interior to one space the mind is encouraged to wander around multiple spaces in a whole, historically significant building.

5.11 The Other Room (2014)

Entering the oldest building in the Blue Mountains, one can smell the dust and feel the weight of time in the walls. Descending into the largest room in the building you encounter a circle of chairs. The room begins to fill up with people, who all sit in the circle facing one another, a séance like configuration. A sound recording begins, an older woman's voice begins to recount ghost stories of the building. Looking up, a projected image of the attic window you recognise from the building's exterior begins to appear and turn upon itself. Slowly the changing images appear: one by one, turning and correlating to the different parts of the building that are being recounted in the ghost stories. As one sits there, a spatial experience of the building begins to occur. As you are grounded to one spot transfixed by the ceiling, the sound and image transports and directs your mind to firstly the turning images, which have a destabilising effect, and secondly to the multiple different parts of the building, that are all exterior to where you are now.

The Other Room (2014) was selected by committee from an open call at *Woodford Academy,* the oldest surviving building and *National Trust* site in The Blue Mountains. The work was carried out by separately interviewing two women who had been volunteers at *The Woodford Academy* for over 10 years. In the interviews, both of these women recounted various ghost stories that either they had experienced or that

they had heard about. It was interesting that each of the ghost stories had very specific relationships to different architectural assemblages in the building; these focused on the windows, upstairs floor surface, stairwell and bathroom.

One of the stories recounted by both women was a common feeling of dizziness in the upstairs rooms where people would feel overwhelmed by the heat and claustrophobic conditions. Following this it was decided to film each of these spaces as described in the interviews, using the action of unsettled movement in the filming technique. While filming in a standing position, I rolled my body in a circular motion from far left to far right while also slowly turning the camera lens. Small snippets of sound from both interviews were edited to join parts that were talking of the same architectural assemblages. Footage from that assemblage was then edited into accompany the narrative track. This resulted in a non-linear narrative format that began with the areas at the top of the house, made its way down the stair and out into the garden area. The sequence of the work was made so that the viewer would be sitting in the seat in one room and they would be taken on an aural and visual journey through the house, so their mind would wander through the house.

For the presentation, the footage was projected on a short-throw projector onto the ceiling in the largest room in *The Academy* (Fig. 5.6). Seating was placed around the edge in a circle so the audience could sit down to watch the film above them, this was also used to draw attention to themselves sitting in that location. The movement of the camera was designed to instil a sense of dizziness in the viewer so they felt what the ghost stories were relaying; the audience recounted a strong visceral, haptic effect from this. This work was structured around the narrative provided in the interviews in the ambition of drawing forth the historical and cultural layers of the site and how these could provide new experiences of the various architectural assemblages within *The Woodford Academy.*

This installation references the anthropomorphic filming techniques used by Nicky Hamlyn, where filming generated through the parameters of the physical body is seen as a useful structural film process, such as *Window* (1975). This installation could also be considered in relation to Tony Hill's work, such as Floor Film (1972) which asks the audience to occupy a space where they experience dislocated filmed footage, separate to the projection environment that in turn heightens the haptic relationship to the architectural assemblage, specifically projected onto a ceiling such as *Ceiling Film* (1973). The visceral haptic nature of this work, is also a relation to Hill's explorations of footage with antigravity and disorientation, to create a hypercorporeal awareness of the architecture, such as *Downside Up* (1984). While Hill's films rely on the method of shock and strong visceral sensation to the images to disrupt the stability of the architectural assemblage, these works use more subdued, slow-changing images, which speak of exterior spaces.

Fig. 5.6 Sarah Breen Lovett, installation view of *The Other Room*. 2014. Photograph by Yvette Hamilton

5.12 Conclusion

This series of works has shown various locational experiences of architecture, and self in relation to it can be explored with moving image installation ranging from the habitual and haptic, to the historical, cultural and narrative. These different interrogations of architectural awareness can be realised through various techniques such as using site-specific filmed footage projected back into a site, to using footage that is imported from elsewhere. The work explores the location of the body in spaces of

transition, by returning the use of filmed footage from the site of projection. While the second series of works projected footage of imagery slightly dislocated from their original place. This was to specifically create a fissure between where one physically and mentally are located. In both of these works, apart from using structural and technical filming techniques, it was also carried out by allowing historical and cultural influences to add extra layers to the notion of what an expanded architectural awareness may be informed by.

The practice focused upon the habituated and overlooked relationships we have with architecture, through artists such as Dan Graham, Bernard Tschumi, Elizabeth Diller and Ricardo Scofidio. Therefore, works such as *Still Stair* and *Ex/Enclosure* were created in order to question the notion of preconceived or preformed relationships between self and architecture. Notions of William Raban's reflexive techniques and Tony Hill's haptic relationships became focused upon in works such as *Between Here and There, Corridor* and *The Other Room.* The case study research on artist Nicky Hamlyn highlighted the difficulty of separating the architectural and processual from the subjective, so this aspect was explored through works such as *Ex/Enclosure* and *The Other Room.* This led, in the later works, to an approach whereby the boundaries between subjective and objective were deliberately blurred and allowed to become indeterminate. Thus the work became more experiential and open to subjective readings.

This body of works enables a shift in the experience of the body between the architecture and moving image. That is, the practice holds the attention at a point of wavering between moving image and architecture. Within some of these works an emergence of perceptual dislocation occurs; this can be thought of as a disjuncture between the architecture and the representation of a new relationship with the architecture. The novelty of this practice comes from the way it examines architectural concerns through a practice that highlights and integrates artists' and spectators' experiences of self in relation to architecture in order to produce a new architectural experience— expanded architectural awareness.

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Part II
Spatial Representation: Social Interfaces

Chapter 6
The Role of Technology in Shaping Student Identity During Transitions to University

Harry T. Dyer

Abstract The establishment and negotiation of a new and incoming student identity during their transition to university is traditionally a healthy area of research, yielding many interesting results about how to support students in this transitionary period. However, there is little research that acknowledges and explores the increasingly vital and central role that technology plays for students during this transitionary period. Given the pervasiveness of technology, and the new forms of place-related identity practices that can emerge through digital technology, there is a need for research that explores the role technology plays in how students are experiencing the various social, academic and physical spaces of university. Drawing on the ideas presented in Latour's Actor-Network Theory, and Lefebvre's ideas of the (re)presentation of social space, this chapter details the results of a focus group held with new students in their fifth week of study at a UK campus university. The findings reveal a number of techniques, practices, and concerns in regard to emerging student identities and practices, and their negotiation of university as a social, physical and academic space. The findings suggest that in order to better support students, both online and offline, we need to understand their emerging identities as complex sociotechnical assemblages and understand that their conceptualisations and experiences of university as a social, physical and academic space spans online and offline possibilities.

Keywords Identity · Student · University · Technology · Place

6.1 Introduction

For new and incoming students, the transition to university can be a complex time, fraught with new social possibilities and connections, new academic challenges, and new spatial environments to negotiate. The establishment and negotiation of a student identity during this transition is traditionally a healthy area of research, yielding many interesting results about how to support students in this transitionary period.

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However, there is little research that acknowledges and explores the increasingly vital and central role that technology plays for students during this transitionary period.

Increasingly, the ways in which students establish and conduct their multifaceted identities, and the ways in which they experience, negotiate, conceptualise, and understand university as a social, academic, and physical space is augmented and mediated through myriad possibilities presented by technology. Given the pervasiveness of technology, both in the students' lives and in the infrastructure and pedagogical practices around them, and given the myriad new forms of space-related identity practices that can emerge through and in this sociotechnical landscape, there is a need for research that explores the role technology plays in how students are experiencing the various social, academic, and physical spaces of university. This offers possibilities not only to better understand student experiences but also potentially offer interventions to better support students during this transitionary period.

This chapter attempts to map these relationships amongst one group of incoming students in a UK university to explore the relationship between technology and their conceptualisations and experiences of space. In order to do so, this chapter starts by presenting a brief case study of the relationship between technology and space in the form of an exploration of GPS technology. The case study provides insight into the myriad ways in which small changes in technology can shape our experiences of space, and the manner in which the use and experiences of both technology and space are bound up in sociocultural resources and concerns. Following this, this chapter details the results of a focus group held with new students in their fifth week of study at a UK campus university. The findings reveal a number of techniques, practices, and concerns in regards to emerging student identities and practices, and their negotiation of university as a social, physical, and academic space. The findings suggest that in order to better support students, both online and offline, we need to understand their emerging identities as complex sociotechnical assemblages, and understand that their conceptualisations and experiences of university as a social, physical, and academic space spans online and offline possibilities.

6.2 How Technology Changes the Way We Relate to Space

Some of the most useful insights into the relationship between technology and our experiences and conceptualisations of spaces around us can be found through looking at the history of Global Positioning System (GPS) technology, and the myriad forms of spatial navigations these technologies have opened up. The navigational potential of GPS does not just provide us with tools for locating and positioning ourselves within a space, but provides ways of representing and translating a given space that have broad and myriad social implications that affect aspects such as which spaces are seen as important, who uses a given space, and how they might use it. It is always important to keep in mind that if we are to conceptualise GPS technology as a tool for translating the world around us into a new format, that no act of translation can ever accurately and faithfully represent that reality in a new format. Choices must

be made in the act of translation as to how best to represent that space that may not contain, for example, every tree, every bird or every insect moving within a space.

The fraught process of translation can perhaps be best summed up by the Italian adage 'traduttore, traditore', which ironically roughly translates into English as 'to translate is to betray'. The translation of offline reality into the online realm is not a direct and perfect translation, but instead, it is a specific translation, that has the effect of emphasising certain aspects and minimising the importance of others. It should not be assumed that offline reality is presented neutrally, accurately or without bias online. Digital spaces and representations of social and physical reality are always and purposefully curated. The process of translation is, therefore, one that cannot assume a 'blank canvas' for identities to exist, emerge and flourish in a neutral manner. Sociological concerns regarding social justice are inherently entrenched in dynamic between technology, space, and self, a concept which this brief exploration of GPS technology and the subsequent data analysis both unpack.

Similarly, moving through a given space helps us map, know, and experience a space, telling us what is important and interesting within that location, and providing us with information about the most efficient way of navigating the location. This experience of our movement through spaces has increasingly become augmented through technologies which help us navigate the world around us and provide us recommendations for routes and best locations to visit, a development that has been well researched in the field of tourism studies (Tussyadiah and Sigala 2017). It also opens new social and experiential possibilities through overtly social applications such as Grindr or Tinder (Roth 2014), as well as through games such as Pokemon Go or Geocaching (Humphreys 2017) or the recent rise is ride-sharing apps such as Uber (Rogers 2015).

Importantly, however, these games and applications are not created in a vacuum separate of sociocultural reality but have instead been noted to exacerbate extant social disparities. These new ways of experiencing, augmenting, and understanding space are rife with their own sociocultural biases which subsequently mean that not every user experiences these spaces and relates to these technologies and their spatial opportunities in the same manner. Cases have been documented, for example, of the trend of exclusionary practices on apps such as Grindr through terms such as 'no fats, no fems, no blacks, no asians' (Scott 2015). Others have noted the systemic racial inequalities that manifest themselves when PoC attempt to play Pokemon Go in white neighbourhoods and are treated as if they are acting suspiciously (Crockett 2016). Others still have found ride-sharing apps like Uber discriminate against women and PoC (Ge et al. 2016). Added to other socio-economic inequalities around access to technology and data (Anderson 2017), GPS and the spatial affordances offered by these technologies becomes enmeshed into complex sociotechnical assemblages which can present new social dynamics and exacerbate extant issues. As such, there is a need to not only study what forms of actions and interactions are afforded by different technologies, but to look at how they are used, who they give voice to, and who they silence.

Research has recently looked at how the ways in which GPS technology provides new possibilities for social interaction that may change the ways we relate to space.

For example, Saker (2016) has studied how sharing a user's location via check-in apps such as Foursquare enable new iterations of 'the process of online self-presentation based on the display of offline physical activities' (Saker 2016, 1). Through interviews with users of Foursquare, Saker explores how location-based capabilities provided by wireless GPS technology, along with the design of Foursquare, provided new modes and expressions of identity and new methods of interacting with media socially, noting that through this technology, platform users were 'conflating the places they frequented, and the symbolism they attached to these environments, with their own identities' (Saker 2016, 12). As such he notes that this technology allows for physical real world locations to become an expression of identity. In this manner, the technological capabilities provided by building GPS into a platform socially allow for users to create new narratives and interact in new and meaningful ways.

This interlinking of the digital and the physical material is likely to continue to evolve in interesting and new manners as technology continues to evolve further. Capabilities provided by augmented reality (AR) for example allow users to overlay and superimpose projections of digital worlds onto the physical world, allowing for interesting new methods of social action and interaction. This was perhaps most prolifically noted in the Pokemon Go craze of 2016, which Humphreys (2017) carefully unpacks. Whilst writers such as Turkle (2017) notably opine that social technology makes us less social, seemingly because it is less 'authentic' than face-to-face interaction in her proposed hierarchy of social interaction, Humpreys and other researchers avoid this problematic hierarchy to instead look at how the AR technology of Pokemon Go was used a shield from some forms of in-person interactions as much as it was also used as a catalyst for other social actions and interactions.

Indeed, despite fears about declining standards of in-person interactions, GPS technology has many implications for new methods through which we can socially interact through spaces. For example, Bales et al. (2011) have looked at methods of using location data to help maintain long distance relationships via an application that implicitly sends your partner your location data when you reach a frequently visited location and receives your partner's location data when they do the same. They note that this allows partners to maintain awareness of each others location and that, importantly, this changes social interaction away from an explicit obligation to an implicit reception of data that can be used to express information without direct action from the user, interacting through the sharing of implicitly sent location data alone. Of course, as other researchers pointed out, this 'always on' surveillance mentality was not always received kindly by users, many of whom have actively resisted sharing location data and who pushed back against the pressure 'to not only adopt social applications such as location sharing, but also to be responsive and accessible at all times' (Page and Kobsa 2010, 174). As Arnold (2003, 243) notes of the double-edged nature of technology that allows locational exploration and tracking, 'the purposes of mobility are achieved through performances that simultaneously require fixity. We can move, but we are always there'.

Others have looked at how the same technology has been 'gamified' for social interaction via popular apps and websites such as Munzee and Geocaching which

allow users to discover hidden scannable codes or caches in various real world locations hidden by other users. The process of using games as a method of social interaction serves as an example of how new technology provides new modes and methods of social action and interaction. O'Hara (2008, 1181) For example discusses how the process of collecting geocaches becomes bound up in a social identity performance. She notes that 'there was value not simply in these collecting achievements per se but how they came to be represented to others', noting that the act of collecting and creating caches positioned users within a wider online community. Through interviews and participant-kept diaries O'Hara noted that the technological affordances and the media platform the participants were interacting through augmented the users' conceptualisations of the space around them as spaces literally containing hidden treasures, which in turn also lead to new and novel on- and-offline interactions, further blurring the line between these traditionally separate realms. In other words, 'online participation can be a significant influence on associated location-based experiences and vice versa' (O'Hara 2008, 1186). Here then we see the technology enabling new methods and spaces for social interaction. Farman (2009, 1) highlight this point, suggesting that geocaching provides a unique new social space and new forms of social interactions by enabling a 'blending of material and virtual interfaces, notions of presence and absence, visible and invisible, and utilitarian and playful purposes of everyday objects'.

GPS technology of course is not the only technology that has changed our relationship to spaces around us, in turn providing new forms of social interaction and identity presentation. Other studies have looked at how self-tracking technology and fitness technology can be used for social interaction. Devices such as 'smartwatches' allow for tracking of various statistics such as sleep patterns, exercise, body weight, and heart rate. The tracking afforded by this technology not only has implications for fitness and personal health, but has also become a tool for social interactions via online media, through both general Social Media sites such as Facebook and Twitter that have accommodated this new social data format (Wang et al. 2016), and dedicated sites and communities for those interested in fitness tracking (Paton et al. 2012).

The presence and integration of self-tracking platforms such as Facebook, as well as the growth in new features such as live streaming videos also highlights new opportunities and challenges for different communities, a point that was prominently raised following the fatal shooting by police of Philando Castile, and the subsequent live streaming of the aftermath by his girlfriend, Diamond Reynolds (Brown 2017). Similarly, 2018 has seen a spate of viral videos shared online of white females phoning for police on PoC for using spaces in ways the white females perceived as incorrect, such as holding a BBQ in a public area (an event documented in the hashtag #BBQBecky) or an 8-year-old child selling bottled water on the street to passers-by (#PermitPatty). The technology in this case provides a documentation of the tensions inherent around the use of these spaces, with the videos drawing attention to the sociocultural power imbalances around race and uses of location. In this manner, technology, sociocultural resources, and location become enmeshed.

The brief look at the impact and adoption of GPS, location technology, and location-based subsequent data for and in social interaction provided above aims to show how a relatively small and benign change in technological capabilities can have a deep and wide impact upon social interaction online and offline. This chapter does not have the space to explore the numerous other examples of technology changing our relationship with space in interesting ways, such as headphones, which provide users with the opportunity to disconnect from the immediate audio environment and immerse themselves in music, podcast or other audio entertainment. The use of headphones again has implications for different sociocultural communities, with some critics noting that the ability to disconnect is a luxury not afforded to all equally. For many, the choice to disconnect from their environment can be a risk to their life, as highlighted in the shooting of Dillon Taylor, a 20-year-old killed whilst wearing headphones because he could not hear police officers' commands. Similarly, a viral article from 2013 detailed how to 'flirt' with women who are wearing headphones that essentially amounted to abusing females on public transport as they attempted to reclaim their autonomy. In this manner, females are not afforded the ability to disconnect without abuse or harassment. On top of this, not all socio-economic groups are afforded the luxury of free time, nor access to technology, meaning that the luxury of disconnected from immediate locations is not afforded to all members of society with the same risk or cost. As such, it is apparent that a consideration of the relationship between space, technology, and user must consider a range of aspects, not only looking at what new possibilities the technology may provide to users, but also how the socioculturally grounded users may or may not be experienced this technology equally.

The continuing examples of the varied uses of technology serves as a reminder that, despite the media affordance, researchers need to consider more than just the anticipated or typical uses but also look at how users create personal and unique experiences with, through, and on technology, grounded in their sociocultural realities (Bar et al. 2016). Nonetheless, it is also clear that our interactions are in some way guided, constrained, and shaped by the technology available for us to express ourselves through and with (Dyer 2015). Relatively small changes such as the addition of location-based data or more recently the introduction of real time live video streaming, can have a number of wide effects on how these social interactions manifest themselves, what is considered social interaction, what is considered to be social data, and what form social interaction takes (Saker 2016).

Given this, this chapter aims to provide an understanding of the relationship between technology and space through focusing on how incoming first-year students use technology to navigate and explore university as a social, academic, and physical space. The research looks at how students' social, academic, and physical relationships to the space of a university are affected by technology, whilst also providing an understanding of how the engagement of technology is grounded in the sociocultural realities and resources of those students. As Barnes (2017) astutely demonstrates, research into first-year university transitions needs to acknowledge that university is a complex space and that student experiences of university are always situated amongst other overlapping life experiences. Student experiences are

always socioculturally grounded. Indeed, though this research focuses upon transitioning students' relationships to social, academic, and physical aspects of university; it is acknowledged that their experiences exist within a broader sociocultural landscape, and are often accompanied and enmeshed with other periods of transition and becoming (Barnes 2017). By considering how technology has shaped transitioning students' experiences of space, this project overtly and purposefully acknowledges the need to combat the tendency towards digital dualism (Jurgenson 2012) in which social media is often extricated from the offline realities in which it operates within, and with which it overlaps and enmeshes. By acknowledging transitions beyond academic contexts, researchers are able to get a fuller, more nuanced understanding of student experiences that does not assume that the best way to improve learning experiences is through pedagogical interventions alone (See Mills and Gale 2011). This paper overtly acknowledges that social interaction is not dichotomous to learning, and that social media is not singularly social in usage.

Research has been conducted to show the multifaceted and complex role that Facebook can play as a platform for students (Lampe et al. 2006; Madge et al. 2009; Selwyn 2009) especially during transitions to university (Jenkins et al. 2012; Gray et al. 2013; Barnes 2017). This project is keen, however, to move beyond a single social media platform approach to instead overtly acknowledge the multiplatform reality of online interactions, and to acknowledge social uses of technology beyond social media as a sole focus (See Dyer 2017). As Madianou and Miller (2013) highlight in their research, online interaction exists across multiple platforms at any given time. PEW research suggests the use of multiple platforms is increasingly common (Anderson and Jiang 2018), emphasising that future research should consider more than just a few specific platforms when attempting to understand how users are engaging with technology. By looking at a polymedia landscape, this research also acknowledges that, despite the now ubiquitous nomenclature, social media platforms are not solely social, but can serve a range of purposes and functions including news, shopping, entertainment, and research.

6.3 Methodology

This exploratory study aimed to explore the relationship between technology and use and attitudes towards space, specifically focusing on how first-year university students made use of technology during their transition to university to understand the university as a social, academic, and physical space. In order to do so, a sample of 20 students was gathered during the first 5 weeks of their university course. By working with people transitioning into university, this project was able to unpack how the users negotiated and navigated these spaces, as well as how they fitted university commitments into their broader lives. The students were chosen from a single BA course in an English campus university and consisted of first-year students from a range of backgrounds, including foreign and mature students. Opt-in approval for a 1 h focus group was gained from all participants, with the same activity running

simultaneously for other students on the BA course interested in discussing the same topics with peers without taking part in data collection for this project. This was done so as to provide a space for new students to experience research methods in person and to engage with the research process.

This project forms part of a broader in-development project into how universities can use technology to support students during the transition to university. As such a focus group was utilised to identify emergent key themes with the aim to subsequently develop projects to focus on specific communities and needs. Though somewhat limited in scope, the data gathered in this focus group provides insights into the concerns and experiences of transitioning students that can inform future research in this area. The focus group was audio recorded, and subsequently transcribed and anonymised, with identifying factors obscured or removed. The project was conducted in December 2017.

6.4 Findings and Discussion

Thematic coding of the focus group revealed a number of issues in regards to how technology is shaping attitudes towards university as a social, academic and physical space. For the purpose of this chapter, I will focus on five issues emerging from thematic coding of the focus groups, detailed below.

6.4.1 Social Media as a Transitional Social and Academic Tool Before Arrival

During the focus group, the participants discuss how their transition to university began before their physical arrival at the campus through the use of social media, a trend noted in previous research into student transitions to university. One participant discussed joining a Facebook group for first-year students a month and a half before starting in order to find people staying in the same accommodation, before subsequently starting a more private group chat with her future roommates. In this manner, her social experiences of university predated her actual arrival, becoming both detached and separate from the physical space of university whilst also intimately informed by anticipated physical space, with interactions and groups demarked via the geographical categorisation of accommodation.

The use of social media before their physical arrival on campus did not just revolve solely around social interaction. The participants made a point of discussing their engagement before arriving in what they termed ‘stalking’ of people on their course and in their accommodation. Stalking here was used to describe activities such as looking at other students’ profiles and pictures across various platforms in order to gather more information about them. The participants discussed how finding out

more about their fellow incoming students and roommates served several functions such as easing concerns, managing expectations and even helping to placate and calm concerned parents, friends and partners. One participant noted that they got together with their partner to '*discuss what we thought of everyone before we came*', noting that it '*was a nice way to ease my concerns about the whole thing*'. It also helped initial interactions upon arrival, with one participant noting that they:

> Could recognise faces straight away, instead of like sitting there not knowing anyone I could pick up names and feel comfortable talking to people I'd been speaking too since I found out I was coming here.

This matches other research that suggests our understanding of social media needs to look beyond content production and interaction alone. By only focusing on the online content, research risks potentially ignoring the many complex uses of social media that span physical and online spaces, and defining social media on its potential and not its actualised use in practice. The participants highlighted the importance of social media as a transitional tool for gathering information about their new fellow students and the spaces they would inhabit at university. This was not a secondary use of the platform for them but appeared to be an integral part of the social experience.

Notably, this was not, however, the experience of every participant, as not every participant had an active online presence before arrival. One mature participant noted:

> So I didn't have Facebook at the time, I deleted it, so I wasn't part of the group chat, I wasn't aware of anything, so when everyone knew everyone on the first day I was like 'oh my god, how do these people know each other?'. I was sat there like a loner, so I've actually had to get Facebook back for the social side of things

This suggests some limitations to the usefulness of social media as a transitional tool. Similarly, this online impression management and information gathering was not always entirely accurate, and in some cases lead to incorrect assumptions about future students and roommates. The disparity between the participants' impressions from online 'stalking' and their experiences upon meeting were discussed in the focus group. Some participants discussed students that they thought might be extremely social due to their online photos, noting that they thought '*'I can't keep up with this guy', and then it turns out he never ever goes out!*'. Other inaccurate pre-formed impressions were socioculturally informed and based upon stereotypes. One white female participant detailed her experiences with a Kurdish future roommate

> So he's Kurdish and he's really involved in like the plight of the Kurdish people. So we looked at his Facebook and there were like a lot of images of like soldiers and we were quite, not concerned, but quite curious that we were going to be living with someone who was like posting pictures of soldiers. So we kinda had like an almost negative almost image of him, and then when we met him and found out more about the reasons why he was posting the pictures like it completely changed our opinion of like who he was.

As the briefcase study of GPS technology earlier in this chapter highlights, there is a need to embed the use of technology within the sociocultural resources and experiences of the user. Here we see the participant grappling with culturally informed stereotypes to form a problematic impression of a future roommate. The participant

goes on to discuss how the act of 'stalking' in this case luckily became pedagogical, as she subsequently began researching and learning about the Kurdistan Region of Iraq. In this manner, the use of social media can be seen as a useful, if flawed, research tool for incoming students, with not only social value and usage but also some educational value.

Nonetheless, though this fortunately turned into a positive learning opportunity in this case, racial profiling in impression management can often be not only socially exclusory but also dangerous and life-threatening. In 2018, there have been publicly recorded cases of racial profiling on US college campuses, with Native Americans students being reported to police during a college tour because the caller felt that they did not belong on campus (Levin 2018), and a black student reported to the police by a fellow white student for falling asleep in a common area of their Yale University campus dormitory (Caron 2018). As prominent academics such as Priyamvada Gopal and Sunny Singh have discussed, universities are not separate from social inequalities that pervade society, but often serve as spaces which exacerbate systemic and pervasive inequality in a manner which excludes those who are not white (Singh 2018). This could be dangerous for the Kurdish student in this case, especially in the current UK university climate where the government's anti-radicalisation scheme, title 'Prevent', instils a climate of fear and surveillance towards Muslim, and more broadly Middle Eastern and PoC students. In this case, the participant took the time to further educate themselves, but we cannot assume that all students will do the same, or that the 'translation' from reality to a new medium like social media will be read and understood the same way by all. As such, social media becomes a problematic location for the development of university as a social space before arrival, bound intimately to sociocultural assumptions and resources.

6.4.2 Use of Social Media as an Academic and Spatial Tool During Transition to University

The participants noted the use of various different applications and platforms used for academic support during and before moving to university. One app mentioned was the 'campus society' app, an IOS and Android app specifically aimed at new students. Though the app is primarily focused around social interaction, the participants discussed its use to them as a more academically focused space, discussing course-specific demands such as timetables and readings

> It was quite, study focused, so if people found the pre-course reading and work that was set before we started, because it wasn't super easy to find if we didn't know the system, it was nice to hear them say 'I've found this, you need to do this'. That was useful.

Similarly, the participants discussed other spaces that held academic and educational value to them during their transition. One student discussed how they

> Created a new Twitter account purely for education purposes, so I follow like the departmental Twitter page, some academic accounts, and sort of like the Guardian and stuff like that on

> there, as sort of like an easier way to keep up to date with what's going on in the field rather than simply sticking to the reading list. I find that's the kind of best way that I've gone about my studies to try and get myself more involved. I think it's kinda been an easier way for me to become attached to modules that I wouldn't otherwise be that interested in.

For this participant, social media became an academic tool for extending their knowledge of their field and engaging with extant and ongoing debates. This engaged educational use of social media appears to be quite unique to Twitter as a social platform. As one participant noted of Twitter

> I've found it more informational than Facebook, Instagram, or anything else, I use my Facebook for socialising and my Twitter for like breaking news and information about stuff I'm interested in.

This concurs with previous findings which suggest that social media platforms do not uniformly define what it means to be social (Dyer 2015). As social interaction online moves beyond a single-site model, it is apparent that different platforms define what it means to be social in different ways, leading to different interactions and uses. Indeed, some participants maintained multiple accounts for different purposes to attempt to control their experiences

> I only really use Twitter for a professional and academic persona. I'll tweet and retweet them, and then I have a private one that only has twenty people on so I can talk openly about things that I might not want to share so publicly, so for me, I use Twitter not as a random exploration. It's either really private or it's public-facing professional

Evidently, however, the participants noted there were overlaps between the use of social media as an educational and social space during transition. This came to light most clearly in the discussion of a module-wide private Facebook group chat set up by the participants. They noted that this group chat served as a multifunctional space, both as a location for academic discussion but also as an overtly social location

> Sometimes we'll put on there like "how do you reference this?" or "has anyone like read this" or if we can't access it sometimes people will put the reading on the chat in a PDF, so we all sort of help each other. But people also post "oh if you're going on a night out I'm here tonight if anyone wants some drinks".

This use of a group chat as a space for overt peer support was championed by the participants, who noted: '*it's actually really useful to learn from each other, and to also not feel like you're alone if you're struggling*'. This useful peer learning was not just restricted to out-of-lecture discussion, but interestingly was used *during* lectures by the participants as a real time pedagogical tool, as the following interaction highlights

> *laughter* Yeah we use it during lectures, but that's the thing, some lectures tell us to get off our phones or laptops or whatever, but we're often genuinely talking about the stuff we don't understand together as the lecturer is talking.
>
> Yeah, it's actually been really useful to know I'm not the only confused person, or to talk about what we think…It's not all gossip. It changes every week based on like what we're finding difficult, but it tends to focus on what we don't understand as much

This adds somewhat of a new dimension to the ongoing tensions around the use of laptops, mobile phones, social media and other technologies within lectures. Here the participants used the social space in real time to provide commentary and discussion around the content of the lecture, as well as to socialise. Though recent evidence suggests that using laptops in classroom harms productivity and can impact overall grades (Patterson and Patterson 2017), it appears that there is value to the use of such technology in the classroom both socially and academically.

6.4.3 Social Media, Technology and the Conceptualisation of University in a Neoliberal Marketplace

The temporally flexible peer learning afforded by group chats and other technologies was highlighted as a useful learning tool by the participants, though noticeably it was presented in contrast to issues such as lecturer email response times and lack of weekend accessibility. Participants noted, for example, that '*rather than like sending an email Friday night and having to wait til Monday for a reply it can be useful just to message other people about it*'. When asked for some suggestions of how universities could better use technology and social media to help transitioning students, suggestions similarly revolved around timeliness of responses and accessibility in out-of-office hours. Suggestions included a manned Facebook chat or a Twitter direct message. The participants noted cases of companies and shops who could be contacted on Twitter directly via messaging for quicker customer service, noting that '*having like a lecturer there to ping a message too, to get a response back quickly would be nice*'. This overt comparison between customer service and academia hints strongly at attitudes towards academia being increasingly shaped by market attitudes and a neoliberal-inspired 'value for money'. This came through most clearly in one participant when discussing the option of private messaging a lecturer that it

> Would be helpful on social media rather than face to face so we can figure out what we're doing wrong. It's quite ridiculous, because we are spending like nine thousand pound to get here, I do expect some support considering I'm spending a lot of money. This is a business at the end of the day

This again suggests that it is not only technology that changes how we view the academic space of higher education, but other sociocultural elements that shape the sociotechnical conceptualisation of higher education. Here we see a combination of technology's constant contact, convenience and personalised interaction opportunities mixed overtly with concerns of value for money in academia. Similar concerns could be seen in suggestions around webcam recordings of lectures, and the use of Dictaphones as routine practice in lectures to make sure the content was replayable, with the participants frequently bringing up their university fees as a reminder of the transactional nature of UK higher education, and perhaps of the prioritization of archived and storable knowledge. The value, for the students, appears not to be knowledge shared within a specific space at a given time, but in the collection and

archiving of this knowledge for later use and repetition. In this manner, it could be argued that in the neoliberal university immaterial and unmeasurable knowledge begins to evaporate.

In relation to this participant's discussion of the unjustness of 'hidden/additional costs' associated with producing records of knowledge, concerns were raised as to the cost of printing out readings which had been provided in online reading lists by the module organisers. Participants suggested they preferred reading paper copies, and that they had to spend time and money printing readings, but were faced by long waits at joint printers, with the possibilities of paper jams and other issues.

> I refuse to print anything of since I've got here, I read via PDF. I know the printer is like a key area of the uni for some people now, because they're so reliant on printing out readings. At the minute my maintenance loan doesn't even cover one term of accommodation properly yet alone food shop, and my job is suffering because of my studies. I don't really want to be spending that on printing when I've paid nine thousand pound to be here.

This also highlights another manner in which the economic climate-shaped attitudes towards both university and technology, namely the manner in which the participants had to combine their studies with other commitments such as outside employment. The temporal flexibility offered by technology was highlighted by the students as an advantage, both academically and in terms of social integration. One participant noted

> It takes me like 90 minutes door-to-door to get to uni, so the group chats have become my way of being here without being here in person. I work like 40 hours a week probably. And I'm learning to drive. So I feel like I'm busy with work, this, and other commitments, but I'm able to interact with everyone or catch up on the discussion, so it actually kinda helps.

It appears here that physical presence itself may be becoming a luxury within a neoliberal marketplace, with multiple commitments challenging the participant's attendance in lectures. As the participant suggests, social media circumvents spatial and temporal restrictions, enabling and encourages peer interaction even when the student is physically absent. It was apparent that social integration was vital to a sense of belonging to university, and to ownership of the title of 'student'. As Barnes (2017) highlights, social integration can help a student feel connected to the space of university, to peers and to their course.

Other participants discussed working weekends and nights in order to cope with the direct and associated costs of higher education. Similarly, the participants discussed having to live off-campus with nearby family and friends in order to lower their living costs. Social media offered these students a social lifeline creating a sense of solidarity and community. The participants noted, for example:

> It's not that I don't want to go out, I just maybe haven't had time or like I don't have like the finances to do that, but with the group chat, I still feel in the loop, and don't really have the same FOMO [fear of missing out] as much.

In this manner, social media and technology presented the students with a social and academic lifeline, easing some of the tensions and issues created by socio-economic concerns. At the same time, it was clear that the participants viewed university in a

transactional manner, which affected both their views on technology and on academia as a whole. In this manner, the participants' uses of technology and conceptualisation of university as a social, physical and academic space were intimately bound with their specific sociocultural situation.

6.5 Conclusion

This brief consideration of the themes of this project hint at complex multifaceted sociotechnical realties being formed which have a considered effect on what the participants wanted and expected from university life and academia as a whole. Technology clearly offers students new manners of interacting and acting, with social and academic advantages apparent, both during and outside of lectures and the physical boundaries of the university more widely. However, this also poses new concerns and issues for those working within higher education, including issues such as increasing demand for on-demand 24/7 contact hours, the recording and delivery of lectures, and the need for a 'public' social media presence.

The participants highlighted that the neoliberal marketplace was not only affecting their expectation of university, but also their access to university, both in terms of available study time and ability to commute to campus. Technology and social media offered students new ways of combating some of these concerns, providing temporal and spatial flexibility, allowing for social and educational participation. Though this does not resolve the burden on these students, it is apparent that technology provides new avenues for inclusion within higher education. The calls to ban students using laptops and phones during lectures often voice concerns around attainment and attention, yet this research hints at the need to ground our understanding of technology use within the socio-economic and sociocultural realities of the students. Further research is needed to explore how best to support the needs of students through the affordances of technology, with an overt understanding of the socio-economic and sociocultural realities of students.

It is also apparent that there are sociocultural implications to the use of technology, as the discussion of the Kurdish roommate highlights. This holds both challenges and potentials to the goals of widening participation within higher education, which increasingly is a focus of research and attention as higher education attempts to open its door to broader demographics and support the involvement of students from broad sociocultural situations. Though universities are instilling programmes to encourage access and entry to students from a wide range of backgrounds, it is apparent that these programmes need to consider the challenges and possibilities posed by technology and social media, as well as understanding the systemic and pervasive inequalities present within academia which, as this research highlights, exist even before a student physically enters university.

Transitions to higher education are rife with new social, academic and physical commitments, challenges and opportunities. When considering the effects of technology on this period for students it is clear that it cannot be easily isolated from the

sociocultural and socio-economic concerns and realities of the students. The research detailed in this chapter highlights a general discussion with a range of students, but there is a need for more focused research highlight the needs, concerns and experiences of students from specific sociocultural and socio-economic backgrounds. In this manner, this research aligns itself with the work of Karen Barad and other feminist theorists in calling for work which considers how sociotechnical actors emerge in, through, and alongside specific locations. As Barad (2003, 817) notes 'the world is an ongoing open process of mattering through which 'mattering' itself acquires meaning and form in the realization of different agential possibilities'. During this period of transition that the student becomes defined and boundaried in a manner which limits and controls their action and agency, situating it within the given setting (Barad 2003). Understand the various ways technology becomes enmeshed in this process of transition, and what opportunities and challenges this brings to both students and educators provides a potentially deeper understanding of the student experience, and offers avenues for interventions to better aid students during this period.

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Chapter 7
How I Met My Neighbour Planning for Spontaneous Playful Interactions Through Public Screens

Hilla Michowiz Setton and Efrat Eizenberg

Abstract One of play's most indisputable features is the role it takes in connecting people and facilitating group identity. This chapter contributes to the growing field of urban play in further understanding the relations between urban settings, play opportunities and possible benefits for social interactions in the city. The research introduces an intervention of a technological urban game called 'Evenyaru'. 'Evenyaru' packs the nostalgic game of 'Rock-Paper-Scissors' in a contemporary format by using two small public screens to connect nearby benches and inviting strangers to play against each other through a wireless network. 'Evenyaru' was placed in two urban locations to compare the categories of design that define the interaction between strangers through a playful situation. By creating a virtual 'third place' in a public setting, the study examines the delicate balance between anonymity and connection during urban play through public screens and the relations between urban planning and play elements that thrive on spontaneity. The research found a strong correlation between the attention the intervention received and the type of location. Passersby were more likely to notice the game in the static location than in the dynamic location. In addition, communication between players was more verbal in the static location than in the dynamic location. These findings are understood in light of the organization of objects in public space.

Keywords Play · Group identity · Social · Public · Space

7.1 Play and Game

Play is a complex concept, the most difficult part in its definition is determining where life stops, and play begins. Huizinga in his study of *Homo Ludens* (1938) claims that play is a basic need, a human instinct that generates all forms of culture:

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competition, laws, war, philosophy, art and more. The expansion of the digital gaming community of recent years has led to research in the field of game studies. The distinction between *game* and *play* is tied to Caillois' (1961) differentiation between *paidia* (play—freeform, expressive, improvizational, behaviors) and *ludus* (game—playing structured by rules and competitive strife toward goals). McGonigal (2011, p. 21) defines games as having '[…] four defining traits: a goal, rules, a feedback system, and voluntary participation'.

McGonigal (2011, p. 7) proposes to use game design to fix what is wrong with reality, which she claims to be 'broken'. Games, she suggests, amend human connection in a world that is socially broken. Players use games to distract themselves from a hunger for more satisfying work, a stronger sense of community, and a more engaging and meaningful life. Parenting books from recent years advise parents to play with their children as a method to reconnect and know their child better. It was suggested that 'play is one of the best things ever invented to build closeness […]. If chimpanzees and five-year-olds do it, then I think we can agree that using play to reconnect is a pretty basic idea' (Cohen 2002, pp. 7, 8). Academic literature also connects play to social relations among adults. Research stresses that play allows people to interact with each other while leaving 'a lot of baggage at the proverbial door' (Alfrink 2014, p. 604). Play offers people a chance to connect without exposing too much of themselves. Another supporter of the concept of games as connecting people claims that '[…] reality is lonely and isolating. Games help us band together and create powerful communities from scratch.' (McGonical 2011, p. 172).

Different forms of play will form diverse social bonds. Huizinga (1938, p. 12) stresses '[…] not every game of marbles or every bridge-party leads to the founding of a club. But the feeling of being "apart together" in an exceptional situation […] retains its magic beyond the duration of the individual game'. The feeling Huizinga is searching for echoes what urban studies define as *sense of community* which McMillan and Chavis (1986, p. 9) describe as: '[…] a feeling that members have of belonging, a feeling that members matter to one another and to the group'. By observing strangers engage in a playful encounter, this chapter investigates the notion of play as a bridge between strangers and its place in urban public spaces.

7.2 Living Together in the City

In the modern city people are surrounded by strangers and experience a great deal of anonymity, a feeling humankind was not always familiar with Lofland (1973). According to Sampson's (1988) theory, since big cities are often places with high turnover (Lofland 1973) they are more likely to be lonely places. Although the city is filled with strangers, urbanites have developed diverse ways of handling loneliness and strangeness while living in the city. Most of the individuals affecting us in public urban spaces 'are ones that we repeatedly observe and yet do not directly interact with—our Familiar Strangers' (Paulos and Goodman 2004, p. 1). According to Milgram in relationship with Familiar Strangers both parties agree to mutually

ignore each other, without any implications of hostility making the city feel smaller while avoiding the impossible task of making small talk with everyone we habitually see.

Researchers have been trying to figure out how to measure feelings such as loneliness, sense of community, belonging and other terms defining how we connect to our surroundings and the people we live amongst. Kim and Kaplan's (2004) study of neighborhood design and the impact it has on its residents, points to social interaction as the most profound domain in achieving sense of community though least supported by urban design. This research also pointed out the importance of casual social encounters. In line with the definitions of play, casual social encounters also have a playful quality to them. When playing, players can watch and study the other player without having to reveal themselves to them or letting them know they are watching them.

7.3 Planning and Designing for Playful Encounters in the City

One technique to introduce play into the urban realm is through the design of its public spaces. The research on public spaces is very rich and diverse (e.g. Jacobs 2016; Gehl 2011; Jabareen 2017; Talen 1999; Whyte 1980). In The Ludic City Stevens (2007) provides a differentiation of urban spaces and the sorts of play each of them enables: paths, intersections, boundaries, thresholds and props. According to Stevens (2007), different spaces enable different types of play. A path enables mobile play while a prop can handle forms of play requiring sitting down. Stevens divides these spaces into dynamic locations (meant for passing through: paths, intersections) and static locations (meant for sitting and waiting: boundaries, thresholds and props). The differentiation between static and dynamic locations is at the heart of this chapter and will serve as the basis for comparison of design that enables play in public spaces.

In this chapter we identify two additional concepts as leading forces to be considered when planning public spaces for social encounters. These concepts are a derivative of Kim and Kaplan's (2004, p. 316) definition of casual social encounters as 'informal social contact between residents who do not know each other', thus implying two concepts: spontaneity ('informal') and anonymity ('do not know each other'). These terms can also be analytically seen as connected to urban play—anonymity as a central feature/character of the urban situation, and spontaneity as a feature/character of play.

7.4 Spontaneity

Casual encounters are not planned, they are spontaneous. In Film studies a Meet-Cute is described as: 'A scene in film, television, etc. in which a future romantic couple meets for the first time in a way that is considered adorable, entertaining, or amusing'

(Dictionary 2017). If taken out of the film realm into the real world the term Meet-Cute can describe a spontaneous and charming meeting between two strangers that will form a new connection between them and, possibly, a new friendship. Enabling casual social encounters among strangers requires finding a moment in their daily lives accessible and accepting for spontaneity.

How can spontaneity be induced in public space? The Situationist International (SI) was a radical philosophical group that focused on situations that occurred in a spontaneous manner. In the founding manifesto of the SI the construction of situations was defined as 'the concrete construction of momentary ambiances of life and their transformation into a superior passional quality' (Debord 1957, p. 1). Play hides within many everyday objects such as traffic lights, walls, benches or anything else used in public space. All these objects or spaces might hold the secret for spontaneously generating social encounters and new connections. Such objects, containing play, are described by McGonigal (2007) as ubiquitous gaming which '[…] seeks to make everything in real-life environments as satisfyingly interactive as the objects and characters encountered in virtual game worlds' (p. 236). Spontaneity, then, is the key to unlocking the playful potential of these objects (Stevens 2007).

This chapter delves into the question of whether play can be planned or predicted at all; can strangers be encouraged to spontaneously interact with each other?

7.5 Anonymity

Urbanites find it harder to develop friendships from initial contact between strangers in a public setting. Feelings such as fear, distrust, uncertainty and stress, seem to form obstacles to the initial development of interaction between strangers (Franck 1980). Anonymity is one technic of achieving a feeling of safety. Simmel (1950, p. 404) exemplifies the power of anonymity in a situation that a stranger becomes a new part of a group and brings new qualities to its dynamics: '[…] this is the fact that he often receives the most surprising openness—of a confessional and which would be carefully withheld from a more closely related person'.

Hall (1973) claims that anonymity is a derivative of distance. He suggested four distinct scales of spacing between people: intimate, personal, social and public, thus, making distance a unique factor in managing intimacy versus anonymity. Or, as Goffman (1963, p. 85) states: '… the closer the onlookers are to the individual who interests them, the more exposed his position (and theirs) […]. The further they are from him, the more license they will feel to stare at him a little'. The Internet is understood as a platform where people can present their true self (or some other version of it) without exposing their identity: 'an elegant community space can reassure paranoid users by allowing them to be anonymous […] and they're relaxed enough to feel like they're among friends' (Powazek 2001, p. 144). Social interaction through the Internet enjoys a mental distance generated from the use of a computer screen and geographical distance, maintaining anonymity while allowing enhanced feeling of intimacy. These methods are impossible to maintain among pedestrians in

the street. Investigating social interactions among pedestrians requires setting up a mechanism such as the one that the Internet offers.

This chapter couples the anonymity enabled by Hall's (1973) distances and Stevens' (2007) differential impact of urban spaces in order to understand the possibility of creating sociopetal spaces (Osmond 1957), and encouraging social encounters among residents. Based on Stevens' (2007) theory, we speculate that different forms of use correlate to different forms of play: static locations are places for relaxation and enjoyment, therefore may host a population that is in a more spontaneous mood. While dynamic locations are places where people pass by on their way elsewhere, allowing for a sense of anonymity. Therefore, we hypothesized that while more people will play at the static location than at the dynamic location, less people will play with strangers at the static location than at the dynamic location and more people will notice the game at the static location than at the dynamic location. In this chapter we also examine the relations between urban planning/design and play element that thrive on spontaneity, and the delicate balance between anonymity and encounters.

7.6 Gameplay

The field experiment described in this chapter involved the construction of a play element at two different locations. Data was collected through observations. Evenyaru was designed following Ariely et al. (2014) behavior change theory. The purpose of the game element in this research is to create a spontaneous playful encounter between strangers. Since play is usually reserved for other places and times, pedestrians are not used to playing on the streets. Hence the design goal was to enable a change in behavior, to leverage the unique qualities of play to engage and connect people.

Evenyaru1 is composed of two screens that are wirelessly connected to each other and attached to two benches. A sign, located on each bench, invites pedestrians to sit and play a game of Rock-Paper-Scissors against the person on the other bench2. As the player approaches, the screen reads: 'please choose' and a picture shows an image of a rock, a paper and scissors (see Fig. 7.1). Once one of the players chooses one of the options, a note comes up stating: 'waiting for the other side to play'. Then, a whistle sound and a text notification stating: 'the other player has already played' appears on the screen on the other bench. Once players on both benches have played, a note appears announcing the winner, the loser and current score.

Locations selection was made in alliance with Stevens' (2007) distinction between dynamic (places passed on a way to somewhere else) and static (places for sitting and relaxing) public spaces. The experiment was set at Rothschild Blvd. in Tel Aviv-Jaffa. Two different parts of the boulevard were chosen to place the game element (Fig. 7.2): (1) Dynamic location—The Northern edge of the boulevard where most of the population is usually on their way to a different place, passing, leaving the benches usually empty. (2) Static location—The Southern edge of the boulevard, an

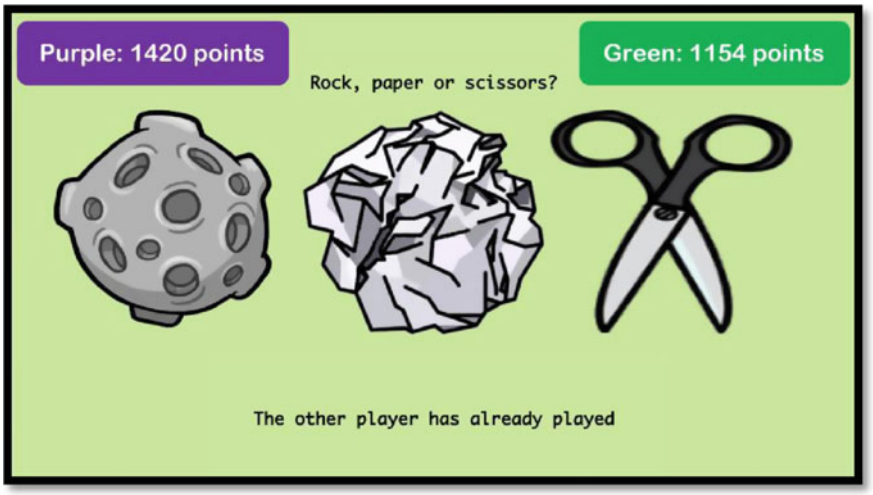

Fig. 7.1 Evenyaru—opening screen

Fig. 7.2 Map of Rothschild Blvd

entertainment and businesses center rich with restaurants and hang out spots, inviting pedestrians to sit and relax at its boundaries during a night out.

7.7 Results

A total of 3450 subjects were counted. Out of which 244 of the subjects played (7%). The demographic distribution table (Table 7.1) shows 50.9% of the pedestrians were male (N = 1759), 46.2% were female (N = 1589) and 2.9% were children (N = 102).

The beginning of the interaction was documented from the moment the participants noticed the game element to the moment they played. Participants were observed to see how they reacted to the game element: did they notice it? Did they play? Who did they play with? Four behavior categories were observed: (1) Did not notice the game element, (2) looked at the game element, (3) stopped near one of the benches to inspect the game element or (4) played. These behaviors perform on a scale, from not noticing the game element to playing (Fig. 7.3) (Table 7.2).

Out of the 63.3% that did notice the game element (N = 2,264) only 7% ended up playing the game (N = 244). However, this figure of 7% could be seen in light of the fact that the game was occupied with players for 89% (N = 374 min) of the observation time. On the other hand, the number of people noticing the game element might also be higher than reported due to the limitation imposed by the angle of the

Table 7.1 Demographic distribution of observations

N		%
Male	1759	50.9
Female	1589	46.2
Child	102	2.9
N = 3450		

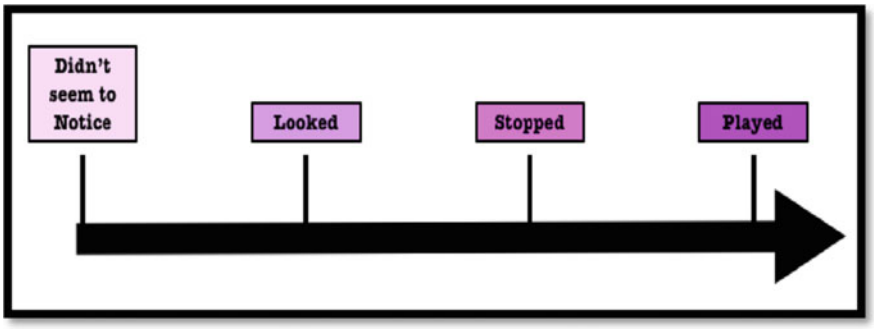

Fig. 7.3 Behaviour categories scale

Table 7.2 Behaviour categories distribution

		N	%
Did not notice	Cases	720	36.7
	Total people	1186	34.4
Looked	Cases	760	38.7
	Total people	1241	36
Stopped	Cases	378	19.3
	Total people	779	22.6
Played	Cases	104	5.3
	Total people	244	7

N cases = 1962, N total people = 3450

video cameras. A strong correlation was found between attention given to the game at each location. More pedestrians visibly noticed the game element at the dynamic location. This could be due to the different uses of the two spots—the static location is more crowded and entertaining, the dynamic location is empty of attractions, making the game more noticeable (Table 7.3). A significant correlation was found between the behavior categories of participants and the location variable. At the dynamic location, more participants noticed the game element and more participants played at the static location (Table 7.3).

Willingness to play with strangers was examined through the recorded observations. Out of 1962 observed cases,[1] in 104 of the cases pedestrians played, in 56 of the cases pedestrians played against strangers (53.8%), and in 48 of the cases pedestrians played against friends (46.2%) (Table 7.4).

Table 7.3 Differences in behavior categories between the two locations

	Static		Dynamic		Difference
	N	%	N	%	
Behavior category					$\chi^2(3) = 22.864$*
Did not notice	457	40.8	263	31.2	
Looked	391	34.9	369	43.8	
Stopped	209	18.7	169	20.1	
Played	63	5.6	41	4.9	
Notices the game					$\chi^2(1) = 19.919$*
No	457	40.8	263	31.2	
Yes	663	59.2	581	68.8	

* $p < 0.05$

[1] Each group of people that passed by the game element was given a number and counted as a case. Each case was documented for its group size (how many pedestrians it included) and its observable demographics; the gender and perceived age of the participants.

Table 7.4 Distribution of willingness to play with strangers

	N	%
Friends strangers	48	46.2
	56	53.8

Though the different locations seem to behave differently in the frequency of people walking in the space, the walking direction and the behaviors of the pedestrians—no differences were found between the different locations in terms of playing with strangers (Table 7.5).

The games were documented and the number of rounds for each case was counted. The average game had 5.67 rounds (SD = 5.778), with a range of 1–28 rounds. The average duration of the games was 2:55 min, shortest game was 3 s and longest was 10 min and 19 s. In addition, during games, pedestrians stopped and looked at the players playing. An average of 16.34 (SD = 11.23) people stopped and looked at each game inside a range of 0–50.

Special attention was given to communication between players; each interaction of players across the two benches was marked as either physical communication (a wave or any other form of communication done by their bodies) or verbal communication (talking, yelling and so on) (Table 7.6).

A significant difference was found in the forms of communication between the players at each location (Table 7.7). At the static location, players used more verbal communication (59%) than physical communication (41%). Since the benches at the dynamic location were further apart (25 m) than the static location (6 m) the interaction between the benches was different at each location. While at the dynamic location players had to yell to talk to each other, at the static location they could communicate at a regular volume; a difference that might have influenced the results. In terms of observable behavior, some of the players at the dynamic location were observed sitting and playing as if playing a computer, eyes mostly inside the screen and most of the interaction was made using hand gestures. While at the static location, the players talked to each other frequently and some even moved sometimes from

Table 7.5 Differences of gameplay categories between locations

	Static		Dynamic		Difference
	N	%	N	%	
Played with					$\chi^2(1) = 0.699$
Strangers	36	57.1	20	48.8	
Friends	27	42.9	21	51.2	

Table 7.6 Forms of communications

	N	%
Verbal	334	51.5
Physical	314	48.5

Table 7.7 Differences in forms of communication between the two locations

	Static		Dynamic		Difference
	N	%	N	%	
Communication form					$\chi^2(1) = 20.894$*
Verbal	226	59	108	40.8	
Physical	157	41	157	59.2	

*$p < 0.05$

Table 7.8 Interaction between strangers after the game ended

Behavior	Static	Dynamic
	N	N
Leave together	1	1
Smile	4	0
Wave goodbye	1	7
Flirt	1	1
Handshake	0	1
Conversation	0	3
Total	7	13

bench to bench to communicate. At both locations, the verbal interaction was mostly about the game, such as telling the other side to play or counting points, and not about topics that were not game related.

Table 7.8 shows the behaviors observed among strangers after the game. A few of the strangers that played together talked to each other after the game. Most did not continue their interaction after the game or limited the interaction to nonverbal behaviors such as a smile or a nod at each other. In one case, the participants shook hands and two of the cases left together after the game. Although players at the static location were physically closer together—at the dynamic location strangers showed more behaviors that lead to a connection: waving, smiling talking and seemingly more comfortable connecting when further apart. The game was also used a few times as a device for men to introduce themselves to women, one of them was even successful as the couple walked away together, stating they were going out for a beer at a nearby pub.

7.8 Spontaneity Versus Anonymity

De Koven (2013) describes playing as a political act. By transforming a public space into a play-space we change the place of anonymity into a place of intimacy. Cities are living entities. This research delves into a small moment in the life of a specific location and a specific intervention. While the participants of this research did not

find a new connection, for a small spontaneous and anonymous moment they played together and changed Rothschild Blvd. into a place of intimacy.

Throughout this research two main concepts stood out: spontaneity and anonymity. These concepts were found to be crucial to designing for social encounters in public space. The balance between these two concepts is very complex, as they seem to influence one another. Planning to enable casual social encounters must respect this delicate balance for it to succeed.

Planned Spontaneity Casual social encounters (Kim and Kaplan 2004) and playfulness (Sutton-Smith 1997) are spontaneous in nature. Though the moment of spontaneity cannot be planned, it can be encouraged and enabled. Planned spontaneity requires an understanding of the design elements that enable spontaneity in public space.

The game was more noticeable at the dynamic location since it was less crowded and easier to see than the static location. However, more participants played at the static location where the benches were closer together and the setting was more intimate and less anonymous. These findings suggest that places where the game is noticeable are not the same places where people will feel comfortable to be spontaneous and play.

The results indicate there is a delicate balance between anonymity and spontaneity. When a person walks alone among strangers, anonymity is dominant, but this anonymity is also a barrier to spontaneous decisions. The context in which the game element is encountered influences how pedestrians will react and whether they decide to play with someone they do not know. Design elements aiming to make the game more visible appear to be in conflict with elements aiming to attract people to play in public. Planning to enable social encounters through play in public spaces should take into account the concepts of spontaneity and anonymity and realize the delicate balance between them.

Public Anonymity Previous research (Franck 1980) claims that new urbanites have a harder time creating new friendships than newcomers at rural areas, mainly due to feelings of distrust. However, Milgram's (1992) term of the familiar stranger suggests that acquaintances are exactly what pedestrians need in order to feel safe while walking in public space; through acquaintances with people in public spaces we become more attached to place (Lofland 1973). This research focused on small everyday encounters, rather than long-term relationships, and for this purpose it applied a game element at different public locations to enable interactions among strangers.

As the results suggest, although the players reported that they enjoyed the game and felt a connection with the other player after playing together, most of the players left separately and did not exhibit an interest in keeping in contact with the other person. There is a gap between the claims participants made about wanting to meet new people and their reactions towards strangers during and after the game. Based on this we propose that urban pedestrians' attitude to anonymity may be ambivalent.

The communication between players was different at each location. At the static location, where the benches were closer, the players were able to talk to each other and they used this ability. Strangers at the dynamic location showed more behaviors

of friendliness towards the other players (handshakes, waiving, talking) while at the static location most of them just smiled at each other and left. At the static location, where the benches were closer together, the players were more verbal than at the dynamic location; they talked more, and played more at that location.

Thus, anonymity can be acquired through design (Osmond 1957; Hall 1973). Creating dense spaces may be a way to encourage encounters between strangers. Nevertheless, intimacy must not be imposed on pedestrians—the option to decline participation and remain anonymous without feeling obligated to the other person needs to remain open. When planning to enable casual social encounters, one must remember it is not about eliminating anonymity and creating friendships, it is about opportunities. It is about making public space a place where you can meet someone new or you can also decide not to, and respect each other's boundaries.

7.9 Urban Locations: Same but Different

Prior research (Stevens 2007; Kim and Kaplan 2004) suggests a connection between the design and use of a location, and its potential to foster playful behaviors and social encounters. This research examines the direct consequences of a new playful intervention created and placed at two specific locations. Among other things, the intervention enabled the examination of design nuances of two locations. The results of this research indicate that Stevens' (2007) differentiation of static and dynamic locations does not correlate with the willingness of pedestrians to play with strangers in public spaces. That is, the percentage of people who played with strangers was not significantly different between the two locations. However, the differentiation of locations was found to be correlated with people noticing the game and their decision to play, albeit in a surprising way. While more pedestrians noticed the game element at the dynamic location, more decided to play at the static location. These findings challenge the intuitive association between noticing the intervention and using it, and raise new questions about design and playing in public space. It is therefore possible to suggest that Stevens' (2007) differentiation between static and dynamic locations is not complete and does not fully explain the nature of encounters between strangers. The research findings suggest that other design elements such as size, density and the scattering of objects in the space, play an important role. Therefore, we might argue that instead of differentiating space by its use, i.e. dynamic or static, more attention could be given to its design and form.

Stevens (2007) categorizes benches as props and as a static space. The results of this research suggest that in practice, this categorization might be much more fluid and complex; a bench can be either dynamic or static, as it takes on the role of the use and design of its' location. The benches in this research were located at the boundaries of a path and a road (Fig. 7.4). While boundaries are considered static according to Stevens, paths are considered dynamic. How does the bench, which Stevens considers to be a static prop, fit into this categorization?

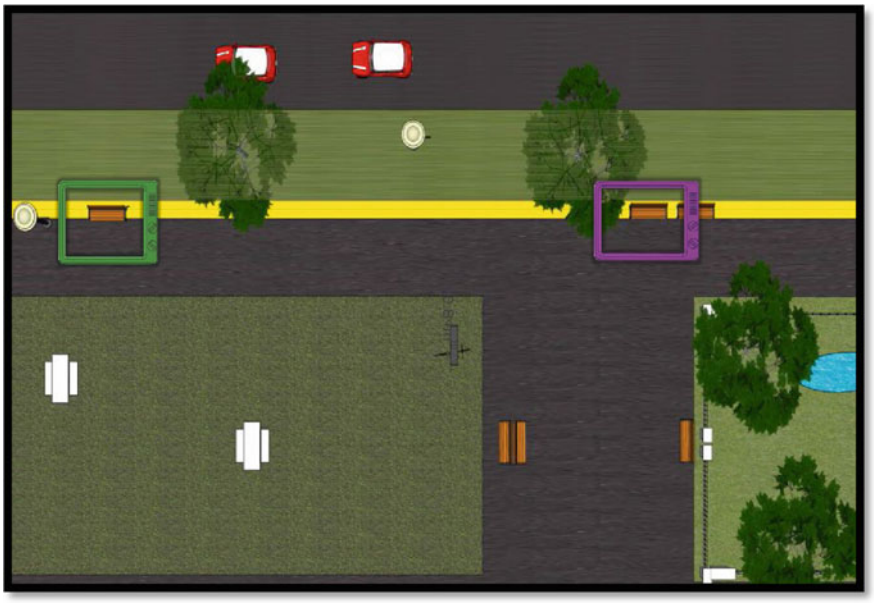

Fig. 7.4 Bird eye view of research field

Stevens' differentiation is not specific enough; it considers only the basic use of the location and not the interpretation given to it by its users. It ignores the role of props, as specific design elements, in changing the meaning and use of a location. Stevens' differentiation also disregards the idea that a place can be two things at once—an intersection is a place where two paths cross, the intersection is a part of a path, a threshold is a door from one place to another—it is essentially part of a boundary, separating spaces (Fig. 7.5).

The findings suggest a new arrangement for Stevens' (2007) different location types, one that takes into consideration both the uses and the design of a space. The proposed changes to Stevens' classification are (Fig. 7.6):

– Incorporation of the notion that intersection is essentially a part of a path and a threshold is essentially a part of a boundary. Thus, the proposed arrangement includes intersection as a sub-category of path, and threshold as a sub-category of boundary.
– The fluid nature of the prop is displayed by moving it outside of the static category and placing it as a derivative of the location of the prop, its uses and design. The prop is not a place of its own, it is part of a place.
– The new organization takes into account a fluidity of the static and dynamic differentiation, as explained later on in this chapter.

Not all locations and definitions are equal, as some places cannot exist without the others. The new organization prioritizes the different definitions, placing *path* and *boundary* at the base of the pyramid, *intersection* and *threshold* at the second

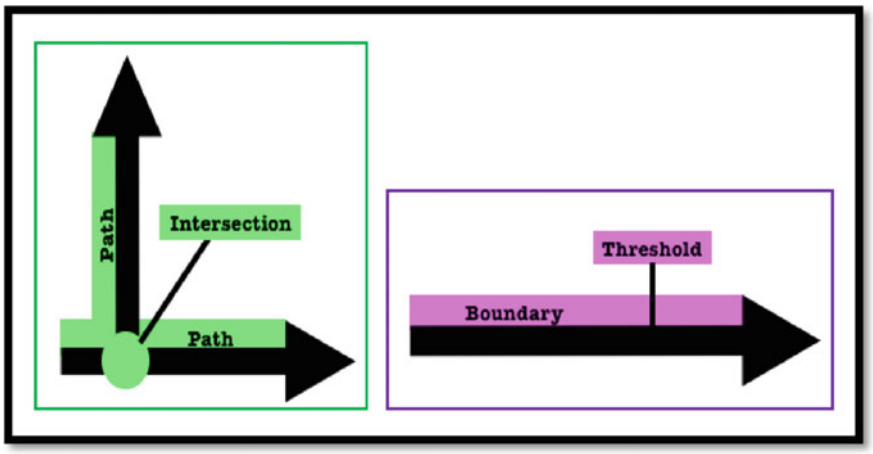

Fig. 7.5 Graphical symbolization of Stevens' (2007) places for play in the city

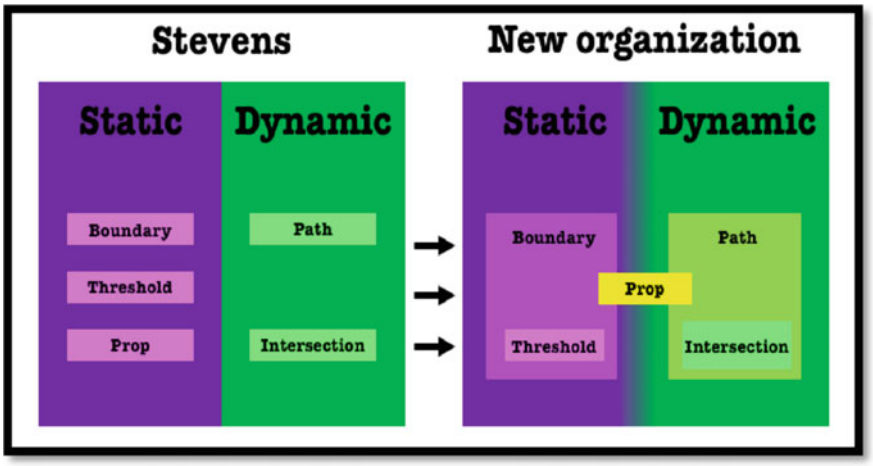

Fig. 7.6 New organization to Stevens' (2007) places for play in the city

level, both dependent on the basic level to exist. At the top level is the *prop*, a *prop* takes on the role of all forms of places beneath it. The *prop* takes on the properties of its specific location and, as explained later on, *props* also have the ability to change the use of that location completely (Fig. 7.7).

The definitions and differentiations of locations are not discrete; they are fluid, as are the people using them. A location can change from a dynamic location to a static one just by incorporating a *prop*, such as the game element in this research, in its design. Flexibility and awareness must be used in the planning process as every little detail can change the behavior and use of a location.

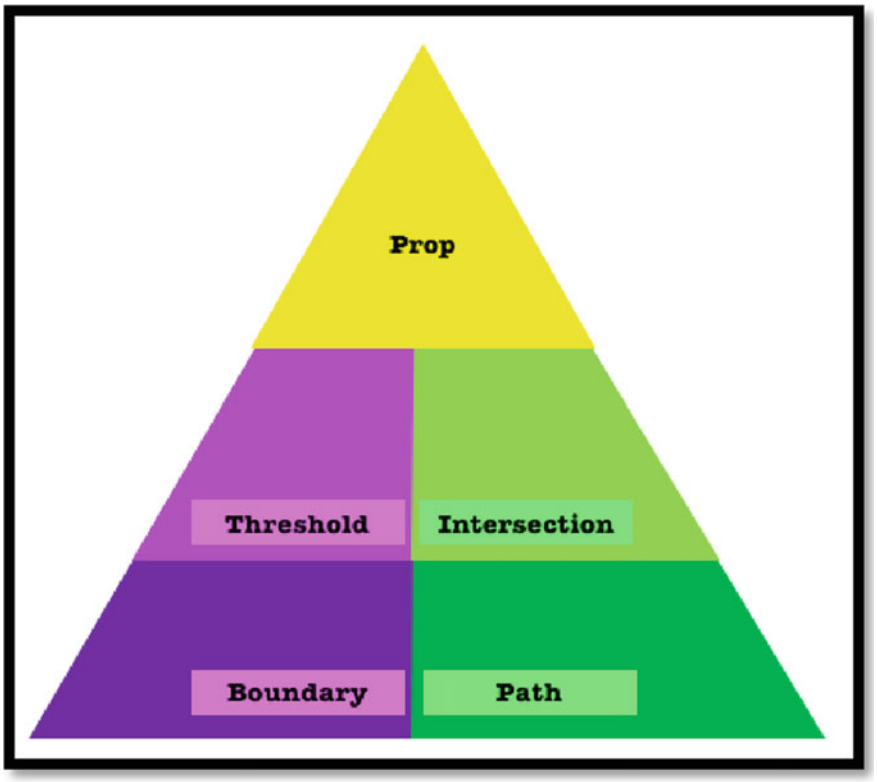

Fig. 7.7 A new prioritization of Stevens' (2007) places for play in the city

7.10 Bench or Game?

Although more people passed by the static location, the game element was empty at this location for a total of 24 min while at the dynamic location it was empty for a total of 21 min. Considering that at the static location the benches are usually busy, the similarities in occupancy might indicate that the benches were perceived and used differently once the game element was installed. During the time of the observations, only one couple used the bench as a place to sit (at the static location) and not as a game. Installing a game element on the benches seemed to change the benches' designation as a place to sit. The term affordances was defined by Gibson (1966) as a substitute for values, it means: 'simply what things furnish, for good or ill. What they afford the observer […] depends on their properties' (Gibson 1966, p. 285). According to Gibson, the method in which an object is used in the course of an action becomes part of its definition and meaning. Adding a game element to a bench changes the affordances of the bench, it is no longer only a place to sit, now it is also a place to play. The game element gave the benches a new use and meaning.

In this case, it seems that not only does the game element add an affordance of play to the bench but it also eliminates its common affordances of just sitting on it; it changed its affordances altogether.

As urban planners, our aim is to create urban places that are inclusive and support social interactions. It was already established that social interactions do not get enough attention in the planning process (Kim and Kaplan 2004). Gamification of public spaces is a means to enable social interaction through design. However, gamification also changes the way pedestrians use and perceive these places, not only by dismissing their original function but by adding fun experiences and enjoyment to everyday places. The spatial memory of these everyday places changes into a complex memory, involving new experiences. The prop has changed its meaning, the bench is no longer a bench, but a new everyday experience is gained within the public space. By acknowledging that props are different from the other elements that compose public space, their power is revealed. Props have the power to change a space at a minimum cost and little risk.

While traditionally, props are the last to be considered in the process of decision making when planning a new area, if planners were to look at props as a micro-public-space (Fincher and Iveson 2008) they would have better control over the use of the planned location. Micro-public-spaces are small public spaces, or small parts of a large public space, that hold the same qualities that make a place public. While large public spaces (such as parks) require pedestrians to plan their visits, micro-public-spaces can be incorporated easily into a person's schedule. Bus stops, benches, petit gardens and intersections are all places one encounters daily when walking in the city. There is greater potential for casual social encounters in such micro-public-spaces as people use them often.

This chapter directs planners' attention to the potential hidden in urban props (Stevens 2007). We argue that props, which are usually marginal in the planning process, have an essential role in defining the use of a space. Props help change the essence of a place and therefore planners need to engage with important questions as to the type of props, their location and position within it (i.e. distances, and denseness) in order to facilitate a certain experience.

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Chapter 8
Constructing Authenticity: Location Based Social Networks, Digital Placemaking, and the Design of Centralized Urban Spaces

Robert Cameron

Abstract In urban lives conducted through mobile devices, locative services, and social media discourse, the ability to interact with the image of the city and its public spaces makes it appear more liberal, heterogenous, and democratic. However, in this chapter the collection of data within digital and urban platforms is seen to facilitate an underlying political and economic value system that frames the way in which this image is constructed. Much research has addressed the ways in which social media platforms attempt to centralize online discourse to monopolize revenue from advertizing and data analytics. Less has been done to identify the ways in which governments, private developers, and nonprofit cultural institutions utilize these platforms to encourage the growth of centralized urban spaces. This chapter analyses the relationships between location-based social networks and emerging practices of digital placemaking to understand how discourse of a more authentic and communal "public" space masks the emergence of "Hypermediated Space"—places where architecture and other forms of cultural production are "optimised" to increase the profitability of centralized spaces for urban stakeholders.

Keywords Digital placemaking · Public space · Location-based social networks · Hypermediated space

8.1 Introduction

For most city dwellers, digital media and networked devices have become so integral to daily life that they are inseparable from understandings of self and place. In this context, digital platforms are providing the backbone of an expanding "network culture" (Patelli 2014). Location-based social networks (LBSNs) are a significant development in networked communications as they reconfigure relationships between people, objects, and events through their dynamic and interactive representations of the city (Evans 2015). LBSNs are social platforms that encourage users

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to contribute to databases of places by providing their exact location when posting their activities online. Shared information can then be accessed through the program's interface, allowing users to see other people's thoughts and memories of place. Some theorists have heralded the possibility of increased interaction between different communities within LBSN platforms as the beginning of a new culture of participation (Evans 2015; Foth and Sanders 2008; Patelli 2014). They argue that access to user-generated information about urban environments will deepen understandings of place and provide urban dwellers with greater political agency. In contrast with this view, there is a well-established body of criticism that argues that participation cannot be open or democratic within privately owned platforms whose software driven interfaces structure public discourse to service their economic ends (Hermosillo 2004; Barreneche 2012). As Hemment (2004) identifies, control over location data provides private interests with the power to pinpoint and to connect individuals to extensive databases that shape the way in which the world is represented. This chapter expands on academic discourse about the political nature of the representation of place in LBSN platforms to examine how LBSNs influence the production of space, including the design of the built environment and the production of "public" culture.

This chapter first examines theories of the relationship between technological change and the development of the urban fabric. It then identifies how political understandings of public space inform both the design of the city and its representation in media. Global city networks place urban spaces in competition with each other, vying for the attention and business of local and global populations (Taylor 2004). Despite a clear identification in urban and social theory that anytime/anywhere access to network culture has made the public sphere independent of physical spaces (Cuff 2003; De Waal 2011; Willis 2008; Shepard 2008), there is a large amount of public and private investment into the "activation" of centralized public spaces. Placemaking ideology increasingly informs the development of these spaces, consolidating public and private investment into not-for-profit organizations that curate the production of architecture, public artworks, and urban events (LeGates and Stout 2015). Placemakers argue that their methods produce authentic public spaces that "maximize shared value" for the communities that they "build". This chapter will critique the political models of liberal or community public space underpinning this rhetoric and examine more closely what communities and values placemaking represents.

In the widely cited *The Space of Flows*, Castells (2001) argues that "urbanity, street life, [and] civic culture" should be as important to urban planners as "economic competitiveness". This chapter will argue that in the *Hypermediated Spaces* of contemporary western cities, the image of urbanity, street life and civic culture is *synonymous* with economic competitiveness. As LBSNs gather more users they can provide a vast range of openly accessible or purchasable data that can be used to direct the design of urban spaces. The use of this data to "optimise" the design of architecture and public art for economic ends challenges academic rhetoric that LBSN produces more interactive, democratic, and community engaged public space. This chapter engages with political and social theory to develop a framework for understanding the relationship between LBSNs and cultural production. It uses this

framework to examine how the automation of urban life through Hypermediated Spaces might place limitations upon the political and social agency of architecture and public art. It then concludes by proposing ways in which emerging forms of interactive art and architecture could provide opportunities for urban dwellers to engage in the production of public space without being co-opted into the construction of "authenticity".

8.2 The Techno-social Ontology of Place

Every medium of communication available to a culture introduces a unique mode of discourse by providing new orientations of thought, expression, and sensibility (Postman 2006). In *The Extensions of Man*, McLuhan (1994) explains how all forms of social knowledge and practice are inseparable from the media that makes them possible. Changes to ideological constructs, such as the dichotomy between public and private, notions of address, or the relationship between the built environment and nature result from "the new scale that is introduced into our affairs by each extension of ourselves." (McLuhan 1994). While McLuhan's theories have been criticized for being deterministic, similar theories of the social construction of technology such as those of Simondon (2009) identify a dialectic relation in the way that political and cultural values influence the design and implementation of technology. Hence the difference between invention, which is involved in the creation of new knowledge, technologies, or artefacts, and innovation which directs invention towards an economic teleology. As technologies increase the mobility of objects, people, and information they transform how we perceive places in both an immediate, embodied sense, but also the ways in which we communicate our knowledge and memory of place to others (Curry 1999). Ownership and control over the technological media of public discourse is therefore a position of immense social power as its design shapes the way we perceive the world and each other.

Historically, changes to dominant systems of communication brought about by new technologies have caused drastic shifts in the way that the public spaces of towns and cities are designed (Shane 2014). In *Complexity and Contradiction* the architect (Venturi 1977) examined this idea in relation to transmutations in architectural form and symbolism, demonstrating how they are manifestations of program and structure. As the built environment is adapted to the needs of the predominant political, technological, and social context, this in turn changes the symbolic meaning of the environment. McLuhan (1994) gives the example of electric lighting, which provided architecture with a mutability of appearance depending on context and opened the city to new modes of social activity. Koolhaas (2014) describes this change in detail in his history of Coney Island, which served as a testbed for experimental use of electric lighting to facilitate new patterns of consumption within a dramatic nightlife. McQuire (2008) also discusses this in relation to the role of the camera in Hausmann's transformation of Paris and how the image of the city in postcards, billboards and other forms of print and broadcast media fragmented the spatial understanding of

the city and disseminated the idea of the modern city as a visual spectacle. Thrift (2004) discusses this in relation to the invention of clocks, timetables, and other technologies of address which have shaped the development of modern cities through the standardization and naturalization of space and time as the organizing factors of urban life. The transformation of the built environment in each of these examples cannot be solely understood through the influence of the technologies themselves. In each case the implementation of these technologies has varied depending on their cultural and political context.

In The Cultures of Cities, Zukin (1996) writes at length about the relationship between cultural production and the business of cities. Culture, she argues, is "a powerful means of controlling cities. As sources of images and memories, cultural artefacts symbolize "who belongs" in specific places.". Our understanding of the meaning of place (of which public space is but one model) is dependent on the mediums through which it is communicated and those that control them. Architecture and public art play a leading role in this relationship, because their "visible ability to produce both symbols and space". Buildings serve as the physical structure upon which social interaction occurs, while also operating as the backdrop for the "symbolic economy".

Traditionally, architecture provided a relatively persistent and stable ground for urban elites to express their political and economic interests (Sudjic 2006) and for urban inhabitants to establish cultural memory (Ekman 2012). The "public space" that was produced by architecture played a vital social role as a site in which people could be confronted with these ideas. As technology has changed the dominant media of public discourse this has had a tangible effect on the ways that spaces and symbols are produced. Despite the emergence of networked communications which have extended public discourse across time and space, many nostalgic understandings of public space persist and frame the way in which political and economic powers construct the spaces and images of the city. To understand the impact of LBSNs upon the production of the city it is important to understand how the media of public discourse shapes the way that we understand public space.

8.3 Space and the Public Image

As Iveson (2009) identifies, "different people frequently claim to address, or act in the best interests of, 'the city'." The problem with any assertion of design operating in the interest of "the city" or "the public" is that who constitutes the public, who has access to its resources, and who controls its authorship are complex and contested ideas which sit are the core of political debate around the meaning of place.

In *The Production of Space*, Lefebvre (1991) identified how the built environment emerges from social structures or "spatial codes" that are complex and in flux but can be decoded through an analysis of the values and meanings that "elucidate their rise, their role and their demise." Like the concepts of space and place, public space could be considered as one of these spatial codes that influences the production of the

city. Public space is a term that is used in a common-sense fashion, but its meaning is often ill-defined and highly contested. As Gieseking et al. (2014) identifies, the terms "public" and "private" are social constructs that "are used to conceptualise different domains of everyday life". This all-encompassing system of classification determines the "degree of access granted to outsiders" in relation to objects, places, activities, and increasingly our bodies. These concepts also order our understanding of psychological, social, and political processes. As such, understandings of public space are inherently political as they assert who has access to society and the kinds of action that are permissible within its spaces.

Kingwell (2014) argues that the public is not simply a sum of private interests nor the resources that are made freely available to them but is the conceptual precondition for their existence. In capitalist societies it is necessary to measure the boundaries between public and private space to properly assert their identity and ownership. In this way we "cannot enter the public because we have never left the public". Our identities themselves are predicated on the notions of what is public and what is private, of who is included and excluded (which also structure or understandings of place). As this chapter has identified, technology plays an important role in this relationship, conforming the body to notions of space, time, and ownership while naturalizing social practices and relationships (Thrift 2004). Iveson (2009) identifies that the city as a public community could not be imagined without some form of mediated discussion. The public sphere is more than just the spaces of the city but any form of media which enables public discourse. While Habermas's influential concept of the public sphere idealises an arena of political discourse in which people can relate independent of the economy and the state (Habermas 1991; Crawford 1995) argues, this is not possible in a society in which access to the public sphere is dependent on one's social position and wealth.

In 1985 Neil Postman's signalled that the technological shift from print to broadcast media as the predominant means of public discourse marked a transition from the "Age of Exposition" to the "Age of Show Business". While a public discourse facilitated primarily through printed text required the "coherent and orderly arrangement of facts and ideas", the "decontextualized information environment" of telecommunications media not only drastically increased the amount of information that people were exposed to but it also transformed the structure of media discourse so that any event, regardless of its relevance to the reader, could become a part of an increasingly fragmented "public image". Telegraphy, he argues "gave a form of legitimacy to the idea of context-free information; that is, to the idea that the value of information need not be tied to any function it might serve in social and political decision making and action, but may attach merely to its novelty, interest, and curiosity. The telegraph made information into a commodity, a "thing" that could be bought and sold irrespective of its uses or meaning." (Postman 2006). Broadcast media greatly expanded the role of the image as the predominant medium of public discourse. As public discourse has moved online, urban dwellers are exposed to an increasingly complex media environment. This has had a dramatic influence upon the way that the idea of public space has been communicated, transforming the representation of place from a professional and institutional practice into a social practice. As with public space,

access to the digital public sphere is subject to the structures and interfaces put in place by the owners of media platforms and network infrastructure who shape the way that people are exposed to representations of place.

Latour (2005) argues that to critically engage with the complexity of relations that make up the contemporary public sphere we need to stop examining issues purely in terms of the values, opinions, attitudes, or principles that are evoked around them and instead focus our attention upon the objects or things that assemble people and ideas. He notes that in the observation and discussion of objects of a political nature we are primarily concerned with questions of representation. The process of producing a faithful representation, Latour argues, has traditionally been understood in two ways: as the gathering of the legitimate audience around a topic, and the accurate representation of the thing to be discussed. In a media environment where world events are consumed in fragmented patterns and from a range of different sources, and with the increasing prevalence of things like "fake news" we need to be critical of both how places and events are represented and the medium through which they are consumed.

Harvey (2008) argues that "The right to the city is […] far more than a right of individual access to the resources that the city embodies: it is a right to change ourselves by changing the city more after our heart's desire.". In a networked culture where the understanding of place and public space is determined as much through the image of the city consumed in media as it is through the spatial experience of architecture and landscape, this argument should be extended to include a right to the image of the city. The public, that is anyone that is interested in the city and its image, should have the capability to contribute to its authorship. Evans (2015) argues that LBSNs do this by extending the authorship of place to a wider audience. If this is the case, has the right to the spaces of the city also become more equitable? How has the development of a networked culture and society in which public discourse is conducted around the public image influenced the production of urban space?

8.4 The Centralization of Network Culture

Cuff (2003) argues that the networking of social systems through digital media undermines the spatial hierarchies that comprised the traditional city. Anywhere/anytime access to digital media blurs distinctions between public and private, dislocating the public sphere from physical space. The dissemination of the public sphere both spatially and temporally, she argues, makes discussion about urban centres and margins irrelevant. Castells (2001) presents a more balanced argument that the reorganization of space in "networked society" contains aspects of both centralization and decentralization. The centres and margins of cities are a legacy of past approaches to urban design that concentrated social activity in public spaces located in proximity to major nodes of transport networks. While centralized spaces still support public interactions, urban dwellers are less dependent upon them to conduct their lives as location-based technologies have expanded their consciousness of and access to

different parts of the city (Willis 2008). Despite this, centralized public spaces still attract massive amounts of investment, while developers and politicians frequently argue for their importance in the functioning of the city.

Taylor (2004) argues that the economic activities made possible by global information networks have led to "a new centralization" of capital into cities and urban public spaces that facilitates a "hugely inequitable and frighteningly unsustainable" process of consumption-driven behaviour. Within a context in which the imageability of things is understood by many to have the greatest impact on the way that people understand cities (Lynch 1960), competition over the visibility of place within the social imagination is increasingly important for urban stakeholders who stand to profit from greater activity in centralized urban spaces. Zukin (1996) identifies this in the way that "[developers] compete for tourist dollars and financial investments by bolstering the city's image as a center of cultural innovation, including restaurants, avant garde performances, and architectural design."

As Harvey (2009) identifies, local cultures are useful tools for marketers to promote places and products as they represent opportunities to establish what he refers to as "monopoly rents". Monopoly rents, he argues, "[arise] because social actors can realize an enhanced income stream over an extended time by virtue of their exclusive control over some directly or indirectly tradable item which is in some crucial respects unique and non-replicable." (Harvey 2009). There are two conditions in which this can happen: when social actors control a resource, commodity or location that enables them to extract monopoly rents from those who seek to use them (i.e., A vineyard producing exceptional quality wine), or where the place itself is valued for its location (i.e., A centralized site, accessible to concentrated activity such as a public square). In these situations, it is not the place itself that is the commodity that is being traded but the commodities and services produced in relation to them. In the process of constructing an image of the city more amenable to the production of monopoly rents, all forms of cultural production within the city (architecture, public art, performances etc.) are useful because they contribute to the spectacle of public life that is vital to the establishment of an authentic "sense of place". Monopoly rents can be created through the construction of places that are unique by virtue of their cultural production. This has a range of benefits for the stakeholders of these spaces as increased attention and physical traffic means greater opportunity to extract profits from tourism, commercial activities, and public events. At the same time governments and developers can argue for the benefits of the increasing "social capital" that is being provided for those who use these spaces. Local identity and authenticity is an important part of this process, however it is not the only way to attract the attention to public spaces. Cities frequently seek input from renowned international artists and designers to produce unique works that are popular with global audiences.

Much like the way that digital platforms increase their power through the centralization of flows of people and information (Srnicek 2016), so too do urban developers attempt to increase the economic growth of cities through the concentration of people and activity into central locations (Molotch 1976). As code determines the prominence of locations within LBSNs it has the effect of increasing the public consciousness of some spaces while obfuscating others. For those who interact with

the city through LBSNs it can have the effect of reframing the symbolic meaning of the urban fabric (Andersen and Pold 2011).

In urban lives experienced as much through digital interfaces and representations of the city as they are through embodied experience, the spatial codes of modern society are more complex than what can be seen on the surface of the urban fabric. Access to smart devices in urban spaces expands the scope of activities that can occur within cities (Willis 2008), however the centralization of social activity within digital platforms increasingly influences the ways in which many people inhabit the spaces of city. While the aesthetic and symbolic dynamism introduced to urban spaces through media technologies and LBSNs facilitates a change in their political and social function, control over this environment is constituted by a hidden geography of relations between the owners of both the spaces of the city and the media platforms that structure public discourse. Degrees of access to this public sphere are increasingly inequitable as they depend on both technical knowledge of software and computer hardware, and the ownership of the data that they produce.

The centralization of activity within both urban spaces and digital platforms services the economic interests of both digital platform owners and urban stakeholders as it increases their capacity to extract profit from social and commercial activity. Centralized public spaces also have a major strategic advantage for private interests that collect and sell data because they have the capacity to concentrate people in high numbers within spaces of consumption. As flows of people become less dependent on centralized spaces, as territories can be occupied by multiple groups and as the procedures, networks, and assemblages of the city move beyond our perception, new forms of urban intervention such as place-making, media architecture, and interactive public art are emerging to attract people back into these spaces. The developers of centralized public space argue that they operate in the interest of the public and the city. Given the complexity of groups and understandings of place that exists in networked society, we should ask the question for whose city and whose culture are these groups claiming to advocate?

Networked society has expanded the scope of influence that places with an economic interest have to market themselves to a global audience, placing cities in competition with both global and local interests to generate capital from public activity. The resulting competition for visibility and attention has led to a tangible impact upon the ways that public spaces are designed.

8.5 Constructing Authenticity

In reaction to a perceived loss of community and public engagement brought about by a retreat from public spaces to shopping malls (Sorkin 1992), private enclaves (Davis 1990), and private modes of media consumption, the image of the city has become an important component of urban theory focused on the psychology of urban experience (Wirth 1938; Lynch 1960; Putnam 2000). A shift in urban design towards approaches that aim to structure the “visual literacy” of public space can

be seen in the planning practices of New Urbanists such as Peter Calthorpe and Jan Gehl, who advocate for designs that frame the visual appearance of public space in order to engineer greater levels of activity (Gehl 2011; Calthorpe 2010). These approaches to urban planning have recently been popularized in countries such as America and Australia through the work of the global think-tank Project for Public Spaces which describes its methodology of placemaking as a "collaborative process by which we can shape our public realm in order to maximize shared value." (LeGates and Stout 2015).

Proponents of this approach to urban design argue that there is a need to bring people together physically in public spaces to counteract perceived social problems brought about by private modes of consumption. They justify this through two understandings of public space that (Iveson 1998) outlines: the community model and liberal model. The community model of public space is most commonly seen in the writing of advocates of New Urbanism who believe that centrally located public spaces, modelled after pre-capitalist and early twentieth century villages, can ameliorate social issues through the creation of community. These ideas often align with liberal models of public space which idealize physical spaces as "contemporary iterations of the Athenian assembly, providing spaces of embodied co-presence which ideally enable unmediated forms of public interaction." (Iveson 2009).

There are two problems that are evident in these normative and narrow models of public space. Firstly, as Crawford (1995) argues, these ideals stem from nostalgic and deterministic understandings of historical examples of public space such as the Greek Agora, the coffeehouses of Hausman's Paris, or the piazzas or villages of traditional Italy as spaces of open and democratic interaction. As Arendt (2013) identifies, while many of the democratic ideals that we value today originated in Ancient Greece, freedom of access to the polis was only afforded to citizens who were wealthy enough to emancipate themselves from the biological concerns of private life. Narratives that equate urban public spaces with (Habermas 1991) ideas of the public sphere as an arena of open and equitable interaction ignore the fact that class relations dramatically influence the degrees of access and agency people have in relation to the city.

Second, in public spaces all encounters between strangers are mediated by the knowledge or expectations that people bring with them. Representations of places in media are crucial in shaping such expectations and access to them is not evenly distributed. The mobility of urban dwellers also depends on their access to particular technologies such as automobiles and smart phones which shape the way that they perceive the built environment and determine their agency to act within public spaces (Massey 2010). It is also very difficult in a cosmopolitan society to identify who a local community might be, especially as LBSNs such as Airbnb have transformed the demographics of urban inhabitants in many city centres (Chayka 2016). Considering these problems, at best there is a strong cognitive disconnect in language that argues for the axiomatic importance of "unmediated" encounters in urban spaces while simultaneously using media to engineer interaction. At worst, this conceals a deliberate attempt to increase the economic and political power of urban elites

through the colonization of the sensory experience and symbolic meaning of the environment.

As Postman (2006) argues "we do not measure a culture by its output of undisguised trivialities but by what it claims as significant." We should be wary of positivist claims about what constitutes good design in the context of public spaces as claims that representations of a place are axiomatic, factual, or non-virtual conceal attempts to assert or obtain political power by assuming ontological authority.

As Sassen and Shepard (2011) identify, global networks destabilize local understandings of places, as they establish themselves spatially within the topography of urban sites. Augé (2008) argues that the overabundance of information within networked society produces a density of events which threaten to rob public spaces of all meaning. Despite its homogenizing tendencies, network culture does not eliminate place but redistributes control over public space to a range of new actors, often with competing interests. Returning to Venturi, this is a prime example of how the symbolic meaning of the built environment is transformed by a predominant body of political and cultural knowledge that emerges alongside techno-social development. Despite Auge's argument that the authenticity of place is dependent on local history, writers such as Escobar (2001) and Massey (2010) argue that these narratives of loss ignore the fact that place-based cultures, even within "non-places", remain incredibly meaningful to much of the population. In a networked and image-focused society, the source of this meaning is therefore not necessarily reliant on local history, culture, or even architectural symbolism. While in the past we have understood the identity of centralized urban spaces as an emergent phenomenon or a genus loci, Massey (1999) argues that "local uniqueness [or] a sense of place derives not from some mythical internal roots nor from a history of relative isolation—not to be disrupted by globalization—but precisely from the absolute particularity of the mixture of influences found together there.". The idea of a heterotopic or multi-public city that is the site of many different hybrids of cultural and ideological groups, each with their own understanding of and interest in place presents a challenge for groups that wish to bring people together in centralized public spaces. If as Massey identifies, networked media allows for communities and cultures to emerge organically within the spaces of the city why is there still a need to bring people together through the construction of place?

Narratives espoused by theorists such as Augé (2008), Nora (1989), and others of the loss of the authentic identity of urban spaces in the face of globalization have been capitalized upon by placemakers who use them to justify the need for increased "planning, design, management and programming of public spaces" (LeGates and Stout 2015). Placemakers act as middlemen for public and private investment into cultural production so that it can produce the biggest return for the economic stakeholders of public spaces while simultaneously providing the best social outcomes for "the community". Through urban psychology, the image of place is used as a tool to attract people into spaces. Designing the image of urban culture is a marketing exercise where the aim is to instil brand loyalty by encouraging people to equate place identity with individual identity. As Kalandides et al. (2011) identifies, "a brand is, per definition, a network of associations in the minds of individual persons,

and is therefore—on an aggregated level—steeped in the dynamic perceptions of different groups.". He suggests that it is the role of placemakers to fulfil the diverse demands of these "customers" with the support of a fitting place-brand. Constructing an image of public space that meets these requirements is often done through qualitative research into the place perception of specific target groups, to optimize its appeal to the average consumer. Local and emerging cultures and understandings of place present both a challenge and an opportunity for placemakers if they can be appropriated to attract greater activity around their interventions. The increasing use of LBSNs by urban dwellers provides "digital placemakers" with extensive access to both qualitative and quantitative data about the perception of public spaces. The design of space to be more amenable to communication through LBSNs and the use of data derived from these communications to shape the cultural production of the city results in the emergence of *Hypermediated Space*.

8.6 Hypermediated Space

In his book "Platform Capitalism", Srnicek (2016) argues that as a result of an overall decline in manufacturing profitability brought about by increased competition and efficiencies, capitalism has had to find new sources of innovation from which to derive profits. While the analysis of data to find efficiencies in production processes and advertizing is not a new thing, the shift towards a networked society has enabled the collection of data on a massive scale. This data is increasingly used to "optimise production processes, give insight into consumer preferences, control workers, provide the foundation for new products and services (e.g. Google Maps, self-driving cars, Siri,), and sell to advertisers." (Srnicek 2016).

Social media platforms are driven towards the centralization of social activity to maintain business models that are primarily supported through advertizing revenue. Companies increasingly compete to find new forms of social interaction that can be included into this valorization process, to increase the number of users providing this data, and to design their platforms to keep the users' attention for as long as possible. Platforms such as LBSNs achieve these goals by providing "free" access to their services. The cost of this is offset by the collection of user data which is then sold to data analysis companies and advertisers. Analysis of user behaviour on these platforms is also used to "optimise" the presentation of discourse on their platforms. For example, Pariser (2011) identifies how the news feeds of users on Facebook are organized to present them with political content that reflects their world view. The reason being that they are more likely to return to the platform if they are shown information that reaffirms their beliefs rather than challenging them. A result of this is the formation of "filter bubbles" that present a different view of media events to different groups depending on how they use the platform.

As public consciousness is increasingly driven towards these systems they develop the power to shape the way in which the city is understood. As Ström et al. identify, the way that LBSN platforms represent urban territory naturalises an idea of culture

and nature in which the value of things derives from their ability to attract attention. The objectification of cultural memory in LBSNs and its organization based on likes, upvotes, and shares is problematic for public discourse because it threatens to instate a positivist or essentialist understanding of place. Arendt (2013) refers to the situation in which the social rather than the political shapes public discourse as the "tyranny of the masses". The use of statistics to determine good or "authentic" urban design, limits the capacity for ideas that deviate from these norms to emerge or for political transgression to occur. This can be seen in the emerging practice of Digital Placemaking which integrates data from social media into placemaking practices to justify urban interventions that produce "better" public spaces through "authentic civic engagement" (Latorre 2011).

As the value of art and architecture is equated with its ability to attract an audience rather than from its content, it produces a distinct effect upon the aesthetics of the built environment. D.G. Shane argues that the hybridization of placemaking with quantitative data leads to spaces in which the ability to quickly adapt to changes in activity increases their profitability. This, he argues is similar to Foucalt's "heterotopias of illusion" such as department stores, theatres, carnivals, casinos, and theme parks which have the capacity to "shift actors in time and space through performance and scenography" (Shane 2014). Hypermediated spaces increasingly employ tactics that allow the image of the city to adapt to popular demand. This leads to two distinct approaches in the production of hypermediated space: economic speculation through image-focused design, and the emergence of viral tropes in urban interventions.

Fuller (2011) argues that data driven urbanism "generates demands for momentary, […] market-driven, intellectual fitnesses that are soon rendered redundant, rotten or exemplary." What results is not the prophesised outcomes of the hegemonic narrative of "smart cities" but an urban landscape that Koolhaas (2002) refers to as Junkspace—a built environment driven by economic speculation and transformation of public space and the public sphere into sites for the staging of private lives. An example of this can be seen in the "Urban Prototyping Festival", a new form of urban event devised by placemakers to conduct design research into more effective ways of activating urban spaces. These events utilize government and philanthropic grants to fund the ideas of local artists and community groups, generating a platform for "bottom-up" intervention in public space. The first festival of this kind was developed by the studio of Jan Gehl in 2015 as the Market Street Prototyping Festival in San Francisco (Gehl_Studio 2015).

Digital placemaking plays a major role in these events as studies are undertaken to determine which installations produce the most public attention both on site and through social media. A result of this form of placemaking is that recipes for "good public space" that are produced from this research are disseminated through networks of placemakers and re-emerge in other locations. Some examples of this are the piano stairs (Fig. 8.1), parklets (Fig. 8.2), or the proliferation of supergraphics by celebrity artists over the surface of the built environment (Fig. 8.3).

As Cohen (2007) describes "The culture of place making involves humans adding layers of shared experiences.". The curation of ephemeral events within the city (which the Project for Public Spaces refers to as the "Lighter, Quicker, Cheaper"

Fig. 8.1 Playing on Piano Stairs at the CNN Center, Atlanta. *Source* Maxim B

Fig. 8.2 The Cyclehoop modular parklet, a modular product used in public spaces in the United Kingdom. *Source* Cyclehoop

Fig. 8.3 A projected optical illusion at the Fremantle Festival 2018. *Source* Daniel D'Annunzio

method) is a major placemaking strategy as they are cheaper than public art and architecture and present stages through which urban dwellers can present their public personas to their social media contacts (Spaces). Events also are more adaptive than objects as they enable the image of the city to react to trends in fashion and popular culture to attract larger crowds. An example of this can be seen in the phenomenon of international travelling performance artists such as the Arcadia Project, a performance centred around a giant mechanical fire-breathing spider (Fig. 8.4).

In the context of placemaking, architecture plays an important role in making places easily recognisable by operating as an icon or brand. A result is that architectural design in hypermediated space is appropriated as a graphic component in the composition of the public image. Cohen (2012) describes the effect of this on the urban fabric as a "proliferation of large and spectacular buildings [that express the] aspiration of modern cities to be characterized by gigantic signs". He continues by describing how "a new populism seems to be manifesting itself in a spectacular architecture whose models can be traced to the mass media" whose design "falls back on a sort of oversimplification, even an iconic primitivism, which allows it to be instantly intelligible on television screens and the front pages of newspapers". Many post-modern styles of architecture such as Supergraphics, and Parametricism are common within hypermediated spaces as these approaches are deeply concerned with the way that architectural design can create unique spatial and formal aesthetics. Supergraphics specifically operates through the transformation of the architectural

Fig. 8.4 The Arcadia Project—Fire-breathing spider music show at Perth's Elizabeth Quay, 2016. *Source* Paul Morris

fabric into a series of flat images directed to points in space (Brook and Shaughnessy 2010). Regionalism, is also an architectural style that is commonly applied to the design of hypermediated spaces as vernacular traditions associated with places can be revived to establish monopoly rents.

Increasing competition between architects to develop novel aesthetics has led to many new inventions in architectural design however the success of design approaches in public spaces often depends on how well a design lends itself to reproduction as images. Data from LBSNs is increasingly used by researchers and private organizations to optimise patterns of consumption within cities, shaping cultural production to more effectively drive people into the city (Abbasi et al. 2015). More recently "Media Architecture" has emerged as an architectural style which incorporates media facades, digital screens and environmental sensors. Media Architecture treats the surface of public space as a dynamic interface that transforms itself in relation to the behaviour of its users. Increasingly, interaction design, as instanced in city-wide events such as the Vivid Festival in Sydney, has become a medium through which artists and architects explore the relationship between technology and social space. For architects, engaging within the field of interactive public art enables the prototyping and testing of ideas on a scale that allows for a degree of experimentation usually not within the scope of a building-scale project. In this context, design research becomes a means of establishing new forms of urban intervention that fit within narratives of placemaking.

8.7 Conclusion

Referencing Deleuze, Hemment (2004) describes how "the disciplinary society of factories and prisons has given way to the control society, where mechanisms of domination are less evident but far more pervasive and operate through codes and passwords, not restricting or regulating behaviour but modulating and organizing it". The production of the image of place before social media was primarily an institutional exercise and so it was easy for local communities to position themselves in opposition to "top-down" intervention. In the age of social media, the image of public space constructed by urban developers and other corporate interests appears to be less and less in conflict with local communities and cultures. The blurring of public and private initiatives within social media makes it increasingly difficult to critically assess the difference between local culture and institutional or corporate constructs.

McQuire (2006) identifies that the media event is in the process of returning to the spaces of the city as we increasingly consume media within urban outdoor spaces. He argues that this has the potential to reverse the demise of public space, arguing that being confronted with difference in physical space presents the possibility of a more democratic public sphere. LBSNs provide urban dwellers with greater access to information about the city and the ability to contribute to an online discourse about urban places. This has transformed the ways in which people can meet and socialize within the spaces of the city and has provided greater opportunity for expression. The agency afforded by these technologies, however is not experienced evenly. One's social position, their access to technology, and knowledge of its use and function plays a fundamental role in their capacity to take part in emerging digital cultures.

The digital cultures that are facilitated by LBSNs can lead to the emergence of new communities who can appropriate the spaces of the city in a much more distributed manner than in the past. The opportunity for greater public engagement brought about by LBSNs is counterbalanced, however, by its capacity to introduce greater systems of control over public interaction and discourse. The representation of place within digital platforms is not a completely democratic or liberal process as the owners of media platforms structure the way in which information is accessed. Ownership over the data that is produced in these systems is also a major political issue. As Kingwell (2014) argues, "we all have the right to collect data in 'public spaces' but access to that data depends on the control of private infrastructure". Currently the business models of most LBSN platforms revolve around the collection and sale of public and private data to private interests. In both physical public space and social media, control over access and user data is managed by private interests instead of individuals. The result is that urban data can be used to produce hypermediated spaces that are increasingly optimized to extract value from commercial activity.

Place-making utilizes the media-event as an ever-renewing spectacle that drives the commodification of space by leveraging the efficiencies of the computer interface, the expansion of address through locative technology, the extension of media to the remaining senses, and the distribution of the branded happening through global

networks. Hypermediated spaces flatten the social and cultural spheres by appropriating creative practices into economic systems of valorization. Any ideas, events, or creations can be appropriated into this process as long as they have the capacity to attract ever greater levels of public activity. This is most evident in centralized public spaces, however it increasingly emerges in locations which wish to attract the attention of transient populations.

How then might artists and designers intervene within public spaces without being subsumed into this process of social engineering through the construction of authenticity? The answer may be found by reframing our understanding of what public space is and its relation to cultural production. As Crawford (1995) identifies, the public sphere is not a property inherent to any place or space but is an event that emerges at sites of conflict. Opportunities for transgression may emerge if cultural production is approached as something that can produce public space rather than something that is sited in it. As Sassen and Shepard (2011) identify, the transgressions of digital culture emerge in the spaces of the city at "analytic borderlands"—sites where local and global cultures and politics intersect. In this sense the public sphere is not constrained to space and certainly not centralized public space. Architecture and public art that reveals relationships between the digital public sphere and hypermediated space could go a long way towards allowing the public to engage critically with the complexity of relations that make up the digital public sphere.

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Chapter 9
Reconstituted Smart Citizenships Hacking Data-Based Urban Representations of the Public Domain

Miguel Paredes Maldonado

Abstract Among contemporary fields of spatial practice, urban design, and governance have undergone particularly radical transformations thanks to the gradual incorporation of digital computation technologies. The most salient case of this resulting methodological shift is the Smart City paradigm, which exemplifies the conceptual framework championed by technocratic, data-driven approaches to the development of spatial intelligence in the urban field. This chapter argues that such framework is a problematic one: It operates under a decidedly top-down regime, and articulates mechanisms of representation that tackle the city as a singular "assembled whole" where individual subjectivities are averaged and the drawing (and subsequent controlling) of "flow" is foregrounded as an imperative of maximum optimisation. Taking an interdisciplinary approach that draws from the fields of Anthropology, Design Informatics and Urban Studies, this chapter asks the question: Is it possible to articulate data-based counter-practices that operate within the same computational plateau as Smart Cities, albeit explicitly subverting their narratives of optimisation, efficiency, and top-down "smartness"? As a tentative response this piece puts forward modes of collective intervention (developed as part of the author's academic practice) that predate the technical overlay of the Smart City to leverage both individual and shared human subjectivities in the urban public domain through a DIY technological ethos.

Keywords Smart city · Computation · Urban · Design · Technology

9.1 Introduction

This chapter is the result of an ongoing interest in the current developments of digital, data-based forms of spatial intelligence in research and design practices dealing with the urban. Half a decade after the apparent consolidation of the "Digital Turn" in both architecture and spatial practice at large (Carpo 2013, 2017) it seems clear that

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the modalities of computational thought it fosters[1] have become particularly prevalent when addressing issues of design and governance at the urban scale. Whereas the Smart Cities paradigm is currently situated as the most widely recognised set of practices falling under this category, it is by no means the only framework for articulating data-based enquiries into the urban field. In an effort to prove this point, the methodologies outlined in this chapter stem directly from a critique of the modes of operation, control, and representation that define Smart Cities. Formalised as data-based drawing tools and practices, these methodologies attempt to reveal fine-grain, spatial–temporal urban conditions and subjectivities that would otherwise remain obscured under mainstream modalities of digital operation.

This piece will critically examine the Smart City paradigm from two intertwined points of view: First, it will consider its ontological configuration as a technological assemblage of heterogeneous data streams and digital media, which is resolved as a singular system animated by material, energetic, and informational flows. Second, it will explore how this ontological construct is mobilised as a framework of spatial representation—articulated through different forms of visual media—which in turn provides an infrastructural layer to contemporary practices of urban governance.

In developing its argument around visually mediated articulations of urban data into representational constructs, this piece tackles the Smart City paradigm from a different position than those championed by other contemporary critics of Smart Cities. Whereas Krivý's (2018) take on the Smart City is that of a direct re-materialisation of cybernetics in space, Greenfield (2017a, b) develops an interpretation of the same paradigm that focuses mainly on its performative effects. Nevertheless, my critique shares Greenfield's concerns with the smoothness and non-granularity of Smart City assemblages, and Krivy's preoccupation with "flow" as the SCs fundamental epistemic material, together with his view of SCs as environmental-behavioural mechanisms of control.

As a general goal, this chapter will not only attempt to frame the most salient spatial and political implications of Smart Cities by unpacking it as a media-based representation, but also to redeploy the same media apparatuses into potential of dissent, resisting the SCs top-down, totalising approach to the multiplicity of human subjectivities that articulate the urban realm.

9.2 Spatialized "Wholes" and Differential "Flows"

We start with a snapshot extracted from video footage of one of the highways traversing Los Angeles, originally recorded from a traffic police helicopter during the eve of Thanksgiving Day 2016. This picture (Fig. 9.1) embodies a well-known trope in our collective urban imaginary (the traffic jam, the congested megalopolis, etc.) but

[1]For Carpo this 'Digital Turn' is actually marked off by two different milestones, set apart around five years in time: Firstly, the almost complete pervasiveness of digital tools across all levels of the architectural production chain. Secondly—and still incomplete—the gradual incorporation of the

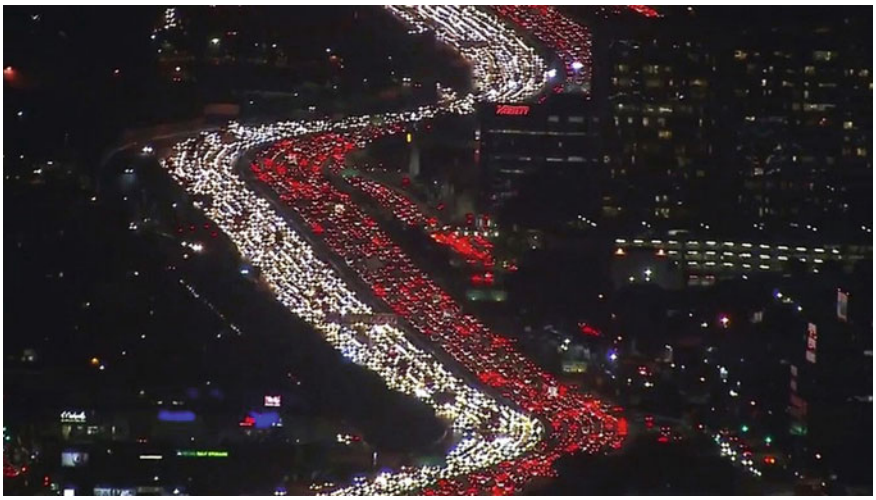

Fig. 9.1 The enduring L.A. holiday tradition: terrible traffic, LA Times, 23.11.2016

also sets a visual framework for us to look into digitally constructed representations of flow, circulation, and organization as they operate at the urban scale, ultimately unfolding into agencies for both urban design and urban governance.

For the purposes of our argument it is relevant that the original video was recorded from above, and from a certain distance. This indicates that the subject of our enquiry emerges only beyond a certain scalar threshold, so any of its smaller, individually heterogeneous components are somewhat "blended" into a larger, more homogeneous whole to facilitate observation.

Such an observational approach is highly attuned to the spatial-structural insights of New Materialism. For instance, the totalising configuration described above is what De Landa (2016, p. 3; 2000, pp. 67–69) refers to as that of "territorialised strata" in the context of his characterization of urban material assemblages as parametrised continuums. Krivý (2016) has also critically addressed this understanding the city as a continuum where the limitations of discrete "objects" are meant to be overcome in the context of the mid-1990s "projective turn" in architectural theory. The continuity of this "projective turn" is exemplified in the recent observations made by Oosterhuis (2017). Oosterhuis conceptualises cities and their infrastructures as metropolitan-scale "bodies", with a view on recalibrating the role of humans as carriers of matter, energy, and information traversing the aforementioned urban bodies. According to this line of thought, in the above snapshot from Los Angeles humans are to be regarded as "agents" within the infrastructural "body" of the highway, displacing matter in the form of food, presents, and car parts, carrying information in the form

logics of computational thought—in contrast to those of human thought—in planning, design and materialisation processes.

of geo-localised positions, digital tweets, traditional gossip and family bonds, and transferring energy through the combustion and movement of their motor vehicles.

This representational focus on the urban field as an integrated "whole"—a singularised metabolic system traversed by interacting flows (Weinstock 2013; Segraves 2013)—has only become a tangible paradigm once both data harvesting and managing practices have become completely pervasive. Images akin to our flyover snapshot of a Los Angeles highway have been around for decades. However, both our ability to understand urban fields as single, bounded bodies (as opposed to a series of constituent components) as well as our focus on those "assembled bodies" as the main subject matter of urban representation can be traced back to the early 2000s (Ratti and Claudel 2016, p. 23).

At this point in time we are not only surrounded by sensors and surveillance systems—explicit or not—that harvest real-time data from our environment as part of the Internet of Things (IoT) ecosystem, but also in engaging with everyday practices such as using our smartphones or browsing the web we are also broadcasting enormous amounts of data to many different constituencies—voluntarily or not—(Greenfield 2017a, b, pp. 21, 32). The most salient aspect of this scenario–at least in the context of this chapter—is that the resulting datasets are managed via a mediating, primarily visual representational framework, which renders data as flows of matter, energy, and information by means of commonplace computational methods. Through this mediating operation the representational act of plotting data into space is constituted as a decision-making protocol that operates under a data-rich version of the flowchart-like Boolean logics that were already embedded in the spatial computing systems stemming from the early 1970s developments of second-order cybernetics (Krivý 2018; De Monchaux 2016, p. 176). In the context of urban governance, I argue that this linkage is exactly what Smart Cities are about: we can manage the city as a "whole"—a singular body of interdependent flows—precisely because we can now represent it in such a form via data sorting protocols.

From a purely technical perspective, the Smart City is simply an overlay of integrated, responsive digital infrastructures that draw on big data streams from mobile apps, sensor networks, social media feeds, and transport information, with the declared goal of making urban features more responsive to changing conditions (Coyne 2017). However, this technical definition does not fully capture the potential agency of such media-data overlay as a meta-infrastructure to articulate decision-making processes in the urban realm. Critically, the most important capability of this overlay is to provide a framework of representation whereby the interactions between multiple, heterogeneous layers of information can be described and assessed as in terms of flow differentials (Ratti and Claudel 2016, pp. 16–17), and different actions triggered as a response. As defined by Castells (2010, p. 442) "flows" refer to "purposeful, repetitive, programmable sequences of exchange and interaction between physically disjointed positions held by social actors in the economic, political, and symbolic structures of society."

Constituencies like the MIT SenseAble City Lab, led by Carlo Ratti, work extensively to leverage the potentials of this representational approach, identifying recurrent urban flow patterns and rendering them visible, with a view to developing strategies towards the optimisation of flow-based urban resources such as—for instance—electricity networks (Ratti and Claudel 2016, pp. 110–117), public transportation (Szell and Groß 2014), and telecommunication services (Greco 2014). In that sense, the Smart City articulates representational protocols that point decision-making processes towards goals of resource optimisation in the domain of the urban commons. It is, therefore, a twofold infrastructural paradigm that encompasses both policy-making and urban governance. As Offenhuber (2017, p. 12) clearly puts it "infrastructure governance is enacted through the representations of the infrastructural system".

From a broader cultural perspective, this integrated approach to urban infrastructure has successfully co-opted the earlier notion of the "mechanosphere" which Félix Guattari precisely characterised as an efficient, globalising intermeshing of architectural, mechanical and biological processes (Saldanha 2015). As Guattari had also anticipated, in the case of the Smart City paradigm such an intermeshing has become exponentially facilitated by a multiplicity of connective digital layers. We should note, however, that Guattari also argued that "machines do more than revolutionize the world: they completely recreate it" (Guattari and Lotringer 2009). In other words, it is important to understand that the Smart City produces very specific forms of (capitalist) subjectivity (Saldanha 2015) which emerge primarily through the configuration of its representational media mechanisms. With this in mind, the next paragraphs attempt to unpack the SCs most fundamental shortcomings and contradictions as a representational paradigm, arranging them into three general categories: issues of data neutrality, issues of scalar articulation, and issues of representational agency.

9.3 Data Neutrality

With regards to the first issue, I argue that, while "sensed" and "harvested" data streams are conventionally regarded as politically neutral, this does not mean that representations constructed with the collected datasets are neutral as well. In spite of this, data-based urban modelling systems systematically rely on the positivist fiction that its representational tools are valid means to make "intelligent" (Weinstock and Gharleghi 2013) and, even more importantly, "legitimate" (Segraves 2013) decisions on urban design, policy, and governance that are both objective and impartial. In a tone similar to Anderson's (2008) "post-theory" argumentation, in 2013 IBM conflated data with intelligence by boldly announcing that Smart Cities are "Turning Big Data Into Insight" (Picon 2015). However, many questions arise with regards to the objectivity of those representational insights. Greenfield (2017a, b, p. 57) reminds us that "the authorship of an algorithm intended to guide the distribution of civic resources is itself an inherently political act". Which datasets are considered relevant

when building up a representation, and which not? Who is accountable when datasets are mismanaged? What are the implications of overlaying multiple datasets into a single representation, thus linking the issues they originally referred to?

A common instance of data-based modelling where the questions above tend to arise is that of urban air pollution monitoring. Drawing from Gabrys (2016) "(…) the ways in which environmental data circulates and is produced can also legitimate or delegitimate actors and approaches to environment". One example of contested air pollution data production and legitimation emerged vigorously in Madrid around 2009.[2] As in pretty much any other developed city, air quality sensors installed in high traffic, central areas of the city were systematically reporting dangerously high CO2 levels. Local and national newspapers discovered that, as a pre-emptive measure, the local Environmental Agency had (under the auspices of the conservative-led City Council) surreptitiously displaced the "offending" sensors to other locations in the city, where they would yield less compromising readings (Sérvulo 2009). The polemic revolved around the institutional attitude towards the treatment and dissemination of the pollution levels data. On the one hand, the Council claimed that the datasets were nevertheless perfectly valid insofar the displacement of sensors increased their overall precision by adding more data reading points. Moreover, the council argued that, insofar no readings had been actually altered, the datasets were still both objective and unequivocal. However, for the general public it was clear that resituating the sensors made a difference between being forced to tackle high pollution levels via institutional policies and comfortably continuing with "business as usual". From a methodological perspective, the displacement affected the consistency and continuity of the dataset series—a critical aspect of environmental data collection practices (Garnett 2016)—therefore seriously undermining the development of any long-term air quality policies.

A more recent example of contested neutrality can be regarded as emerging from the representational decision of mapping one specific dataset against another. During 2016 and 2017 the Rezz.io website (Robertson 2017) took openly available school performance reports and inspection reports from Education Scotland, together with school catchment maps from various Scottish Local Authorities, and mapped their datasets against postcode-based rental valuation data. Whereas the correlation between property prices and school desirability indicators is far from a new phenomenon, the structure and locality of this particular mapping articulates a singularly direct linkage between parental income and academic performance, while also providing a tool for landlords to leverage their income by topping up property prices with a "good school bonus". While neutrally presenting itself as a provider of "residential letting data and associated services to property professionals across the UK" (Robertson 2017) Rezz.io actually fostered a self-fulfilling prophecy by

[2]This was at a point in time when sensing technologies were well developed but not yet fully articulated into the responsive feedback loops that characterise contemporary Smart City practices—a lack of sophistication that, incidentally, resulted in a comparatively "open" system that allowed for the data-related issue at stake to be observed and subsequently highlighted by the press.

further feeding the correlation of family income and school performance that it had originally chosen to articulate.

In both of the examples above we see how equating data-based representations with objective insights is highly problematic. As Picon points out (2015, pp. 49–50) data is often claimed to be some form of objective reality: something that presents us with true knowledge. However, we actually never look at "raw data". On the contrary, we rely on mediated representations with embedded protocols to select and organise datasets, with the goal of constructing intelligible narratives that can be efficiently evaluated and communicated. Tapping again into the lexicon of Deleuze and Guattari: Urban data is sorted via representational protocols, yielding urban subjectifications that consist of both assignations of individuality and distributions within existing discourses (Deleuze and Guattari 1987, pp. 80, 130). With this in mind, an important question emerges: Who is the agent of those subjectifications? A public institution, a private business, a group of citizens, a single individual? Different agencies, championing different modalities of selecting and organizing data, will generate radically different urban narratives and subjectifications, and therefore different responses, actions, and policies. In doing so, the representation of data becomes a critical infrastructural process that supports the production and the transformation of the urban field, and is anything but neutral or objective. What we decide to sense, measure or read—and where we decide to do it—is thus a political operation and cannot be reduced to a technical problem: "Infrastructure governance is enacted through the representations of the infrastructural system, and these representations result from the efforts of the different stakeholders to make the system legible from their own perspectives and interests" (Offenhuber 2017, p. 12).

9.4 Scalar Articulation

In tune with Kas Oosterhuis' understanding of urban infrastructure as a singular "body" (and of human beings as one of the categories of carrier agents animating that system) Smart City practices mobilise a macroscopic, metabolic modality of urban representation as the fundamental subject of urban design and governance. In doing so, they constitute extremely powerful and efficient frameworks for urban intervention that are nevertheless affected by important omissions and shortcomings stemming directly from their conceptual basis.

Firstly—and as the "macro" prefix indicates—for the sake of legibility and efficiency the complex technological overlay of the Smart City operates only above a certain scalar threshold. As a result of this, the subject of its enquiries and decision-making processes is a single, large-scale, continuously assembled metropolitan body (as opposed to a series of constituent, interconnected elements). In order to articulate such a representational subject any smaller, individually heterogeneous components must be necessarily "blended together" or "averaged" into a homogeneously readable "whole" for the purposes of global observation (Krivý 2016). In that sense, Smart Cities constitute case-in-point incarnations of highly territorialised, highly

codified assemblages as defined through the New Materialist ontology of De Landa (1998, 2016, pp. 19–23): They are homogeneous, well-bound individual entities, articulated via a strong legitimising narrative and acting as source of downward causality towards its constituting components. In keeping with their cybernetic origins (Offenhuber and Ratti 2014, p. 9) these bodily assemblages operate as "black boxes" that give away little or no external indication of their constituting processes. This scale-bound representational framework is most often described by means of organic and biological bodily analogies that further reinforce its claims for autonomy and individuality: references abound to "metabolic" processes (Besserud et al. 2013; Segraves 2013), to "intelligent cities" (Weinstock and Gharleghi 2013) populated by "swarms", "mobs" and "crowds" (Ratti and Claudel 2016, pp. 66–67).

Second, the "smartness" of Smart Cities is almost systematically conflated with the fulfilment of quantitative standards of efficiency, which are operationally described as "optimisation" (Haque 2017; Greenfield 2017a) Moreover, it should be noted that such optimisation endeavours are applied only to very specific parameters—namely those that can be described as differential flows of energy, matter or information. As a consequence of this conflation—which seems to draw from a stubbornly mechanistic interpretation of Manuel Castell's "space of flows" (Castells 2010) any urban aspect that cannot be both quantitatively "sensed" and represented as a form of optimisable "flow" simply falls outside the infrastructural framework of action and governance of the Smart City. In other words, whatever flows must "flow" better and, consequently, if something does not "flow" it cannot be considered as a "subject" for the purposes of the Smart City (Krivý 2016). As Interestingly, whereas even the most vigorous advocates of data-based urban intelligence warn us of the caveats of focussing solely on the numerical optimisation of flows (Ratti and Claudel 2016) in practice the vast majority of Smart City implementations (and the scientific-academic data experiments they stem from) seem to ignore their own advice, providing little or no formalised alternatives to the prevalent clockwork approach to urban space and resources.

As a collateral effect to their built-in, narrow goal-directedness, Smart City representations appear to us as strikingly selective, smooth, and non-granular (Greenfield 2017b). Further to this, and beyond strictly urban, architectural or spatial research, other fields have provided useful commentaries on the issues arising from the pervasive representational frameworks that articulate networked digital urban information systems. From the perspective of media studies, Parikka (2012, pp. 78–80) has described how informational systems produce consistent, monolithic discursive networks and, in doing so, subject the user to their ontological structures–enforced through standards and protocols. Such a description resonates strongly with sociologist Lazzarato's (2011, pp. 147–149) notion of "machinic subjection", which refers to the subjectification process whereby our actions and behaviour are often shaped after the machinic-technological protocols embedded into the data-based systems we interact with on a daily basis. Parikka's and Lazzarato's observations are also useful for us to situate the urban data intelligence protocols of Smart Cities as an apparatus within the political economies of contemporary "crowd-based capitalism",

succinctly summarised in the words of BlaBlaCar founder Fréderic Mazzella: "I love to optimise things" (Sundararajan 2016).

Representational Agency

The two issues above also overlap with a somewhat artificial distinction between two types of spatialized intelligence in the Smart City paradigm: top-down (practices emerging from institutions or corporations, then disseminated "downwards" towards the granular citizens) and bottom-up (practices emerging granularly from the joint efforts of groups of individuals—organised or not—and disseminated "upwards" into the institutional hierarchy).[3] Such clear-cut distinction—mapped against two equally unambiguous modalities of urban governance—appears, for instance, in the work of Picon (2015, pp. 86–90) who cautiously adds that the two approaches are complementary and thus it is desirable to strike a balance between them. Whereas Picon's appears to be a reasonable proposition, it fails to acknowledge that urban data-based management processes actually operate within a range where "top-down" and "bottom-up" are nothing but simplified extremes (Offenhuber 2017). Institutions of public governance, private corporations, grassroots movements and individuals alike essentially co-exist in the same technological plateau, using variations of the same readily available digital technologies in many different ways to serve very different purposes. The daily news provide us with countless examples of top-down data systems being used to stage or organize bottom-up actions and, conversely, enquiries into the endeavours of grassroots technological start-ups often reveal how they risk becoming partially or completely co-opted into top-down narratives of public governance or corporate interests. More often than not, technological platforms playing a role in the development of data-based urban intelligence (such as Arduino, OpenStreetMaps or Xively) exist somewhere in the spectrum between bottom-up modalities of transparent development—involving public availability of collected data– and the harvesting of the same data for top-down governance or corporate purposes.[4]

Notwithstanding the blurriness of the top-down versus bottom-up distinction when it is considered from a technological perspective, the above discussion provides us with a clear picture of the Smart City as representational paradigm that operates in a decidedly top-down manner: Its technical practices and protocols use data sorting technologies to "draw" the city as one singular, monolithic whole, which in turn

[3]It should be noted that, in the context of this chapter, top-down and bottom-up refers specifically to the direction in which the agency of data representation progresses. For instance, whereas we may willingly act to individually provide data towards the articulation of a decision-making process, the actual decision-making agency (and thus the form of representation that articulates it) runs in the opposite direction (top-down).

[4]The example of Xively is a good illustration of this: Originally founded in 2007 as a data infrastructure and community for the Internet of Thing by Usman Haque under the name Pachube, it came to prominence when it was used by volunteers to interlink Geiger counters across Japan to monitor radiation in the aftermath of the 2011 Fukushima accident. Pachube was then acquired by LogMeIn and renamed to Cosm, being rebranded as Xively to become a Public Cloud for the IoT in May 2013.

becomes the sole subject of scrutiny and organisation. Traversing this singular subject, flows of material, energy, and information are systematically subjectified in order to fulfil concurrent goals of global resource optimisation. In doing so, individual subjectivities are systematically consolidated and "averaged" into larger, flowing "subjects". These representational operations articulate a "drawing" of the city as a singular, integrated data object: An urban "black box" where the agencies of finer-grain subjects (human and non-human) are effectively bypassed.

9.5 Practices of Dissent

Whereas it should be acknowledged that all of the above constitutes the prevailing paradigm with regards to the urban implementation of digital, spatialized intelligence, we should also note that, since top-down and bottom-up systems tend to co-exist within the same plateau of digital technology, an immense array of opportunities opens up to collectively reframe data-based urban discourses through critical practices of data collection and representation. We could therefore wonder: Is it possible to articulate an infrastructural, data-based counter-project that subverts the prevalent urban narratives of optimisation, efficiency, and top-down "smartness"? Can we steer the representation of data flows towards the emergence of multiple, distinct individual subjectivities (as opposed to the emergence of an "assembled whole"? Could we resituate this millieu of human subjectivities as the locus of design agency?

In an attempt to address these questions, this section will outline a series of "practices of dissent" developed as part of my design research body of work and research-based academic design studios. These practices mobilise data-based modalities of collective representation that actively predate the technological overlay of the Smart City in order to leverage both individual and shared human subjectivities within the urban public domain. As modalities of spatialized digital knowledge, they endeavour to tackle issues concerning friction and collectiveness, developing design narratives that explicitly re-situate the locus of operation in the domain of the urban commons, re-establishing highly granular human subjectivities as the fundamental agents within the urban millieu. Data-based, digital media representations are used to unpack the domain of the commons as a subject that emerges collectively, thus countering the "smart" narratives of flowing neutrality and optimisation with narratives of frictional, messy, jointly assembled citizenship. Tracing back to Guattari's and Salndanha's reflections on the political and ideological implications embedded into different modalities of pervasive machinic intelligence, I argue that these Practices of Dissent aim to liberate the digital, infrastructural overlays operating at the urban scale from the production of technocratic forms of capitalistic subjectivity (Andersen 2016).

Beyond their primary intent of counterbalancing the Smart City paradigm, these practices also position themselves with regards to other ongoing initiatives that leverage data-based forms of urban intelligence. For instance, they share the current preoccupations of Civic-Tech movements with opening up alternative technological

modalities of collective urban dialogue that capture needs and subjectivities beyond the reach of top-down Smart City systems (Bullivant 2017). However, our practices of dissent also take on board an important caveat of Civic Tech implementations: Whereas they succeed in opening up the "black boxes" of singularised urban objects championed by the Smart City paradigm, they still work exclusively towards very narrow goals of resource coordination and optimisation (Offenhuber 2017). As a way of addressing this limitation, our Practices of Dissent make a conscious effort to distance themselves from the cybernetics-originated focus on the performative and predictive aspects of the urban (Offenhuber and Ratti 2014; De Monchaux 2016) choosing instead to leverage spatial representation as a political tool to act on the urban field. As tools for facilitating a productive critique of the role of data on urban processes, our Practices of Dissent can also be considered as forms of "critical making" (Ratto et al. 2014; Wylie et al. 2014; Offenhuber 2017), albeit with a particular emphasis on foregrounding alternative frameworks of spatialized representation as vehicles to foster urban dialogue. In that sense, they resonate with contemporary notions of "urban hacking" understood as the collective action of opening-up urban infrastructures (and their associated technological constructions) with a view on developing alternative urban imaginaries (de Waal et al. 2017; Offenhuber 2017).

9.6 Circulation and Play

As the images that illustrate this chapter suggest, the operations constituting our Practices of Dissent are carried out primarily through two themes—Circulation and Play—that seem to yield themselves particularly well to framing data-based enquiries into urban knowledge attentive to granular human subjectivities.

With regards to the former it should be noted that—in contrast to the Smart City transcendent reductionism of singularised circulatory urban "bodies"—our explorations revolve around the circulation of individuals, recorded by the individuals themselves as a form of collective performance. Thus, "flow" does not appear here as an abstract differential, but as the re-constituted collective agency of urban citizens. This understanding of "flow" through circulation attempts to connect to ongoing conversations pertaining the destabilisation of the subjectification practices imposed by Smart Cities. For instance, Farías and Höhne (2016) invite us to think about "(…) the power of circulation to unleash processes of desubjectification, enabling human bodies to enter a plane shaped by the movement and rest, the speed and slowness of destratified bodies, a field of vectors and particles intersecting in new ways, becoming something else". Needless to say, we find a key reference for orchestrating this destabilisation in Michel de Certeau and his interest in the everyday tactics of moving about, overcoming the structure of the functionalist city through "unrecorded and un-recordable productions" (Beltzung Horvath and Maicher 2016). As de Certau himself would explicitly put it "[T]rajectories trace out the ruses of other interests and desires that are neither determined nor captured by the systems in which they develop" (Certeau and Rendall 1984).

Such destabilisation is pushed further when "circulation" is considered in the context of "play". In the examples below, any representations of the city as a single subject are purposefully undermined, often by simply agreeing to collectively play a series of data-based games where the "playing field" is precisely the urban scenario. In doing so, we can articulate forms of data-based design enquiries that gradually build up as collective endeavours to inhabit the city. Building up from the analogue precedents of play through urban circulation of the "Internationale Situationniste" (Smith 2005; Andreotti 2000) exemplified in the practice of urban "Dérive" originally theorised by Debord (1956) citizens are encouraged to engage data-based urban navigation and sensing through protocols that foreground collective curiosity and attraction above strict functionality (Pe 2017). The goal is to dismantle the subjectivities of the representational (data-based) framework being imposed on us by "smart" urbanism, rendering instead a fluid, multiplicitous form of collectivity that incorporated the unpredictable, the serendipitous and the creative aspects of "messy" urban situations (Haque 2017). As Beltzung and Maicher (2016) remind us "to free the city from its organisation, if only temporarily by games, can be a practice of liberation (…) Instead of encounters between subjects communicating on a plane of significance, the stripping down of subjectivity, of organisation and significance allows for the becoming of a new swarm of multiplicities, a new collectivity".

The following sections will discuss four instances of data-based Practices of Dissent (developed as part of my design research enquiries and research-based design studios) with a view on offering specific positions and reflections on "critical making" and "urban hacking" as means to counterbalance mainstream forms of urban intelligence. Mobilised as logistical operations that hybridise media, materiality and data, these four practices deliver outputs that can be tentatively categorised as Sensing Instruments, Maps, Games or Prototypes—and often fit within two or more of those categories.

9.7 The Edinburgh Deliveroo Game

The first example of data-based Practices of Dissent is an animated visualisation constructed by plotting and collating the routes of 33 Deliveroo bike riders during a Sunday night in October 2016. This visualisation (Fig. 9.2) and its originating data collection methodology were developed by students William Tooze, Angus Henderson, and Noah Judge in conversation with design studio leaders Miguel Paredes and Sophia Banou. During an initial "data-event" held in Edinburgh's Grassmarket (designated by Deliveroo as the meeting point for their riders to await food delivery requests) riders were invited to install a simple GPS-tracking app on their smartphones and share their accumulated trajectory logs by the end of the night. This invitation originated in the context of an informal discussion with riders at a critical point in time in the recent history of contemporary labour disputes: On the one hand, Deliveroo's employment practices were facing considerable public scrutiny. On the other hand, its previously atomised workforce of individual riders had not only

Fig. 9.2 GPS-tracked routes of 33 Deliveroo drivers in Edinbrugh during a Sunday night in October 2016

started to recognise their individual agencies, but also became collectively organised in demand of proper contracts and a living wage.

This exercise allowed all participants (riders and designers) to develop a representational framework that successfully avoided the trappings of the narratives conventionally fostered by "gig economies"—the fierce individuality of the self-employed "entrepreneur" versus the efficient infrastructural anonymity of the singularised Deliveroo "flow". In doing so, the riders were further empowered to recognise themselves as a cohesive but non-institutionalised community. This involved, for instance, rendering visible their collective geographical understanding of Edinburgh, which was related to the distribution and the physical range of the Deliveroo target audiences in Edinburgh, as well as with the physical implications of riding a bicycle throughout the city's Old Town. It is worth emphasising that the original visualisation—from which the snapshot illustrating this chapter was extracted—was developed collectively and under an agreed set of rules, and thus bridges the categories of the "map" and the "game".

All of the above situates this data-based urban visualisation as a modality of critical making that is heavily inflected by the spatial practices of "counter-mapping" insofar it explicitly aims to resist and challenge dominant power structures (Wood 2010) which—in this particular case—operate by mapping the political field of labour relations against the spatial field of central urbanities. As Peluso (1995) points out, the participatory strategies of counter-mapping are facilitated by technological developments, and this is particularly apparent in the case of this example, which taps

directly into the base technological requirement needed to become a Deliveroo rider: owning a smartphone with data connectivity and GPS tracking capabilities.

9.8 Collective Assemblages in Cagliari

The counter-mapping exercise initiated in Edinburgh was redeveloped and intensified in the context of the author's visiting professorship at the University of Cagliari in Sardinia during the 2017 spring term. The images illustrating this section (Figs. 9.3, 9.4 and 9.5) represent the tracing of seventy-nine geo-localised paths of individual displacement (corresponding to the author and his students from the School of Architecture at Cagliari) which were collectively captured via GPS-tracking smartphone apps throughout a single day in April 2017.

The resulting traces—part of a larger exercise on collective urban data harvesting—reconstructed the fabric of Cagliari through the subjective urban geographies of the participants, rendering their endeavours into dynamic urban plans, which were in turn formalised as quantized, compressed vector video clips spanning multiple scales. Again, the intent of this exercise was to steer the visual representation of data flows towards the emergence of multiple, heterogeneous individual subjectivities (as opposed to the emergence of an "assembled whole"). Some of these individual—albeit multiplicitous—subjectivities included (but were not limited to) issues of access and accessibility, gendered experiences of space and personal safety, and the construction of collective forms of "belonging".

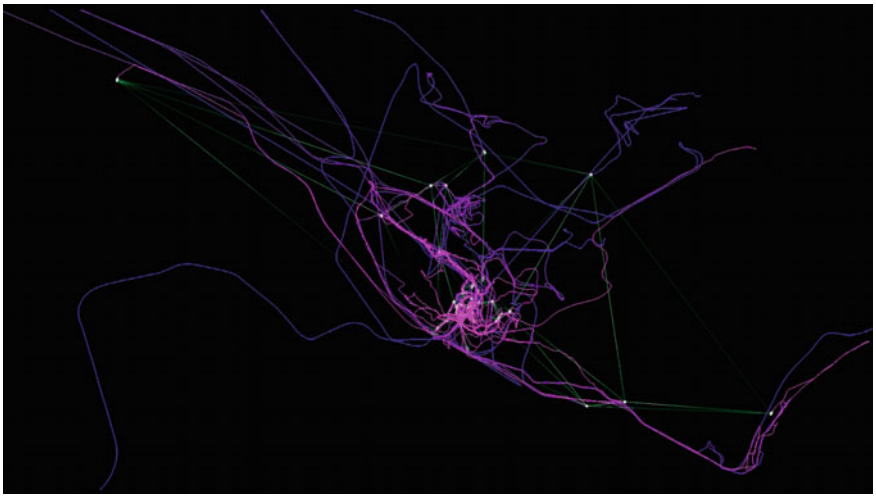

Fig. 9.3 Snapshot from the metropolitan-scale dynamic urban plan of Cagliari, based on GPS-traced displacements of 79 individuals in April 2017

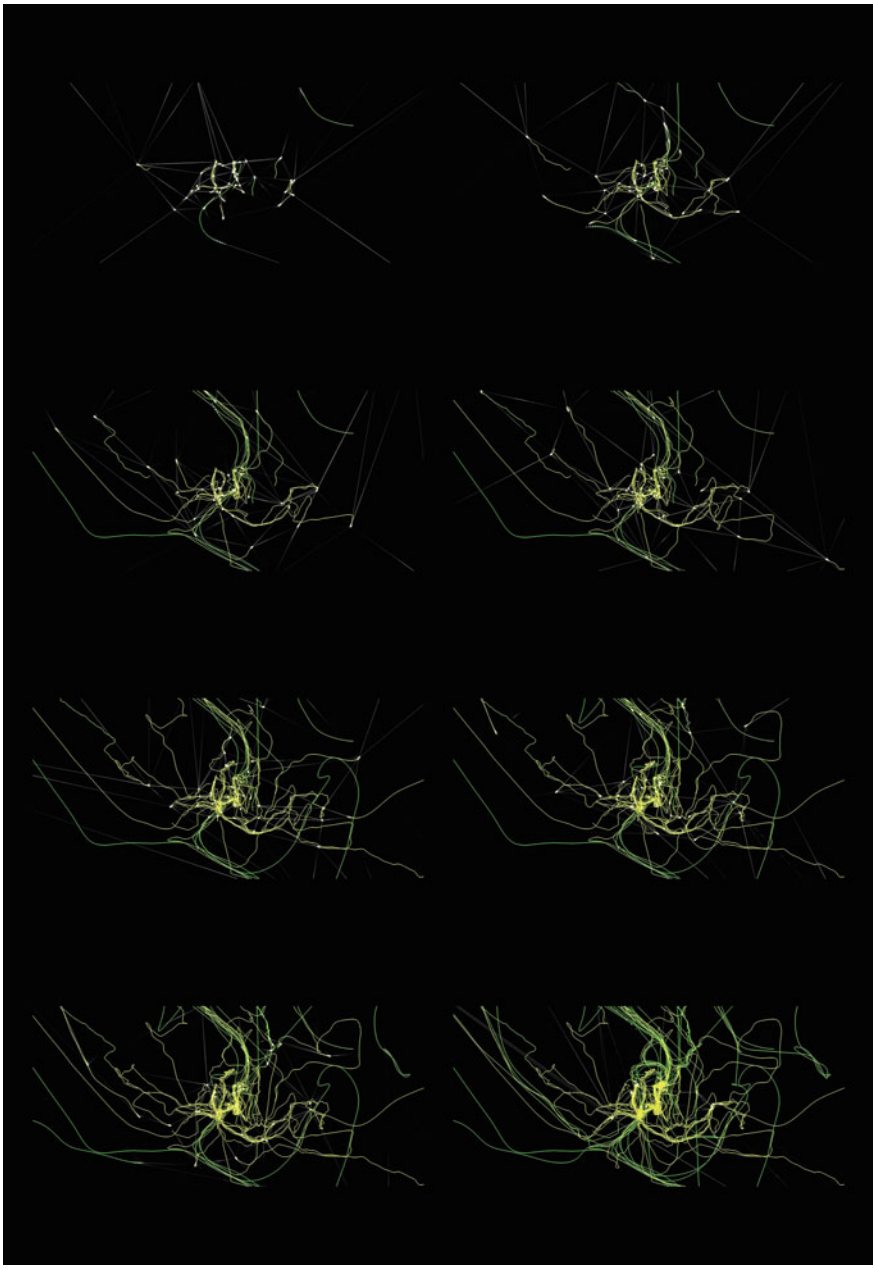

Fig. 9.4 Snapshots from the intermediate-scale dynamic urban plan of Cagliari, April 2017

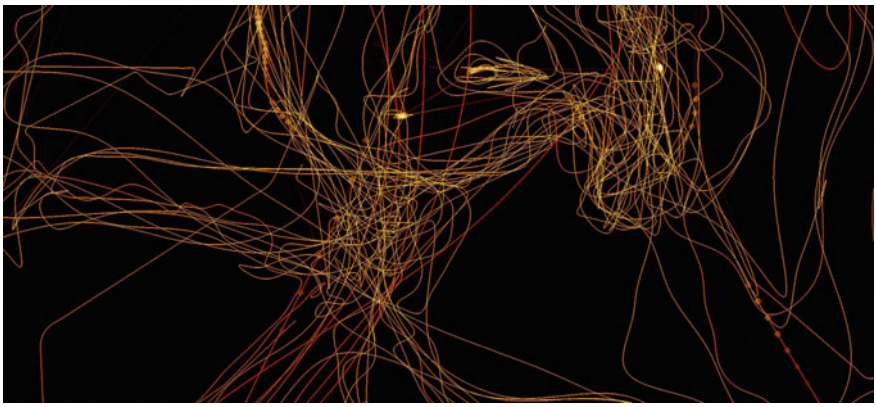

Fig. 9.5 Snapshot from the close-up dynamic urban plan of Cagliari, April 2017

The agency of all participants was not limited to the data collection, but also involved their co-ordinated input into the process of collectively assembling the resulting data streams together. As a result of this, authorship of the resulting urban visual materials became both distributed and visible. This leveraged the alignment of the work with critical counter-mapping practices by making the purposes of the mapping initiative transparent, as well by facilitating the making of informed, collective decisions on which specific aspects of the information stream were to be foregrounded (Genz and Lucas-Drogan 2018).

The first data-based dynamic urban plan (Fig. 9.3) dealt with the metropolitan scale of the Cagliari region. At this level, it is possible to clearly appreciate the form of the coastline, as well as the emergence of daily commute patterns of students staying with their families in neighbouring towns.

A second, downtown scale urban plan (Fig. 9.4) comprised the central districts of Stampace, Marina, Villanova and Castello, revealing finer-grain patterns of urban access that emerged from the specific assemblage of geographical, infrastructural and social conditions affecting both the city and the participating students. Looking at the relevant snapshot image, it is easy to detect an amalgamation of paths in and around the central hub of Piazza Yenne, which gradually extended towards the cluster of buildings—located in the old citadel—that comprise the School of Architecture.

Finally, a third, close-up visualisation (Fig. 9.5) focused on the immediate surroundings of Piazza Yenne and the walking route to the school of Architecture towards the Torre dell'Elefante, thus yielding a very accurate reconstruction of the physical configuration of the urban fabric in that particular fragment of the city. The thick amalgamation of paths revealed in this third urban map foregrounded the rich multiplicity of daily individual narratives involving commuting, shopping, studying, resting and socialising—all while being embedded into a young academic community.

A number of further remarks can be made with regards to the affordances and potentials of the animated mapping exercises of Edinburgh and Cagliari. First, as representational "drawings", "maps" or "animations" their fundamental characteristic

is blurred authorship: They can only be generated as a collective endeavour, whereby a group of individuals agrees to produce a recording of their displacements in a more or less simultaneous manner. In that sense, different representational choices lead to different ranges of productive tension between the anonymization of traces and the potential to foreground individual "inflections" in the resulting visual output. Secondly, as collective methodologies these representations are primarily mobilised through the notions of "play" and "drift". As noted in previous sections, their making incorporates a critical component, but at the same time it is explicitly not purposeful. There is neither individual nor collective intent in tracing one particular path or another: Participants just go about their daily lives as usual, driven by the excitement of potentially being able to rediscover their very own geography of the city by the end of the day. Thirdly, in both the Edinburgh and Cagliari exercises the individual paths of circulation are rendered as quantized traces. In other words, the animation technique introduces time-stretching to "compress" all paths into the duration of each clip, resulting in individual positions across the animation timeline not necessarily being simultaneous in origin. This form of time-based data "compression" explicitly attempts to overcome conventional representations of urban circulation as simple "position logs", instead presenting urban displacements as a "map of collective coincidences" that is expressed through accumulative overlaps.

In the same manner as in Smart City representational frameworks, the gradual unfolding of circulation data streams has the effect of "drawing" the urban as a particular modality of "flow" emerging through the interactions of heterogeneous components incorporating matter, energy and information. The critical difference, however, is that—in keeping with their dissenting intent—the Edinburgh and Cagliari representations avoid articulating this "urban flow" as an homogeneous, totalising "assembled whole", but rather as a continuous-yet-heterogeneous multiplicity of trajectories within the urban landscape. The four "active" representations discussed so far share the common goal of addressing the domain of the public commons as a multifaceted subject that emerges collectively, therefore resisting the homogenising, technocratic "smartness" of contemporary forms of urban governance driven by spatialized data representations. Echoing Gabrys et al. (2016) call to move from "data practices" to "data stories", this body of work counters the Smart City narratives of objective, neutral, efficient urban flows with critical narratives of collectively assembled citizenship.

9.9 Conclusions

Caprotti et al. (2017) have been particularly successful in articulating the fundamental concerns of scholars and activists around the prevalent representation of cities as sets of technologically controlled, measurable data streams such as the Smart City—especially for urban management and urban policymaking purposes. Their critique is particularly relevant to us insofar it does not just foreground the issue of "control" of these representational processes as a central matter of concern. Importantly, it

also flags up the mechanisms whereby the collection and management of urban data accrues diverse forms of "value" (monetary, political or otherwise), and the effect that such accrual processes have in narrowing down urban discourses to a simplistic attainment of measurable "value indicators".

In response to the shortcomings of the mainstream urban paradigm of objective, quantifiable smartness this chapter endeavours to articulate data-based urban counter-practices that emerge as matters of collective representation. In doing so, it looks into methodologies that allow for a collectively orchestrated development of granular, spatialized urban intelligence, explicitly resisting the totalising drive of organizational vectors such as the accrual of value or the optimization of resources. Rather than engaging with data as a commodity or as an indicator of performance, the Practices of Dissent presented in this chapter aim at foregrounding and strengthening the community links that generate them in the first instance, and to do so at the very sites of the urban commons: the streets and public spaces of our cities.

Could these reconstituted practices of "Smart Citizenship" overcome the representational limitations of the Smart City paradigm? Looking again through Manuel De Landa's ontological framework (2016) the data-based methodologies presented in this chapter do not "fold" the urban into a singular, homogeneous "assembled whole", but rather "unpack" it as an "assemblage of heterogeneous components". Moreover, and borrowing from the lexicon of Felix Guattari, we could argue that these newly formulated modalities of urban assemblage allow for novel forms of spatial enunciation to emerge from collective angles, with an emphasis on what is common to our individual experiences (Guattari and Lotringer 2009; Guattari 2012).

Ultimately, the reflections presented in this chapter should primarily allow us to frame a series of critical questions to be asked with regards to the use of data as both a form of urban design agency and a modality of governance of the urban commons. As a starting point, we may first pose questions concerning the scale and scope of our data subjects: "What" or "Who" constitutes an Urban Body? And "What" or "Who" flows through? The expectation is that, in asking these questions, we may be able to tease out and interrogate both the subjects and the field of action of our urban enquiries. We could, then, move on to ask questions about the specific locus of agency within the processes that are being unleashed: Who reads the Data? And, even more importantly: Who maps the City? In asking those last two questions, we should hopefully be able to articulate the specific political stance that underlines our approaches to mapping and designing in the urban field.

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Part III
Spatial Cultures: Technology-Mediated Interfaces

Chapter 10
Marginalised Geographies and Spatialised Identities

Kris Erickson

Abstract Many cities now collect, aggregate and oftentimes visualise data to identify neighbourhoods in need of greater policing, public assistance or restructuring. And the rhetoric about these initiatives usually includes claims that the use of digital technologies, social media platforms, and collected data will make city officials more accountable, enable greater citizen input, and improve the overall quality of urban life. As this chapter argues, however, many of these practices function to aggravate already existing racial–spatial divisions, construct and reinforce existing topologies of power, and deleteriously mediate and threaten neighbourhood identities. Specifically, this chapter investigates data-driven constructions of geographic knowledge and state power, particularly as manifested through certain affective technologies of safety and security, such as crowdsourcing smartphone applications, the digital visualisation of crime, and the more recent phenomenon of predictive policing. Relying in part on Richard Grusin's theory of premediation, I argue that the more recent and growing phenomenon of predictive policing, wherein cities use data to help predict future crimes, tends to target lower class neighbourhoods and functions to premediate and reinforce existing socio-economic disparities. Similarly, citizen-sourcing smartphone apps that encourage residents to report problems in their neighbourhoods may allow for greater agency and citizen engagement, on the one hand, but also become indicative of neoliberal techniques that shape productive, autonomous, and self-regulating citizens and ordered socio-spatial constructs.

Keywords Citizen-sourcing · Identity · Marginalisation · Policing · Neighbourhood

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10.1 Introduction

As global urbanisation and urban sprawl intensify, the United Nations projects that over 70% of the world's population will live in cities by 2050 (Department of Economic and Social Affairs 2016). And with rapid urban population growth comes corresponding stress on physical urban infrastructures, such as increased pressure on limited capacity power grids, greater traffic flow volume, faster road degeneration, and greater pollution. In parallel with global urbanisation, approximately 90% of city residents are also now connected to mobile networks (International Telecommunication Union 2015). And cities make use of these mobile networks to gather large amounts of data to help organise and manage urban life and identify solutions to the problems that come along with increased population trends. Additionally, the ubiquity of mobile technologies also can lead to increased citizen access to city services and the potential for a greater voice in governance. But because of the inherent invisibility of big data flows, it becomes crucial to consider the consequences, particularly when unequal power differentials are reified and strengthened.

While the issues explored within this chapter are not limited strictly to city initiatives, data-saturated urban ecosystems have become harbingers of smart city and data-driven experimentations that not only help to inform our collective and individualised urban identities but also consistently reshape physical urban space and our experiences within it. It, therefore, becomes increasingly crucial, in our era of fake news, search engine optimisation, and confirmation bias, to be critical of state-sponsored rhetoric, especially claims that the use our digital devices and collected data are being used for national security and safety purposes. De Waal (2018), for instance, suggests that many urban planning and governmental policies that occur as a result of analysed data "could lead to *new* spatial regimes" (my italics). Big data practices have indeed become embedded in the everyday life of cities, but the use of analysed data is not so much creating "new" spatial regimes as functioning to reinforce existing ones. As this chapter argues, while some data-driven smart city practices can certainly lead to policies and programs that can help ease the strains of increasingly stressed urban ecosystems, these same data practices may also function to construct and reinforce existing socio-economic boundaries and (re)spatialise historically marginalised identities.

Recently, the German Chancellor, Angela Merkel was quoted as saying that "Data will be the raw material of the 21st century" (World Economic Forum 2018). Data "are to this century what oil was to the last one" (The Economist 2017, para. 4). While scholarship on the phenomenon of big data increases daily, and many work to better understand the role big data play in our daily lives, current scholarship primarily addresses its potential, whether for business, medicine, smart city planning or economies at large. And scholarship that criticises the use of big data has focused primarily on issues of hidden bias (i.e. Crawford 2013; Thatcher et al. 2018) or privacy and surveillance concerns (i.e. Christl 2017; Horvitz and Mulligan 2015). Less explored are the real material consequences of smart data practices on everyday experiences, spatialised identities or physical urban spaces, which this chapter aims

to address. Looking at several international urban case study examples, this chapter explores various data-driven constructions of geographic knowledge and state power, particularly as manifested through certain *affective* technologies of safety and security, such as crowdsourced smartphone applications, the digital visualisation of crime and disease, and the more recent phenomenon of predictive policing. This chapter argues that some urban data practices often function to not only aggravate existing racial–spatial divisions and construct and reinforce existing topologies of power but also deleteriously mediate and threaten geographically situated identities, from local neighbourhoods to nation-states, fuelling both material and discursive hegemonic geopolitics.

10.2 Data Ecosystems and Inherent Bias

In order to better understand how big data practices potentially mediate geographical boundaries and reinforce socio-economic identities, it is first important to understand how data is collected and interpreted. Governmental data collection is not a new phenomenon, nor are the co-constitutive relationships between information gathering, knowledge, and power (Foucault 2005). Throughout the seventeenth and eighteenth centuries, for example, data collection practices occurred regularly throughout Europe, and state officials collected a wide variety of demographic data in an effort to gather information of "interest to the state" (Ross 2010, p. 7). Historically, governments collected data on everything from population trends to numbers of marriages and deaths in an effort to not only inform state policies and actions, but also predict future needs (Ross 2010). While the methods have changed, and data are now collected in unprecedented quantities through a variety of digitalised tools and strategies, governments continue to collect data in the interest of the state and for the purpose of acquiring knowledge that will help inform urban policies and practices. The associated power that comes with such knowledge, however, does not simply lie within the quantity of information gathered, but how it is collected, interpreted, and then used—in other words, what kind of "knowledge" is produced, by whom, and for what purposes?

Urban residents also are often encouraged, through the use of various apps and websites, to give officials feedback on city services and offer suggestions and ideas that will help shape or benefit their communities. Through the use of city-sponsored smartphone applications, for example, such as BOS:311, a non-emergency smartphone reporting app for Boston residents, one can quickly report quality of life issues, such as potholes, broken traffic signals or broken metres. Unbeknownst to the average user, however, city goverments also regularly collect and aggregate a variety of personal data, from internet browsing habits to geo-tracking and even with whom people meet up or interact (Degli-Esposti and Shaikh 2018). And many data sets are then sold or given to third-party corporate entities (Vallina-Rodriguez and Sundaresan 2017). Conversely, according to one recent source, approximately 70% of commercial smartphone apps are tracking and reporting personal data to third-party

companies, many of which then sell their data to city governments (Vallina-Rodriguez et al. 2016). Thus, governments and corporate entities often are in partnerships, sharing a variety of data collected from our devices. Rio de Janeiro, for instance, was reported to be the first city in the world that collected real-time data of drivers from the Waze application to aid in urban planning efforts (Olson 2014, para. 4). And London, Amsterdam, Barcelona, and nearly 30 other cities started using Strava app data to track cyclist movement, along with age and gender, throughout urban streets (Walker 2016). While this kind of data collection may seem somewhat benign, the practice raises a myriad of concerns and can have far-reaching implications. Smartphone apps, for instance, typically gather small bits and pieces of information and send data to different trackers, after which users' unique identifiers can then be patched together (Rathi 2016). Therefore, while one app alone may not collect much personal information, when the data is aggregated, users or a particular demographic area can be profiled more fully (Vallina-Rodriguez and Sundaresan 2017).

Furthermore, and frequently in attempts to seem transparent, many cities host their gathered data on open data platforms to make information publicly accessible and useable; but the whole system is exceedingly flawed. Major cities like New York, London, Brussels, Sydney, Berlin and Colombia, for instance, have open data platforms that are, at least theoretically, available for public viewing and use (Data Portals, n.d.). Yet one recent study found that 9 out of 10 government datasets are not actually "open;" only 7% of the total data was even accessible, and only 1 in 2 of those datasets were machine readable (World Wide Web Foundation 2017, p. 12). The World Wide Web Foundation (2017) also concluded that government-sponsored open data platforms are not only often incomplete, but of low quality and frequently fragmented, making those data sets more likely to have multiple errors in other sets. Data also are not easily interpreted by the average citizen. In most instances, the interpretation or analysis of data requires certain expertise, licence or set of professional skills or software, thus further decreasing public access. Additionally, raw data can easily contain subjective, false or repetitive information; and because data collected and fed into software algorithms are chosen by people, the entire process is vulnerable to human error and bias.

10.3 Data-Driven Geographical Mediations

As if the inability to trust public data were not problematic enough, power is often spatially and racially organised through data-driven public platforms and apps that then help shape physical environments. Consider, for instance, the digital visualisations of crime, public health issues or disease distribution. Cities around the world frequently visualise data (or linked to commercially visualised data) to inform its citizenry of risks and threats, but often to the detriment of already-marginalised neighbourhoods. And many of the data visualised, function to construct perceptions of unsafe spaces. Not only can one likely find an online crime map (or dozens) for practically any major city in the world, one can also choose from a growing plethora

of crime mapping smartphone apps. There are also interactive maps that visualise specific crimes, such as homicide (Keng 2016) or show criminal activity on entire continents, allowing the user to zoom into a particular geographical area to learn the specifics of recorded criminal acts (CrimeReports 2017). Worldwide, many governments and official agencies also publish interactive maps that visualise and spatially represent various public health and policy issues, such as disease (U.S. Centers for Disease Control and Prevention 2016; Institute for Future Cities 2018), worldwide drug addiction (Bouchareb 2015), as well as refugee resettlement (Dupere 2017).

But these kinds of persistent digital visualisations of data on crime, disease, poverty or even something as seemingly inconsequential as property values, can heighten the public's perception of geographical-based disorder, neglect or chaos, which in turn further constructs these elements through our responses and behaviours. Simply put, people tend to avoid areas believed to be unsafe. Furthermore, security and safety become bound up in urban political efforts to (re)construct and manage urban space. While these kinds of maps are often described as or presumed to be merely informative, allowing residents, prospective homeowners and tourists to know what areas are deemed safe or prosperous, these visualisations also help construct and reinforce existing racialised demographics and sociopolitical boundaries by profiling neighbourhoods (Scott 2016). Data-driven neighbourhood profiling, furthermore, is frequently obscured by reference to the collection and aggregation of commonplace data. "Officially lifted from the demographic variables of race," Rice and White (2010) argue, and placed on "less controversial variables," such as building inspection reports, tax records or property values, information can be patched together in such a way as to profile certain neighbourhoods as more dangerous than others, which in turn make them supposedly in need of greater policing and surveillance.

To further explain how this cycle of neighbourhood profiling operates, Wilson and Kelling (1982) used the metaphor of a broken window, which draws negative attention to a particular area. As Wilson and Kelling argued (1982), broken windows indicate potentially unsafe areas and signal neighbourhood neglect, which then lead to an actual rise in crime. By applying this theory to contemporary visualisations of crime, disease or low property values (the digital equivalent of broken windows), Scott (2016) explains how similar perceptions of a particular space as unsafe help to further construct those spaces as dangerous. In other words, if a neighbourhood is perceived to be dangerous, it actually becomes dangerous, thereby drawing increased policing and surveillance, entrenching that community in a vicious downward cycle and further marginalising its inhabitants.

Madanipour (1996) argues that urban practices of segregation and exclusion of those considered a threat to the larger public have always been a "socio-spatial phenomenon," constructed through both physical organisation of space, as well as social control. While the methods vary over the years, the rhetoric of reclaiming public space from those who are perceived to threaten it has been a consistent strategy of geospatial marginalisation efforts. And as Sampson and Raudenbush (2004) point out, when we see or perceive disorder, we make certain socio-economic and cultural

assumptions about race and class and generate meaning that then serves to perpetuate those stereotypes. Zukin (1995) furthermore argues that rather than working to ameliorate the causes of socio-economic inequalities, state entities (from cities to nation states) rather tend to fortify barriers and strengthen geospatial divides (p. 39). Therefore, data-driven interactive maps that visualise various urban problems, as they draw attention to one's proximity to criminals or areas of disorder or crisis, function to exacerbate existing racialised anxieties and reproduce prevailing geospatial inequalities (Scott 2016).

Foucault's (1988) work on the biopolitics of spatial knowledge, mapping and surveillance, helps to clarify how this power is constructed and maintained through the socio-spatial *effects* of data visualisation, as he noted the rise of the connections between mapping, surveillance and policing practices. When Foucault (1988) cites the increase of 'new mapping [techniques] and the closer surveillance of urban space,' he infers that maps are not only a product of political knowledge, but an intervention or method of constructing political knowledge (p. 142). Today, digital maps of urban degeneration or degradation (whether visualising crime, disease or poverty, for example) become similar examples of biopower, as they function to both encourage self-regulation (i.e. productive citizens should stay away from these areas) and exert power and control over those within. By mapping "deviants," these geospatial boundaries are thus reified. Urban planning theorists refer to this phenomenon as "negative institutionalised oppression" (Flyvbjerg and Richardson 2002). By identifying problem people and areas, the state can better exercise its disciplinary and regulatory power. As Pløger (2008) points out in regards to Foucault's discussion of the politics of urban health that seek to reproduce self-regulating and productive citizens, the various spatial mechanisms put into place are not attempts to "care for the population" (or help residents feel safe), but are rather apparatuses of power maintained through socio-spatial order and security (p. 64). And through biopolitical normalisation processes, the identification of risks and dangers and management of crises (in this instance, through the use of data) become established, though often through invisible, power mechanisms (Šupa 2015, p. 88).

Furthermore, these kinds of data visualisation practices also are representative features of what Zukin (1995) refers to as the "institutionalisation of urban fear." Zukin theorised that the "politics of everyday fear" is constructed, in part, by amplifying existing public anxieties (p. 39). Explicit examples of this can be found on websites with maps that are accompanied by alarming headlines, such as "The world's most murderous places and other lessons from a killer map" (Byrne 2015) or "Watch the world's health crises in REAL TIME: Outbreak map reveals spread of deadly diseases around the globe" (Griffiths 2014). While some of these examples are overly dramatised, they are at least explicit; the institutionalisation of fear that results from data-driven processes, however, operates almost imperceptibly and often serves to normalise such fears. Importantly, the institutionalisation of fear cannot be disarticulated from racism, as the data visualisations that work to reinforce the public's "knowledge" of certain areas as dangerous tend to be homogenously racialised with people of colour. As Pasquale (2015) argues, "Algorithms are not immune from the fundamental problem of discrimination, in which negative and baseless assumptions

congeal into prejudice" (p. 38). So not only are the data chosen prone to inaccuracies and bias, as earlier discussed, the motivations behind the aggregation of that data (i.e. to identify hot spots for crime or areas with increased building code violations), along with often prejudiced interpretations or vested interests, proxy discrimination more easily.

The institutionalisation of fear, particularly on the national level, though trickling down into small rural communities at an alarming pace, works in tandem with what Grusin (2010) calls "premediation," which he describes as a recent media shift from mediating past events to premediating future ones. These premediations, Grusin (2010) argues, function to encourage public fear and insecurity by predicting future disasters or major threats to our security and safety. The institutionalisation of fear has increased by staggering proportions in the United States since the election of Donald Trump. The Trump administration, for instance, along with right-wing conservative media, daily promotes fear of the "illegal" immigrant, women (and the #metoo movement) and minorities. What makes premediation particularly effective, according to Grusin, is that as public fear and insecurity increases, the public then often looks to national governments to then quell that fear. Take, for example, the 2018 rhetoric from Trump and his administration about the "caravan of immigrants" that were about to "invade" the country (Mealer 2018). Trump and his administration were the ones to create this particular premediation of fear, while also offering the supposed solution—vowing to send thousands of military troops to the border to defend against the oncoming "invasion" (Mealer 2018).

On a daily basis, the U.S. Immigration and Customs Enforcement agency (ICE) has become particularly insidious, as the department works to offer *affects* of security and safety through illusions of governmental intervention, watchfulness or policing, which in turn helps the federal government to justify the increase in surveillance and raids. And as Šupa (2015) points out, once modalities of power are normalised, sovereign power becomes further legitimated (p. 87). ICE also regularly works to analyse data in government databases in an effort to predict a potential immigrant's likelihood of committing criminal or terrorist acts (Biddle 2017). Part of that initiative involves also collecting and analysing data from "social media sites, blogs, public hearings, conferences, academic websites," and so forth (Biddle 2017, para. 8). Additionally, ICE recently signed a $2.4 million contract with a data surveillance company that collects a wide variety of personal information from the nation's networked users, most notably real-time tracking of people through smartphone GPS location data, particularly within urban areas (Da Silva 2018), signalling a national imperative of predictive policing.

By manufacturing new and reinforcing existing public anxiety about immigrants, refugees, Muslims and any other marginalised group being targeted in any given week, Trump's administration regularly premediates catastrophe to come by promoting a collective sense of insecurity of and anxiety about what *might* happen—if these people are allowed to come into or remain in the U.S. And the fearmongering rhetoric (particularly on social media) about what *might* happen is increasingly geared towards the supposed prevention of what Blow (2018) calls "white extinction anxiety," or the fear that whiteness, "white culture," or white dominance and power

is threatened. It is important to note, however, that this kind of institutionalisation of fear is neither new nor only a U.S. problem. However, as the institutionalisation of fear of "the other" becomes increasingly explicit and visible to a larger Internet public and thus increased violence and racism normalised, geospatial identities become further entrenched.

10.4 Predictive Policing

The more recent phenomenon of predictive policing, primarily spearheaded by the U.S. and U.K., has also emerged from urban data practices and cities around the globe are increasingly using aggregated data to predict the occurrence of future criminal behaviour and then targeting specific neighbourhoods for increased surveillance. Crime prediction software, most often created and maintained by for-profit companies, has been found to be inherently prejudiced against blacks because of the kind of data fed into the system from the start (Angwin et al. 2016). And because governments either buy their data and/or algorithms from private businesses, this "often means the algorithm is proprietary or 'black boxed," and government officials have limited knowledge about how the software makes decisions (Tashea 2017, para. 6). Along with giving new meaning to the phrase "crime pays," the for-profit nature of predictive software raises serious ethical questions. The Human Rights Data Analysis Group reports that data fed into crime prediction software is already biased, as crime committed in historically heavy crime areas is more likely to be recorded than in other areas (Lum 2016). Because law enforcement officers tend to record crime unevenly, an algorithm designed to predict urban crime is most likely to find patterns of higher crime patterns in these over-represented areas. And as more police that are sent to patrol these areas, the more they observe criminal or suspicious behaviour, which then is reported back into the already biased system, creating a "vicious cycle" of misleading data, increased neighbourhood profiling and arrests—all of which then inform and subtend data-driven institutionalised racism.

Additionally, most crime prediction software is focused on place-based predictions of criminal behaviour, rather than people; therefore, certain kinds of crime that can be better tracked by place, such as robbery or domestic violence, are more highly represented in the data and preventative policing practices, than other crimes, such as white-collar crimes or drunk driving (Moses and Chan 2016, paras. 30–33). Since "surveillance of racial and ethnic minority groups tend to be grounded in specific and bounded locations," those who are less mobile (or geographically bound due to socio-economic statuses) are likely more vulnerable to increased geographically targeted policing (Byfield 2018, para. 1). Place-based predictive policing also relies on historical data of particular neighbourhoods (assuming crime will happen again where it has in the past), which in turn signals (and often visualises) an unsafe neighbourhood. This system seems to unfairly oppress certain neighbourhoods, making it extremely difficult for community members and local business owners to improve socio-economic revitalisation efforts. While many law enforcement agencies argue

that predictive policing is precisely aimed at this effort (to make communities more safe), most research thus far seems to suggest that predictive policing, relying as it does on racially biased data, is highly problematic.

Also of concern is how these data algorithms can follow offenders or arrestees into court, as courts are increasingly adopting predictive software to help judges make data-centric sentencing decisions on issues such as bail, sentencing and parole. In the UK, as part of a research study, the Durham Constabulary used a predictive algorithm software for several years called the Harm Assessment Risk Tool (HART), which would rate people as crime risks, based on several data points such as a person's age, previous criminal history, gender and postcode. After a review of the software's results, Oswald et al. (2017) found that the system not only perpetuated existing neighbourhood stereotypes but also further exacerbated inequalities within the criminal justice system, particularly in regards to race and class. Another report that examined the COMPAS recidivism algorithm, which has become one of the most popular software products for pretrial and sentencing analysis, argues that it is biased against blacks and black defendants were twice as likely to be classified as being a "higher risk of violent recidivism" than whites and were, overall, more likely to be rated higher risk scores (for likelihood of repeat offenses) than whites (Angwin et al. 2016).

10.4.1 Re-territorialisations and the Rise of Nationalism

The Internet has been historically encoded with democratic ideologies and frequently described as a sort of digital bridge between people, cultures and borders. Negroponte (1995) predicted the Internet would bring about communities that would supersede national boundaries, making space irrelevant. Bell and de-Shalit (2011) suggested that with the decrease of national attachments and an increase in cosmopolitan ideals, the intersections between the city and cyberspace offered unique opportunities to offset homogenising forces. And De Souza e Silva (2006) theorised that as the Internet gave rise to connected, mobile and social hybrid digitalised spaces, users increasingly interacted with their digital–physical environments and the blurring of "traditional borders between physical and digital spaces" were even more pronounced by the unprecedented, though often invisible, flow of data (pp. 261–262).

Warf (2009), however, early on argued that all the "utopian hype" about a borderless Internet was deceptive and that "data-driven cartographies" were consistently (re)defining and (re) constructing borders (p. 67). And certainly, a deeper analysis of contemporary cyberspatial practices, such as digital visualisations of data and various cyber communication flows discussed within this chapter, suggests a phenomenon of physical border re-territorialisations and reified constructions of socio-spatial relations. While more people than ever have access to global networks, we nevertheless are in an era of increasingly tightened borders, higher surveillance and decreased governmental transparency. The World Resources Institute (n.d.) reported that more

than 100 governments "took steps to *close* civic space" in 2015 and that civil liberties violations were on the rise, fuelling worldwide "feelings of exclusion" and increased "nationalism, populism and authoritarianism around the world" (my italics, para. 1). A recent report by CIVICUS (2016) on the state of civil society around the globe similarly concluded that the Internet has become "the new frontier in the global campaign to silence civil society" (p. 3). As actual physical spaces are "increasingly constrained," monitored and policed, the report suggests, more activism occurs online; and yet, with greater opportunities for online activism come increased risk of Internet surveillance (CIVICUS 2016, p. 3). Amongst the governments listed by CIVICUS (2016) as having "significantly violated" civil rights were democratic countries such as France, Spain, Germany and the United States (pp. 4–22).

While social mobilisation, on the one hand, may sometimes flourish through Internet pathways, increased surveillance, control and online censorship may have the opposite effect of constraining our physical movements. And as flows of information increasingly transcend national boundaries and potentially threaten nation-state control, countries are reinforcing their physical borders. In Lund's (2013) exploration of mobility as an inherent characteristic of the new economy, she argues that market-led economies create "spatial fixations" that limit people to specific geographical locations, rather than liberate them. And a pervasive and dangerous rhetoric around national security and safety has surfaced in many countries, worldwide and functions not only as a justification for increased cybersecurity and surveillance, but also subtends governmental efforts to maintain and secure physical border integrity. In 2017, for example, U.S. Customs and Border Protection officials began demanding that some travellers coming into the U.S. (including, at times, its own citizens) hand over their digital devices, in part to examine their social media accounts and cloud data to determine whether they constituted any sort of threat. And in the fall of 2018, the Trump administration, citing a supposed rise in "citizenship fraud" started denying or taking away existing passports of thousands of its own American citizens living near the Mexican border, those almost exclusively of Latino heritage, born in the U.S. and possessing birth certificates (Sieff 2018; Grinberg et al. 2018), which has had the devastating effect of calling into question these peoples' citizenship and setting a precedence for the rescinding of U.S. citizenship.

10.5 Conclusion

Abundant with socio-economic and cultural diversity, cities hold great potential for the emergence of intersectional urbanism, wherein urban diversity is not only recognised and valued, but also critically considered when governmental officials are considering certain urban policies and practices that could potentially oppress marginalised members. As the economic power of cities continues to outrank those of nations, cities altogether possess the major portion of the global economy. According to a study by the McKinsey Global Institute, cities were projected to generate more than 60% of global wealth by 2025 (Dobbs et al. 2011, para. 1), while another

study conducted by the World Bank suggests that "more than 80% of global GDP" is currently generated by cities (Urban Development 2018). And as the percentages of foreignborn residents in many cities around the world are also rising (and contributing to the economic growth of cities), more cities are pushing back on national policies and practices that are detrimental to immigrants. For instance, many cities in the U.S. are now refusing to cooperate with federal or national immigration officials, declaring their cities to be "sanctuary cities." In New York City, for example, nearly 40% of the population are reported to be comprised of foreignborn immigrants (City of New York 2017, para. 1). So when confronted with the possibility of having to turn over information about undocumented residents of New York City to the federal government, the mayor declared that NYC, as a sanctuary city, would refuse to cooperate (Tharoor 2016, para. 11). Therefore, the significant political clout that comes with that greater economic power clearly can be leveraged against the kinds of federal practices described above (Florida, 2017). Tharoor (2016) also argues that "metropolises such as London seem increasingly detached from the right-wing populist surge in the hinterlands around them," where we increasingly hear calls to "take our country back" or, as is the case in the U.S., to "make America great again" (para. 7). However, as these cities increasingly work against the current nationalised, white supremacist agenda, they also often become targets of nationalised and state-sponsored retribution—such as through increased urban militarisation, decreased national funding or economic sanctions.

As this chapter has discussed, cities are often complicated, chaotic, contradictory and highly racialised. Historically, cities have been and still are inscribed by contentious economic and racial borders, mapped by geospatial divisions of injustice, inequality and white privilege. Cities also are spaces of increased militarisation and securitisation. And discursive urban data practices, enabled in great part by smartphone user-generated data, are both palpable and indiscernible, material and ideological, public and private. And while cities often may be perceived to be the safest and most equitable geographical spaces of diversity, institutionalised racism still exists, and the invisibility of certain data-driven practices, as earlier discussed, continue to construct and reinforce existing racial bias, socio-economic boundaries and reify existing geographically based marginalised identities.

And yet, cities are also radicalised spaces of subversion and resistance that often challenge nation-state ideologies and policies. Cities are inherently paradoxical, complex hybrid ecosystems of digital and concrete flows, simultaneously reflecting nationalised identities and yet also always composed of pluralised and diverse cultures. As Cowen (2014) explains, the urban paradox necessarily involves these contradictory tendencies: while marginalising, fragmenting and segregating, cities are also often perceived and enacted as spaces of "human resilience and innovation […] that can mitigate the oppressive character of capital-led urban growth" (para. 7). And while cities often espouse the rhetoric of "renewal," "regeneration," and "progress," urban residents are "utilising their own produced spaces to obstruct, expel and resist the devastating effects of the urban paradox" (Cowen 2014, para. 9). Ultimately, a thriving and productive urban public depends on the collective,

active engagement of individual residents with multiple viewpoints, backgrounds and experiences.

As this chapter illustrates, opportunities for agency and resistance of digital socio-spatial injustices lie with those at the heart of the city, in its people. While cities are implicated in the mediation and reinforcement of geospatial marginalisations and spatially bound identities, the inhabitants of networked cities also may be the best hope for the break down of these digitalised socio-spatial regimes, the transcendence of nation-state disciplinary power and the key to neutralising right-wing nationalism, worldwide. Furthermore, political progressiveness appears to depend upon a new form of digital-transurbanism that not only puts more communicative power in the hands of residents, but challenges growing nation-state isolationism. Dobbs et al. 2011 for example, argue that the "reclamation of public space" already is happening in "cities all around the world," and in part through citizen-sourcing projects that focus on the needs of all urban residents. When citizen-sourcing techniques are disarticulated from commercial interests, they have the potential to leverage the collective communicative power of urban residents in such a way as to reclaim public space and the development of bottom-up politics.

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Chapter 11
Noopolitical Resistances Networks as Counterlaboratories of Migration and Identity in Europe

Marta López-Marcos

Abstract Geopolitics of knowledge (or noopolitics) have played a significant role in the generation of urban and regional networks. However, contrary to what it is usually assumed, noopolitics is not just limited to the "soft," mediated realm, but also alters tangible reality, producing and transforming space. In order to better understand these spatial configurations, the focus of this research is placed on virtual community-based networks which acquire a spatial dimension to counter-hegemonic policies. These alternative networks acquire a particular intensity in the Mediterranean region and Central Europe. In this regard, the term "counterlaboratory," used by Agamben, will be explored and extended to qualify the status of these strategies in the region, especially during the European migrant crisis in 2015. Through schemes and images, Faist's pentatonic model of transnational political space (re-interpreted by Banki, Refug Rev 1:1–24, 2013) is used to make visible the relations among agents in each specific example. Since the study has been mainly conducted in an urban scale, most of the counterlaboratories are located in cities, although some of them belong to peripheral areas or to the virtual realm. From a spatial perspective, this paper aims at addressing the question of identities in a hyper-mediated and urbanised world. Besides, the arrival and settlement of "the Other(s)"—without which Europe is not able to define itself—leads to new practices and habits which blur and redraw the limits of the European identity, which has never been fixed or stable, but subject to permanent crises and transformation.

11.1 Introduction. Europe, Habitat and the Refugee Crisis

> Europe is a process, always *in fieri*, something that is indefinitely becoming truth, while facing a double risk: either to consolidate, still, as a centre of radiation or, conversely, to alienate itself, being attracted to a more powerful orbit. It is itself only when it is expelled out of itself. Hence the constant need for reflection. Logically, its fate may be expressed by

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> an infinite judgment ("Europe is not-Asia"), so it suits the ambiguity of the term *Occidens* ("that which dies" – "that which gives death.") (Duque 2003, 439)

With these words, the Spanish philosopher Félix Duque states the first of his seven theses on the fate of Europe. As an evolving reality, its nature corresponds to a contraposition of extremes. This permanent movement between consolidation as an influential global actor and estrangement may serve as a starting point for our text that departs from the inadequacy between the *concept-Europe* and the *thing-Europe*, that is, its geographical space. This duality is particularly relevant when the Old Continent is facing a historical challenge: the redefinition of the European identity through the permeability of its borders (who has the right to Europe?) and its relation to the alien "others." The situation seems to reinforce the assertion of the German sociologist, Beck (2003), who claimed that Europe itself would be rejected by the EU if it applied for membership; such are the deficiencies that this institution maintains and further demands.

Migration tendencies and causes are permanently changing and presenting new challenges to societies. It is difficult—if not impossible—to grasp a more or less stable snapshot of the situation, as new decisions and conflicts appear almost every day, especially after the European migrant crisis in 2015. This situation is particularly delicate in the Mediterranean region, since hundreds of thousands of people that come from the Middle East, escaping from war and violence in their countries (mostly from Syria and Iraq) are added to the regular flows between Western and Sub-Saharan Africa and the South of Europe, dramatically increasing the flow intensity in transnational routes.[1] Therefore, the Mediterranean area witnesses the appearance of new critical regions in terms of migration, especially the one comprised of Turkey and Greece, including the Aegean islands like Lesvos or Kos. Besides, displacements and movements within the Israeli–Palestinian territories should not be forgotten, representing part of a local-scale conflict that has global repercussions.

It is difficult to provide accurate figures, since data about arrivals and status are often mixed or incomplete, and terms such as "migrant," "refugee" or "asylum seeker" are usually confused by the media, the states[2] and the general public (Access Info and The Global Detention Project 2015; Couldrey and Herson 2016, 30–31).

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[1] "For decades there have been boats and smugglers bringing people in search of jobs over the Mediterranean via Spain and Italy. They came and continue to come mostly from the Maghreb region and from Western Sub-Saharan Africa. They were mostly regular migrants (…). These older, smaller, flows continue today, coming mostly via Morocco and the Canary Islands. They tend to fit the standard definition of migrations.

A major difference in this current flow, compared to decades old flows is that the centre of gravity has shifted to the Eastern Mediterranean. Greece has become the strategic link for these migrations: (…) already in early 2015 it surpassed Italy as the main recipient, receiving 68,000 refugees, mostly Syrians but also, among others, Afghanis and Iraqis. Until 2015, the rise in Mediterranean Sea arrivals was felt primarily in Italy. In 2014, Italy received over three quarters of all maritime refugees and migrants (170,000). In contrast, Greece received 43,500. In this new turn of events, the central and eastern Mediterranean routes have become comparable in size. But the people in each come from different countries. (…)" (Sassen 2016).

[2] Neither the Member States of the EU nor EU bodies such as Eurostat are required to gather data on the number of migrant people detained (Access Info and The Global Detention Project 2015, 6).

Moreover, the number of people arriving European territories fluctuates every day, but statistics are usually not weekly or even daily updated. Most of the time, these data do not reflect reality because of the dispersion of the phenomenon and the lack of means to carry out a reliable count. For this reason, the problem of migration becomes extremely complex and the task of thinking of possible—even provisory—solutions is unavoidably tied to indeterminacy.

Regional responses are no less variable and contingent. At the moment, European countries—facing their own problems of economic crisis, fear of terrorism, etc.—are still debating about the number of people that each state should receive, though the real number of hosted refugees differs significantly from the agreed quotas. At the same time, national and international interventions to rescue migrant people (like Operation *Mare Nostrum*, led by Italy) have been reduced and new fences, similar to the ones in the Spanish exclaves of Ceuta and Melilla, have been built in some Eastern countries (Hungary, Greece or Bulgaria) and between France and the United Kingdom, which are also closing their borders to avoid the entrance of migrant people. Meanwhile, countries neighbouring conflict zones—such as Jordan, Turkey, Egypt, Iraq, and Lebanon—have adopted a common strategy coordinated by UNHCR, called the 2018 Regional Refugee and Resilience Plan (3RP), although the number of refugee people in these countries is overwhelming considering the resources on which they count to integrate them. In July 2015, Turkey had "already been host to nearly 2 million Syrians since civil war broke in early 2011" (Demirtas 2015) and Jordan and Lebanon experienced a population increase of 10 and 25%, respectively, at the same time. "With no political solution in sight, host countries are implementing new measures to alleviate the burden on their economies" and the increasing strain on their infrastructures (Balsari et al. 2015, 942).

This chapter argues that the issue of migration goes far beyond its mere physical and organisational dimensions—although they still remain absolutely relevant. In fact, it is not only a "placing" problem but also an identity and communicational one. The rise of nonpolitical practices in governmental strategies is one of the triggers of parallel movements of nonpolitical resistances led by different collectives of citizens, activists or displaced people. In order to better understand these conflicts and tensions from the perspective of bottom-up strategies, the focus is placed on specific virtual, community-based networks which acquire a spatial dimension to counter-hegemonic policies in the European continent. These strategies seem to be the most effective ones in order to hear the voices of migrant people and give them space inside the community, instead of being externalised.[3]

Although almost 80% of displaced people of the world remain in the Global South (Sassen 2014, 61), these alternative networks acquire a particular intensity in the Mediterranean region and Central Europe. In this regard, the term "counterlaboratory," coined by Latour (1987, 79)[4] but redefined by Giorgio Agamben in terms of

[3]I have discussed the topic of externalisation of the Other in: "Inside/Outside: On the Hybridization of Real and Virtual Spaces for Resistant Bodies." In *Nomadic Interiors: Living and Inhabiting in an Age of Migrations*, edited by Luca Basso Peressut et al. Milan: SMOwn Publishing, 2015.

[4]Latour uses the term in a techno-scientific context: the counterlaboratory would be a laboratory built to refute or reshape the conclusions drawn in another laboratory. In this sense, scientific

habitat conditions (Bauman and Agamben 2008), is explored and extended in order to qualify the status of these strategies in the region.

11.2 (Counter)Laboratories and Noopolitical Strategies

> Similar to refugee camps in the regions of origin, the detention camps in Europe are located in isolated places, remote from other built environments and from urban centres, keeping people out of sight, separated from the rest of the population. Thus, the refugees' call "No camp!" –and their resistance to being transferred to such a closed facility – is an active refusal to be separated from the rest of the world, suspended for an unknown period in an arbitrary location. (Katz 2016, 17)

In a territorial scale, when reflecting on emerging models for future cities, Giorgio Agamben (2008, 107–34) remarks that the localising factor plays a key role in the processes of globalisation, radically changing the way that conflicts are resolved by relocating people (problems) outside their societies. Through this reflection, the Italian philosopher suggests that the future of our cities could be being tested in this "outside" places. These processes are intimately linked to what he calls "bare life" (1998): "a biological existence that can be sacrificed at any time by a colonial power that maintains the right to kill with impunity but has withdrawn all moral, political or human responsibilities from the population" (Graham 2011, xxv). But while all these situations entail an experimental condition regarding future power and life conditions (control, poverty, mobility, anonymity, property…), these experiments might be reverted by their subjects or inhabitants. Agamben (2008, 109) used the term "counterlaboratories" to designate spaces that revert the conditions of those enclaves created by states or institutions which perform as contemporary laboratories of habitability and modes of life, like the *favelas* and other informal settlements, but also sieges like Gaza or the West Bank, refugee camps proliferating along the borders of several states, African-American ghettos or French *banlieues* (Graham 2011, 113). Sometimes, these marginal, limited enclaves are ruled by their own codes, different from the rest of the city or region in which they are inserted. This chapter focuses on the typology of the refugee camp and alternatives to it, as well as in tools that reflect on this reality and highlight particular situations of conflict which involve several agents from a transnational perspective.

For many years, the camp has been the chosen settlement model to host displaced people for a certain period of time, sometimes indeterminate. As a matter of fact, thousands of people remain in these places, far from any urban or rural reality and living in a permanent nomadic state, under artificial and precarious conditions. As pointed before, some experts detect urban-like features in refugee camps, as their inhabitants are constantly transforming their environment into a more "human" one,

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production is described through a warlike antagonism. Other authors use the term "laboratory" to refer to spaces that share similar conditions with those that Agamben mentions, such as Li (2006) or Graham (2011).

thus operating through a similar logic to that of the counterlaboratory: spaces to test possible futures and likely conditions of habitability. Kilian Kleinschmidt—former senior field coordinator for the UNHCR—states that "[i]n the Middle East, we were building camps: storage facilities for people. But the refugees were building a city. These are the cities of tomorrow. The average stay today in a camp is 17 years. That's a generation. Let's look at these places as cities" (Kleinschmidt and Radford 2015).

However, despite the tendency to recreate pseudo-urban conditions in these sites, the camp is undoubtedly an anti-urban solution, lacking of the facilities and deserving conditions of everyday life that inhabitants need to feel safe and comfortable. In fact, some researchers have demonstrated that "those refugees who have opted out of the camp system—even when that means forgoing any humanitarian assistance—have established an effective alternative approach to exile" (Hovil 2014). This will to live *in* the city, to be part of an urban community—with all the advantages it offers—brings once again the topic of the city as a motor, as a node; and in this particular case of migration, a proper spatial organisation at all levels—especially in local and regional levels—is essential. In this regard, the UNHCR launched 2 years ago a new policy of alternatives to camps, recognising that it is more sustainable and positive to integrate refugee people within urban or rural communities (UNHCR 2014).

Together with physical tactics, such as border checkpoints, fences or camps, other methods appear related to much more intangible elements. In 1999, the American defense experts John Arquilla and David Ronfeldt elaborated a report for RAND Corporation (a global policy think-tank related to the US army) in which they found an advance of the diffuse and the informational in terms of power. Admitting that, despite their differences, both hard and soft power strategies appear often intertwined or combined, Arquilla and Ronfeldt sketch a "geopolitics of knowledge" (Aberkane 2015) articulated around the space of a *Noosphere*, the "globe-girdling realm of the mind" (Arquilla and Ronfeldt 1999, 4).

Coming from the Greek *νόος* ("knowledge"), the scientists and intellectuals Pierre Teilhard de Chardin and Vladimir Vernadsky spatialised the whole of the products of human thought (knowledge, ideas, concepts, speculations, affects…) through the idea of an imaginary additional terrestrial layer, superimposed on the geosphere and the biosphere. However, this vision of a noosphere elaborated in the first decades of the twentieth century, being arguably too exclusive and anthropocentric, acquires a more complex dimension today, once we acknowledge the multiplicity of relations and intellectual exchanges between humans and non-humans. Indeed, Arquilla and Ronfeldt (1999, 4) include the realms of cyberspace and the infosphere (cyberspace plus the media), thus opening the field—though not implicitly—to different agents, with special emphasis on the instrumental devices which enable communications and the rapid exchange of information: cable systems, satellites, the Internet, mobile phones, broadcast and interactive media configure a material base for the airy realm of the noosphere, whose relevance and potential are multiplied because of interconnectivity. The reasons for this development can be placed at three levels, according to the authors: technological innovation, the emergence of a new organisational ecology and the rise of informational soft power strategies and their importance in international politics.

Contrary to what it is usually assumed, noopolitics is not just limited to the "soft" realm but also alters tangible reality. In a world in which global connectivity increases every day, relations and modes of making tend to complexity. Aberkane (2015) notices how classical geopolitics has been based on the "interaction of kinespheres over what are usually zero-sum exchanges (territories, natural resources, stable markets, trade routes, etc.)" Consequently, the wider the extension of a particular state's kinesphere or controlled space, the greatest its power over others, at least according to the classical doctrine. However, the increasing development and awareness of the importance of the noosphere leads to a deep transformation of geopolitics in terms of power organisation and distribution. Following the ideas of the geographer Serge Soudoplatoff, Aberkane formulates a law which claims that "knowledge exchanges are positive sum: when one gives away, say an ounce of gold, one does not have it anymore; when one gives away knowledge, or an idea, one still has it." This fact, according to the author, makes the accumulation, generation and control of knowledge one of the most powerful tools for states and corporations, since they usually lead to apparently "win-win" situations that leave little space for discontent and critique.[5]

In spatial terms, this shift from territorial to knowledge economy as a more profitable way of power administration and the transition from a hierarchical to a network organisation is reflected in the emergence of new tools and strategies for space production at all levels—territorial, urban, architectural, domestic, artistic, etc. For instance, we are witnessing how in some contexts conventional urban policymaking is giving more importance to the inclusion of participatory processes and best practice exchange, or how international architectural firms open branch offices in other parts of the world; not to mention the radical transformation that spaces of sociability have experienced, going from meeting and encounter in the city streets and squares to social exchange through forums, chats and diverse social networks. In fact, noopolitical approaches have played a significant role in the generation of urban and regional networks: formation of cultural nodes, rapid exchange of information, creation of common markets, or development of place branding campaigns are just some of the strategies undertaken by global actors in order to organise and control economic and political domains. Certainly, this does not entail that traditional spatial practices have disappeared or that they will in the future. Rather, it is already evident that the global ecosystem consists of multiple, hybrid networks that allow different types of relations and spatial configurations.

Thus, together with *Realpolitik* elements such as fences, camps or deterrence devices in street furniture, states also intervene and reinforce their dominance by means of noopolitical strategies, like biometric databases, propaganda through media and ideological debates. Therefore, the possibility of a noosphere reinforces the spiky,

[5]The clearest example of this may be found in the "new forms of labour-force extraction" that Google or Amazon have established, profiting from the unremunerated work of the users who spend their time and attention as basic currencies in exchange for their free services (Andreotti and Lahiji 2016, 129) and the accumulation of stock in what Horning (2012) calls "our digitised identity containers" or self-representation profiles which project a specific subject to the rest of the connected community.

sharp character of the world. However, sometimes these tactics can be visibly—even efficiently—countered. Indeed, several scholars and researchers have already explored these tools used by global hegemonic powers at different scales, but also how they are appropriated and reversed by opposing actors,[6] creating reverses or counterspaces using similar tools to those of soft power. Thus, in order to better understand the quality and possibilities of these interstitial spaces in the light of the question of identity, the term counterlaboratory could be reread and reconceptualised. In fact, it shares some similarities with Lefebvre's (1991) *counterspace*, that is, the reverse of hegemonic space, throughout which differences and conflicts emerge. We could talk of other kind of spaces, in which the same tools used by governments and institutions are subverted in order to generate resistant and resilient communities. For instance, the use of mainstream social networks and apps which are mostly used to collect private information is also used to efficiently communicate and start the migration journeys (Kleinschmidt and Radford 2015; Malla et al. 2015). The spatiality of these counterlaboratories is complex, and transcends the physical realm in many ways, although always tied to it. Agents and positions are diverse: cities of arrival, transit countries, different routes, distribution of services in regional nodes… and the ways of representing them are never objective, but always intentional.

To get an idea of the magnitude and direction of migrant flows in Europe and the Mediterranean region, and in order to contextualise what Susan Banki calls "transnational political space" (2013), a map has been drawn with migration data collected during the European refugee crisis between 2015 and 2016 (UNHCR 2015a, b; International Organization for Migration 2015) (Fig. 11.1). It is clear that the main routes of migration flow from the South and the East to the North, towards Germany and Scandinavian countries. There are also intermediate states, such as Spain and Italy. If we look at the net migration rate index of each country, we will notice that countries such as Libya and Spain have very high values; however, they are due to other type of migration (workers mainly coming from Latin America and Central Africa). Of course, Syria is the country that most people leave because of conflicts. The map shows the main countries of origin of displaced people, people in refugee-like situation and asylum seekers in the region, as well as the main countries of asylum. Pressure lies upon countries around Syria: Lebanon, Jordan and above all Turkey. In Europe, it is easy to distinguish which are the preferred countries and which are transit countries.

However, most of the specific counterlaboratories studied are located within the urban fabric, although some of them belong either to peripheral areas (borders, transnational routes…) or to the virtual realm. This diversity of spaces, inserted within a wider geopolitical context, enhances the debate of European identity and its relation to the political space, as well as the question of how to make visible—even with precarious tools—the diversity and conflict inherent to the identity construction and its spatialisation. As a result of the interaction between different agents under

[6] Arquilla and Ronfeldt point mostly to the strength of new NGOs, but later they would also recognise that the most effective example may be the global network of jihadis as a new form of spatialising conflict (2007, 7).

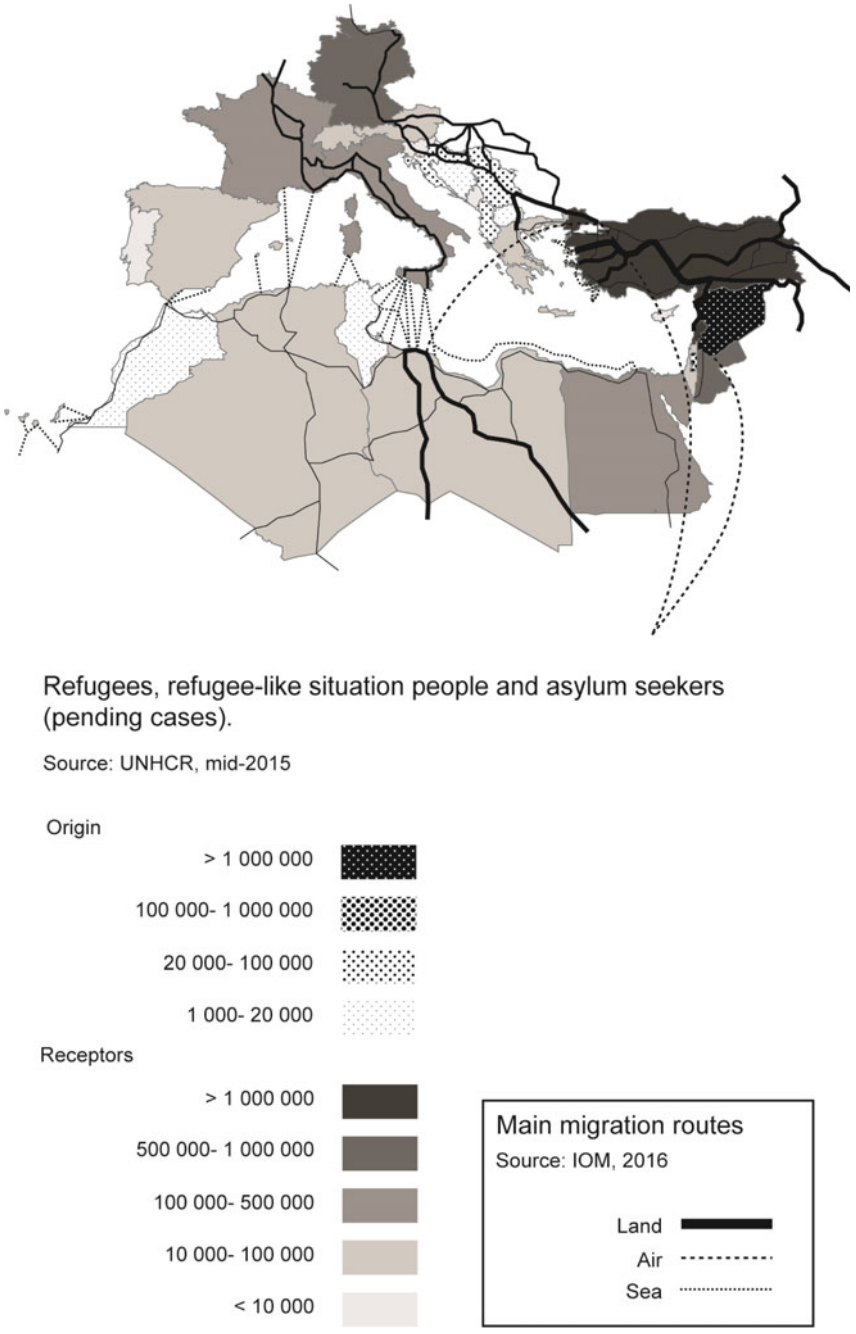

Fig. 11.1 Migration flows in the mediterranean area between 2015 and 2016. Map by the author (based on UNHCR 2015a, b and IOM)

diverse political, social and cultural contexts, clashes, negotiations and encounters in terms of space and identity emerge among groups and institutions, as it will be explored in the following section.

11.3 Initiatives and Tools

> Naturally, too, it happens that a counter-space and a counter-project simulate existing space, parodying it and demonstrating its limitations, without for all that escaping its clutches. (Lefebvre 1991, 382)

Having framed the space of the research, and before exploring the examples of possible counterlaboratories, a basic tool is needed to make them comparable, or at least, to recognise the agents participating in their development. In an article about activism and precariousness, Susan Banki used a pentatonic model developed by Faist (2000) (Fig. 11.2) in order to qualify transnational social space, which includes more agents than just migrant or refugee people and the governments concerned (origin and host countries), but also civil society in origin and asylum countries. It could be assumed that international institutions such as UNHCR, UN-Habitat and alike act as mediators in this transnational space, though supported by rulers and governments. It is also

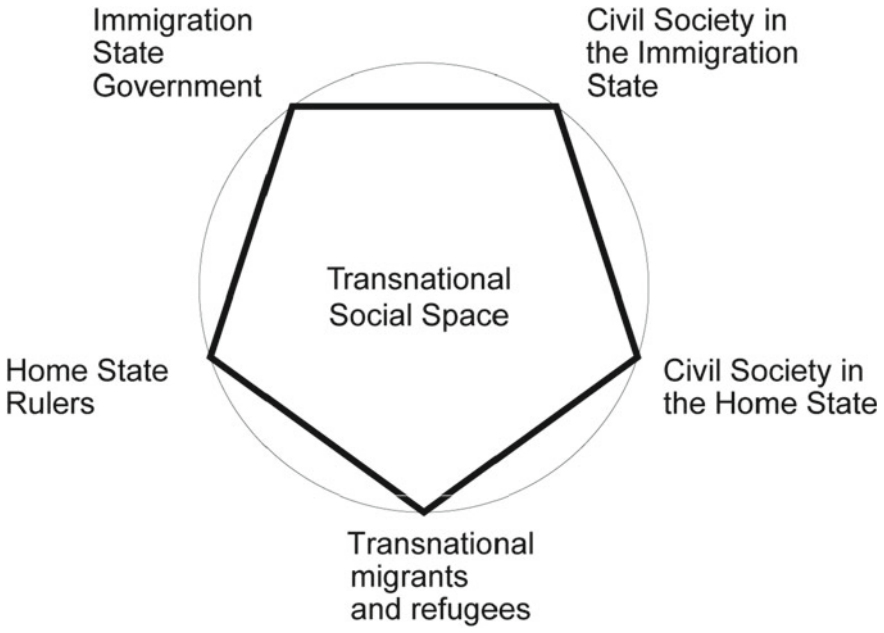

Fig. 11.2 Transnational Social Space (pentatonic model by Faist 2000). Drawing by the author (based on Banki 2013)

important to acknowledge the conjoint labour with other agents, either institutional or not, as sometimes—especially in emergency situations—local individuals are more eager to participate. For instance, the engagement of German locals with asylum seekers in their neighbourhoods increased during the refugee crisis. "Established organisations working with refugees in Germany estimated an average increase of 70% of interest in volunteering for (…) more than a third of volunteers were active in self-organised groups and initiatives rather than in established NGOs" (Couldrey and Herson 2016, 66).

However, given the situation in which migrant people and asylum seekers find themselves during their journeys and their arrival into host countries, it is worth recalling the main limitation of Faist's model that Banki (2013) finds in her article, that is, the obliteration of "informal, clandestine, and unregulated activities through which political transnational actors, and refugees in particular, may attempt to achieve their political aims." Therefore, she articulates a connection between precarity[7] as a factor directly affecting political action and what she calls "mobilisation elements" which characterise different modes of action. Focusing on homeland activism, Banki (2013) detects some of these mobilisation elements, such as personal motivation, information politics and exchange, access to resources (cash, credit, technology, etc.) and media, and the capacity to count on international institutions. Interestingly, all these elements may be inserted within the realm of noopolitics, since they are mostly related to affects and knowledge and channelled through physical and virtual networks. Moreover, considering the nature of the counterlaboratories analysed in this chapter, precarity is a cross-cutting element that is present in all of them to a greater or lesser extent; however, following Banski's levels, case studies may be considered to be situations ranging between medium and extreme precarity.

For the purposes of the research, Faist's pentatonic model is re-traced—following the contribution of Banki (2013)—to analyse interactions between these agents in different situations that can be read as counterlaboratories. Specific initiatives developed in these areas, combining activism, art and social networking, will be explored in order to discover useful strategies from these European counterlaboratories of migration, that could help better understand identity construction and assertion processes regarding migrant flows in this context. These interstitial spaces, situations and networks reflect larger-scale movements and relations in transnational space, since they are products of the interaction between agents and institutions, beyond geographical or country-specific factors. The classification of the so-called counterlaboratories in five different categories has been organised according to diverse tools in order to make it easier to understand how these are used to create and spatialize networks

[7]Banki (2013) uses the term "precarity" applied to "[f]orms of vulnerability and impediments to security and stability that stem from both formal (legal, political) and informal (social, cultural) processes." Butler (2009, 96:25–32) made a nuanced distinction between "precarity" and the most common term "precariousness": while the former refers to a particular, politically-induced vulnerability (by capitalism, war, catastrophes, etc.), the latter is shared by all mortals: it is a corporeal vulnerability that affects all beings, related to the notion of "bare life." Despite Banki's use of the term "precarity," both concepts are intersecting and offer a wider perspective on the issue of migration, in which natural precariousness of nomad bodies are affected by conditions of precarity.

and communities. However, they are not exclusive and they may appear combined in many cases, but all of them work as networks in varying degrees. Besides, different types of relations between agents have been detected and classified as strong or weak, collaborative or conflicting in order to offer a more comprehensive perspective.

11.3.1 Monitoring Information Tools

During the long journeys from one country to another, traversing the European continent, monitoring information tools are very useful to plan the next movements avoiding obstacles, controlling spatial data and the situation of checkpoints, open roads or fences, as well as additional news about health assistance or weather conditions. These tools, mainly managed and updated by local associations, offer first-hand spatial information that can be accessed through a connected portable device (usually a smartphone) or in ambulant information points situated in different parts of the busiest routes. The most problematic aspect is usually the frequency of updating, which can be quite irregular depending on network coverage and the reception of last-minute information. Usually, these networks are run by civilians for displaced people, and mediated through local or regional NGOs, although migrant people may also participate and collaborate by sharing information. In most of these cases, information is also used to denounce abusive practices and policies of immigration state governments.

Initiatives such as *Bordermonitoring* (Fig. 11.3(1))[8] or *Welcome to Europe* (Fig. 11.3(3))[9] have been launched and designed for migrant people who have access to the Internet, either planning their journeys or already on route. While the second offers general and simple information for migrant people by country and topic (policies, gender, minors, detention, regularisation, contact, safety at the sea, etc.), the first is bidirectional, in the sense that it also offers information from the sites to the rest of the Internet community through reports and Twitter messages. In a similar way, *Watch the Med* (Fig. 11.3(2))[10] maps information about deaths, arrivals, violations of displaced people's rights and other incidents at the Mediterranean maritime borders of the EU. The platform has also launched an emergency number that can be used by people coming in distress while crossing the Mediterranean Sea, so volunteers can pressure coast guards and national authorities to start a rescue operation. In a more physical dimension, parallel groups offer information directly on-site, such as the *Moving Europe*[11] bus (Fig. 11.3(4)), which provided not only information but also other services, such as power supply, or USB chargers along the Balkan route.

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[8] http://bordermonitoring.eu/ Numbers in parentheses indicate the diagram corresponding to each counterlaboratory in image 2.

[9] http://w2eu.info/.

[10] http://watchthemed.net/index.php/main.

[11] http://moving-europe.org is a joint initiative of bordermonitoring.eu, welcome2europe and Forschungsgesellschaft Flucht&Migration.

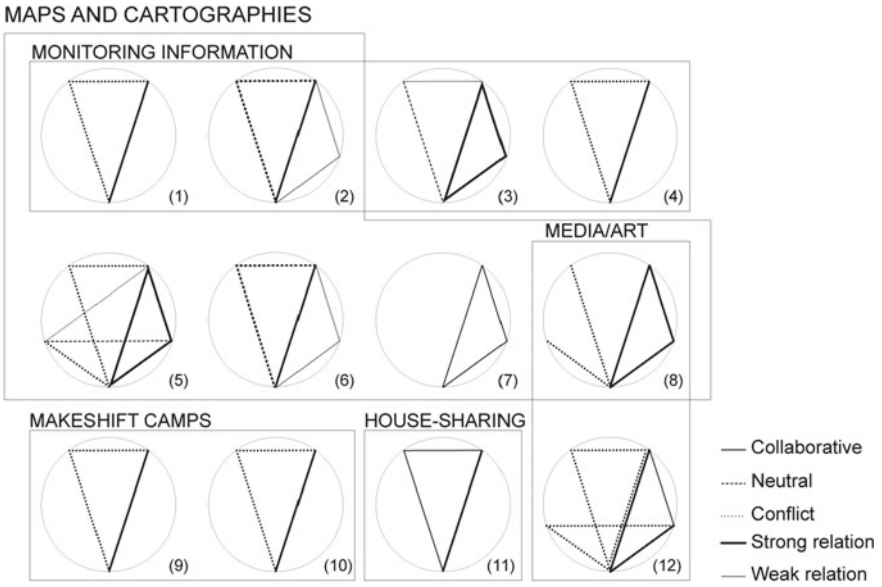

Fig. 11.3 Interactions and relations between agents in different counterlaboratories (based on the pentatonic model by Faist 2000). Drawing by the author

11.3.2 Maps and Cartographies

Mapping is one of the most prolific and useful tools. As it has been previously shown, cartographic representation is very linked to monitoring information tools, but also makes visible certain relations between elements that may not be evident in principle. Besides, maps are never finished, but in permanent elaboration and construction; this fact—especially in the case of open maps—makes them flexible and dynamic tools which reflect the character of a changing reality and the subjective perspective of their creators, as well as offering the possibility of being openly read and interpreted by different individuals and groups.

One of the first and most successful cartographies of a possible counterspace was the map elaborated in *Indymedia Estrecho* (Fig. 11.3(5)),[12] conducted mainly by scholars and activists together with civilians from home and immigration states. The objective of the initiative was to elaborate diverse cartographies of the interstitial space between Spain and Morocco, depicting main migration flows and relevant spots such as camps, smugglers sites, self-organised movements, protests (either supporting or rejecting migrant people), surveillance, militarised areas, detention centres and control devices, among many other elements in order to present a diverse,

[12] *Indymedia Estrecho* was inserted in the global publishing network Independent Media Center (also known as *Indymedia* or IMC), which groups different journalist collectives—although anyone can participate and contribute—that report on political and social issues. It was created during the Seattle anti-WTO protests in 1999.

collective imaginary of the region. Finally, their purpose for a transborder migration observatory failed, but the output material is extremely accurate and detailed, offering a perspective from a very local, specific region with strong identity connotations between North Africa and the south of Spain. Interestingly, the orientation of the maps was inverted (south-north, instead of north-south) in order to reinforce the opposition towards hegemonic space.

Although this particular project was very complex and cartographies were drawn mostly by professionals, there are many other ways to use mapping which rely on much simpler tools, usually participative and collective. Such is the case of *Arriving in Berlin—A map made by refugees* (Fig. 11.3(6)),[13] a project in which migrant and refugee people already settled in the German capital share their own experience and knowledge with newcomers by means of an open map which is being permanently updated with different relevant aspects for their arrival, such as free Wi-Fi spots, information desks, language classes, doctors speaking different languages (Arabic, Farsi…) or public institutions. Other collaborative maps can be created and consulted in *OpenStreetMap* (OSM) (Fig. 11.3(7)),[14] a wiki tool through which any user can draw specific areas with geographic information obtained with GPS, ortophotography or vector data. In recent years, some users have started to mark and draw refugee camps in OSM and other platforms like Google Maps, in order to contribute to the visibility of these areas, in which people are doomed to remain externalised, outside the acceptable world and left to survive—and then die—away from the glare of the media.

11.3.3 Media and Artistic Research

It is worth emphasising the role that art acquires as a privileged field for interpreting and constructing reality. In this regard, it is interesting to take artistic practice into account when exploring ways of representing socio-spatial conflicts.[15] Therefore, activist projects and actions based on media and artistic research are a very powerful tool to catch the attention of civil society and institutions in host countries. Moreover, they open a broad field to explore and contest the notions of identity and belonging. In this regard, there is plenty of media and artistic projects which work in this direction. Two paradigmatic examples have been chosen—an artistic and a media project—in order to illustrate the spatialisation of identity questions through these particular tools.

Between 2008 and 2011, the Moroccan artist Bouchra Khalili developed two consecutive projects based on map-making from the perspective of individuals who had

[13] https://arriving-in-berlin.de/.

[14] https://www.openstreetmap.org/.

[15] Bourriaud (2002, 13) asserts that art's purpose is not "to prepare and announce a future world" anymore, but rather to model "possible universes." The artistic action thus becomes a "vector of knowledge" (Genard 2008, 104) for social practice.

abandoned their homes in order to undertake an illegal cross-border journey from their countries of origin to a safer land, usually in a European country. In *The Mapping Journey Project* (Fig. 11.3(8)), each one of the participants was recorded remembering his/her itinerary, which was traced over the map with a permanent marker. These elementary exercises, in which the border is transgressed with a single ink stroke, are just the depiction of an arduous path that traverses diverse spaces and borders going against them, at different speeds and by various means of transport: from Jalalabad to Rome, from Beni-Mellal to Torino or Utrecht, from Ramallah to Jerusalem or from Al Fashir to Istanbul, passing through Tripoli, Athens or Barcelona. Countless stories and anecdotes—escapes, detentions, illness, deportation…—are hidden behind the two-dimensional surface of the map, in which any obstacle or achievement within the complex transnational space between Europe, Africa and the Middle East takes the form of a simple line. In the following project, *The Constellation Series*, Khalili depicts the same routes without a political map in the background, reinforcing the imprecise, trans-territorial space between Europe and countries of origin.[16]

From the field of media-making, the project *Remapping Europe* (Fig. 11.3(12))—conducted within the transnational media hub Doc Next Network and supported by the European Cultural Foundation and the European Commission—[17] put together several media labs from different countries (Spain, Poland, Turkey and the UK) in order to produce critical audiovisual material reflecting on the idea of European identity and its inherent conflicts, touching migration, racism, gender, etc. It is a way of visualising conflict through more institutional ways, as the network is supported by European institutions. A collection of media and audiovisual materials by young European media-makers reflects different positions and exchanges between diverse groups of migrant people and locals from different backgrounds. Besides, the parallel compilation book *Remixing Europe* (2014) reflects on the position of European society towards otherness analysed from the perspective of young media-makers, in order to extract conclusions about the way displaced people are depicted and imagined in European mainstream media. As the historian and professor Fatima El-Tayeb concludes in the publication derived from the project, the multiculturalist discourse—which has been much questioned in recent years—still preserves a racialised, exclusionary understanding of Europeanness that considers the other as a being-in-transit, without roots in a host country: "a linear narrative of Europeanness has been constructed and is used as foundation for an identity that transcends national divisions but remains firmly within internal limits" (V.V.A.A. 2014, 78). Conversely, she proposes a narrative based on remixing—recalling the experimental artistic technique—to think an European society that is not necessarily white and Christian, but much more plural and diverse, beyond binaries such as Orient/Occident, fundamentalism/enlightenment, Islam/Europe, past/future… and negating the spatial logic of the Union through trans-local and trans-ethnic counter-discourses.

[16] The project is further explained in a publication by the artist in *Artforum*. A fragment can be read in Khalili's website: http://www.bouchrakhalili.com/the-constellations/.

[17] http://www.docnextnetwork.org/.

11.3.4 Makeshift Camps

Makeshift protest camps are one of the most common ways to build a counterlaboratory within an urban or semi-urban context: people who confine themselves to protest about something they consider unfair, either building a new camp or occupying an existing building. One of the first examples is that of the *sans-papiers* in Paris in 1966, in which a group of migrant workers claimed their right to "papers for all" occupying diverse churches in the French capital. Since then, makeshift camps have become one of the most effective and visible spaces for contestation in many cities. During the recent European refugee crisis, several of them have appeared in different cities, situating precarity in the core of host countries and societies. Some of the best known are those organised in Vienna (*Refugee Protest Camp*, 2012–2013) or Berlin (*Oplatz*, 2013–2014) (Fig. 11.3(9)). In other countries in which migratory pressure during the crisis was higher, such as Turkey, Greece or Jordan, other solutions were adopted: they were also vindictive, but obviously more oriented towards immediate assistance, like the alternative camp Pikpa in Lesvos (Fig. 11.3(10)),[18] coordinated with other Greek islands. Organised following an assembly, horizontal model, the camp is run by workers and volunteers from all over the world, offering a welcoming space for migrant people (with playgrounds, vegetable gardens…) in which they can participate in a more human atmosphere and in which social, cultural and artistic projects and activities play an important role—even collaborations with Tate Modern or the European cultural project Metabody have been carried out. Therefore, these camps are valuable not only to generate encounters between local population and migrant people but also to help them recover their agency, since they participate in their construction and management (Katz 2016, 18).

11.3.5 House-Sharing

The alternative of shared housing (which consists on sharing rooms and/or domestic spaces and responsibilities with other people) is seen as a long term solution, since refugee people have to obtain their permit before being legally hosted. However, many people in host countries have already offered their homes before assigned refugees have arrived. Sharing and creating a common space between guests and hosts appears as a much more integrative solution than asylum houses and centres, although it is not easy to put it into practice due to administrative and political obstacles.

Since 2014, the international platform *Refugees Welcome* (Fig. 11.3(11))[19] has matched more than a thousand refugee people to hosts offering some space for them at their homes. The guest pays a certain amount for sharing the house, while the host undertakes to accompany the refugee person during his/her stay. The number may be insignificant, but the living conditions of newcomers are very different to those who

[18] http://lesvossolidarity.org/index.php/en/.

[19] http://www.refugees-welcome.net/.

remain in camps. Following the UNHCR policies, in which they recommend that displaced people join urban or rural communities rather than staying in provisional camps, it is shown how people in this situation can access easily to health and education systems and be more independent as well (UNHCR 2014, 2015a).

11.4 Conclusions

Throughout this chapter, it has been argued how counterlaboratories emerge in different contexts adopting diverse forms and strategies. Some of them imply multiple agents, others are mostly bidirectional, and some others count on the support (even slight) of institutions and governments. Europe, as a territory in permanent crises, provides space for these reverses that, despite their fragility, render contradictions and agents visible, while articulating their insertion in a transnational social space.

Some interesting conclusions can be drawn from the comparison of the different graphics based on Faist's pentatonic model. First, it seems that mapping and cartographic tools are among the most powerful ones, since they are easy to combine with other strategies. Their spatial connotations become even stronger when related to other aspects, opening ways for interpretation. Besides, they can be used as collaborative, dynamic tools to exchange perspectives and reinforce bonds between agents.

At the same time, research and artistic/media practice provides both a complex framework to interpret the issue of migration—in terms of identity, place-making, personal experience, etc.—and dense relational networks in which most of transnational agents are present in varying degrees. Projects such as *Indymedia Estrecho* or *Remapping Europe* involve a wide range actors and reflect both positive and conflict relations—for instance, *Remapping Europe* collects and works with the impressions and relations between migrant people and welcoming Europeans of different origins, but also brings awareness about racism and opposition against displaced people in host countries.

It seems obvious that, since counterlaboratories are by definition reversals of hegemonic conditions, relations with states and governments are usually problematic. However, in less precarious situations—such in the cases of *Arriving in Berlin* or house-sharing platforms—these relations have been considered to be neutral, since European states usually tolerate these activities, even when civil and activist organisers are against current migration policies. Also in *Watch the Med*, collaboration with maritime authorities is essential, although state practices are openly criticised and denounced by the managers of the platform. Meanwhile, home state agents (both civilians and rulers) seem to play a secondary role, although sometimes there are certain relations of collaboration, especially with families, friends and people who is planning or preparing a journey, either because they provide information or they are interested in receiving it.

Regarding the noopolitical dimension of counterlaboratories, most of the cases involve affective, informational, artistic or knowledge components that can be considered as noopolitical, as they favour cross-cutting, horizontal relations in terms of power and counter-power which take place in the *soft* realm of the immaterial or the virtual. Nevertheless, any (counter) laboratory requires a physical support, even a precarious or ephemeral one. All the examples show that the spatial dimension, understood as materiality, is important in order to acquire its full potential when combined with the possibilities that virtual networks offer. As Harvey (2012, 161–62) states, "it is bodies on the street and in the squares, not the babble of sentiments on Twitter or Facebook, that really matter," although it is impossible to deny the effectiveness of virtual tools in contexts such as the one studied here.

It is true that since many years ago, cities have acquired an unprecedented leading role as regional economic motors, becoming even more relevant than nation-states in many ways: we see here that national, governmental strategies are not satisfactory at all, sometimes only increasing the problem. Regional and local levels seem to be more effective and "human," since communication and information tools have boosted the connections between local and regional nodes. Of course, this does not mean that NGOs or activists should replace states in assisting refugee people, but their strategies and networks should be taken into account as their work is faster and more connected to real needs. Thus, counterlaboratories emerge as powerful, interdisciplinary spaces that help for better organisation and reception in the Mediterranean region and central European states. It is clear that the leading role of peripheral regions in the EU is essential, not only empowering communities but also when they are forced or want to return to their home countries. The most important effect is the sensation of humanity, belonging and participation which stems from the activity of locals and displaced people—no matter their profession or status—ameliorating the integration of refugee and migrant people and asylum seekers by getting them involved in social urban practices and contexts.

While European territory is being permanently rethought, opened and closed through borders and fences that separate the geographical Union from its outside, the European society shows a very different reality today. Facing the question "who has the right to Europe?" we find a wide diversity of subjects, from different origins, races and religions that in other time—and even today, in some cases—would have been considered as Non-European (black, Roma, Muslim…) It happens that European society oscillates between the desire for integration and assimilation and the suspicion of anything that has its immediate origins beyond its current borders—forgetting, precisely, that Europe is always defined negatively, by opposition.

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Chapter 12
Luxury as a Driver for New Urban Identities in Milan: Geographies, Spatial Practices, and Open Questions

Mario Paris

Abstract In contemporary cities, the role of capital and private investors who finance interventions in the field of urban regeneration has become an increasingly important catalyst for the physical and social impacts of these transformations. This paper aims to point out the role of urban projects developed by luxury companies or stakeholders in consolidated urban regions. Starting by analysing the spatial distribution of luxury firms in Milan and composing a tentative classification system based on a variety of case studies, the author proposes a mental map of spaces shaped, occupied, transformed and infected by the sector within the contemporary metropolis. The resulting network of urban places sprawls out not only across centralized areas, but also in peripheral neighbourhoods, which interact with existing contexts, spatial and economic relationships as well as evident and hidden flows. From this basis, the contribution reflects on a set of luxury-driven practices and their impacts on urban identities. The reflection includes the role played by media technologies in these transformations and in the study of their development. The conclusions then discuss the role of luxury; whether it transforms the physical form of our city (its shape and patterns) or rather influences processes of transformation.

Keywords Luxury · Identity · Global · Local · Urban

12.1 Introduction

As Amirtahmasebi et al. point out in their recent publication (2016; xxvii), 'every city has pockets of underused and underutilized land or distressed and decaying urban areas. These pockets of underused land weaken the city's image, livability, and productivity. They are usually the result of changes in the urban growth and productivity patterns. Urban regeneration policies either target inner city declining neighborhoods or vacant land parcels.' They define several different actions, developed through both public and private initiatives. Following an expansive phase where

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inhabitants, firms and capital move from consolidated urban cores to the exurbia (Soja 2000), current urban strategies reference the resulting urban regions as a whole system. Together with new, peripheral developments, private and public stakeholders have been experimenting with a variety of actions based on the re-activation of internal greyfields and brownfields that—in EU and Committee of Regions terms[1]—we can refer to as 'integrate re-generation' of existing urban areas. The re-urbanization of certain areas of former industrial cities (factories, docks, ports, but also housing and abandoned public buildings) where warehouses became offices, residences and mixed-use neighbourhoods, which were improved through the development of 'individual', emblematic buildings where art, culture and creativity played a strong role as tourism and social catalysts.

This contribution explores the role of luxury within these transformations, going beyond the typical ideological approach found in academia. Scholars often oversimplify the complexity of this issue by pointing out only the economic processes related to these operations (capital multiplication and accumulation, risks of gentrification, segregation and discrimination). They have not taken into consideration their spatial influence nor other impacts of these actions related to socio-economic dimensions of their contexts. The research began from a set of questions that posited luxury—as an economic sector and as a system of values—as a producer of spaces—and their identities—through precise actions, techniques and networks based on specific intentions.

Since the middle-ages, producers of luxury goods have shown specific settlement strategies, where retail and other integrated functions typically colonize urban venues and, though only in a few cases, production remains confined to peripheral areas. Over the last decades, luxury players have increased their interaction with cities and local contexts, accentuating their spatial impacts. As pointed out in a recent publication (Paris and Fang 2018), consolidated settlement strategies of operators related with productive and business functions used to mainly affect central and preeminent locations—including main squares, high streets, etc. Their aim was to take advantage of the symbolic (quality of urban landscape, attractiveness and recognizability of the existing retail system) and physical qualities (proximity to markets and users, easy accessibility to providers and services). In parallel with these still ongoing processes, a set of changing socio-economic conditions (progressive saturation of markets, rise of alternative proposals based on good design + low prices, shifts in consumer's preferences from possession to sharing, need for investment diversification for luxury companies, etc.) have been pushing luxury actors to explore new forms of business and activities, resulting in new territorial influences. As the traditional approaches have been widely studied in cultural and urban studies, as well as in marketing and sociology fields, the impact of these new strategies must be explored, focusing especially on their impacts on urban identities.

[1] Over the last three decades, strategies promoted by the EC since 1986 to strengthen economic and social cohesion as part of its spatial development perspective (EC 1999) have played a key role. The relevance of this issue became evident thorough many documents published after the Lisbon Treaty (2007), such as the Green paper on Territorial Cohesion (EC 2008) and the Territorial Agenda (EU 2011).

Therefore, this contribution is more than just a reflection on the results of alternative locations (peripheral, sub-urban, temporary) for luxury practitioners. The chapter aims to more deeply explore the current spatial practices in which the city and its socio-cultural, historical and environmental values became a testing ground for identities and local narratives to be used, created, integrated and exploited. Using Milan (I) and its recent transformations as a case-study, the chapter focuses on the processes of place making and creation of identities, pointing out the relationship between new functional systems (services, facilities) and the character of the city. The presence of luxury facilities enriches the traditional mental map of the city and contributes both to re-shaping processes and a new international image. Other urban transformations related to this 'luxury dimension' fit within the scope of the book as the involvement of several different protocols, media, and practitioners producing more than just goods or products come to involve luxury customers—as well as unwitting inhabitants- in a pervasive and original experience of places. For this reason, these operations often include a double dimension that mixes local features (traditional vocations, consolidate know-how and cultures, vernacular tastes) and global images and narratives (branding, wow-effect, the involvement of digital networks and communities of interests).

12.1.1 Why Milan?

In luxury studies at both a national and international level, Milan represents an important case study due to its longstanding tradition in the fields of fashion and design activities as well as because of a variety of transformations that have marked the city and its metropolitan area during the last decade.

Several Italian luxury brands are located in the city and many additional international groups have located their national headquarters in the city. Over the last year, the consolidated urban core, and its close periphery have become a testing ground for luxury firms proposing original retail formats, newly integrated offers and a range of spaces and venues. A set of facilities and functions sponsored or owned by companies involved in this sector have influenced the cultural and leisure offerings of the city and its attractiveness for local and international visitors. Moreover, in the planning field, Milan and its outskirts represent an interesting case. This area is a plural and polycentric space (Balducci et al. 2017; Paris and Balducci 2019), in which the central city and other consolidated small and medium settlements configure an articulated system. Interactions and mutual influences among these different elements mark this system. Moreover, this area is the only Italian urban region affected by a mature process of metropolitisation (Indovina 2007) since the end of WWII.

Due to the complexity and interactions of these factors, unpacking the territorial nature of the city represents a challenge as well as an opportunity for planners and scholars involved in luxury studies.

12.1.2 Methodology and Structure

I explored these issues and practices through a dual methodology, a defining quality of this contribution. The first section, based on a geographic approach, consists of an interpretative reading of the spatial distribution of venues across Milan. The analysis of existing information regarding the three main industrial groups in the field of luxury produced a database that contains information about existing locations (function, address, activity, etc.). Subsequent geolocation processes produced maps that could point out settlement strategies of the firms and present an overview image through the overlay of these data. The second step involved the comparative-deductive method and exploration of existing literature regarding this issue, which supported a reflection linking Milanese cases with other national/international examples, allowing the definition of certain singularities in the settlement of these functions. Thanks to this dual approach, it is easier to show a geography of luxury within the city and select those areas where urban transformations—and related identities—depend on this sector. Having identified the field of study, the chapter focus on the processes, actors involved, and impacts related to these transformations, producing useful knowledge of this phenomenon. In the third section, I point out a set of open questions that should be answered in the next phases of the research and conclusions that reflect on how the impacts of these operations affect local identities of places, but also their liveability and how luxury-led transformations affect local inhabitants' 'right to the city'.

12.2 Luxury as a Catalyst for New Urban Identities

After three decades of luxury operators pushing for the expansion of their markets through a horizontal brand diffusion (globalization) and multiplication of their shops, in the last ten years they took a more integrated approach, developing several activities in parallel with their core business, based on selling goods and—in some cases—services. Observing the annual reports of the three main luxury goods companies by sales, according to the Global Powers of Luxury Goods Top 100 (Deloitte 2017), make this change clear.

As showed by Table 12.1, in 2007, the total revenues for these companies (LVMH Moet Hennessey-Louis Vuitton SE, The Estée Lauder Companies Inc. and Compagnie Financière Richmont) reached more than € 27.6 billion through their more than 118 houses operating in different sectors (Wines and spirits, Fashion and leather goods, Perfumes and cosmetics, Watches and Jewellery, etc.) They nearly doubled profits by 2012 (€ 45.9 billion) and by 2017 they reached just over € 64 billion. In a socio-economic context marked by the financial crisis of 2008 with its far reaching impacts, these players consistently increased profits as well as their influence in economic and productive sectors along with industrial groups, as employers (Wierzba

Table 12.1 Revenues[a] for the three main luxury goods companies by sales (Paris 2018)

Group	2007		2012		2015		2016		2017	
	Revenues (mln €)	From other luxury activities (%)	Revenues (mln €)	From other luxury activities (%)	Revenues (mln €)	From other luxury activities (%)	Revenues (mln €)	From other luxury activities (%)	Revenues (mln €)	From other luxury activities (%)
LVMH Moet Hennessey-Louis Vuitton SE	16.71	25.7	28.68	28.5	36.17	30.9	38.00	31.5	43.23	30.8
The Estée Lauder Companies Inc.	6.03	0.5	8.32	0.6	9.23	0.5	9.65	0.7	10.13	0.6
Compagnie Financière Richmont	4.83	6.2	8.87	22.0	10.41	15.7	11.07	16.3	10.65	17.3
Total	27.57	16.8	45.87	22.2	55.81	23.1	58.73	23.6	64.00	23.8

[a]Data from revenues from annual reports (2007, 2012, 2015, 2016 and 2017) of LVMH Moet Hennessey-Louis Vuitton SE (available at https://www.lvmh.com/investors/publications/?publications=29&pub_year=&pub_month=#); The Estée Lauder Companies Inc. (available at https://www.elcompanies.com/investors/earnings-and-financials/annual-reports); Compagnie Financière Richmont (available at https://www.richemont.com/investor-relations/reports/report-archive.html)

2015), attracting larger numbers of talented and specialized workers, while also expanding their role as landlords and real estate investors.

Together with the general increase of the total amount of revenues for these companies, luxury operations are usually classified as 'other activities', which comprises selective retailing, editorial activities, hotel/restaurant/café industries and food productions, and gained a significant role in the production sector. Their influence increased from 16.8% in 2007 to 23.8% in 2017, which represents more than € 15 billion over that period. In this chapter, I focus on the part of these performative activities that involve the transformation of urban spaces. In the following pages, I will present the processes in which luxury branding and financial strategies assumed a spatial dimension. As stated, up until now, this issue has been largely overlooked by urban studies.

In a recent publication, Paris (2018) together with a panel of distinguished colleagues from different backgrounds (urban and regional planners, sociologists, philosophers, architects, etc.) assumed that luxury companies have a relevant role in urban transformations. At times these actions are marked by a new sensitivity to places and contexts in which local tastes, their narratives and specific features serve as opportunities for businesses to attract customers and—ultimately—revenues. Luxury players have, for these reasons, come to integrate their traditional approach to urban space, in which they usually applied parasitic strategies (colonizing some of the most visible and important areas of cities by paying rents that other actors cannot afford), with innovative actions that follow a set of current trends in marketing, which affect social and moral approaches to this issue (Featherstone 2014). Today, luxury companies and firms are involved more than ever in urban changes through the economic, cultural and social activities that they develop in parallel with their strategies as industrial and financial actors (Paris and Fang 2018).

Luxury is one of the most abused words used to reflect upon current societies, a multibillion dollar global industry or used ubiquitously to describe exclusive objects and aspirational lifestyles (Kovesi 2015). However, defining the concept in concrete terms quickly becomes elusive and problematic. Luxury represents a cross-cultural semantic field (Dubois et al. 2001) which contains both productive actors (who create, manage and promote items), a set of values (self-affirmation, self-indulgence and pure exhibitionism) and *savoir-faire*. In this analysis I intend luxury as an agent of urban transformation. These two aspects are inseparable and—together—they influence spaces, lifestyles and the everyday routines of the people who live in them. One of the disruptive aspects of these luxury-driven actions on space is the ability of those companies to generate (and play with) both: a specific identity for places and a formal or material transformation of built objects that increase their appeal and attractiveness (and revenues used to sell goods and services). In this light, media and media technology has a specific role and influence both the experience of certain places and their projection on global imaginaries that increases their visibility. Luxury groups used to control the corporate identities and the global image of their brands, with marketing campaigns, global communications and advertisement through traditional and innovative channels. But nowadays, the social reputation of these enterprises interacts with feedbacks, data and images produced by users/customers—even if there

are not usual luxury clients or testimonials. This process is even more evident for luxury spaces in cities that host inhabitants, tourists and city-users and they area a sort of living environment that users identify with specific brand. Therefore, media and media technologies influence the interactions of inhabitants with spaces, involving information, expectations and biases they influence not only the living practices of a specific space, but also the global image of its owner/developer. This original dimension is a new challenge for companies and the following sections will explore practices that have the power to create or play with specific identities reflecting about the geographies, spatial practices and open questions of this issue.

12.2.1 Geographies

As market players, luxury operators look for locations with different features, roles and connections within global networks and local contexts. Therefore, the analysis of luxury related spaces is not limited to shops and retail functions, but involves all those spaces where people think (creative workshop, ateliers), create and distribute (workshops, logistic spaces, warehouses), manage (as companies' headquarters, marketing, communication and administrative offices, foundations), exchange (flagship stores, thematic corners, showrooms dedicated to wholesalers or VIP customers) and consume (hotels, restaurants, lounges and facilities where specific products are used to provide premium experiences to users, art galleries and exhibitions centers) luxury goods, services and experiences (Fig. 12.1).

Mapping the settlement behaviors of the three main luxury groups in Milan creates an image marked by a distribution of venues across the city center with a major concentration in the historical core (Municipio 1) as well as several areas traditionally (Quadrilatero della moda around Via Montenapoleone, Corso Vercelli) or recently (Galleria Vittorio Emanuele, Via Dante, Corso Como) hosting premium retailers or services providers. A set of 'luxury hubs' (La Rinascente, Excelsior Milano, Coin) includes several corner shops and concessions that have become specialized attractors for luxury customers within the whole system.

212 activities and 34 buildings/containers compose the sample, in which uses relate with the selling and exchange of luxury goods (164 elements and 8 containers). These activities are the most diffused, followed by those dedicated to the consumption of exclusive services and products (craftsmanship, restaurants, café, bars, etc.), represented by 44 activities. Following a traditional vocation of the city, two venues relate to the production of goods and others to luxury experiences (2 activities and 8 buildings) (Fig. 12.2).

From a spatial point of view, this first interpretative geography shows several trends related to the actions of luxury operators in the city:

– The strong interest towards activities located in the central core of the city where there are processes of concentration and specialization—regarding merchandizing

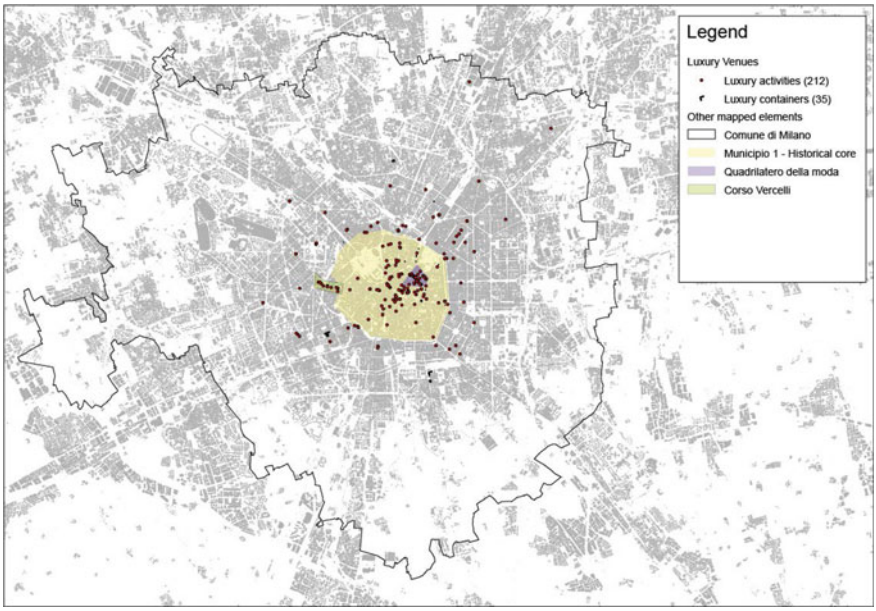

Fig. 12.1 Venues of the three main luxury groups in Milan (I)—Paris (2018)

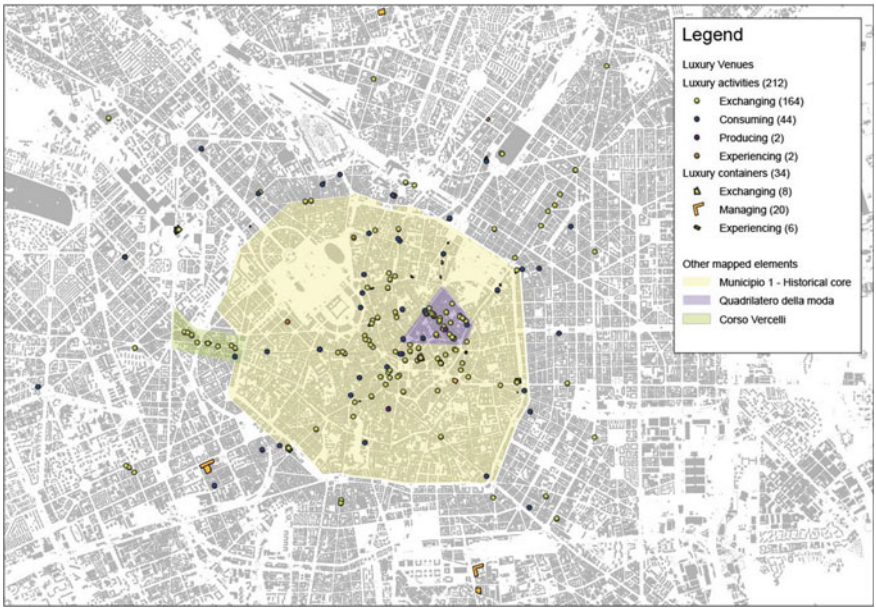

Fig. 12.2 Functions and roles of different venues of the three main luxury groups in Milan (I)—Paris (2018)

and offer—of specific areas (Quadrilatero for fashion, via Dante for Cosmetics and make up, etc.);
– Progressive colonization of the first peripheral area, with functions that support the groups' activities, such as the largest headquarters or showrooms dedicated to professional buyers. These compounds, marked by specific logistic related needs, accessibility, and relationships with partners and clients, often re-use industrial spaces and existing urban spaces, improving the process of transformations in this part of the city;

The definition of relationships that connect the high streets (Quadrilatero, Corso Vittorio Emanuele, Via Dante, Brera, Corso Como) and emerging hubs (La Rinascente, Brian and Barry Building, Coin Excelsior and Galleria Vittorio Emanuele) has created a new pathway within the central core of Milan, one that connects different neighbourhoods and links traditional venues with new presences.

These trends are confirmed by also looking at the spatial distribution of venues from an operative point of view. Luxury groups often maintain an independent or direct control on the venues located in areas of consolidated prestige or symbolic value, leaving other players to colonize the periphery, operating through collaborations or concessions.

An experimental approach is often developed by supporting several activities through sponsorships or choosing several dynamic actors that became 'ambassadors' of the brand or group. In this way, the presence of luxury operators in not-usually-prestigious locations shows different and integrated strategies of these stakeholders: testing new locations without direct involvement, brand promotion linked to specific events, place-marketing, etc. (Fig. 12.3).

All of these strategies are not uniform or transversal, rather they depend on the behaviours and settlement approaches of individual operators. Focusing in on the situation of each group reveals that luxury brands generally compete for spaces located in central areas or on important high streets, colonizing ground floor stores and whole buildings with their showcases and exhibition functions (showroom). At the same time, the Compagnie Financièere Richmont concentrated the main stock of its venues in several spaces close to the Duomo, but the company established its headquarters in the northern part of the peripheral area. On the other hand, the LVMH group's headquarters are sprawled across different locations, both central and peripheral areas, with a high presence in southern neighbourhoods (Via Ripamonti and Via Tortona) and buildings dedicated to specific sectors (such as wine and spirits or jewelleries' presence can also be found in luxury containers owned by other groups (such as La Rinascente, Coin or within the new 'CityLife Shopping District', a new shopping mall located within the former Fiera Milano that houses different initiatives along with bars and restaurants). The Estée Lauder Companies group used a third strategy, one more pervasive and diffused across the city, due to its specific offer, primarily cosmetics and products that can be sold by concessions and different retailers, not only in dedicated showrooms (Fig. 12.4).

The result is a complex variety of approaches, that together with the presence of other competitors (as Luxottica Group Spa, Kering SA, or Prada, Armani and

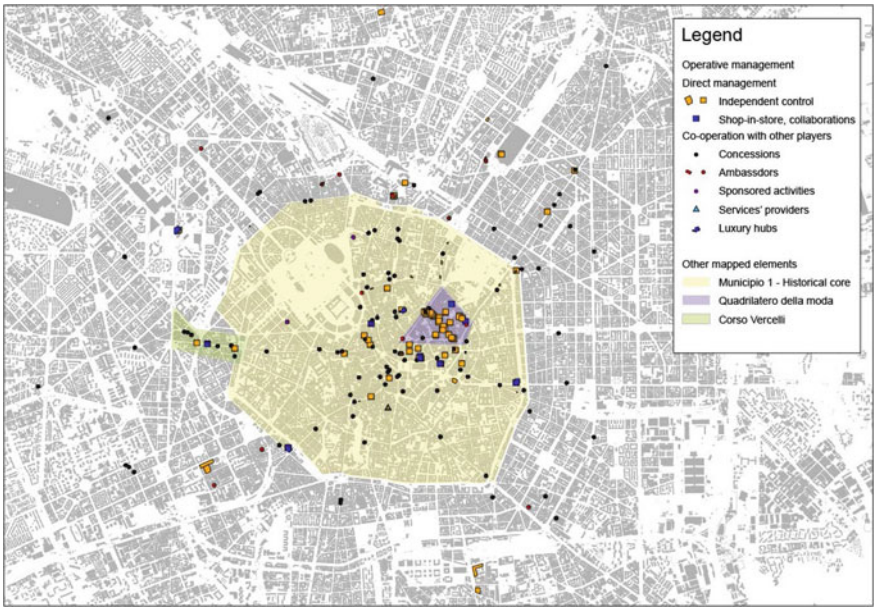

Fig. 12.3 Management and ownership of different venues of the three main luxury groups in Milan (I)—Paris (2018)

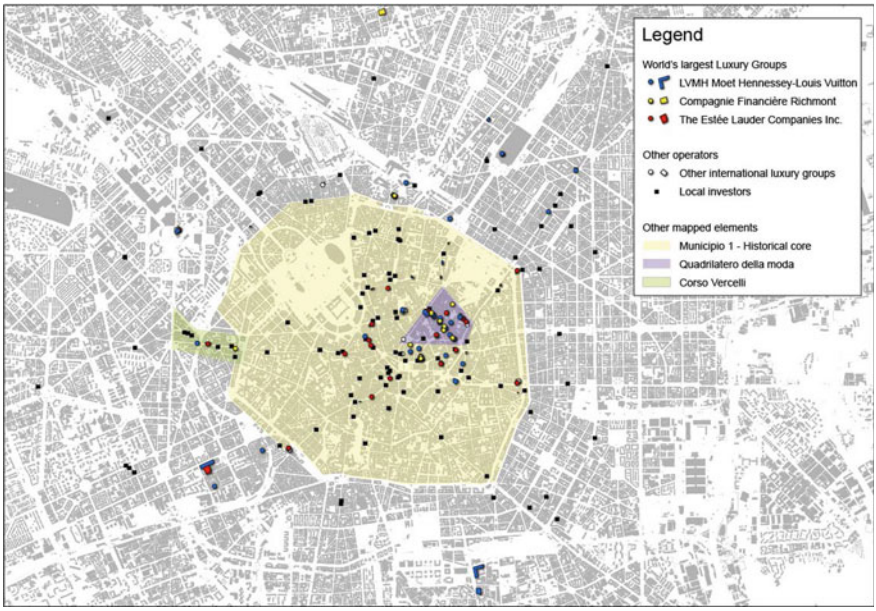

Fig. 12.4 Brand diffusions and spatial competition of different venues of the three main luxury groups in Milan (I)—Paris (2018)

Dolce and Gabbana amongst others) produced a heterogeneous mosaic of spatial practices, which impact the transformation of the city. This transformation is a two-fold relationship, in which they first influence and take advantage of other projects in Milan, which then comes to mark the identity of several places and the behaviors of their inhabitants and users accordingly. Once these practices have been identified—along with their effect on place identity—as a fertile point of view on the evolution of the city that affects both its hardware and software, I produced an interpretative reading of these phenomena, which the following section discusses.

12.2.2 Spatial Practices

As pointed out by Miller (2017), luxury productions and consumptions have been part of urban functions since early in the modern era (Kovesi 2015) thanks to a de-moralisation[2] process of wealthy lifestyles (Roberts and Armitage 2018) that led to an increase in the relationship between premium consumption and urbanized territories. The location of nobility and the growing upper middle class in cities following the industrial revolution represented a targeted reference point for the producers and retailers of premium goods. In this way luxury companies colonized urban spaces, according to specific needs related with productive and logistic aspects, such as the presence of specific know-how or specialized professionals, but also due to the visibility of operators and display of customers. Historians and sociologists studied these phenomena, pointing out typical behaviours, their evolution over time and in different cultural contexts. Despite this large number of studies, only a few researchers studied the spatial influences of the settlement strategies of luxury players in cities and the location patterns of premium functions, especially at a moment in which these actors changed their spatial approaches. In this way, the spatial dimension of luxury-driven urban transformations needs to be overhauled and supported by studies developed in the last few years and return to an empirical observation of current practices ongoing in urban regions. As explained in the introduction, this chapter tests this approach in the city of Milan and its urban area, which contains many examples of recurrent practices that can be compared with other Italian or international cases. At the same time, the complexity of this field is due to a set of factors that must be included in the analysis, which I used to classify several examples, providing a tentative classification system that considers the role of these spaces in the definition of the identity of places:

[2]According to these two authors who quote Berry's work (1994), the perception of luxury has altered across the centuries from being an effectively negative connotation—based on the classical philosophical paradigm constructed by Plato (2007), the Romans and early Christians who refer to 'the lust' as a capital vice - to a perception of 'well-being' in terms of economic wealth (Smith 1982) or due to the superior quality of goods, experiences or services and their esthetic or material conditions, design and overall quality of their productive processes.

12.2.2.1 Dealing with Existing Local Identities

Historical settlement processes for luxury functions has produced, over the centuries, consolidated clusters, districts or punctuated presences in cities and broader urban areas. The inertia of these systems influences context in many ways. On the one hand, it impacts the specialization of some areas of Milan that, over time, have become part of a global geography of luxury destinations. Examples include the system of Via Montenapoleone and Via della Spiga in the city centre or Corso Vercelli that represents linear systems formed by fashion brands with their flagship stores and local dealers which includes other examples like the international Rue du Faubourg Saint-Honoré in Paris or the 5th Avenue in New York or Rodeo Drive North in Beverly Hills (CA). In parallel, containers such as La Rinascente in Piazza Duomo or Excelsior Milano in Galleria del Corso are specialized department stores located in prominent buildings and represent key shopping destinations. In international examples we find the historical venue of Grand Magasins La Samaritaine in Rue de Rivoli (Paris)—currently under a controversal process of refurbishment developed by LVMH group—or GUM Department Store (Glavny Universalny Magazin) in Red Square (Moscow).

These examples show how this kind of function creates a specific character for urban spaces, that can become recognizable worldwide, even by those not involved in premium consumption. At the same time, these cases indicate how the consolidated strategy for luxury companies is based on the colonization of central areas, taking advantage of the symbolic values of these spaces, the quality of the urban fabric and the presence of vibrant public space. Therefore, the analysis of luxury action in cities must start from these systems, which interact with mainstream living practices of cities, with consolidated flows and agglomeration of people and that often coincide with those places marked by a specific identity—suggested by recognized landmarks—or 'aura' (Castello 2010).

Luxury companies developed in these areas through different actions that concern both what was taking place within their private spaces and in the exterior public realm or within some usually-closed off spaces that can be opened to host events and happenings during specific moments. For example, Burberry used its flagship store on Regent Street in London in 2017 (Scott 2017) as a venue for live events/concerts or streaming projections of runways. In many such cases, operators involve public spaces in these operations, supporting pop-up shops or temporary installations not devoted to the selling of goods, but rather to promote the brand's image or its social role. In Milan, the colonization of spaces often follows the agenda of Fashion or Design weeks, where the public has free access to show rooms, shops or private *palazzi* (palaces), such as Palazzo Bocconi during the Design Week 2018.

In general, these actions interact with the ordinary operation of the places, transforming them through non-banal actions including the insertion of art pieces, pedestrianizing streets, changes in the urban rhythm, etc. which influence the living practices of their inhabitants. These exceptional events are usually powerful and highly visible. In some cases, these actions became more radical and influenced the permanent transformation of these spaces, altering their materiality and producing solid

traces of branding strategies, which occurred at the Galleria Vittorio Emanuele in Milan, where the refurbishment was financed by the municipality along with the revenues from the luxury companies (Prada, LVMH, Versace) that rent the retail spaces within.

12.2.2.2 Exploiting Local Identities in Global Markets

Specific market approaches and commercial strategies developed by luxury companies often differentiate their settlement choices according to the brand image and purchasing power of the different houses that take part in their industrial groups.[3] Therefore, they colonize distinct parts of the city with specific functions and brands, showcasing different abilities to interact with places and proposing specific attitudes related to local features and characteristics. In some cases, they interact with local conditions and specific 'tastes'. Therefore, as will be seen in the following sections, specific urban identities, related to specific cultural presences, history and traditions became an asset for the promotion of certain brands.

This field is multifaceted and started with the simple relationship between a national, cultural and consolidated identity that guaranteed quality and an added value related to a local tradition or consolidated know-how about specific aspects of the production process. One of the most recognized examples is the power of 'Made in Italy' certification for food and fashion or 'Made in Switzerland' for watches. Many luxury brands have adopted a similar strategy, like Acqua di Parma, Donna Karan New York, Jo Malone London, etc. where a name or city recalls a specific background or imaginary for customers. However, this chapter focuses on a smaller scale, in which the identity and the image of specific places or landscapes became the added value—or asset—for luxury operators. In this sense, the case of Luisa Via Roma, one of the global leaders in the online luxury market, who took the brand name from the address of their first physical shop in Florence. Its website nowadays is its main platform, where clients make contact and purchase goods from a selected list of products, as the retailer serves as a sort of curator that recreates a specific 'Florentine' style.

Amongst Milanese examples, 10 Corso Como represents a key case in this field. This concept store opened in 1990 as a photo and art gallery in a former garage located at the address Corso Como 10. One of the key concepts of this case is that the location was on the border of the historical city centre, just outside of the Porta Nuova Gate. This area is well connected with consolidated high streets (Corso Garibaldi and via Brera) and dynamic spaces that were—at that time—under a process of regeneration through the insertion of new functions (the new venue of Fondazione Feltrinelli, Gae Aulenti square and the new towers around the Varesine area as well

[3] As explained in the previous section, the three luxury companies selected for the study are: LVMH Moet Hennessey-Louis Vuitton SE that operates 70 different houses; The Estée Lauder Companies Inc. with 30 and Compagnie Financière Richmont with 18. These houses belong to several different sectors (Wines & Spirits, Fashion & Leather Goods, Perfumes & Cosmetics, Watches & Jewellery, Selective retailing and Other activities) and every company has its own specialization practices.

as the *Bosco Verticale* that hinges with the Isola neighborhood). The idea, developed by C. Sozzani—fashion editor and publisher—evolved over the years, also thanks to the collaboration with American artist K. Rush that produced the brand identity and a recognizable image. More and more functions were added to the space's program from the inclusion of a roof-garden for events, a café, a bookshop, a fashion store (called 10 Corso Como) to a three room hotel. In parallel, the parent company developed a marketing strategy based on (i) producing collections of eau de toilette, clothes and accessories collaborating young designers with its brand; (ii) increasing the visibility of the concept store, through the quality of the publications of its own publishing house and the relevance of the exhibitions and events hosted in its spaces. Furthermore, in association with Comme de Garcon, it opened a store in Tokyo (JPN) in 2002 as a testing ground for the future expansion of the concept in other countries. This process produced a strong recognisability for the 10 Corso Como brand, which attained global visibility as a recognized hub for innovative design, thanks to the ability of C. Sozzani to perceive new trends and support talented creatives. In 2008, thanks to a joint venture with Samsung, they started several openings in Asia (Seoul, Shanghai and Beijing) and the US (New York).

This example shows how a specific identity, based on peculiar 'tastes', traditions and features can become a sort of product where the history and the tradition of a region, a city or a neighbourhood certify the authenticity, the quality and link with a specific imaginary. Often in luxury, investors exploit this imaginary in order to take advantage of it in commercial terms and to reinforce the brand image (as Prada did by introducing the name 'Milano'—in Italian—in its logo or Fendi with 'Rome' or a general recall to a Southern Italian imaginary developed by Dolce e Gabbana in their recent ad campaigns). In extreme cases, the identity of a place became a brand itself as well as an asset for private actors. Many experiences have explored this dimension, in which global companies play with the local dimension by interacting with autochthonous entrepreneurs and other figures or developing specific offers where products acquire a specific design or image influenced by a local identity. The following step is to then exploit this mix within a global network, where customers—even if they have never been to a specific city being referenced—buy products that promote a particular place. In the process the 'must have' and 'must have been' mix and influence one another. This influence is a constant movement between real places and soft features, between hardware and software that emerge with even greater force thanks to new media, technologies and social networks producing original and interesting combinations. Not by chance, the new showroom of Chiara Ferragni, the most famous Italian influencer and blogger, has been located within the Corso Como/Piazza Gae Aulenti urban system, producing an interesting interaction between digital networks and large urban transformations, where digital and physical dimensions are strengthened and acquire visibility thanks to their mutual interaction.

12.2.2.3 Defining New Identities for Places (At Different Scales)

The current evolution of markets involves a multiplication of the spaces related to luxury industrial processes (production, distribution, promotion, etc.) and an enrichment of the offer of integrated functions. Therefore, settlement processes involve not only those centralized spaces traditionally related with affluent consumptions, but also peripheral areas that provide support and host functions related to business development. These transformations often take place in urbanized spaces, contributing to the processes of urban regeneration and involve underused buildings, urban voids, abandoned areas or greyfields, producing transformations that influence the city at different scales. Many examples involve the reuse of specific buildings: the *Fondaco dei Tedeschi* in Venice (developed by DSF), that regenerated a mediaeval trading post that had been transformed into a post office during the twentieth century. In Rome, the *Palazzo della civiltà italiana* in the EUR neighbourhood has been converted into the headquarters for the Fendi Group or the new venue of the Fondazione Alda Fendi Esperimenti that has been located in the Rhinoceros palace, a cultural hub designed by J. Nouvelle re-using a residential space close to the Piazza Bocca della Verità,

These spaces have become hybrid venues that now host different functions ranging from offices, art galleries, restaurants and cafés to public/shared spaces. In these cases, the transformations involved specific, iconic buildings that influenced the regeneration of a local context, beginning as an incremental process that triggered the production of a new image for a whole area, integrating them in a mental-map of luxury destinations for inhabitants and tourists. In Milan, the current transformation of Piazza Cordusio has brought about the progressive dismantling of several headquarters of banks and insurance companies to produce an opportunity for foreign investors to promote new settlement in luxury hotels and flagship stores.

These transformations tend to increase the complexity of the urban mix, inserting advanced services and specialized functions in contexts that usually lack urban vibrancy and attractiveness. In this light, while not ignoring the risks related with processes of over-valorisation (and gentrification) of urban contexts, such processes can represent an opportunity for cities and the local dimension, even if they require an innovative approach to governance that includes municipal and supra-local authorities (Paris 2018). In other cases, these dynamics exceed the scale of the building and involve entire urban compounds, that became new campuses or, at a different scale, new neighbourhoods. As pointed out, for many operators, these interventions represent something more than juts mere retail/commercial settlements.

International examples include the Miami Design District (Miami, FL) and the AC Tourism District (Atlantic City, NJ) in the US and in the European context, Battersea Power Station area in London (UK). In Milan, the recent opening of Armani/Silos (which contains the branded museum and company headquarters) joined the existing Armani Theatre—a venue for creative offices and runways—in the Via Tortona area. This project represents a sort of campus for the brand and the company selected this dynamic part of the city (close to the Fendi HQ complex and the headquarters of Ermenegildo Zegna) for the mix offered, where luxury integrates with the

existing creative and cultural functions (Museo delle Culture—MUDEC, Superstudio, Magnolia Studios, etc.). Despite the rich presence of pre-existing small scale graphic and design offices, art laboratories and creative producers that re-used the industrial buildings found in this neighbourhood, luxury is not a rooted vocation for this context and represents another phase in the slow and incremental transformation of the neighbourhood. In two other cases, the Fondazione Prada venue in the southern area of Scalo Porta Romana—an abandoned railyard—and the Gucci Hub in Via Mecenate—a refurbished hangar—these compounds represent the initial driver for the transformation of their contexts. Located in the southern and eastern peripheries, where the edge of the modern city interfaces between housing and productive functions, these architectural systems, designed respectively by AMO-OMA and Piuarch, include management functions, communication and marketing offices, exhibition spaces and restaurants that aim to become a reference point for innovation in the Milanese context. These spaces acted as a pivot for a process of urban regeneration that has now exceeded their limits and involves different plots/areas surrounding their sites. Close to Fondazione Prada, other luxury headquarters, like that for the LVMH group, substituted productive functions together with the new venue of Talent Garden Calabiana and other showrooms and exhibition galleries in recent years. On the same plot of Fondazione Prada, the new smart neighbourhood 'Symbiosis', financed by the Municipality of Milan and developed through a European action, is taking shape and the abandoned railyard located in front of the site has been included as an *area di trasformazione* (development area) in new city masterplan.

In these cases, luxury stakeholders took on three main roles: first as an investor, when they promoted these operations. Then they served as an attractor as they generated new transformations in their contexts. Finally, they became a marketing device at a local and global scale, when they created a new image for a specific area of the city or by re-positioning a city within the global map of luxury destinations, impacting the real-estate market. All of these roles influenced the identity of places, while keeping their material memory as productive/industrial spaces, but developed, at the same time, a new urban role in which the brand image and the presence of a specialized working class and new flows of visitors/users of these spaces increased the complexity of existing neighbourhoods. At the same time, these campuses contribute to the processes of specialization and polarization of the city, increasing the differences between various neighbourhoods at an urban and metropolitan scale.

12.2.3 Open Questions

Nowadays, one of the most relevant fields of action for luxury players is urban space and the transformation of the city, due to its effectiveness in generating financial revenues, media values and marketing impacts. The exploration of such a complex issue and the focus on the influence of luxury in the definition of identities for places proposes a set of questions that affect both settlement strategies and placemaking practices, which researches have only partially answered.

Luxury-led transformations have traditionally been pointed out as producers of segregation, homologation and gentrification of urban spaces. Marked by a strong ideological approach, these critical readings have been useful categories to discuss traditional practices of luxury operators, when their actions have been oriented to the colonization of the most valuable and symbolic spaces of the city, marked by their scarcity, their inaccessibility to non-customer users and their high market price. However, current strategies of luxury groups also include processes of value generation related to the promotion of the brand (media value) and its relations with local contexts, far from consolidating speculative practices. In these operations, the experiential dimension assumes a relevant role and the expertise of luxury operators in creating attractive environments and evocative imaginaries is a key factor. As in their experimental shops/showrooms, operators used to work with the integration between different kinds of consumption (of goods, services and experiences) and various customers, an approach they applied to the urban scale. Together with these retail spaces, a variety of other functions supported the presence of these groups in the city and these aggregates all denoted spatial contexts and their vocations at different scales. As presented in the earlier maps, outputs are heterogeneous and faceted and they take place in different parts of the urban structure. Therefore, an interpretative approach to this complex group of experiences should be sensitive to and aware of the different strategies, actions and results, adapting current disciplinary tools and concepts to these new phenomena, marked by the prestige of their design and marketing solutions and not only for their exclusivity. This point is even more important in focusing on the characteristics and impacts of these aspects in the definition of the identity of these spaces and their effects on both physical and symbolic dimensions.

Other open questions affect the influence that professionals, technicians and developers have on the design and characterization of this identity. Luxury players show a consolidated knowledge in the promotion of a specific image and imaginary of a brand or a group through different kinds of mass media (press, radio and television and—more recently—internet), focusing on precise targets and showing a strong ability to adapt their individuality to local markets and cultural contexts. When they change their field of action, moving from shops and showrooms to the transformation of the city, they keep applying a set of strategies and protocols that use mass media to promote the brand and its role as status symbol in contemporary cities. In parallel, luxury players developed a communication—more subtle—based on luxury environments as extraordinary spaces, where users experiment experiences and events that are unique, taylor-made and ephemeral. This kind of communication mixes traditional marketing campaigns and other media, where social networks have a preminent role. Through these two channels, players promoted the image of specific brands, their qualities and their potential taking advantage of the involvement of users, customers and testimonials. This richness of stimuli represents an exciting challenge for planners and designers, especially when the promotion involves the city as a stage or container of peculiar—and luxurious—experiences. In some cases, their actions should maintain it and avoid the banalization characteristic of current practices, where urbanity is simplified and imitated through trivial mimesis. We should focus on the approaches and the tools developed by operators of these

luxury-led actions, pointing out where and how they can produce places able to host spontaneous uses of the spaces, social encounters and interactions (Fig. 12.5).

Exploring specific cases and best practices could be an important contribution to the planning discipline by producing a specific knowledge useful for those responsible for planning and governing similar transformations as well as for those operators that would like to develop innovative projects and actions.

Finally, the analysis should take into account that luxury is one of the most dynamic urban factors that integrates a variety of parallel trends in cooperation with defining local identities. Therefore, luxury-driven transformations of the city influence developers, their markets and the public actors involved, but also anyone who uses and inhabits the space (inhabitants, tourists and city users), not only luxury customers. The analysis of their spatial distribution shows a complex system formed by luxury activities and buildings that interact and overlay other systems of other urban functions. Forms and intensity of the relationship between luxury and non-luxury activities mark the vocation of a specific area of the city, influencing its physical reality (defined by materials, permeability, public space distribution, etc.) and the mental maps of those who inhabit these spaces. Research in this field should explore this dual dimension, which will influence the quality of life of inhabitants and their everyday experience of the city.

Fig. 12.5 Traditional marketing campaign and iconic urban projects as tools for the dissemination of brand images in Milan (I)—Venturi and Paris (2019). Images credits: Margherita Venturi and Elena Paris

12.3 Conclusions: The Open Relationship of Urban Identities and Luxury

This contribution discusses the role of luxury and the groups involved in this economic sector as transformers and producers of identities within the city. Through the analysis of an articulated atlas of spatial practices in Milan, I point out that luxury acts as a catalyst for the physical transformation of several fragments of the urban system. On the one hand, a set of interventions—based on exclusiveness—highlights the interest in the most attractive and iconic spaces of the city. On the other hand, a variety of transformations located in semi-central or peripheral spaces dedicated to a set of integrated activities (culture, leisure, art, management, etc.) and not only for retail, represents an original trend for these operators.

Therefore, luxury stakeholders deal with the local identities of their current interventions in cities and these identities influence the material results of their actions. Peculiar tastes of a city or a neighborhood are promoted as a factor that people enjoy to stay in or to visit specific locations, and they became part of the desire that those companies try to satisfy. The local dimension becomes part of the uniqueness and the added value of the experience that can be achieved through consuming—as a customer or simple user—in a specific place. At the same time, luxury groups are able to involve the *genius loci* of urban areas in their marketing campaigns, playing with specific aspects and their impact on the global imaginary. In this light, Paris became 'romantic', Milan 'fashionable', Berlin 'bohemien', etc. in their advertisements, and those aspects supported the promotion of their products worldwide, even if they lack a geographic connotation. In both processes, luxury stakeholders shape and frame the features that characterize the identity of places, producing opportunistic mediations and mediatisation, often far from the original intention.

In a society where consumption is pervasive, and firms operate globally, the interaction between local images, lifestyles, varieties of a city—in one word, its urbanity—and a brand, with its products and its customers, provides a strong and ephemeral value to commodities. Luxury brands take advantage of this relationship, stressing the idea that a luxurious consumption is also placed-based, a sort of contemporary '*hic et nunc*', that increases the extra-value and the scarcity of their products and involve the spatial variable in the customer experience. In this way, a city, a neighbourhood, a specific corner or public space can become part of the luxury consumption, integrating and increasing the brand power with their identity. According to Livingstone (2009; p. 3), mediatisation is 'a meta process by which everyday practices and social relations are increasingly shaped by mediating technology and media organizations'. To achieve this mediatisation, the identity of places is simplified in order to be communicated and shared with the audience, impacting its perception. The pictographic result is a set of iconic images or commonplace ideas about a space, through a synesthetic approach that uses a fragment of this identity to define an entire system.

Moreover, these luxury groups produce mediations between real urban spaces and their wealthy customers, projecting a sort of anticipation about a city, introducing a set of must-be or place-to-be that influences the practices of potential visitors. This

process is not neutral nor harmless. It produces a narrative of the space that users will discuss, modify and re-produce at global scale. In this light, the city is influenced by this interaction: in terms of Sernini (1989) luxury developers point out, transform and create new identities or narratives about cities and in these operations, they take advantage of, simplify or stress-specific aspects, often mixing reality and fiction. If this practice is habitual for products and services, the impacts on spaces and urban compounds are controversial and not always free of negative effects on the liveability, quality and the usability of these places. This process is even more artificial when this precast character is promoted, adapted and sometime exported to other countries and cultures, producing a sort of fake imitation of specific lifestyles and living practices.

Media technology facilitates both mediations and mediatisation of the identity of places in many different ways. On one hand, the infrastructures that support the exchange of information and data accelerates the circulation of created or manipulated images, icons and opinions about definite locations. On the other hand, companies and customers interact with the space through technological devices and a significant part of their exploration of a place is based on the digital dimension and the mediation of a screen. Finally, technology produces a sort of continuous ability to practice several places (or the same place by different points of view) at the same time, producing a mosaic of spatial experience for luxury customers that actually belong to a specific community united by a specific interest.

Supported by technology, the relationship between luxury and urban identities is open and presents a strong evolution that depends on the companies' strategies. Over the last ten years, local tastes and practices, traditions and vocations of a restricted number of cities as an asset for premium firms, inhabitants and their lives, their social exchanges and their presence are not only public but becoming more and more part of the marketed product. Studies that focus on the spatial dimension of luxury actions on cities are the first step to deal with this issue and its socio-economic, territorial and political impacts.

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Chapter 13
More than Urban

Carola Moujan

Abstract In his cult 1953 novel *More Than Human*, Theodore Sturgeon portraits the genesis of *Homo Gestalt*, an organic entity envisioned as the next step in humankind evolution. Sturgeon's novel has recently regained interest as a metaphor for alternative ways of envisioning sustainability, less focused on humans alone, aiming to include a broader and more diverse group of actors. Despite being a step forward towards more sustainable urban futures, such approaches, however, often remain substantialist. Following Gilbert Simondon's theory of individuation (Simondon in L'individuation à la lumière des notions de forme et d'information, Jérôme Millon, Grenoble, 2013) and Lucy Suchman's concept of *situated actions* (Suchman in Plans and situated actions: the problem of human-machine communication. Xerox Park Research Center, Palo Alto, 1985) this chapter argues that focusing on diversity is not enough; that achieving a more-than-urban condition requires not only diversity but also, and importantly, entanglement. And that entanglement does not happen randomly, but instead, emerges through processes of individuation supported by concrete forms that enable integration and synergy between discrete components. Entanglement requires starting from pre-individual urban potentialities rather than constituted individuals; which is to say, to shift the focus from 'data as information' to 'data as tension'.

Keywords Data · Design · Smart city · Individuation · Entanglement

13.1 Introduction

How can we envision desirable futures for the digitally augmented city? Urban spaces are living *umwelts*, emerging from a wealth of biological, social, economic, technical, historical, spatial and emotional interactions, which both arise from, and condition, the way places are experienced (Rykwert 2002). Envisaging urban augmentation

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under the lens of sustainable development, thus, requires considering such umwelts both as a starting point and an end (Guattari 2000; Younès and Goetz 2010); in other words, to support what Félix Guattari has named *ecosophy.* Ecosophy, as Guattari envisions it, consists on 'an ethico-political articulation between the three ecological registers (the environment, social relations and human subjectivity)', the only response to the ecological crisis able to bring about 'an authentic political, social and cultural revolution'. In order to arise, such a revolution needs not only look at 'visible relations of force at a grand scale', but also consider 'molecular domains of sensibility, intelligence, and desire' (Guattari 2000, p. 28).

Such an approach, however, is in direct contrast with the initial *Smart City* paradigm. The original promise of a performance utopia capable of combining sustainable development and quality of life through optimized metabolism, has proved too simplistic in regard to the complexity of real cities (Mullins 2017). On a social level, the techno-centred approach envisions citizens only as 'consumers' or 'activators' of an otherwise self-referenced system, overlooking important questions of ethics and privacy, as well as issues of ownership of public space (Moujan 2015). On a technical level, it demands huge amounts of infrastructure and maintenance, leading to a de facto transfer of urban management to private actors (Haque 2012). On the aesthetic level, it neglects taking into consideration the impact material forms have on the quality and readability of urban spaces (Moujan 2015).

In response to this state of things, a 'participatory turn' has arisen. From this vantage point, digital technologies are seen as means to gather and amplify capabilities already present within communities. Despite their laudable intentions, however, such visions often remain limited. Focusing solely on the human side, participatory approaches tend to both reduce and idealize technology.

Let us give this issue a closer look. Reducing technology as a mere means for an end (in this case, participation), obscures important factors such as the role *technical concretization* of artefacts plays in the structuring of their *associated technical milieus*. Concretization is the name Gilbert Simondon gives to the evolutionary process every technical object goes through before reaching a state of maturity (Simondon 2017). Such processes are indivisible from the technical, material and social environment that make them possible, which is to say that technical evolution is tightly intertwined with social evolution in ways that are not limited to the direct 'uses' society might make of finished artefacts. Which is to say that, to truly understand potential benefits of technology in society, we must first deepen our understanding of technical processes, of what a technical essence might be and how, through which precise interactions with its associated technical (and human) milieus, an abstract, rudimentary prototype evolves towards a mature artifact.

The reductionist approach to technology brings upon a second problem that I have called idealization. Whilst unexpected behaviours such as bugs, system failures, connection lags and interruptions, uneven access… are extremely common, technical solutions and systems are most often pictured from the vantage point of their theoretical capabilities (Moles 1988). The idealized perspective triggers a continuous, endless struggle to compensate the gap between theoretical and actual performance, undermining the efficiency of the participatory process itself. One can thus wonder

what new, unexpected situations could arise if, instead of idealizing and reducing technology, participatory processes were designed in a way that included irregular behaviour as meaningful elements, an approach that would demand full acknowledgment of technology's agency? Here again, Surgeon's *Homo Gestalt* provides a powerful analogy: whilst every member of the group can be seen as deviant from the norm, such misfits are precisely what make the *gestalt* possible.

But limitations in view do not only concern the technical realm. From a sociological perspective, the participatory approach often fails involving users that are not able or willing to participate (Gooch et al. 2018), and struggles to address implicit aspects of problems that users themselves are not aware of. Much aligned with the rhetoric and ambitions of relational aesthetics (Bourriaud 1998; Bishop 2004), such perspectives, focusing solely on participation as the reason and bases for design, tend to overlook the impact of formal and material agency, reducing it to its merely instrumental aspects, namely, to how 'user friendly' or 'easy to use' the artefact is. Abstract values such as 'user empowerment' and the possibility of democracy often overshadow the importance of the 'how', that is, through which materials, forms, and processes, such a goal is achieved. Getting back to Sturgeon, it is significant to observe that the powerful endeavours of *Homo Gestalt* do not happen anywhere, anytime, but instead require very specific material conditions. The twins, for instance, are capable of teleporting themselves, but only if naked—a seemingly unimportant detail that, yet, considerably constrains their actions and delimits their area of influence. This example illustrates how, far from being interchangeable, cosmetic features, material attributes act instead as 'carriers of forces' (Moholy-Nagy 1947). It is neither the actors nor their special capabilities, nor the material attributes as such, but instead the forces themselves which create the new, augmented, 'more-than-human' condition.

Finally, there is a perhaps even more important blind spot. Based on language and human protocols of conversation and negotiation, 'human centric' approaches tend to overshadow non-human components of the urban *umwelt*. This is why many researchers from disciplines as diverse as HCI, biology, philosophy and geography claim today that abandoning the human-centred approach is essential to achieve sustainable development (Franklin 2017; Haraway 2016). Here again, however, the question remains open, for the sheer act of adding more actors, a more diverse panel of discrete parts to the equation without creating the conditions for their intertwinement is unlikely to achieve a whole that is more than the sum of its parts.

The above examples significantly reveal that, despite their major philosophical and political differences, both techno-centric and human-centric positions converge at several levels. In both cases, 'the public' is envisioned as a pre-existing entity that 'uses' the solution or 'benefits' from it, with design seen as an aid to fulfil the predefined goal. Their common ground can be described using Bernard Waites' words as a vision where 'all problems whether of nature, human nature, or culture, are seen as "technical problems" capable of rational solutions through the accumulation of objective knowledge […], the value of which is to be judged by how well they fulfil their appointed ends' (Waites 1989, p. 31).

This is the reason why, I will argue, neither perspective enables the emergence of a 'More Than Urban' condition, one that will expand the limits of the conceivable,

beyond assistance or automation. As John Dewey has noted (Dewey 2012), publics are dynamically constructed through the wealth of relationships (affective, symbolic, material and physical, as well as functional) that tie them together at a given moment in space-time; a statement that strongly resonates with Guattari's definition of *ecosophy*. On the other hand, 'thinking in relationships' is at the core of any design activity; this is why we need to pay closer attention to form-material interactions and their social, economic, technical, emotional and symbolic implications. 'Such relationships produce a new quality, which is "design"'(Moholy-Nagy 1947, p. 232).

13.2 Digital Design, from 'Data as Information' to 'Data as Tension'

Linking data and physical space is a major trend in contemporary urban design. Data has become a design material, a design tool and a design field. Designers represent it, read it, use it to build services and games, to tell stories and generate forms. The development of ubiquitous computing opens up a whole new realm of design possibilities, and potentially, of enriched urban experiences. Yet, most examples at work today struggle to fulfil such promises due to lack of synergy between the multiple, often conflicting dimensions that are typical of the urban realm. An equipment or service that might well solve a specific problem on a local level for an individual user or target group, often comes at the prize of a new problem (Moujan 2015). Whether we consider the issue from an environmental, social or aesthetic point of view, questions of attention, of ownership, of privacy, of grace inevitably arise, along with street cluttering and energy concerns.

Here again, and in spite of formal diversity and novelty, a substantialist perspective is at work.

Within this 'data as information' approach, focus is placed on specific *readings* of the information concealed within the data. Yet, whether or not such information 'augments' the experience of public space is difficult to assess, for qualities considered as noise in regard to communication efficiency, may well be essential—albeit non-functional—components of urban experience. Fragmentary, information-based approaches are not enough to respond to the magnitude of today's urban challenges. Instead, we should consider public spaces as force fields, data as tension, and aim for radically new, more-than-urban experiences, a condition that can only be achieved through entanglement. Digital technologies are not just tools: they are our *umwelt* (Hoquet 2011). A change of paradigm is required: we need to stop thinking about the physical/digital relationships in terms of juxtaposition, or even hybridity, and begin to embrace *entanglement*, a term from quantum mechanics that describes a state of mixed matter where such apparently contradictory conditions are met; a state of matter where, as in magnetic fields, individual components lose their substantial attributes to become wholes that are more than the sum of the parts.

What Bernard Waites refers to as 'technical problems capable of rational solutions through the accumulation of objective knowledge', is what I call the 'data as information' paradigm. Conversely, the 'data as tension' paradigm goes beyond the solution or the meeting of needs and reaches out to the problem framing level. 'Instead of more gratuitous parametric modelling' writes Shannon Matter, 'we need to think about urban epistemologies that embrace memory and history; that recognize spatial intelligence as sensory and experiential; that consider other species' ways of knowing; […] that aim to integrate forms of distributed cognition paralleling our brains' own distributed cognitive processes' (Matter 2017). In other words: instead of problem-solving or optimization, digital augmentation should help and trigger individuation processes within the urban realm; processes that interlink a multiplicity of spatial, technical, biological, physical, symbolic, historic, ethical and political dimensions.

13.3 Beyond Content

This alternative paradigm can be linked to the concept of 'situated actions' coined by Lucy A. Suchman in 1987. Situated actions are 'ad hoc responses to the actions of others and the contingencies of particular situations. […] Rather than depend upon the reliable recognition of intent, successful interaction consists in the collaborative production of intelligibility through mutual access to situation of resources, and through the detection, repair or exploitation of differences in understanding'. Suchman noted that researchers interested in machine intelligence attempt to remedy the vagueness of plans, with the project of 'substituting plans for actions, and representations of the situation of action, for action's actual circumstances' (Suchman 1985).

SenseCity, a full-scale, reduced city model built by researchers from IFSTTAR can illustrate this last perspective. The installation, spreading over 400 m^2, is a mobile, climatic chamber built over 'mini-cities' and meant for studying urban areas' reaction to climate change. Specific weather conditions can be programmed over predefined time lapses, allowing for study of its effects over materials, soil or vegetation, among other factors. Described by its authors as a 'realistic demonstrator for urban innovations' (SenseCity Press Kit 2018) enabling 'as many tests as required', each mini-city is built in direct response to specific scientific and technological challenges explicitly formulated, which is to say to already known, well-identified problems.

According to Suchman, machine's insensitivity to particular circumstances appears as a 'central design resource and fundamental limitation'. Insensitivity provides reliability: a good technical object ought to function and perform whatever the circumstances. Yet its detachment from the living milieu deprives it from refined and nuanced responses. From this ambivalent starting point, two strategies arise: either you try to bridge the gap, to make machines more 'senstitive' through ever bigger amounts of data, of hardware performance and ever more refined artificial

intelligence. Or, as the author suggests, you design structures, objects and systems to support and empower situated actions.

The author illustrates these two alternatives through the example of Trukese and European navigation systems. European navigators follow a predefined route; their navigation efforts mainly consist on 'sticking to the plan'. If unexpected events arise, they will first modify the plan in order to adapt to the new conditions, then act upon it. Conversely, Trukese navigators begin with an objective and respond to the conditions as they arise in an ad hoc fashion. They utilize information provided by the environment as they travel, and steer accordingly. They can point to their objective at any stage of the course, yet are unable to describe their route. The Trukese's plan is necessarily vague 'insofar his actual course is contingent on unique circumstances that he cannot anticipate in advance'. The plan of the European, in contrast, is derived from universal principles of navigation' and 'essentially independent of the exigencies of his particular situation'. Suchman argues that whilst the European navigation model has become reified in the form of new computational artefacts, following what Western science has glorified as 'the correct model of the purposeful actor', 'the essential nature of situated actions […] is Trukese'.

The author urges social scientists to study and begin to find ways to describe the Trukese system, and indeed, much work has been done in this sense in philosophy and the social sciences. Deleuze and Guattari's well-known concept of smooth and striated space (Deleuze and Guattari 1980) come to mind, as do recent developments carried on by Tim Ingold in anthropology (Ingold 2007) or by Andrew Pickering (Pickering 2010) in technology studies, to name just a few. Yet, the highly conceptual nature of this type of work makes it difficult to adopt by scientists working on applied research, especially those coming from STEM fields. But the most important problem lies beyond: whilst the social sciences work mainly with words, through language, an essential part of this type of process cannot be fully described in words without undergoing considerable reduction.

This is the space where art and design can provide the missing link. Somewhere lays a key that cannot be reached through rationality and information, no matter how big the data. Instead of providing fragmentary solutions to isolated problems, which, as we have seen, often bring new problems, we ought to find forms that embody convergence points where such multiplicities meet, which is to say, forms that, through aesthetic experience, *make sense*. In the words of Simondon, 'it is not the object that is perceived, but the world, polarized in such a way that the situation has a meaning' (Simondon 2013, p. 248).

So, how do we achieve this? Iconic Bauhaus artist and designer Laszlo Moholy-Nagy has the answer: through 'the activation of space by means of a dynamic-constructive system of forces […] instead of static material construction (material and form relations) dynamic construction (vital constructivism and force relations) must be evolved in which the material is employed only as the carrier of forces.' (Moholy-Nagy 1947, p. 232). Such an endeavour not only allows contingency and vagueness, but requires it. It is vagueness that permits adjustment, flexibility and permeability, exchange and integration. Preserving vagueness requires focusing less

on the content of the data, on modelling and simulation, which reify situations into predefined outcomes, and more on the forces carried by data.

13.4 Fields of Tension

Beyond the easily measurable physical forces such as traffic flows, air pressure, and noise level, a wealth of other forces, albeit less tangible, is also at play within the social realm. 'Who can deny that desire and belief are forces?' asked Gabriel Tarde over a century ago (Tarde 1893). Five decades later, J. J. Gibson defined affordances as 'invites' or 'attractions' from the environment (Gibson 1979). Connexions between matter and memory (Bergson 1896), as staged in heritage sites and monuments (Riegl 2016), trigger desires and beliefs, as do special events, commercial activity, advertising, social codes… not to mention the force of emotions and personal feelings. There are also specific material parameters such as sound, quality of lighting, presence of trees, of animals, human activity, texture…. level of maintenance… The list is probably endless, and gathering and analysing comprehensive data about all those dimensions is certainly impossible. To complicate the task even further, it is not only forces themselves that are meaningful, but also their interdependence—something even more difficult to measure. This is why, *in lieu* of embracing complexity, considerable funding and effort is placed in 'substituting plans for actions, and representations of the situation of action, for action's actual circumstances' (Suchman 1985).

My contention is that it is through form that the change of scope from the smart city to the more-than-urban city can be achieved. Whilst the positive impact of functional dimensions of urban furniture (such as benches) in place making is now well documented (The bench project 2015), the role of form has been widely overlooked. What if, instead of considering forms merely in terms of beauty or poetry, or as 'solutions' or responses to 'appointed ends', we envisaged them as tools, for problem framing, for 'polarizing the world in a way that the situation has a meaning', for 'revealing new dimensions and new ways of inhabiting space' (Dunne 2008), and even for producing new data that, interpreted under this new lens, could bring about radically new insights and questions?

To illustrate my argument, I will discuss the case of *Luciole*, a practice-based research project that I have been working on since 2015. Comprised of a network of luminous, reactive and connected public benches, *Luciole* started out as a design project in response to an open call for *Lyon City Design Urban Forum*, an urban design biennial event happening in the city of Lyon in France. As many European metropolitan areas, Lyon is undergoing major transformations that will last for decades. During construction works, citizens will face several issues such as public space degradation and potential feelings of insecurity deriving from that, as well as physical and emotional disorientation due to the loss of symbolic landmarks, mobility issues, and general lack of comfort.

My approach was to look at the bigger picture and, instead of aiming at solving issues on a local level, think in terms of urban dynamics. By placing benches that, just like fireflies, attract visual attention, communicate with each other and trigger responses, users escape the hegemony of smartphones, and benefit from the advantages of the connected city without giving up the simple pleasure of 'being there'. Each bench works as an attractor, inviting users, orienting flows, providing shelter and rest. Light communication between the benches triggers a sense of community, of not being alone in a no-go place, whilst still preserving personal space. Communication with the cloud provides visibility beyond local space, fluid access to multi-modal transportation, awareness of surrounding activities and, importantly, rhythm.

Through light modulations, *Luciole* discretely informs users without attracting direct attention, enabling them to chat, read, or just relax while staying conscious of surrounding activities. At night, it wraps users in a reassuring luminous halo. Its cocoon-like shape triggers feelings of intimacy, making *Luciole* a transitional space, in-between public and private realms. Beyond technological obsession, *Luciole* explores the poetic potential of data as a carrier of forces, weaving dynamic relationships with its environment (Fig. 13.1).

A first full-scale, two-unit prototype was developed and installed in La Part-Dieu (a shopping mall in a central neighborhood near Lyon's main train station) for two weeks. This first experience confirmed some of the original hypothesis regarding the form's potential affordances, and triggered many unexpected interactions (Figs. 13.2, 13.3 and 13.4).

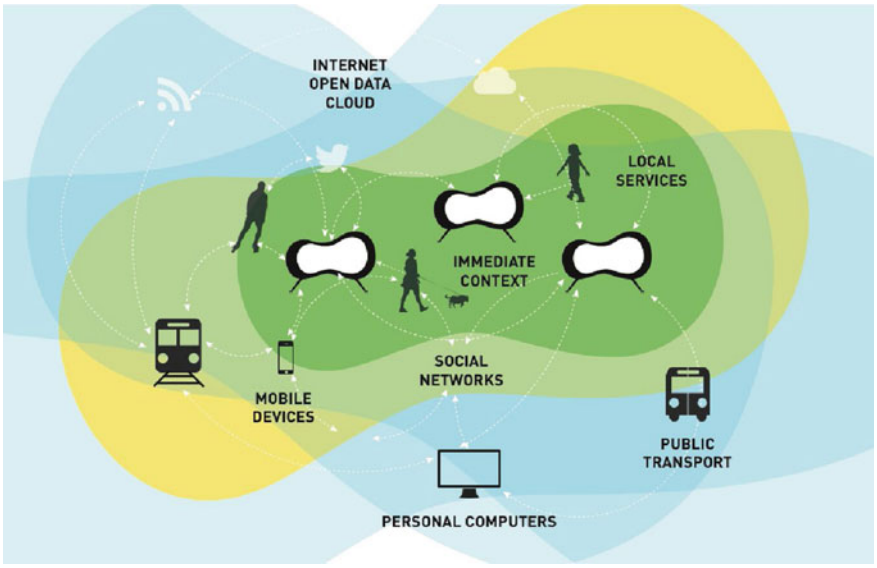

Fig. 13.1 Interaction scheme. Illustration by Carola Moujan

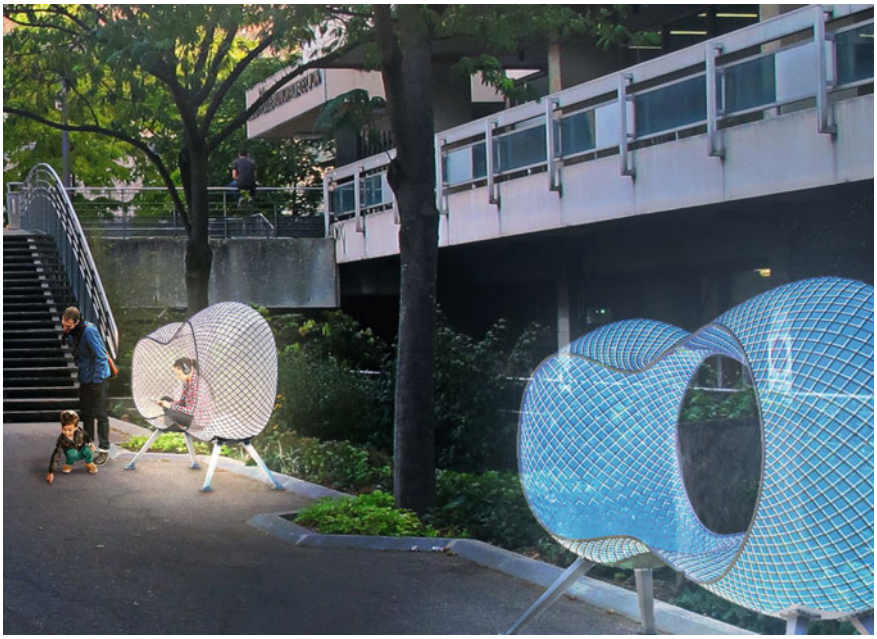

Fig. 13.2 Initial computer render by A43D estudio

Figs. 13.3 and 13.4 Working prototype at La Part Dieu. Images by Carola Moujan

Figs. 13.3 and 13.4 (continued)

Most of the questions raised by the *Luciole* provocation, however, remain open. This is why I have been speaking about a 'paradigm shift', and not simply innovation. The process of implementing a long-term experiment and study on public space beyond the initial two-week exhibition proved to be quite challenging, and revealed the multiple barriers that prevent a project like this one from scaling. What are those barriers? One might things costs are an issue; but if money was the main problem, it would be fairly easy to solve. To develop a fully working prototype, run a study in real conditions and disseminate the results requires 100 times less funding than projects like *SenseCity*. Are the barriers technical, then? Not really: the project can be developed with affordable, open source, widely available components and technologies. The real barriers are cultural. *Luciole* crosses multiple disciplinary lines, mixes diverse professions and fields of expertise that do not usually work together, even within the art and design world.

Moreover, and importantly, conveying the utility of an open-ended platform such as this one without pinning down precise appointed ends can be problematic. The first struggle comes at the engineering stage. *Luciole*'s technical infrastructure not presenting any research challenge, we worked with regular engineers from industry. Communication and mutual understanding with development teams, was difficult, inasmuch as engineers are used to respond to written briefs stating goals and appointed ends in a straightforward and precise manner. With *Luciole* being much more about emergent than given function, this way of working was often in conflict with the very spirit of the project. Not only producing such documents whilst still preserving open-endedness was laborious, but also, many times, aspects that were

not explicitly linked to pre-identified outcomes were deemed gratuitous, often altered or simply neglected, especially when their implementation increased the technical complexity of the whole.

It is tempting here to blame it all on the lack of vagueness inherent to any engineer process, and it is, indeed, an important aspect of the problem, although not of the kind that would be impossible to overcome. The real issue is linked to individuation processes, from both technical and aesthetic standpoints. Whilst production is generally shaped in a sequential manner—first, formulation of needs, second, technical development, and third, implementation—fulfilling the demands of both 'selfs'—the technical and the aesthetic—requires tighter exchange, iteration, collaboration and intertwinement; a way of working that is increasingly well accepted and common within high-tech projects, but less so when complexity does not come primarily from the technical side. Here again, questions of value arise: experimenting in that direction certainly increases direct development costs, and does not necessarily lead to new technical inventions and patents. The fact that, if successful, the project could create value through improved quality of life, falls beyond scope.

This takes us to the second challenge: finding an experimentation site and funding the study. Here is where the problem-framing dimension clearly becomes an issue. In order to justify their need for experimentation before city authorities, private companies, and other stakeholders, design research projects such as *Luciole* ought to prove their innovation potential. Designs are considered innovative when, beyond novelty alone, they deliver value for the intended stakeholders; but value can only be delivered (and measured) after ideas have been implemented. Which is to say that, beyond the artifact, designers are required to design the businesses able to deliver and implement the solution (these days mostly in the form of start-up companies). 'This includes designing business models, strategy and a transformation agenda' (van der Bijl-Brouwer and Dorst 2017). Not only this constraint makes implementation out of reach for many design researchers that do not have the knowledge or the resources to design businesses, or simply do not wish to become entrepreneurs; they may also change the very nature of projects which, in order to comply with standard business model canvases, often derive and lose sight of their original intentions.

In short: innovation injunctions force prototypes that are still in their exploratory phase into sellable products, most of the times before their impact in terms of higher ends such as sense making, urban synergy, and *ecosophy*, has even been explicitly formulated. Here, I am gesturing towards a space for exploration through design practice in its own right, without a preconceived idea of value coming from innovation alone.

Significantly, such cultural barriers seem to have been around for quite a long time. In his account of early British cybernetics (Pickering 2010), Andrew Pickering reports that the *Fun Palace*, a groundbreaking interactive environment designed in 1964 by Cedric Prize in collaboration with Joan Littlewood and Gordon Pask, was never built for similar reasons, in spite of secured funding and considerable political support.

> The Fun Palace failed to fit easily into any of the accepted architectural categories. Not only did it deliberately aim to cut across the usual demarcations – combining the arts, entertainment, education, and sport in all sort of guises […] – the broader aim was to experiment: to see what might emerge from combining these opportunities in an adaptive space. This […] left outsiders to the project free to project their own nightmares on it […] and Littlewood's support dissipated in a fruitless search for a site. (Pickering 2010, p. 369)

Pickering stresses the fact that the designers faced the same problem over and over again: 'the sheer difficulty of saying what the *Fun Palace* was'. This brings us back to the question of language, of its limits, of dimensions of meaning that can be invisible to, or even obscured by, words.

13.5 Form Matters

In *Steps Towards an Ecology of Mind*, Gregory Bateson quotes Isadora Duncan who, in response to a question about the meaning of her work, declares: 'if I could tell you what it meant, there would be no point in dancing it'. Bateson's unpacking of the quote goes as follows: 'If the message were the sort of message that could be communicated in words, there would be no point in dancing it, but it's not that sort of message. It is, in fact, precisely the sort of message that would be falsified if communicated with words' (Bateson 1972, p. 137). The author drives attention here to the non-representative aspects of the work of art embedded in properties such as choice of materials, composition and rhythm. Quite provocatively, he makes his case through the example of Trafalgar Square lions, suggesting that a different choice of animals, such eagles or bulldogs, would not have significantly altered the meanings of imperial grandeur representative of nineteenth century's England idea of culture. But, asks Bateson, would that have been the case if the lions were made of wood instead of cast brass?

To conclude, I would like to update Bateson's language and say that the issue here is not even about message or communication, but instead, about reframing the situation through forms that 'polarize the world', setting the stage for entanglement. And this leads us to a new problem, coming this time from the art and design world. I believe most designers not to be aware of the specifics of their added value in a research context; a situation that makes their contribution far less productive than it could be. The 'data-as-information' paradigm inevitably leads to collapsing design's task into its sole representational dimensions. But design's most valuable potential lies not in the *representation* of data in ways that facilitate *readings* through engaging visuals; nor, as Usman Haque puts it, in 'making another piece of high-tech lobby art that responds to flows of people moving through the space, which is just as representational, metaphor-encumbered and unchallenging as a polite watercolor landscape' (Haque 2007, p. 57). Design's unique contribution lies in its capacity to structure a field of dynamic intertwinement, setting the stage for collective individuation. It is the individuation process itself that leads to new, unforeseeable discoveries.

Designing for the more-than-urban city, thus, is about creating the conditions for unpredictable urban events that reconfigure, renegotiate and reorient a wealth of relationships in such a way that the situation has a meaning. And if we consider meaning as something to be shared by a myriad of selves beyond humans alone, then representation as we, humans, understand it, fails altogether. Following C. S. Pierce and Terrence Deacon, Eduardo Kohn has argued that symbolic representation based on abstract signs such as the lions of Trafalgar Square, eventually go back to simpler, more direct, iconic meanings, and that such meanings, through a myriad of connections with past experience and embodied knowledge, become something larger than the icon itself and the meanings it stands for: clues for action (Kohn 2013). Driving examples from the tropical forest where his own research is situated, the author shows that, unlike symbolic reference which is a uniquely human feature, *iconic* and *indexical* semiotics are not reserved to humans alone, but instead, shared throughout the living realm. This fact suggests that closer attention to form *as form*, uncluttered from predefined meanings and appointed functionalities, could be an important key to building shared, entangled cities beyond the human.

From this perspective, meaning is not embodied, concealed within forms, but instead, emerges from them, in relation and in response to countless factors including the relationships that link forms together. It is in this sense that the digitally augmented city can become more-than-urban: through the setting-up of dynamic-constructive systems of forces, where human and non-human living selves experience 'a heightening of [their] own faculties', and become themselves 'active partners to the forces unfolding themselves' (Moholy-Nagy 1947, p. 238).

A new, constructive way of thinking and designing the augmented city based on what Andrew Pickering has called 'nonmodern ontologies', is needed. And, as the author stresses, to do this type of research work, theory is not enough. Nonmodern ontologies are necessary situated; they emerge from situated knowledge, situated practice and situated actions. Knowledge is situated insofar as, whilst not limited to practice alone, it is generated through practice, allowing for a global reconfiguration of the entire knowledge field, unmaking modern categorizations that conceal them within disciplinary silos and power clusters. Practice is situated insofar as it 'follows the generative flow of materials' and the 'sensitive consciousness of the makers', allowing researchers from diverse backgrounds to learn from each other and from the world, instead of learning *about* it (Ingold 2013). Actions, finally, are situated whenever they actively engage in individuation processes, 'ontological dances' within the field of tensions that makes the pre-individual urban reality. Only then are they truly interactive and conversational; only then they work towards, not against, the emergence of a more-than-urban city, one that takes interspecies communication and collaboration to radically new places.

The more-than-urban city does not end at the limits of what we consider today a great city, only better; it is not just improved urbanism, energy efficiency, or circular economy. It cannot be described through expressions such as 'community empowerment', 'enhanced biodiversity' or 'distributed democracy', for those are effects, not causes. While it is likely that such a city, should it ever come to existence, would provide quality of life and well being for all its inhabitants, measurable indicators

of such improvements will greatly vary from one place to another, for they will also be situated. The forms of such a more-than-urban city will radically differ from that of today's static settlements in ways that are still mostly unconceivable. Responsive to situated actions, regulated by adaptive, entangled living systems rather than by plans, they will bring about new forms of inhabiting space by means of continuous, ever flowing individuation processes, and transform urban life through augmented, entangled, collective consciousness.

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Part IV
Conclusions: Mediated Identities in Place Futures

Chapter 14
Conclusions Conceptualising Locational, Relational and Virtual Realities

NezHapi Dellé Odeleye and Lakshmi Priya Rajendran

Abstract The disciplines of architecture, media studies, urban design, city planning, lighting design, digital design, urban studies, and art represented here, apply a range of paradigms and methods in addressing media-related phenomena. Such diversity makes a critical synthesis both stimulating from a perspective of reflecting on some relatively unfamiliar approaches, and also challenging due to the disparate discourses they each represent. This chapter undertakes analytical summaries of contributions within the three sections, with section overviews synthesising conclusions through a number of key themes arising from the chapter findings and propositions—First, these include the multiple roles that locative media interfaces (both interactive and passive forms) seem to play in individuals' interactions with a range of places at varying scales, and their perceptions of its value. The considerations of how 'framing'—of observation, and of contents—effects either more specific or habitual adoption of these media also recurred in a number of guises. Secondly, in terms of how social-media interfaces with spatial representations, the findings and propositions advanced here, also suggest the potential benefits of gamification interventions and urban props in public spaces, and their required locational /design limitations for effectiveness. An exploration of the level of social interactions facilitated in spaces, used the medium of media screens yielding counter-intuitive results about static versus dynamic locations. The outcomes of multiple applications and platforms in a campus context, appear to be possible outliers in considering both locative and social media (within specific time frames). This was followed by critique of prevailing top-down, data-driven approaches to the 'smart city' in terms of the data neutrality, representational agency and scale problems they have engendered, highlighting the limitation of this dominant narrative. In contrasting these with emerging design counter-practices, opportunities for re-purposing ('hacking') such data platforms for a more localised, collective, inclusive, and bottom-up, 'smart-citizenship' were posed. Thirdly, continuing the focus on technology-mediated public space interventions, the dangers of

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big-data analyses and practices potentially reinforcing existing spatial regimes and inequalities (and creating new ones) was highlighted. In contrast, a compelling case was made for knowledge-based geopolitics 'noopolitics' as a driver of spatial networks—with migrant camps & urban informalities posited as 'counter-laboratories' of future liveability. Place as context for lifestyles was highlighted in the demonstration of how brand operators and developments they anchor, use luxury to characterise new identities in the case of Milan. And finally, if as has often been proposed, media trends are leading to us becoming 'more-than-human', the issue posed is whether our cities need to become 'more-than-urban' in order to usher-in true sustainability—And if so, how might designers help to achieve the needed forms and dynamic actions entailed? We develop concept images visualising these key themes.

Keywords Locative · Social-media · Place · Platforms · Mediation · Social interactions · Smart-cities

14.1 Introduction

The objectives of this chapter are to discuss the literature reviews, case studies, propositions and findings from chapter contributions in each of the preceding sections in turn, then to provide reflective syntheses on their key thematic outcomes—outlining 'conceptual images of these respectively. This leads onto an overview of what any commonalities between these images appear to be indicating about current-mediated realities.

14.2 Sectional Findings and Thematic Propositions

14.2.1 Section A. Placing Media: Locative Interfaces

Through their critiques of various place discourses, Fazel and Rajendran argued in Chap. 2 that media technologies are now an integral aspect of place-navigating and place-filtering assemblages. They view an ongoing process of spatial hybridisation as enhancing the communicative affordances offered by physical and virtual spaces. And they proposed that defining frames of observation are key to whether, and when, locative technologies (such as 4-square) could be either transcendental of space—or could be formative spheres for everyday practices. Media tools and practices from this perspective, thereby oscillate between *constituting* the spheres of place assemblages on one hand, and interacting with relational frames of reference to *transcend* spaces on the other hand.

This theme of how locative media not only mediate interactions, but also reshape environmental perception and social interactions continued in Saker's Chap. 3 discussion. His interpretive findings of user experiences, indicate that this media also

enables personalisation of urban place experiences—through digital 'inscription'. Earlier and more recent forms of locative media including hybrid reality games (HGR) were found to encourage users to explore new routes, better appreciate the existing and to inscribe places, or indicatively through personalisation to abstract them.[1]

In his Chap. 4 exploration of responsive light architectures, Kulkani highlighted a very different form of 'taken-for-granted' technology increasingly influencing lived experiences of the city. He notes that nocturnal urban lighting for nightscapes of the ubiquitous 'evening economy'[2] are shifting our gaze up from smartphones to the fabric of the temporal city. His focus on three layers; streetlights, feature-lighting and network of light systems, as well as 'media facades' serving as screens replicating our now familiar laptop and games screens—outdoors—are symptomatic of this trend.

Through the theatrical and cinematic concept and practice of 'mise-en-scene, which places elements for their productions, 'into/onto' the stage or visual frame, Kulkani posits urban lighting as a media interface—given its assemblages of light layers that comprise a luminous body (siphonophore) or 'multi-celled', co-dependent colony of elements (zooids)—*moving through time, but not space* highlighting in his view, the temporal dimension of such experiences.

These are epitomised in large-array external media surfaces that are becoming larger and more intensely illuminated with diminishing costs. Kulkarni presents them as potential forms of 'Total surface signage', now replacing facades with embedded responsive light-tech. He contends that their effect will be forms of '*phototropia*'—relating such productions of 'reality effects' (i.e. temporal dampening in the city, extending daylight hours)—as suppressions of attempts to withdraw from those effects—a 'ubiquitous lighting' that no one could escape. His view is that such a pervasive 'immersive experience' of advertising and ubiquitous night-time virtual/augmented reality spectacle, seeking naturalisation and fixity would ensure—in this future Foucaltian 'lawscape'—that resistance becomes futile.

Continuing this theme of light media effects in architecture, Lovett's use of moving image projections onto building surfaces in Chap. 5, could be read as a form of locative media curation[3] of the spaces they adjoine in terms of engendering enhanced activity within, and experience of, architectural space. She uses these media installations to explore alternative habitual, haptic and locational relationships with architectural interiors and exteriors as well as its transitional zones, such as openings, stairs and corridors. Her use of lighting installations as cinematic media to heighten

[1] *However Jan Gehl's studies in urban design since the 1970 s, identified a number of environmental conditions for varying intensities of use in publicly accessible spaces, which could help to contextualise Saker's findings in relation to a possible further effect of locative media on such usage*; Jan Gehl, *Life Between Buildings: Using Public Space*; (London: Island Press, 2011); Jan Gehl, *Cities for People* (Washington, london: Island press, 2010).

[2] *A key element of cities' cultural strategies Thomas A Hutton, Cities and the Cultural Economy (Routledge, 2015).*

[3] Michael Bhaskar, *Curation: The Power of Selection in a World of Excess* (London: Piatkus, 2017) examined how the practices of museum curation/'selection', now permeate a wide range of creative and media fields.

place experiences acts by representing overlooked human relations with spaces the media define or enclose in places, though unfortunately, user views and responses were not presented.

14.2.2 Section A: Thematic Reflections

Contributions in this section have explored how forms of locative media technologies, and media interfaces—adapted and used in the context of everyday life practices—have implications for individual spatial relationships within urban contexts. They have also highlighted the varied and increasing use of media technology and lighting media, as locative interfaces—deployed with relational perceptual frames or practice-formative spheres (Faizel & Rajendran); with places in the environment (Saker); with architectural spaces (Lovett); and with the city—not just in spatial terms, *but temporally as well*, through movement, and through informal and dramatic, staged events (Kulkani). This is within the context of the cultural strategies of many cities now being predicated upon the notion of the '24 h city', with a vital and vibrant evening economy considered a key criterion for enhancing urban liveability and visitor attractions.[4]

Beyond the filtering and enhanced navigation of physical spaces, the use of locative technology is emerging as a key contributor to enhanced physical and virtual mobilities, both within and beyond the familiar spaces people inhabit and other spaces they traverse. One might say in relation to locative media influences that; as place is mediated, media are emplaced, and as places make media, media makes place.[5]

As extended, and new platforms for information, communication, for mapping, navigation and making sense of urban environments, locative media are reconfiguring the relationship of users with their experience of architectural spaces, and with the structures and facades that define the public realm of the city. And in so doing, technology is increasingly foregrounding the temporal domain of movement flows and a need to better understand how it connects with our awareness of the spatial—to shape our senses of place, and engagement with localities.

One of the key implications of locative media for this perspective is for our understanding of sensory experience.[6] The notion that our embodied conscious awareness and senses (primarily visual and auditory) and ultimately, the haptic as well—are not only 'physically embodied', but also have temporalised, 'virtual extensions' or

[4]Simona Cavallini et al., "How to Design Cultural Development Strategies to Boost Local and Regional Competitiveness and Comparative Advantage: Overview of Good Practices," Commission for Social Policy, Education, Employment, Research and Culture (Brussels: European Union: European Committee of the Regions, 2018).

[5]Following on from the notion that; *"As place is sensed, senses are placed; as places make sense, senses make place" Keith H. Basso and Steven Feld, Senses of Place (Santa Fe, N.M.: School of American Research Press, 1996).*

[6]Rodaway, P. (2002). *Sensuous geographies: Body, sense and place*. London: Routledge.

complements.[7] And that these can be encouraged to operate in conditioned ways in relation to virtualised spaces—such as the way for instance, in which game designers draw upon, and enact, the principles of physical place-making in the 'real world' to make their virtual environments more experientially immersive for our imagined senses,[8] as simply indicated in our first concept image below (Fig. 14.1).

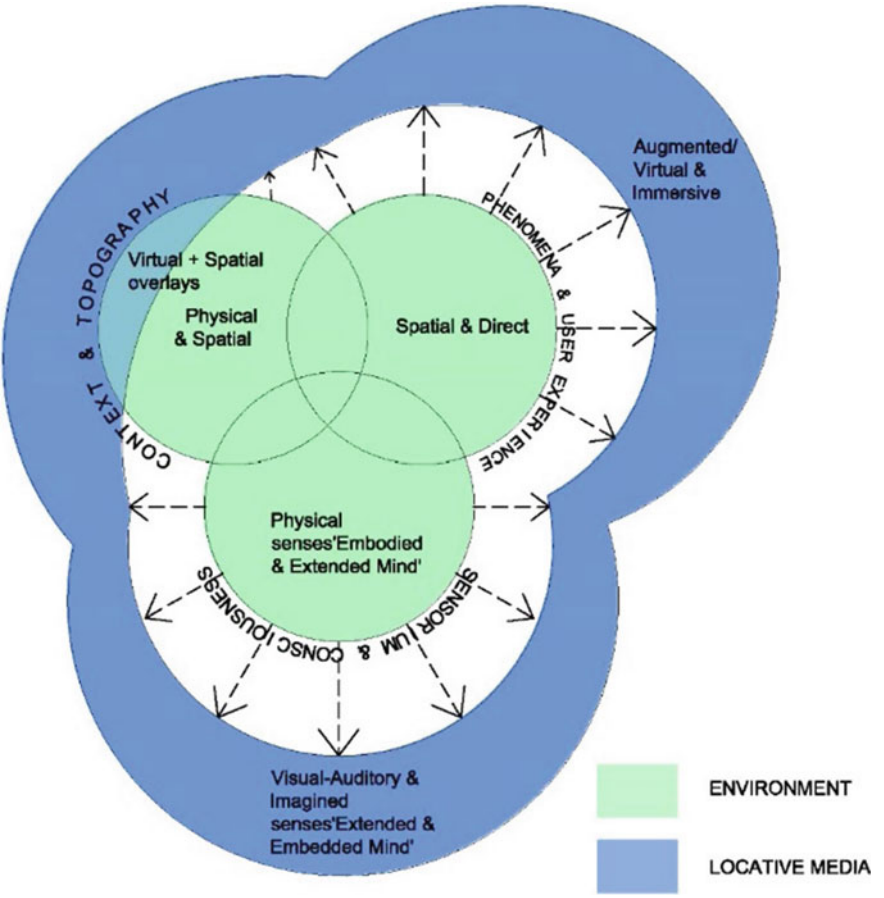

Fig. 14.1 *'Concept Image 1': Space, Perception & Locative Mediations. (n.b: green is spatial & blue, the virtual). Nezhapi Odeleye & Lakshmi Rajendran*

[7] Andy Clark and David Chalmers, "The Extended Mind," Analysis 58, 58, no. 1 (1998): 7–19, The 'extended mind' thesis posits some thought processes involve deploying external objects/structures, which become an extension of cognition, thus, the mind's operation is not confined to the brain, or body, but extends into the environment.

[8] Ricardo Álvarez and Fábio Duarte, "Spatial Design and Placemaking: Learning From Video Games," Space and Culture 21 (SAGE Publications Inc, August 1, 2018), 208–32. suggesting spatial designers could in turn learn from the participatory and story practices of game designers.

14.2.3 Section B. Spatial Representations: Social Interfaces

Moving beyond the individual towards the more social uses of media—Dyer's study (in Chap. 6)—presented findings about the range of location-based social network (LBSN) applications and platforms used to support new students, before and during their transitions to university. He used these applications in analysing the way higher education environments are experienced as socio-academic and physical spaces. The platforms ranged from Facebook (for socialising) and group chats (for peer-learning), to Twitter—the latter being seen as having greater informative and educational value.

His study reiterated new students' higher expectations of university 'as a service'—ranging from their search for value-for-money, given high UK tuition fees–to the expected availability of media-tech convenience, constant contact hours with tutors, and personalisation capabilities. This arises from the now neo-liberal, marketplace-led context of UK higher education—a context which drives the need for more students to work, rendering their physical presence on campus, 'a luxury'—with their university experience now seen in transactional terms.

Social media in this context, seemingly bridges spatial absence with virtual access to learning, facilities and inclusive peer interactions. Media-tech is thereby enmeshed in the transition to university, in access to the resources offered, and to other students. However, these media applications and platforms, also define and constrain students' space for agency (arising from cultural /racial profiling tendencies) with implications for widening HEI participation goals.

Dyer's findings thereby critically highlights the benefits and risks inherent in how experiences from such platform-mediated representations, help to shape students' individual and cohort identities within their new academic and wider cultural contexts. Consequently, such LBSM modulates their 'affordances' for learning and socialisation at university.

Hilla & Efrat's explorative Chap. 7 study of the relations between public media screens, the play opportunities they afford, within particular urban settings—and the level of social interactions facilitated, in virtual, 'third-spaces', adopted a complex interventionist approach. Their study found strong correlations between the take-up of play, level of verbal communication, and location type—with static locations (perhaps counter-intuitively) being more effective than dynamic locations. This highlights the importance of context, and has potentially very useful implications for the location and design of such urban game props in city planning interventions.

The roles played by location-based social network (LBSN) platforms in urban space design were critiqued in Cameron's Chap. 8 analyses of the trends in consumption patterns and practices facilitated by digital place-making. His exploration of technology-mediated public space interventions and discourse management, revealed themes of co-option of local narratives, given the level of public/private investment

in 'activating' redeveloped public spaces (via community-based or non-profit curators of public art, other creative installations, and/or urban event organisers)[9] to the service of global, corporate interests.

The way such mediated public spaces in the West, particularly exploit LBSNs user data to direct public space design for commercial purposes, in his view, contradicts academic discourse about the interactive, community engagement effects of LBSNs. This is problematic, given that proprietary interests regulating access to spaces are no longer just landowners, but now include media-platform and network owners deploying comparable structures and interfaces. Control over access to physical and virtual sites is maintained by a 'hidden geography' of their relationships. Cameron highlights a centralising tendency of both spatial and digital controls to ensure consumption and associated values of rents /advertising. And he argues this is evident in subtle urban design interventions mediating control of behaviour in public spaces for private, commercial interests. This has implications for how data is used to reshape urban discourse in target populations.

Cameron's contention is that urban designers need to reframe their understandings about the nature of public space and its relation to cultural production—by realising that Habermas' idealised 'public sphere[10]' is no longer bound by physical space. And it emerges instead from complex relations in conflictual sites (rather than being intrinsic to specific places). This perspective in his view, indicates that cultural production (including the media technologies facilitating this) needs to be understood as a *means* of leading and *shaping* public space, rather than being merely located *within* it.

As an assemblage of sensor networks, digital technology and interactive mobile devices and apps, the digital infrastructures underlying the 'Smart City' concept and its corporate-produced dashboards, are the focus of Chap. 9's interrogation by Paredes-Maldonado of their actual and potential urban policy influences. In particular, the big data from locative platforms, social-media feeds and transport, are the bases for his *critique of their policy and decision-making influence in urban governance.* He problematizes their assumed objective spatial representations, in terms of data neutrality, and the top-down approaches to optimisation-based, interacting 'flows' of information, energy, materials and service delivery they engender, personalisation and sustainability rhetoric notwithstanding—thus highlighting the limitations of this dominant narrative.

In contrasting the spatial representations and practices of these smart network 'meta-infrastructures'—with existing forms of collective interventions and emerging

[9] *In B. Cannon Ivers, Staging Urban Landscapes, The Activation and Curation of Flexible Public Spaces (Berlin, Basel: Birkhäuser Verlag, 2018), he and his contributors demonstrate the extent of this recent practice in urban design, using international case studies.*

[10] *Termed 'the public realm' in urban design discourse and practice* O'Sullivan, N. (2009). The concept of the public realm. *Critical Review of International Social and Political Philosophy, 12*(2), 117–131. See also *Jan Gehl, Cities for People (Washington, london: Island press, 2010) and* Kevin Lynch, Tridib Banerjee, and Michael Southworth, *City Sense and City Design: Writings & Projects of Kevin Lynch*, The MIT Press (Cambridge, Massachusetts: The MIT Press, 1995).

design counter-practices—Maldonado poses opportunities for re-purposing ('hacking') of big-data selections, organisation and interpretations from such platforms—for a re-constituted, creative, and bottom-up, 'smart-citizenship'. These and other forms of 'digital dissent', he suggests, resituate the focus of spatial actions and representations at finer-grained, citizen-level narratives in the public realm and urban commons—rather than at the coarser-grain of a city's assembled entirety.

14.2.4 Section B: Thematic Reflections

Through the explorations and studies of LBSNs in this section, a number of recurring themes emerge as being seemingly central to prevailing social interfaces with media technology. The first is their ability to focus social interactions around existing and potential opportunities within particular spaces. This ability was demonstrated in examples (such as university campuses in Dyer's study, and Hilla & Efrat's interactive screens in residential locations). It was also featured in varying dynamics across an entire urban area (Maldonado's smart city) and around issues within places of local interest (Cameron's public space interventions).

Second, both Cameron and Maldonado also analysed the deployment of such media by land-owning, corporate and state entities in shaping discourse about public spaces—by either appropriating local historical character narratives to promote market-led 'redevelopment and 'regeneration' interventions—or by framing new big-data-led, strategic mappings and narratives of an entire city to emphasise its global resource 'flows'—which by seeming to be scientific (and thus 'objective') representations, have a totalising effect on prior, more finer-grained, localised discourses. This recalls an earlier critique of digital-design tool limitations which emphasised the need for designers to make; '*… a critical distinction between lived-space and geometric space, between the experience of place and the geometric simulations which are a means to its effective transformation*'.[11]

Third, Dyer, Cameron and Maldonado's findings highlight the way in which media platforms now extend private ownerships to virtual spaces, further influencing access to the public commons through these ephemeral 'plot'/'lot'/web-'site' holdings, particularly as they highlight that individual and group profiling through LBSNs maintains or reinforces the stereotyping or marginalisation of minority groups and disenfranchised others considered as being either at odds with state or corporate interests, or as 'not belonging' in certain spaces (e.g. a university campus).

And fourth, their analyses show how activists and local communities, are also responding by adapting their traditional resistance approaches to the new opportunities provided by social interfaces in order to promote their own place-based, or 'community of interest', perspectives with LBSNs dissent practices—And how such groups are learning to deploy their own counter-mapping exercises and narratives

[11] Kim Dovey, *Framing Places: Mediating Power in Built Form*, Architext Series (London: Routledge, 1999).

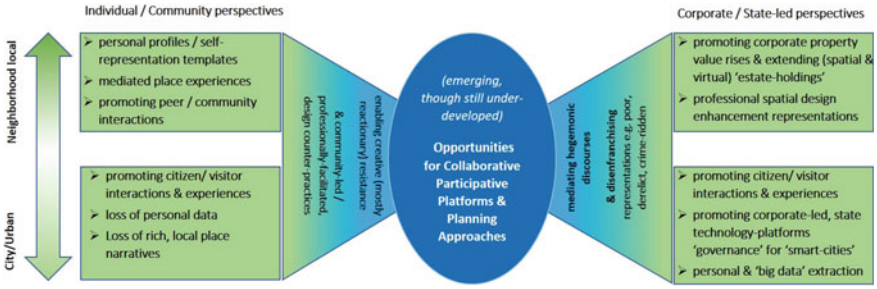

Fig. 14.2 *'Concept Image 2'-Actual & Potential Uses of LBSNs interfaces. (n.b: green is spatial & blue, virtual). Nezhapi Odeleye & Lakshmi Rajendran. (Adapted from descriptions in Dyer; Setton, Eizenberg; Cameron, & Paredes, 2019)*

in organising opposition to neo-liberal appropriations of space, labour and time, represented as optimised 'resource flows'.

Together, these themes suggest ways in which the *forms of representations* enabled by differing media interfaces and scales—those valorised by real and virtual estate owners, on one hand, and by local communities on the other—are reshaping the media-led discourses employed by extant interests—influencing individual and group identities in relation to urban space and place management, as well as social interactions. See our depiction of these themes in concept image two (Fig. 14.2).

14.2.5 Section C. Spatial Cultures: Mediated Identities

The explorations of technology-mediated, public space interventions within accelerating urbanisation processes, continued within Erikson's critical analyses in Chap. 10, of LBSNs role in facilitating the emerging nature of cities as '*big-data-mining*' sites, with ecosystems enabling digital and spatial regimes that perpetuate injustices (led by capital-based, growth imperatives). His narrative highlighted the notions and types of agency now possible, from the new knowledge and spatial practices these media technologies are generating.

A key aspect is the often taken-for-granted, but value-laden power of maps—further heightened by digital, 'real-time' mapping for instance, of crime, public health or disease in places and their peoples. Such profiling he argues, entrenches fear politics and foregrounds institutionalised, stereotypical responses to section of cities and their problematized, resident populations. By examining the role of organisations within the big-data ecosystems, and the privacy of personal data extracted through user smartphone apps, mixed with inherent bias issues in data selection, representation and decision-making algorithms, Erikson was able to probe the effect of geographical applications in data-driven mapping visualisations of neighbourhood profiling.

These he argues, highlight and marginalise, spatially-bound communities perceived by state (and related-corporate) entities, to be deviant or a threat, supporting

'negative institutionalised' oppression. Such mediated, institutionalisation of urban fear is posited by Erikson as serving[12] to promote in majority populations, anxiety and insecurity-inducing perceptions towards minorities, immigrants and people of colour. And these may serve to legitimise place-based, 'predictive policing' (a form of politically-led, premediation of future events).

There is consequently in his view, a danger of big-data analyses and practices, reinforcing existing spatial regimes, injustices and potentially creating new ones. Given their highly racialised and complex dynamics, contemporary cities now embody what Erikson refers to as; 'the urban paradox'—where on the one hand, they are spaces of top-down, militarised inequalities—and on the other hand, also locations of bottom-up resistance and subversion of dominant, capital-led, 'urban regeneration' rhetoric. However, the latter response increasingly relies on 'digital trans-urbanism'—cutting across the earlier mentioned, socio-spatial regimes, and using citizen-sourcing of LBSNs methods (separated from corporate interests) to facilitate ongoing social movements to 'reclaim public space'.

It was also proposed in Chap. 11 by Lopez-Marcos, that the geo-politics of knowledge (noopolitics) have been a significant spatial network-generator.[13] The role of increased migration challenges in her perspective, both in terms of placings and communications, has been to blur anew, an EU identity that has always been in flux. She demonstrates relations between populations in various urban refugee and migrant camp examples that embody the use of 'counter-laboratories' for urban separation and removals. Marcos' thereby aims to extend Agabien's original (2008) counter-laboratory concept in which spaces emulating enclave conditions, such as ghettos, informal districts, etc. serve as unwitting 'experimental-testbeds' of future habitability limits—in which noopolitical strategies (including biometric databases, and media propaganda/debate) foster increasing levels of precarity in the inhabitants from both formal and informal processes. She likens these counter-laboratories as being the reverse of Lefebvre's anti-hegemonic 'counterspace' (1991). Her examples of inhabitants resisting the bases of their counter-laboratories as human storage facilities (located away from urban opportunities and media attention)—also interestingly involves local activists and residents in some countries, 'hacking' or repurposing various monitoring maps, informational tools and creative projects—to humanise and offer migrants access to city spaces, facilities and social infrastructure, from which they are otherwise excluded.

Shifting to the economics and spatiality of identity production, the focus of Mario Paris' Chap. 12 study—evidences how brand operators and the developments they anchor, use luxury to characterise new identities in the city of Milan, although the

[12] *In parallel it is suggested, with a 'pre-mediation' of future events by sections of the mass/broadcast media.*

[13] *Noopolitics is thereby posed by Marcos, as strategies that encompass and produce, spatial transformations (on top of its presumed) 'soft-mediation' effects.*

meta-processes of mediation[14] and mediatisation[15] he examines are not unique to that city. By tracking the revenues, geographies and spatial practices of the three main luxury goods companies in Milan, he interrogates the multiple dimensions of the concept and how it is represented in aspirational lifestyles, through a cross-cultural field of meaning linking values and actors to a global industry of brand producers and developers. Their application of the luxury aspirational concept effects the transformation of identities in parts of the city and across a network of prestigious cities, characterised by exclusiveness and space colonisation—using high-profile media technology and events, e.g. fashion week on city screens and dramatic showrooms /experimental shops.

Mario demonstrates that through the resources they command, using key parts of the city as their canvas, luxury-led developments catalyse urban processes of segregation, gentrification and appropriation of value-laden, heritage spaces—consequently affecting not just luxury goods customers, but everyone else as well—both in terms of their daily practices, but also their image of the city. And that this is facilitated in large part, not only by the spatial representation platforms employed by built environment professionals in producing and promoting these spaces—but also by the range of locative media /location-based social networks (LBSNs) other social networks, as well as the print and broadcast media campaigns of the luxury developers and brand operators. The effect of such 'mediatisation', Paris argues, is to reduce the perception of Milan's identity, into a simplified set of iconc images, using a fragment of this identity to represent the whole system.

Finally, illustrating the notion of life imitating art, and drawing upon Theodore Sturgeon's classic 1953 speculative-fiction character,[16] Moujan's Chap. 13 proposition takes his notion of flawed multi-individual constituents nonetheless, comprising a whole, 'supra-human' ('more than-human') evolutionary-enhanced gestalt entity—and extends it up to the scale of human settlements. The cited context being our need for alternative, non-anthropocentric routes to sustainability—renewing interest in the implications of Sturgeon's 'homo-gestalt' for urban and media-tech researchers. Her analysis of its applicability in urban spaces as 'Umwelts' (surrounding worlds) emerging from complex biological, social, technical and spatial interactions—suggests a potential for urban augmentation.

What is interesting and useful about this, is that from her analysis, the Smart city paradigm rests on a blind-spot of theoretical performance which currently is, and will remain, just out of reach of actual performance and limits (the performance 'gap'). She therefore argues it is not the tech-devices, features, actors or their attributes etc.

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[14] *According to Stig Prof Hjarvard, The Mediatization of Culture and Society (London: Routledge, 2013), kindle 560-563) "Mediation describes the… act of communication by means of a type of media in a specific social context…" (cited in Ruddock, 2017, 83).*

[15] *Mediatisation theory by Hjarvard Ibid. media shapes and frames process of discourse to transform communication and society, although this is contented. See also; Andreas Hepp, Stig Hjarvard, and Knut Lundby, "Mediatization: Theorizing the Interplay between Media, Culture and Society," Media, culture & society 37, 37, no. 2 (2015): 314–24.*

[16] Theodore Sturgeon, *More Than Human* (Farrar, Straus and Giroux, 1953).

that are themselves important, but rather it is the *forces* they embody and contribute, which could synergistically generate Sturgeon's augmented entity.

A further blind-spot is posited as being the increasingly acknowledged partiality of a human-centric approach to sustainability—at the expense of non-human actors and features likely crucial for achieving true sustainable development. Consequently, Moujan contends that mere 'diversity' is inadequate, and neither technological nor human-centred stances are sufficient to achieve sustainable urban augmentation. And, the 'more-than-urban' should trigger *individuation processes* that serve to interlink multiple dimensions (bio-/tech-/spatial/historical/political) of cities.[17]

As an alternative to the prevailing perspectives of digital technologies, as merely being tools using data as information, juxtaposing them simplistically, she suggests instead—in part through a set of small interventions, using city bench installations as attractors—that we ought to perceive public spaces as '*force-fields*' for entangled relationships, where data is in tension between 'more-than-human' components—losing their individual attributes to become a whole. This process, it is proposed, triggers '*individuation*' processes, interweaving and linking multiple dimensions (spatial, biological, historic and political). And they call for urban epistemologies that recognise the sensory and experiential, including the *ways of knowing of other species.*[18]

Moujan adapts Suchman's concept of 'situated actions' as ad-hoc responses to others and to situational contingencies.[19] This concept was based on a key identified limitation of machines (i.e. their disconnection from a living milieu)—an insensitivity precluding nuanced responses, despite programmed reliability. We can either (in Suchman's view) aim to sensitise them via bigger data and AI (akin to the European navigational approach of 'following a plan')—or we can design structures and systems enabling situated actions (akin to the indigenous Trukese society's 'objective-based' method)—adaptive steering according to environmental circumstances.

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[17] [Darlan Meacham, "How Low Can You Go? Bioenactivism, Cognitive Biology and Umwelt Ontology," Humana.Mente Journal of Philosophical Studies 9, 9, no. 31 (2016): 73–95] *also draws upon protein behaviour studies of* [Jacques Monod, *On Chance and Necessity*, ed. Francisco Jose Ayala and Theodosius Dobzhansky, Studies in the Philosophy of Biology: Reduction and Related Problems (London: Macmillan Education UK, 1974), 357–75] *and* [L. Kováč, "Fundamental Principles of Cognitive Biology," 6, 2000, 51]—*as well as* [*Ladislav Kovác, "Life, Chemistry and Cognition: Conceiving Life as Knowledge Embodied in Sentient Chemical Systems Might Provide New Insights into the Nature of Cognition," EMBO Reports 7, 7, no. 6 (June 1, 2006): 562–66] in highlighting ongoing attempts (such as that by* [Ezequiel Di Paolo, "Extended Life," Topoi 28, 28, no. 1 (2009): 9–21] and [Paulo De Jesus, "From Enactive Phenomenology to Biosemiotic Enactivism," Adaptive Behavior 24, 24, no. 2 (April 1, 2016): 130–46] *to extend the applicability of 'bio-enactive' ideas across varying phylogenetic levels of biological scale—and even beyond, to include artificial systems, in more recent 'non-species-specific', 'non-bio-chauvinist' perspectives of cognition.*

[18] After Shannon Mattern, "Interfacing Urban Intelligence," Code and the City 49, 49 (2016): 60.

[19] After Lucy A. Suchman, *Plans and Situated Actions: The Problem of Human-Machine Communication* (New York, NY, USA: Cambridge University Press, 1987) cited in Moujan Chap. 13.

A key barrier to actualising this conceptual approach, she argues, is the Western social-science reliance on prose language, though the physical sciences rationality and equations-based reliance are also deemed inadequate. The key in her view, are '*forms*'—using these to embody /convey the systems of *carrier forces, tensions and multiplicities* that make sense, and *generate a dynamic construction of wholes.*[20] This would consider forms not as solutions, nor responses to aims, nor simply as aesthetics—but rather, as 'problem-reframing', and 'world-polarising' tools, revealing new insights and meanings. Thus, the prospect she offers, is the importance of setting the scene for *entanglement*, and structuring a field of dynamic, intertwinement—enabling a collective 'individuation' process that is creative.

Moujan recommends that designers of a 'more-than-urban' city, need to '*go back to simpler, iconic meanings*'[21]—as these transcend human cognition—being shared by the wider living milieu. This leads to her stated need for *non-modern ontologies,*[22] suggesting theory is not enough for realising the augmented city. Consequently the situated knowledge, situated practice, and situated actions of non-modern ontologies are posited as facilitating a reconfiguration of practice-generated knowledges (but not limited to these) enabling researchers to learn from others and from the world, as well as from texts. She argues , such openness could help realise the inter-species communication required by the 'more-than-urban' city –going beyond a tweaked urbanism, dealing with underlying *causes and not just effects* (such as empowerment, biodiversity, etc.).

14.2.6 Section C: Thematic Reflections

The themes from this section all highlight aspects of an emerging futurity, in terms of intensifying urban *processes*, mediated *spaces* and spatial *forms* all implicated in the ongoing re-negotiations of urban identities.

On *process*, all the contributors explored the extent of varying modes of urban mediatisation—from the urban data quarries of the smart city (Erikson) and informal city districts, to counter-laboratory camps within cities and/or on their periphery (Lopez-Marcos). And ranging even further, from the privileged luxury-venue-making in Milan and similarly exclusive designer-branded districts featuring events of consumptive excess (Paris)—to the theorised integrative processes needed to trigger a future 'trans-species' augmented 'trans-urbanism' (Moujan).

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[20] See Kevin Lynch, *Good City Form*, The MIT Press (Cambridge, Massachusetts: The MIT Press, 1984), *which set out his criteria for form-based theory and policy*.

[21] After Eduardo Kohn, *How Forests Think: Toward an Anthropology beyond the Human* (Univ of California Press, 2013) cited in Moujan, Chap.13.

[22] After Andrew Pickering, *The Cybernetic Brain: Sketches of Another* Future (University of Chicago Press, 2010) cited in Moujan, Ibid.

Abstract, mediated *spaces* at the global level, were conceptualised by the noopolitics examined by Lopez-Marcos, related to the emerging concept of a knowledge-based 'noosphere'—a further proposed level to that of the existing geo-/bio-spheres—and preceding a more recent 'infosphere'—theorised as a 'planet-wide mental realm' linking media with cyberspace.[23] Within this conception, the myriad communication devices (cable, satellite, internet, mobiles, print, and broadcast) which anchor the infosphere to physical reality, also cumulatively multiply the effects via their hyper-connectivity—and deploy interactive media, to extract value-enabled content from unpaid web 2.0 crowd-sourced, contributors.

In terms of *form*, we see this as defined by a set of criteria following Goethe's original morphological focus on the appearance, function and structure of organic entities.[24] The subsequent schools of morphology in linguistics, geology and other fields have specific definitions of form in their domains. within geography and the built environment disciplines of architecture, urban planning and urban design 'urban morphology' has made progress in articulating its relevance to historical, urban-structure and sociological analyses of morphogenesis—translating these from urban 'character' and 'growth'[25] analyses into more recent, prescriptive approaches to form-based, urban design-coding.[26]

Issues of mediated form arose from types of representation, infrastructural dis-/organisation (counter-laboratories), and patterns of location/distributions of exclusive developments for luxury consumption across the city (Milan). Intriguingly the constitution of a supra-urban, sustainable city form, was hypothesised as comprised of flawed human and bio-diverse individuated components. This was proposed as undergoing a process of situated, adaptive actions to induce a 'more-than-urban' wholism—And is predicated upon *form* and non-western ontological perspectives, being key to resolving mediating forces.

These propositions echo aspects of a number of theoretical concepts, despite some differences in detail—e.g. Husserl's inter-subjectivity; Latour's actor-network theory, and Foucault's bio-politics.[27] So how are mediated process, space and form dynamics seeming to influence the interactions of mainstream and minority groups, including campus students, people of colour, gendered, and local communities within

[23] After *John Arquilla and David Ronfeldt, The Emergence of Noopolitik: Toward An American Information Strategy* (RAND Corporation, 1999).

[24] Robert Bloch, "Goethe, Idealistic Morphology, and Science," American Scientist 40, 40, no. 2 (1952): 313–22. And F R Amrine, Francis J Zucker, and Harvey Wheeler, *Goethe and the Sciences: A Reappraisal*, vol. 97, 97 (Springer Science & Business Media, 2012), vol. 97.

[25] JWR Whitehand, "The Basis for an Historico-Geographical Theory of Urban Form," Transactions of the Institute of British Geographers, 1977, 400–416.

[26] Notably through New Urbanism's *Smartcode*' in the US, and its informal *'Design Code'* adaptations in the UK.

[27] After Edward Husserl, *Cartesian Meditations* (Dordrecht: Kluwer, 1988). Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory (Clarendon Lectures in Management Studies)* (Oxford University Press, USA, 2007) and Michel Foucault, "Society Must Be Defended," Picador, 2003, 242–243.

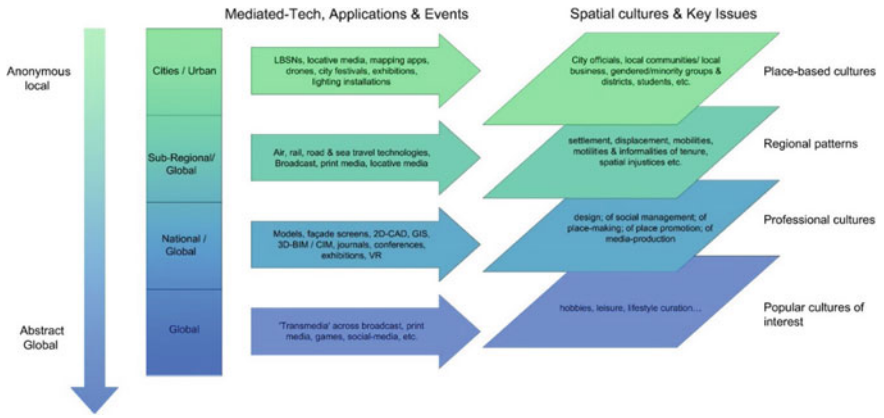

Fig. 14.3 *'Concept Image 3'—Media & Spatial-Cultures. (n.b: green is spatial & blue, virtual). Nezhapi Odeleye & Lakshmi Rajendran*

broad emerging trends? The second concept image (Fig. 14.2) had sketched a summary of neighbourhood to city-level representational discourses. However, urban cultures have also become more dynamic and fluid due to what Petcu[28] refers to as 'extra-territorialisation' ('anonymous local' and 'abstract global')—sites where identities are formed, reconstituted and evolved with no clear reference to any territorial boundaries, though variously operating within and across scales, as reflected in our third concept image below (Fig. 14.3). One may speculate about the extent to which the layers depicted might 'upscale' emerging notions of 'cognitive biology' into a 'cognitive sociology'—but more on this later.

14.3 Overview: Mediated Realities

Taken together, the three concept images help visualise a scale transition and layered coexistence—ranging from a focus on individual experiential outcomes grounded in, and extending the human sensorium (or selected parts of it) and how locative media aims to facilitate place-related 'sense-making'—towards LBSN media tools and platforms aiming to extend the capabilities of groups to 'make-sense' of their neighbourhoods /public spaces—and serving to thereby enable capabilities to interact, represent and communicate, shared local narratives of 'the public good' in their localities (in opposition to, or countering external perspectives of legitimising narratives for proposed changes)—culminating in media platforms shaping city- regional

[28]Radu Petcu, "Government Surveillance, Neoliberal Citizenship, and Social Identity," Review of Contemporary Philosophy, no. 14 (2015): 126–31. And Radu Petcu, "Order and Change in International Politics," Geopolitics, History, and International Relations 5, 5, no. 2 (2013): 82–87.

opportunities & global mobilities through representations that serve to include, control access to services &/or exclude target populations. But how might such trends influence identity in these changing places going forward? This is explored in the final Chapter.

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Chapter 15
Mediated Identities in the Futures of Place—Towards a Conceptual Frame?

NezHapi Dellé Odeleye and Lakshmi Priya Rajendran

Abstract Our theoretical approach considers cognitive and identity issues relevant to the locational, relational and technology-mediated concept images developed from thematic analyses of contributions in this collection. It probes the extent to which commonalities in these and wider implications for emerging practices and spatial cultures—suggest a means by which alternative outlines of 'place' notions could be explored—in terms of contemporary locative, social and identity-generating experiences and constructs? Could an indicative, media-based, 'Concept Frame' provide a basis for conceptualising emerging forms of mediated identity in place futures?—If so, what are key features of such a framework, and how might this, and other frames be interrogated, reconfigured and shared across disciplinary boundaries?

Keywords Media · Place · Futures · Practices · Identities

15.1 Introduction

The objectives of this final chapter are firstly, to develop a general discussion situating themes identified in 'conceptual images' from the preceding summary Chap. 14.

Secondly, we consider perspectives on cognition and the implications of its locus across broader contexts of discourses on the role of media, spatial cultures and place concepts within notions of futurity—as seen from our phenomenological, built environment disciplinary perspective, outlined in Chap. 1.

Finally, we attempt an integration of our conceptual images with these perspectives—and outline a preliminary, 'conceptual frame' of generic scenarios in evolving city futures and dynamics that may be shaping mediated identities within them.

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15.2 Social-Spatial Conceptualisations, Mediated Tensions and Integrations

The contributions in this collection representing a range of disciplinary perspectives, and discourses; including from geography, media, cultural studies, urban design and architecture, nonetheless share some key themes, related to human experience of the city and the changing relations between people, digital interfaces, network culture and the effect on places.[1] Their disciplinary discourses span issues initially raised by Stuart Hall's (Hall et al. 1980) communication 'encoding-decoding' theory, notions of representational modes and perceptual reception history,[2] to the increasing fluidity of cultural identities; ongoing and potential oppression of particular groups; and the role of post-Gramscian views of cultural hegemony[3] or post-hegemonic issues, particularly in relations to place-based experiences and ongoing spatial transformations.

In order to further situate these issues within broader streams of discourse, particularly in view of our aim of probing the media-technology effects on contemporary conceptualisations of place, and its relation to factors related to identity, a couple of seeming detours will be made next, to bring in other perspectives that may be useful in framing potential future scenarios.

15.3 Consciousness, the Self, Cognitive Psychology, Biology and Sociology

The concept image (Fig. 14.1) of themes arising in the locative media reflective section (of Chap. 14), brought in the notions of the 'extended mind', a theoretical approach from cognitive psychology and philosophy, which has over the past two decades, challenged the orthodox 'neuro-functional' model in cognitive science—a field not often represented in general media related discourses, yet with interesting insights. The standard view considers the mind as being derived from the functioning of neural 'hardware' processes (a computing metaphor)—the subjective 'mind-inside-the-brain' school of thought, which considers the world as being objectively 'out-there' in a positivist sense. This model views the brain as being our only cognitive source with its evolutionary-based features directed towards survival over the course of human evolution.

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[1] Dana Cuff, "Immanent Domain," Journal of Architectural Education 57, 57, no. 1 (September 2003): Also Mark Shepard, *Sentient City: Ubiquitous Computing, Architecture, and the Future of Urban Space* (Architectural League of New York New York, NY; Cambridge, MA, 2011), pp. 43–49, and Saskia Sassen, "When the Center No Longer Holds: Cities as Frontier Zones," Cities 34, 34 (October 2013): 67–70.

[2] *Hall, Stuart. 1980. Encoding, Decoding. Culture, Media, Language. London: Hutchinson.*

[3] *Procter, J. Writing Black Britain 1948–1998: An Interdisciplinary Anthology. Manchester University Press, 2000.*

This survival, is also reflected in learning self-to-place-/self-to-others relations, both crucial stages in infant development. And it has been proposed these stages, require four types of knowledge; (a) of where we were/are (i.e. spatial positioning issues); (b) of what might next happen; (c) of whether it would be good or bad, and (d) of how to respond (i.e. temporal action issues).[4] The spatial depends on perception of the immediate environment (local) and mental schemas of its wider setting (global). We tend to emphasise the information potential, and opportunities in environmental scenes and objects, particularly those that increase our understanding of their capacity for our involvement—i.e. richness of current/future possibilities or '*affordances*'.[5]

Given that the standard cognitive view has been unable to account for humans' conscious 'first-person' mental awareness—particularly as environmentally-situated, mentally-interactive beings, even the more recent 'symbolic/connectionist', computer-based models of this standard neuro-cognitive view have also been challenged for not being grounded in our biological evolutionary context—i.e. unable to explain the situational aspects of mind. This required a new approach—able to address the assumed split between the 'inside/conscious mind' and 'outside/objective world' that led to consciousness evading scientific probity.

A theory of the 'embodied mind' and its perception-based, 'enactivity' introduced in a seminal text by the Chilean psychologist, Franscico Varela and Evan Thompson, set out a then new conceptual framework for cognitive science[6] suggesting a more inter-subjective or 'enactive' model. Enactivism questions the central notion of cognition being representational and comprises 3 propositions: (a) *Embodiment*—mind embodied in a whole organism embedded in the environment; (b) *Emergence*—embodied cognition constituted by emergent and self-organized processes interconnecting brain, body, environment; and (c) *Self-Other Co-Determination*—in social creatures, embodied cognition emerges from dynamic co-determination of self and other.[7]

Drawing upon this work and others in a diverse range of fields including robotics, child development and Suchman (1987) theory of situated cognition, Chalmers and Clark's landmark 'extended mind' hypothesis pushed the boundaries further into the wider environment. Interestingly, three of their original case examples of extended cognition, involved computer screens. They proposed that the 'brain-mind-external-environment-object'—often acts as a coupled system which qualifies as being cognitive, given that losing one part of this coupling, would lower the overall system performance, just as would result from removing part of the brain.[8] And cases of

[4] *Kaplan, S (1973) Cognitive Mapping and Spatial Behaviour, in R.M. Downs and D. Stea (Eds.) Image and Environment, Edward Arnold, London.*

[5] *Gibson, J.J. (1977) The Theory of Affordances, in R.Shaw and J. Bransford (Eds) Perceiving, Acting and Knowing, Erlbaum, New Jersey, pgs. 76–82.*

[6] *Varela, F; Thompson, E and Rosch, E (1991) The Embodied Mind: Cognitive Science and Human Experience, MIT Press, Cambridge.*

[7] *Thompson, E (2001) Empathy and Consciousness Between Ourselves, Journal of Consciousness Studies 8, pgs. 5–7.*

[8] Andy Clark and David Chalmers, "The Extended Mind," Analysis 58, 58, no. 1 (1998): 7–19.

long-term blind people regaining their vision after surgery—showing that most have great difficulty making sense of what they see—confirm that *direct contact with reality* is necessary to build up any cognitive map (visual, tactile, etc.) of the environment, and that data from one sensory experience need not be limited to that mode alone[9]:

> Through the process of physically exploring the world during early development we synthesise all our senses—sight, smell, touch, etc.; building up a cross-modal' account of our environment that allows us, for example, to 'see' roughness from a visible texture, 'feel' shininess by the gloss of a material or 'hear' different kinds of space. It is this capacity that enables people deficient in one sense to develop compensatory abilities in others.[10] (Our emphases)

This is relevant to mediated experiences, including locative media, film and virtual representations, which provide visual and/or auditory stimuli, such as depicted in gaming, for instance, as well as requiring us to imagine/infer the sensory qualities of other objects and phenomena. The school of neuro-phenomenology developed from the ideas of Varela, Thompson, Chalmers and Clark, emphasises human perception and cognition as being; '*embodied*', relying on our bodies; as '*enactive*'—relying upon active interaction with our environment; and often as '*extended*'—incorporating both internal and external environmental structures in its operations; as well as being '*embedded*'—with our performance relying on that interactive coupling; and as 'affective'—relying on the value of objects to the perceiver.[11]

These ongoing developments in the psychological contestations about the locus of cognition, and charges of anthropocentrism, have led to claims by bio-enactivists that embodied cognition scales down to much lower levels of biological complexity than humans—such that according to the philosopher, Meacham, 'cognitive biology'[12]—following on from Kovac in (2000) (building on Monod's 1974 study of proteins) proposes the fundamental cognitive level as being bio-molecular. For our media-related purposes, particularly in exploring the viability of the 'more-than-human' and 'more-than-urban' theses of Mouijan—the earlier psychological assumptions of Enactivism by Maturana and Varela in 1998, were based on a reciprocal process between a cognising subject and their environment/*umwelt* (surrounding world). These implied the need for whole-organism autonomy based upon *autopoiesis* (an

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[9] Pepperell, Robert, "Posthumans and Extended Experience." *Journal of Evolution and Technology*—Vol. 14—April 2005, 27–41.

[10] *O'Regan, J.K. and Noe, A (2001) A Sensorimotor Account of Vision and visual Consciousness, in Behavioural and Brain Sciences 24, pgs 939–1031, cited in Pepperell, Ibid.*

[11] *Ward and Stapleton* (2012) *citing Varela, Thompson, and Rosch 1991; Clark and Chalmers* (1998)*; Gallagher* (2018)*; Haugeland* (1993)*. See also Rowlands (2010). The new science of the mind: From extended mind to embodiephenomenology.*

[12] *A term initially coined by Goodwin* (1978)*—on the basis that rules underlying biological patterns, rather than being simply grounded in 'natural law', were more likely knowledge embodied from the process of evolution—such that the rules become embedded in their evolved biological material structures. Since systems using knowledge (i.e. useful descriptions of aspects of their environment) are cognitive, biological entities are morphologically, cognitive systems (coding, storing and using knowledge to survive and reproduce in the world.*

'identity'-establishing membrane/barrier with the environment).[13] Such an 'whole-organism' level of autopoietic (self-making/self-constructing) ability as a condition for enactivist ontology is open to question—given that the notion of autopoiesis was initially scaled-up from observations of minimal life forms.

Enactivism thus posits a living-systems' '*cognitive capacity*' as depending on embodied habits or patterns of behaviour that have co-evolved with its umwelt (which includes other cognising entities). And these cognitive patterns/habits are a form of 'embodied knowledge' transmittable 'genetically' that is, down the generations (or 'communally'/across a population). Meacham views the co-evolved living system/organism and its umwelt—as a part (or dimension) of interdependent, interactive *Umwelten.* These are sub-ecologies of emergent 'surrounding worlds' at varying individuation levels of biological materiality (proteins, cells, organism, population, species, etc.). The idea is that each of these levels have their internal process-networks, permeable membranes and sense-structures for modulating its own responses to its wider[14] and nested worlds.

In any case, she argues that Di Paolo has more recently emphasised autopoietic membranes as generating not only a system-identity (from its inner versus outer milieus) but from these a necessarily 'future-oriented' survival goal. And this implies a 'virtual dimension' of cognition, involving behaviour—by having to select between options for engaging with the surrounding environment/umwelt.[15] This, Meacham suggests, echoes Merleau-Ponty's earlier insistence that the organism chooses the stimuli to which it will be sensitive, with the umwelt emerging from the welt (world) through the actualisations of the being.[16] And such adaptivity of an entity to the virtual dimensions of its umwelt, suggests a level of system 'agency' related to its goals and behaviour.

Consequently in her view, studies by De Jesus' also highlight the 'bio-semiotic' nature of Di Paolo's 'virtuality of cognition'—in that *any living-system using signs is considered cognitive*—scaling up from minimal-life relational signs, to the level of more complex human communications/ symbolisms (i.e. language—which affords us a responsive capacity to sign varieties). This 'bio-semiosis' aids a living system's ability to decipher signs in its umwelt, and hopefully avoid maladaptive evolutionary behaviours (i.e. extinction). In this perspective, the scope of cognition's virtuality relies on sign usage—with more complex, open and flexible sign relations enabling greater cognitive room or relations for exploring potential options for future actions.

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[13]Darlan *Meacham, "How Low Can You Go? Bioenactivism, Cognitive Biology and Umwelt Ontology," Humana. Mente Journal of Philosophical Studies 9, 9, no. 31 (2016): 73–95.) citing Monod's* (1974) *studies of proteins changing shape in response to their surrounding environment (or umwelts).*

[14]Ibid, emphasising that these enacted internal milieu and meaning structures may pre-exist the co-evolved system/organism *and umwelt.*

[15]*Di Paolo, Ezequiel "Extended Life," Topoi 28, 28, no. 1 (2009): p. 14, cited in Meacham, D Op. cit.*

[16]*Merleau-Ponty, Maurice. The Structure of Behavior. 1967, cited in Luisi, Pier Luigi. "Autopoiesis: A Review and a Reappraisal," Naturwissenschaften 90, no. 2 (February 2003): 49–59. and in Meacham, D, Op.cit.*

And this explorative scoping, in turn expands the virtual dimension and thereby, the 'virtual envelope' of cognition. This recalls an aspect of our earlier concept imagery in Chap. 14 (Fig 14.1).

Such cognitive psychology and biology concepts, share some theoretical streams with sociology (building on its earlier structural, language and epistemic explorations). And they have shifted more attention towards phenomenological embodiment approaches—via Mauss (1973) notion of *habitus*[17] as developed by Bourdieu (1980)[18]—which spawned a 'cognitive turn' in social theory. Cognitive sociology's concern with our cognitive locus for social action, increasingly centres on the notion of 'practices' applied to phenomena ranging from everyday life routines, to formalised institutional activities. Their relevance to cultural identity issues, which we turn to next—could consequently reveal further cognition-related impacts of our changing relations with media-technology and place.

15.4 Cultural Identities

In considering individual and social cognition, issues of subjectivity and of what constitutes a person (culturally) arise—and are normally concerned with being transformed by societal processes into a 'subject' for self, and for other selves. The relationship of personhood and its subjectivities, with concepts of identity are very close—being culturally dependent and socially constructed.[19] According to media and cultural theorist, Barker, essentially, the 'I' of selfhood and our concepts of that self, is a 'self-identity'—and while universal, is culturally variable in meaning and usage—ranging from the modern Western focus on individual uniqueness and independence, to other world regions retaining a higher sense of kinship-related obligations. In these, the self's personhood and its identity are closer to the more communally-defined expectations which comprise a 'social identity'.[20]

The expression of the contemporary westernised, unique consciousness of 'self' is seen to be typically communicated via personal aspects such as character, fashion and lifestyle—distinguishing one from the others with whom we share a social identity. Media forms have clearly become heavily implicated in such portrayals, and have also, through language and representations previously promoted such traditional 'essentialist' perspectives on identity—though now including more fluid

[17] *Mauss* (1973)*, Techniques of the Body. Introduced the notion of habitus as encultured (bodily) behaviour, drawing from his observations of French and American societies.*

[18] *Bourdieu* (1980)*, The logic of Practice. His focus was on the cultural rootedness of collective sets of practices and habits –such that the enculturation of Habitus, serves to link practices (social structures) with cognition (mental structures).*

[19] Barker, Chris. 2012. *Cultural Studies : Theory and Practice*. London: London : SAGE.

[20] Ibid.

conceptions—as less a 'thing' that we have, or can discover, and as more of a 'narrative' construction[21] in which we build stories of our own 'becoming'—mapping our biographical continuity and trajectory from the past to our desired future.[22]

Giddens work in particular, is seen as helping to shift identity notions away from an 'essentialist' set of distinctive characteristics towards that of an ongoing 'self-project' that we construct and improvise upon, based on past/present circumstances, and future hopes.[23] And while the resources at hand for our self-project are socially and culturally ascribed—as well as being contextually reliant, today media technologies are shifting and influencing the shared materials involved in contemporary socialisation/acculturation processes, in which our social identities are formed. This level of identification centres on the differences or similarities between group conceptions of various communities and their regional or national collectives. It is a shift beyond self-representation to include social ascriptions.

The ways in which such social conceptions can be portrayed, within LBSN-media profiling of minority groups and neighbourhoods, were highlighted earlier in the chapters by Dyer, Maldonado, and Cameron on social media, and of Erikson in relation to spatial cultures. By contrast, Barker notes that Stuart Hall arrived at a comparable view via his alternative analyses of cultural identity as fractured, decentred and postmodern, representing three developmental versions of identity conceptions.

First, Hall's 'enlightenment subject' in a positivist world, '*…whose 'centre' consisted of an inner core…The essential centre of the self was a person's identity.*'[24] In this, the rationality and separation of the complete self from others, led to accelerated fracturing of self from its communal bases.

Second, his notion of the social self or 'sociological subject' in which, '*The inner core of the subject was not autonomous and self-sufficient, but was formed in relation to significant others'who mediated to the subject, the values, meanings and symbols—the culture of the worlds she/he inhabited*',[25] a conception which acknowledges family and others involved in our acculturation, such that the self's inner core is interactively constituted across one's inner and outer worlds – with this inter-subjectivity serving to stabilise and fit the person (via values and roles) into their social structure.[26]

And third, Hall's ultimate conception of cultural identity notes the final shift—from the 'independent whole' self, to the decentred, 'socially-formed self' (retaining

[21] Barker, Op.Cit.

[22] Giddens, A. 1991. *Modernity and Self-Identity: Self and Society in the Late Modern Age*.

[23] Ibid, 53 cited in Barker Op. Cit.

[24] Hall, S. 1992 *"The Question of Cultural Identity" IN: Modernity and Its Futures*. Edited by Stuart Hall, David Held, and Anthony G. McGrew. Modernity and Its Futures. Cambridge. *Cited in Barker, Op.cit. p 223*

[25] *Hall, ibid. In Barker, ibid. p 224*.

[26] Barker, 2012, Op. Cit.

a core with the ability of reconstituting into a reflexive whole)—towards a 'post-modern' personage that is either unable or reluctant to be 'whole'—but rather shifts between his/her 'multiple-fragmented' identities:

> The subject assumes different Identities at different times, identities which are not unified around a coherent 'self'. Within us are contradictory identities, pulling in different directions, so that our identifications are continually being shifted about. If we feel we have a unified identity from birth to death, it is because we construct a comforting story or narrative of the self…[27]

His contention was that this fractured, de-centred subject, arose from five key transitions in modern epistemological discourse: Marxist historical ideology; Freud's' psychoanalytic identifications; feminist notions of performative differences; language used as a constitutive signifier of self-meaning, influenced by Foucaldian historicized persons. This discourse-led, splintering of identity, means there is no overarching/unified identity, but instead, multiple forms shifting with varying media representations—and its political significance, making for ongoing contestations shaping our becoming as persons.[28]

15.5 Patterns of Identity

At spatial scales larger than proximate local communities featuring the so-called '*Dunbar number*'[29] limits of meaningful human relationships (hamlets, neighbourhoods, villages) Barker asks how is a 'sense of community/shared identity' developed and maintained? And what of non-spatially defined communities? He notes how issues in ascribing notions of community to the larger than urban scale, were highlighted in Anderson's (1983) work on the post-second world-war emergent nation states, identifying enhanced communications (initially language standardisation and print media) as being instrumental in forging *imagined national narratives* (and thus identities).[30] While lacking in causal specificity, according to Thompson (1995), it is interesting to consider how digital media is further standardising and collapsing the languages of these imagined narratives with their temporal devices (clock and calendar) no longer analog, but now linear and absolutist in the digital age of GPS-based locative media. Unstable language meanings and the hybridity of cultural identities within hyper-globalisation are shifting the imagined borders of

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[27] *Hall. Ibid, 277. In Barker Ibid. p 225*

[28] *Hall. S, 1996a, Who needs identity? In Questions of Identity Hall and du Gay (Eds). In Barker ibid. p 225–231.*

[29] *Hill and Dunbar, 2003. Social Network Size in Humans. Positing 150, 500 and 1500 persons in decreasing order of intensity, though this has been critiqued by others (De Ruiter* et al. *2011).*

[30] *Anderson* (1983)*, Imagined Communities: Reflections on the Origins and spread of Nationalism; cited in Barker, Op. cit; while this has been critiqued as lacking any causal specificity, according to Thompson* (1995), *The Media & Modernity.*

nation-states consciousness[31]—amidst increasingly translocal cultural learning processes.[32] And drivers of population movement patterns arising from the colonial era[33] are accelerating with globalising media communication trends and associated economic opportunities.

Place, it has thus been argued, is no longer a sufficient concept for understanding cultural identities[34]—as global travel patterns and mobility trends are seen as more credible drivers for the motility of people, cultures and sites of *diasporic hybrid identities*—being both globally 'imagined' and locally 'encountered' communities.[35] Consequently for instance, the African diaspora (or black Atlantic),[36] alongside the hybridised cultural experiences of the Irish, Asian, etc. diasporas indicate the complexity of sites, types of hybridity[37] and range of identity formations being constituted and dissolved over time.[38] Such hybridity expresses a strategic repositioning and temporary usefulness of shifting cultural categories within and at the intersections of cultural categories (Asian, America, African, British, European) that are themselves, already hybridised identity formations (*heterogeneous and stratified with age, gender, class, ethnicity and other subcategories*).[39]

Hall's 'postmodern subject' with its multiple identities, therefore entails weaving gender, class, race, and imagined nations or diasporic narratives—into 'patterns' of socially-validated, as well as self-aspired '*identity formations*'.[40] However, anti-essentialists' such as bell hooks, argue that this woven pattern is not a 'thing', but an intersectional '*form*' or '*range of forms*', by which we are constituted, potentially represented and identified.[41]

15.6 Agency and Mediatisation

In light of these socio-cultural constructions of identity, the question arises of how (any) people are able to develop or challenge the language-led discourses of which they are merely 'social products' rather than producers or change agents? This ability

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[31] *Bhabha. H, 1994, location of culture; cited in Barker, ibid.*

[32] *Pieterse, 1994, Globalisation as hybridisation, cited in Barker, ibid.*

[33] *Mercer, 2013 [1994], Welcome to the Jungle: New Positions in Black Cultural Studies, cited in Barker, ibid.*

[34] *Clifford* (1992)*, Travelling Cultures, in Grossberg* et al. *(Eds) Cultural studies.*

[35] *Brah* (1996)*, Cartographies of Diaspora, 196 in Barker, Op.cit.*

[36] *Gilroy* (1993) *a diaspora can be understood as a concept of familial power relations between original and new sites of 'home' for a dispersed population; Barker* (2012)*, p 262*

[37] *Pieterse, Op. cit.*

[38] *Barker, Op. cit.*

[39] *Bhabha, Op. cit and Brah, Op. cit. The point about European hybridity was earlier highlighted in Chap. 11 of the present collection by Lopez-Marcos.*

[40] *Foucault* (2003)

[41] *41 Hall, Op.cit. 1996 in Barker, Op.cit*

to act creatively or critically towards personal goals and social changes (i.e. agency) is not posed as being unfettered action—but as socially constrained through access to personal or social resources.

Foucault's earlier propositions of discourse, practices, and power-based formulations [42] had been critiqued by Giddens for concealing historical agency in human subjects, though integrated in his later work. Consequently, Giddens structuration theory[43] sought to provide a theory of agency—focusing on how active, knowledgeable subjects display agency by re/producing (via their own activities) the conditions making possible such actions (e.g. learning of 'teacher-student' roles facilitates our performing them, thus reproducing such practices)—comprising a 'duality of structure' such that 'constrained' social structures also enable subjects to become actors with agency. Media representations have been a key source of this learning, dissemination and reinforcement of social structures—though some forms today are arguably thought to be implicated in the identity-splintering discourses and representations of postmodernity.[44]

So given that our agency depends on socially constrained structures, what then of well-meaning techno-sceptic critiques[45] which sound a cautionary note about societal media over-reliance, noting for instance, that locative media, as used in way-finding, or in promoting virtual explorations (overlaying representations onto physical spaces) may now be usurping and even compromising our hands-on, visceral, and 'face-to-face-encounters with real places and with real people? On the other hand, techno-utopians[46] who extol the benefits and possibilities of media-tech, commonly assume such concerns are simply the misguided, reactionary responses of some pre-internet generations, the technically-challenged, conspiracy theorists or 'luddites'—against all new technology. These opposing camps espouse conflicting views and interpretations of evidence relating to the influence of the media on behaviour, notably through mobile phones, gaming, film and social media. These views seemingly hinge on their perspectives of the extent to which alternative paths for action are freely available or socially determined.

Reflecting on how mediatisation relates to culture—if we consider as Ruddock suggests, the concept of mediatisation as an alternative theoretical framework for understanding the influence of media—one that combines the stronger evidenced claims of those advocating either '*pro-social*' or '*anti-social*' effects—then mediatisation highlights inequities in the processes of making and disseminating meaning,

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[42] *Hooks* (1990)

[43] *Giddens* (1986). *The Constitution of Society' set out Structuration Theory in drawing upon Garfinkel's 1967 views of social order.*

[44] *Social media notably, though forms of mass print (newspapers) had already begun this process.*

[45] See for instance, an interview with a prominent critic: Thornhill, John. 2018 *"Jaron Lanier on Fighting Big Tech's 'Manipulation Engine.'"* Financial Times. https://www.ft.com/content/a3ea16f6-7edd-11e8-bc55-50daf11b720d.

[46] A notable utopian being Kurzweil who promotes a technological 'singularity' by 2045, when humans would supposedly be able to download their consciousness into machines—transcending the need for a biological body. Kurzweil, Ray. '*The Singularity Is Near*'. PenguinRandomhouse.Com. Penguin-Random House, 2005.

both of which are organised by media industries.[47] Understanding that the resources and mechanisms needed to present one's reality and experiences to the rest of society are much more difficult for some groups to access,[48] has, according to Hepp, wrought a newer appreciation of mediatisation processes—based on Hall's (Hall et al. 1980) definition of culture as; '*…the sum of the different classificatory systems and discursive formations to which our production of everyday meanings relate.*'[49] By this, culture subsumes symbolic human activities which generate meaningful structure in communities and societies.

In emphasising how meaning-making now relies on working with, and through, the media industries—this perspective foregrounds mediatisation as a longer term process of strategic changes to institutional interactions due to expanding digital media influences. Today these processes are resulting in societal communication flows between institutions and between them and individuals, being reconfigured—due to rapidly changing production and disseminating of cultural productions by media industries.[50] This approach requires us to consider the general impact of entire 'media-ecologies'—above a singular effect of specific technologies or events (which is the focus of mediation)—to probe instead, how media plays a deeper role in the first place in shaping social realities.[51]

15.7 Mediated Cultural Novelty and Futurity—Old Wine in New Bottles?

Issues of reality depictions draw upon our curious predilection as a species for stories and story-telling. Consequently the craft of creating credible, 'virtual universes', which is integral to fictional, speculative and sci-fi print genres[52] and particularly, their film, gaming and other internet-based media representations, has been extended by media theorist, Jenkins[53] into the 'trans-media' concept of compelling story-telling—by extending storylines across a range of media forms and product ranges, in the process furthering the development of media franchises.

However, as he explained, it is surprisingly *not a new phenomenon*, citing ancient examples ranging from the likely physical narration of cave paintings, to medieval retelling of religious scriptures through multiple media of sermons, song, dramatic and artistic genres (stained glass, facades, sculpture, paintings, reliefs, etc.).[54] A key

[47] *Ruddock, Andy (2017) Exploring Media Research. SAGE Publications Ltd. London: Sage.*

[48] *Hepp, Andreas (2013) Cultures of Mediatization. John Wiley & Sons, cited in Ibid.*

[49] *Hall 1980 Encoding/Decoding. Op. Cit; cited in Hepp, Ibid.*

[50] *Hjavard, 2013, cited in Ruddock, Op. Cit.*

[51] *Ruddock, Ibid.*

[52] Card, O. S. (1990). *How to write science fiction and fantasy* (new ed.). Cincinnati, Ohio: Writer's Digest Books.

[53] Jenkins, H. (2003). Transmedia storytelling.

[54] *Jenkins, Feb 8, 2010; cited in (Lacasa and Jenkins 2013) Learning in Real and Virtual Worlds.*

outcome was the compelling storytelling achieved between earlier media to generate shared virtual/imaginary universes within the societies. This ancient transmedia story-telling now revived and increasingly adopted across media-tech platforms, is one of the bases of Jenkins' subsequent 'media convergence' theory.[55]

Consequently in our view, a key aspect of what is interpreted as being 'new' media effects, may not in some regards, be entirely so, except in their technological 'delivery forms', rapid rates of change and wider geographical reach. While these are clearly, very significant developments, it is suggested that our contemporary sense of novelty of the 'virtual' media/abstract dimension may derive in part from relatively recently conditioned, narrower tempo-cultural perspectives. Modernist cultural reductionist perspectives valorised the physicality and materiality of phenomena, at the expense, for example, of pre-industrial conceptual perspectives (including their temporalized/imaginary, abstract dimensions) which were arguably dismissed in anthropological narratives and interpreted as being the 'irrational'/'pre-logical', or 'mythic' thinking of 'primitive' folk.[56] However, '*Society and culture have always been mediated in the sense that both are built on communication*'[57]

Research such as Carpentier's (2011) study scrutinising media claims of novelty, uniqueness and enhanced participation,[58] lend support to this argument. Even the storytelling involved in reading a novel generates a (private) virtual world through the reader's mind—what media technology *has* changed, are the delivery, *forms* of representation, and speed of communications—enabled particularly with the shift from analog to digital technology. Today, these 'forms' have served to 'reenchant' contemporary imaginations with visually (public) representations of virtual spaces, actors and actions by proxy (for instance, in games, via player 'avatars' within them). The perspective(s) such 'shared' representatives advance however, may still be that of a single writer, or a small elite group.

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[55] *Jenkins* (2008)

[56] *See V.W.O. Quine's thesis (Quine* 1970*) of the risks of 'indeterminacy of translation' of word-concepts between non-cognate languages—And that this has very likely contributed to non-European cultures being considered irrational—from translators' misunderstanding the indigenous logic underpinning non-European concepts, which seem illogical in relation to seemingly comparable words in the translator's language. Philosophers Hallen and Sodipo's (*1997*) test of Quine's theory amongst the Yoruba people in a Nigerian village setting, found it to be consistent with their findings of more critically-empirical Yoruba epistemic concepts than previously realised. It is the only indigenous discourse analysis of an African knowledge system using an Anglo-American analytical philosophical framework, on questions of Yoruba epistemology—revealing how knowledge is conceived and communicated in an oral culture. And how this set 'broadcasting standards' for everyday speech.*

[57] *Ruddock, 2017, Op. Cit.*

[58] See *Carpentier, 2011, Contextualising Author-Audience Convergences, Cultural Studies 25, no. 4–5 (September): 517–33. And Hay, James, and Nick Couldry. "Rethinking Convergence/Culture," Cultural Studies 25, no. 4–5 (September): 473–86.*

Superheroes or mutants have now replaced, or feature alongside, updated ancient/traditional culture heroes (see Beowulf, animated film[59]) and comic versions of ancient spiritual deities (also 'Thor', film series[60]) on screen and in their 'trans-media-linked' online video games. At the same time, the top-down, twentieth-century monopoly of print and broadcast media are yielding (partially) to the supposedly more democratic access, 'bottom-up' participation, and user-contributions of web 2.0 and 3.0 platforms[61]—a key feature of Jenkins' advocated 'media convergence'—though such claims have been increasingly critiqued.[62] It is notable these media shifts also echo a wider social context of partial yielding (for instance, by top-down *religious* institutions with their congregative, intermediary formats) to so-called 'new-age' movements seeking more 'bottom-up', direct, individual, participative *spiritual* experiences. Digitally enabled self-publishing and film-making are creative examples of this shift.

Our point is that the emphases of much discourse, has largely been on the novelty of the media, and their claimed unique effects (e.g. 'virtual' representations and democratised access/participative engagement)—with less attention paid to the *continuity* that contemporary media has facilitated with the storytelling of much older media forms, which had also enabled individually-abstracted, virtualised-mental/temporal-imaginal domains—notwithstanding today's technologically powerful, postmodern media capability to externally realise, mass produce, and 'share' particular virtual representations via CAD, CGI effects, etc. We are simply highlighting contemporary *continuities* with historical phenomena, rather than directly equating the ancient and postmodern. As noted in the earlier discussion, cognition itself appears to occur within a 'virtual' dimension.

However a caveat to this 'rediscovery' of virtuality and the transmedia phenomenon, amidst the claimed benefits of media convergence—was highlighted in Cameron's Chap. 6 critique of LBSN's role in public space design transformations—where the *ownerships* of platforms hosting this temporal media domain, can be seen to operate as forms of virtual 'real estates'—owned by, and serving global corporate interests, while co-opting localised cultural, and community assets, to raise and extract value (for private profit). In the case of popular culture, this may be seen to operate through branded 'redevelopments'/'reconfigured-productions' (franchises) including appropriations of the historical virtual/storytelling 'commons'.[63] Such

[59]Zemeckis, Robert. *Beowulf*. Motion capture. California: Warner Bros, 2007 http://www.imdb.com/title/tt0442933/.

[60]Branagh, Kenneth (Director) & Feige (Producer). *Thor*. 3D Film. California: Marvel Studios; Paramount Pictures, 2011. http://www.imdb.com/title/tt0800369/.

[61]Jenkins, H., and Deuze, M. (2008). Editorial: Convergence culture. *Convergence, 14*(1), 5–12.

[62]*Carpentier, 2011; Ibid. Hay and Couldry, 2011. Rethinking Convergence Culture.*

[63]*Akin to the lists of 'intangible cultural heritage' identified by Unesco (*https://ich.unesco.org/ *accessed 23-4-2019).*

activity could perhaps be construed as encouraging a form of 'virtual creative serfdom' despite the touted economic freedoms of the web 2.0 based 'gig-economy'—and prompts a question posed by Jaron Lanier of—'*who owns the future?*'[64]

On a positive note, platforms with a creative-commons ethos including wikipedia, moodle and others, including crowd-funding sites such as patreon for creatives, still apply the earlier hoped-for, more democratic ideals of digital media. But are these becoming the minority, rather than the norm?

15.8 'Place-Futures' and Emergent Identities: Media and Spatial Culture?

Further perspectives on identity and 'space' from a postcolonial perspective can be traced to the critical theorist, Homi Bhabha's 'Third space theory'—An ambiguous space of interaction and discourse between individuals or cultures—And characterised by the unique set of affinities (such as race, class, kinship, residency, interests, etc.) underlying the hybridity process of identities, and seen as their 'identifying factors', a view adapted from sociocultural psychology.[65]

Within the built environment, 'Third places' were initially identified by Ray Oldenburg[66] in 1989 as places away from home or work, where people relax, interact and build old and new social connections—thereby anchoring community life. While the effect of broadcast and video media was initially to shift activities into the home, more recent observers[67] have suggested that online communities such as gaming and social media have become 'virtual Third places'. By contrast, Edward Soja's '*Thirdspace*', is a formulation combining both real and imaginary binary qualities into an integrated concept[68] based on their respective representations. It drew on the ideas of postcolonial thinkers such as Bhabha, as well as Foucault's *heteretopia* concept, and extends Lefebvre' trialectics of space to expand the spatial knowledge for renegotiating cultural identity boundaries. [69]

In terms of media and place, increasing objections and recent public campaigns against proposed urban campus developments by the major tech corporations, indicates the strength of feeling in various localities about the perceived power of media

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[64] Lanier, Jaron. *Who Owns the Future?* Simon and Schuster, 2014.

[65] *Bhabha, Homi K. (1994; 2004). The Location of Culture. Abingdon: Routledge.*

[66] *Oldenburg, Ray (1991). The Great Good Place. New York: Marlowe & Company. Oldenburg, Ray (2000). Celebrating the Third Place: Inspiring Stories about the "Great Good Places" at the Heart of Our Communities. New York: Marlowe & Company.*

[67] *Soukup. C, Computer-mediated communication as a virtual third place: building Oldenburg's great good places on the world wide web.*

[68] *Soja, E, 1996. Thirdspace: Journeys to Los Angeles and Other Real-and-Imagined Places. Oxford: Basil Blackwell. 1996.*

[69] *Foucault* (1971)

corporations *spatially*—not just virtually (online)—and their perceived role in contributing to limiting local realisation of meaningful future economic opportunities and diversity.[70] This concerns not just issues of people's access, mobilities and skill capabilities in navigating the fast changing mediated terrains, but also as fully credited and valued, co-producers of socially-beneficial code, rather than as a seemingly exploited, dispersed 'sweat-shop' workforce, contributing free content and labour for media-tech corporations. And given perceived deficiencies of virtual space as anonymity-preserving 'third spaces'; these perspectives highlight the critical social awareness needed for effective resistance and professional agency when engaging with technology in re-designing spaces and reproducing places for human thriving.[71]

15.9 Back to Place?

There would appear to be conflicting views about the fate of 'place' in contemporary media realities. On the one hand, media studies, technology and 'future city' perspectives herald its loss in relevance—given the aspatiality of non-locative media and virtual media web interactions within the context of transport hypermobility, commuter travel patterns and global air-travel minimising distances. But on the other hand, built environment practitioners[72] and researchers, as well as local/regional/national governance institutions extol the primacy of place, and the need to recognise, identify, enhance and promote the defining features of particular localities (i.e. their 'sense of place', or 'genius loci').[73]

The popular discourse around places, suggests lay people bemoan the spread of so-called, 'clone towns' all featuring the same multinational retailers, and the loss of independent shops, even as they increasingly shop online—while holidays to spatially distinctive locations with conserved heritage assets, local vernacular architecture and street patterns continue to be premium tourist destinations. Global brands, property specialists and their marketers have reemphasised the value of place and urban design to business[74] based on the 4P's business mantra of 'product, price, promotion and place'—ranging from strategic locational decisions, to exploiting people's strong mental associations and affiliations with places in positioning and organising brands in 'mental space'. The key aspects of place in our connected world are being proposed

[70] *Harris, J April 3rd 2019, Street battle: the activists fighting to save their neighbourhood from the tech giants, The Guardian.*

[71] *Lefebvre. H, 1991. Op.cit.*

[72] *Namely, landscape designers, architects, urban planners and urban designers, as well as surveyors, real estate (realtors)—but less so for construction and civil engineers.*

[73] *Old Roman expression, referring to 'the spirit of a place'–a key concept in architectural, urban and environmental phenomenology approaches.*

[74] *See Savills; Valuing Sustainable Urbanism, 2007; and Quelch and Jocz* (2012). *'All Business is local: Why Place Matters More Than Ever in a Global, Virtual World'.*

by marketers as; psychological place, physical place, virtual place, geographical place and global place.[75]

A number of questions arise for us here; *What might account for this seeming disparity of mediated experiences and spatial prognostications?—Is the latter emphases on place simply a reactionary response to the continued 'inevitable' loss of ground of the physical to the virtual?—To what extent is media technology implicated in such loss?—And does the fate of place even matter, if most of our needs could soon be met digitally?—Is place becoming an antiquated notion in the twenty-first century?*

Edward Casey noted in 2001 that place conceptualisations across a range of disciplines, from anthropology, and sociology to geography, psychology, architecture, urban design and planning—were inspired by phenomenological theories including the body, its biological perceptions and social experiences, as a primary element of spatial analysis.[76] This 'embodiment' highlights our '*… perceptual experience and mode of presence and engagement in the world*',[77] leading the environmental psychologist and anthropologist, Setha Low, to coin the term '*embodied spaces*' as a model for analysing how we create 'place' at the intersection of material and cognitive/affective aspects of body space, through orientation, movement and language.[78]

Interestingly, echoing identity concepts, she notes how the body has also been conceived as a multiplicity ranging from two to three to five bodies, including the 'physical body', 'social body' and 'body politic'.[79] Such notions have been represented as a symbolic spatial or social template by cultural groups at the level of cosmology, the landscape, the settlement, and spaces within the neighbourhood and dwelling—using it variously as a spatial metaphor or representational space.

And Low recounts the earlier cited ideas of Mauss (on culturally based, body habits) which inspired Bourdieu's 1984 use of 'habitus'—showing how these shape elements of culture and social structure discussed earlier in this chapter—reflect such notions of the body. In relation to the effect of movement, Low also notes how anthropologists have conceptualised space more as movement than a container[80] This is seen to be exemplified in the work of Munn which analysed the movement implications of ancestral Aboriginal land law stipulations, constraining each persons' presence and range in the vicinity of particular sacred locales. Munn also drew partly on Lefevbre's '*basis of action*' and '*field of action*' concepts[81] to define a sensual '*mobile spatial field*' extending from the body at given places, or moving through,

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[75] *Quelch and Jocz, Op.Cit.*

[76] *Drawing upon Merleau-Ponty's* (1962, 1964) *focus on the primacy of perception in the body's experiences, subsequently tracing how this led to objectification.*

[77] *Csordas, 1994, p12. Embodiment and Experience—cited in Low, 2003 Embodied Spaces: Anthropological Theories of Body, Space and Culture.*

[78] *Low. S, Ibid, p10.*

[79] *Douglas* (1970) *'Natural symbols: Explorations in Cosmologies'; Sherpa-Hughes and Lock, 1987 The mindful body: A prolegomenon to future work in medical anthropology; O'Neil, 1985 Five bodies: The shape of modern society, cited in Low, Ibid.*

[80] *Pandya, 1990, Movement and space: Andamanese cartography cited in Low, Op. cit.*

[81] *Lefebvre* et al., *1991,Critique of everyday life: Foundations for a sociology of the everyday.*

locales—to construct a more grounded and embodied, actor-centred, mobility—distinct from place, though interacting with, and shaping it.[82] And Low notes how this idea of movement-based, spatial definitions, was extended into a 'public places' theory by Stuart Rockefeller,[83] based on individual 'mobile spatial fields' forming *collective patterns* of movement and locality—which locate and reproduce 'places'—not just within the landscape, but also within the minds, bodily practices and customs of people's '*embodied spaces*'. And that the mobile spatial fields of migrants crossing national boundaries, similarly helps re/create transnational space.[84]

At more individual, local neighbourhood and city levels, the seminal work of Kevin Lynch's findings (from studies of residents in three cities in the 1950s) led to five physical elements being identified as the bases for both comprehending, and building cognitive navigational maps (*legibility* and *imageability*) of places.[85] Lynch considered imageability to be a composite inner representation, generated by three broad features; Identity, meaning and structure—such that the socio-cultural meanings and identification of coherently designed/laid-out features of '*paths, edges, districts, nodes and landmarks*' (P-E-D-N-Ls)—structure the '*legibility*' of our cognitive maps and overall visio-sensory '*imageability*' in places.[86] More recent studies indicate LBSs and LBSNs are having a number of effects on these traditional wayfinding methods and representations.[87] The digital media services provided range from mapping, aerial and Google street views, to crowd-sourced maps, spatial annotation features, advertised venues, suggested places of interest based on personalised history, and geo-tagged location photo-sharing, amongst a growing list of possibilities.[88] They have been considered as reinforcing familiar images of multinational brands e.g. cafes in places, highlighting transient locations such as airports and train stations, due to hypermobility, but at the expense of local landmarks, with architectural geo-tagging aiding city imaging, rather than legibility.[89]

These platform and smartphone app-based services have been variously argued as having the potential of eventually undermining our species' evolutionary-based need to physically explore and discover new places by advocates of media 'anti-social'

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[82] *Munn, 1996. Excluded spaces: The figure in the Australian Aboriginal landscape. cited in Low, Op. cit.*

[83] *2001.*

[84] *Rockefeller, 2001. Where are you going: Work, power and movement in the Bolivian Andes. cited in Low, Ibid.*

[85] *Park, Giyoung, and Gary W. Evans. "Lynch's Elements of the City in the Digital Era," Journal of the American Planning Association 84, 84, no. 3–4 (October 2, 2018): 276–78.*

[86] *Lynch. K, 1960. The Image of the City.*

[87] *Fattahi and Kobayashi, 2009. City Imaging after Kevin Lynch. Park and Evans, Op.cit.; Offenhuber and Ratti* (2012). *Reading the City—Reconsidering Kevin Lynch's Notion of Legibility in the Digital Age. Al-ghamdi and Al-Harigi* (2015). *Rethinking Image of the City in the Information Age. McConnell, 2016. How 1960 s Urban Planning Principles Influenced Digital Products, Services and Connected Spaces. Chayka, 2016. Welcome to Airspace: How Silicon Valley helps spread the same sterile aesthetic across the world.*

[88] *Park and Evans, Op. cit.*

[89] Ibid.

effects[90] on the one hand—as well as expanding appreciation and exploration of places by pro-social advocates[91] of media effects on the other hand. In any case, it is concerning to note that, spatial disorientation (persistently getting lost on familiar journeys and not recognising familiar places) is one of the indicators for the various, increasingly prevalent, 'Dementia' conditions associated with a degenerative loss of memory and self-identity.[92] And while the older generation predominantly being afflicted with these conditions, grew up in a pre-digital era, symptoms are seemingly also now being reported in some working-age people,[93] although all the factors involved are not yet well-understood. The point nonetheless reiterates the 'extended-mind' theory that at least some of our cognitive performance (as well as 'identity') is coupled with our interactions involving structures (and/or 'places') in the environment.[94]

Given the now seemingly inexorable drivers towards the 'Smart' City by technology firms promoting their big-data-based, proprietary-algorithm 'city dashboards'[95], and national, city and local government budgetary pressures, amidst increasing demands for social services led by demographic-changes, leaving them vulnerable to adopting off-the shelf service delivery and governance solutions, De Waal has introduced a metaphoric view of the 'city as an interface' (no longer spatially reliant on public space for enactment of civic life by urban publics). According to de Waal; '*… The experience of the city has become extended by media technologies that bring absent others or distant (either in time or space) contexts into the here-and-now. The infrastructure of these new technologies and the way they are programmed now co-shape urban life, just like the physical infrastructures and the spatial programming of urban planning have always done.*'[96]

In this perspective, the four key concepts he proposes, are those of '*platforms*' for encounters, '*programs*' for performative, public sphere activity (by whom, for whom?), '*filters*' (access/operating mechanisms) and '*protocols*' guiding social interactions.[97] Hence the need for the technologically enabled 'smart-city' to be 'hackable' (a collaborative repurposing of resources/practices) by citizens has been raised

[90] *See Fajnerová* et al. (2018). *Could Prolonged Usage of GPS Navigation Implemented in Augmented Reality Smart Glasses Affect Hippocampal Functional Connectivity? Which found that externalization of spatial navigation to technological device (GPS in AR glasses) can decrease the functional coupling between hippocampus and associated brain regions. See also Lanier, Op. Cit. an early virtual reality pioneer now warning against web manipulation.*

[91] For a noted technophile see Kurzweil, Ray (1990), *The Age of Intelligent Machines*, Cambridge, MA: MIT Press.

[92] Alzheimer's Society 2019. "Symptoms of Alzheimer's Disease." https://www.alzheimers.org.uk/about-dementia/types-dementia/alzheimers-disease-symptoms.

[93] Alzheimer's Society. "Young-Onset Dementia." https://www.alzheimers.org.uk/about-dementia/types-dementia/younger-people-with-dementia.

[94] *Clark and Chalmers, 1998 (Op.Cit.).*

[95] *Mattern* (2015)

[96] de Waal 2014. The City as Interface: Digital Media and the Urban Public Sphere.

[97] *Gibbs* (2018)

in a research project[98]—By requiring the development of urgently needed '*public code*'[99] rather than current proprietary platforms for city dashboards—it thus conjures up an urban imaginary of a city in which media-technology serves to open up city institutional procedures and infrastructures (rendering them more transparent) for citizen participatory practices to help improve on them, and better serve the public interest.[100] So what types of alternative locative, LBSN, gaming, creative, service or sharing platforms could citizens in a future 'smart-city' or a 'more-than-urban' settlement aspire to, and collectively achieve?—And which mediated 'patterns or *forms of identities*' might emerge in such places to generate and realise such ambitions?

15.10 Towards a Conceptual Frame?

We consider that making further sense of the complexity of contemporary representational media and spatial trends and dynamics influencing 'identity', requires us to reimagine and reframe our notions of 'place', which often being rich in 'thick descriptions', may usefully benefit (for the purposes here) from a conceptual structuring, given that its future relevance is widely considered to be increasingly vulnerable to aspatial/virtual-media effects. The cognitive-based perspective, offered below, is proposed as one of a number of possible means to continue conceptualising and synthesising (our analyses of key themes arising from this collection, and related studies).

A. For simplicity, place is proposed as representing an intersection of spatial and temporal features at a particular location and point in time[101]—On the basis that events as well as objects/subjects 'take place'. This means firstly, acknowledging a broad, spatially-dependent, topographical 'form domain' with which we are all familiar, such as in (Fig. 15.1):

This contextual domain essentially locates non-living artefacts, and autopoietic organisms (humans, other species) as all being 'actants'(rather than objects and subjects[102]). The actants, with their surfaces, membranes, or interfaces, interact within an 'ecological hierarchy' of spatially 'surrounding worlds' (umwelten) featuring environmental structures. And these, may (or not) enhance cognition, as discussed earlier in this chapter, in relation to findings of bio-enactive cognitive perspectives .

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[98] *Hill, D. 2016. The Hackable City Webpage—In the Media: Dan Hill on Future Trajectories for European Urbanism.*

[99] *de Waal, M. 2019. Martijn de Waal: New Media and Public Space—Smart Cities? Public Code!, Website; and Foundation for Public Code. 2019. website.*

[100] *de Waal, M* et al.*, 2018. The Hackable city Cahier#1: The Hackable City—A model for Collaborative City making. Based on The Hackable City: Collaborative Citymaking in urban living project. The Mobile City and Once Architecture.*

[101] *Lynch* (1972), *See also Lefebvre* (2004) *and Odeleye.Delle, 2007, Towards a Neo-geomantic language of place? Chaos, Complexity and Implicate Order in Urban Design, Ph.d. thesis.*

[102] *Nimmo* (2011)

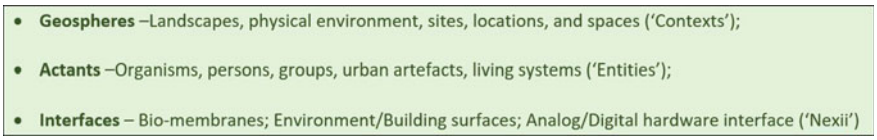

Fig. 15.1 Spatial-physical 'umwelts'—contextual-entities and cognitive-interfaces. *(n.b: green is spatial). Nezhapi Odeleye and Lakshmi Rajendran*

B. The cognition emerging from co-dependent interactions within this spatial umwelt has been posited as representing a 'virtual envelope' located within a 'virtual dimension' (See footnote 15);
C. In addition, the cognitive processes include 'embodied knowledge' of historical evolutionary patterns embedded within an entity's physical structures. The contextual cues/'signs' are received by a cognising organism/living system as offering options for future self-preservation. And this, influences behaviours (relations, protocols, etc.) and resulting agency to achieve survival (and in the case of humans, lifestyle) goals. We could consequently acknowledge a similarly, temporally-dependent, topological, 'event-domain', such as in (Fig. 15.2):
C. And, as already widely noted by a number of commentators,[103] the intense expansion of locomotive, computational, media-communications and personal tech—are commonly experienced as *compressing* perceived distances in the spatial domain—with their temporal effects. They are also seemingly *expanding* the intensity of activities within the virtual 'space of flows'.[104]
D. Given this, we posit that as earlier explored, the 'integrative and tensional forces' within and across these spatiotemporal domains are now serving to generate more *diverse,* mediated human '*self-representation or* intersectional-*boundary profiles*' (identities).[105] And that this is occurring through the complex interactions between actors, with their extended forms of mediated cognitive processes and agency, across variant spatial contexts, interfaces and virtual spheres:

Fig. 15.2 Temporal-social 'umwelts'—virtual-agencies and network-practices. *(n.b: blue is virtual). Nezhapi Odeleye and Lakshmi Rajendran*

[103]Castells, Manuel. The Network Society A Cross-Cultural Perspective. Edward Elgar, 2004.

[104]Castells, Manuel. *Space of Flows, Space of Places: Materials for a Theory of Urbanism in the Information Age*. The City Reader. Routledge.

[105]McConnell, Allen R. (2011) "The Multiple Self-Aspects Framework: Self-Concept Representation and Its Implications," *Personality and Social Psychology Review* 15, 15, no. 1: 3–27.

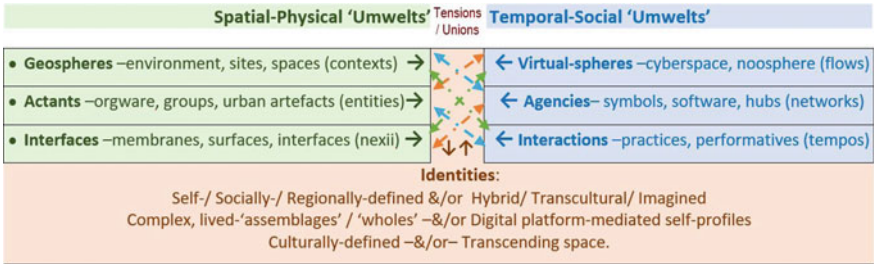

Fig. 15.3 Negotiating identity: a moveable feast? *(n.b: green is spatial, blue, virtual and orange, cognitive). Nezhapi Odeleye and Lakshmi Rajendran*

In viewing identity as 'self-concept representations'[106] involving intersectional ties between people, places, cultural qualities, and lifestyle interests—new media-technologies by representing their signs, agencies and histories, provide a menu of community options for '*forms* of mediated identity' within such interactions. (Fig. 15.3) depicts generic outlines of these dynamic virtual and spatial intersections.

So what might be the conceptual implications of such dynamic drivers shaping identities? We use a limited number of generic city trends to suggest a 'moveable feast' of mediated city types—in which the varying combinations and permutations of these constituent spatial and virtual possibilities—could generate (within regional cultural perspectives) a potentially infinite number of opportunities (and risks) for identity constructions. Identity forms here would be constrained by self, social, community of interest, etc. responses to mediated-city-form development scenarios in the futures of place. They could occur sequentially over time, or coexist within a range of cultural bases across world regions, districts and/or cities. The scenarios are indicated in Fig. 15.4.

The everyday spatial practices of people, help in developing the *performative constructs*[107] which facilitate their ability to effectively rearticulate and anchor themselves to places. Today, with media technologies, people participate in multiple discrepant/diverse situations as well as (corporeal and non-corporeal) discourses. Through these, they '*construct different partial and simultaneous worlds in which they move, and their cultural construction of the physical world springs not from one source, and is not in one piece*'.[108] Today, through the process of everyday spatial performances largely being defined by these technologies, people inscribe their (mediated) identities into their environment.

In considering the places represented by these limited future city scenarios, what identity-evolving opportunities do they present?—Clearly each city scenario reflects

[106]Ibid.

[107]Butler, Judith 2006 *Gender trouble: feminism and the subversion of identity.*New York: Routledge.

[108]Barth, Fredrik (1989) 'The Analysis of Culture in Complex Societies', *Ethnos*, 54, 120–142, 132.

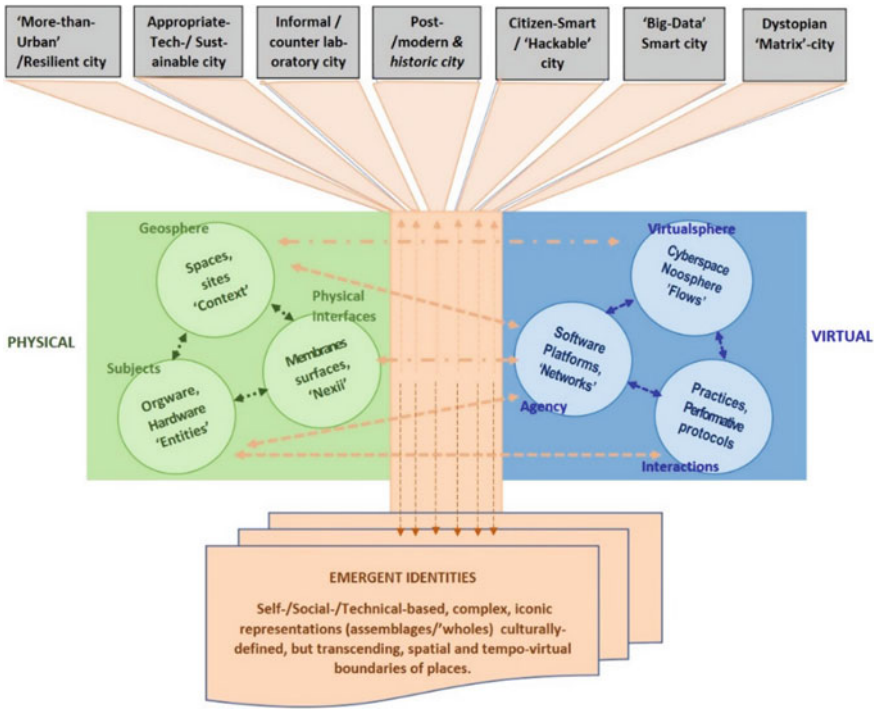

Fig. 15.4 Towards a conceptual frame?—future cities/places as 'identity-mediating' interfaces. *(n.b: green is spatial, blue, virtual & orange, cognitive). Nezhapi Odeleye and Lakshmi Rajendran*

stances to, and investments in, media and how these are reshaping places. It is anticipated that generic city 'types' such as indicated here, would each very likely be hybridised to some degree 'hybrid urbanisms' (albeit having a more dominant theme) with some variety of places and districts within them exploring sub-cultural orientations in an informal or reactionary manner. The reader may reflect on how people within such orientations might relate inter-subjectively, given continuing media developments and adaptive uses—enabling a diverse range of hybrid identities and communities to be negotiated in future places.

However, hybrid identities present significant challenges for the construction of communities. *'How can deep and social bonds be forged when individuals have multiple and perhaps competing senses of self, and indeed often feel pretty unsettled in all of them?'*[109] Scholte's statement shows the extent to which the transformation of people's individual and communal spatial relations with the urban landscapes, defines the complexity of identity constructions, and their consequent effect on society. But hybrid cultures/'diasporic' communities need not be limited to influences from their original homes, as transcultural trends of cultural sampling and adoptions,

[109]Scholte, Jan Aart 2005 *Globalization: a critical introduction* (New York: Palgrave Macmillan,), 253.

attest. However economic and climate trends indicate more displacement will very likely occur. Professional and economic opportunities, as well as industry reconfigurations—driven by new and disruptive media, including artificial intelligence (AI)—will no doubt also contribute to such demographic movements.

What then might be some generic 'mediated'-'identity patterns' emerging in these futures of place—assuming some citizen sub-culture-adaptations within three very broad 'types' of thematic milieu, as indicated below?

(a) *Human-culture-centred, Traditional-heritage or postmodernist-mediated (Humanist) identities*: These may be likely to prevail in the (heritage) core urban areas and their sub-urban hinterlands and informal/counter-laboratory districts of cities. Historic conservation for major tourism economies may ground more traditional identities (even if imagined/nostalgic) for those affluent enough to afford this lifestyle.

However, the media-facilitated regeneration and gentrifying displacements that had been a feature of an 'urban renaissance' would continue to gather pace beyond the core, tempered by the usual periodic recessionary hiatus, in which more creative urban design experimentation briefly thrives, only to return to neoliberal 'business as usual' with economic recovery, and a reactionary backlash against the loss of 'place' and affordability. A mix of currencies and credits may be accepted.

Media-technology would be in use, but discreet and partly 'invisible'. Any associated post/modernist areas may be partly constrained by tourism, or may opt to develop in other directions (likely sites for experimentation with other forms of urbanity).

Citizens may feel a sense of local history-related, civic pride—feeling they have the best of both worlds—access to tech, and the liveability of a 'bygone age'. The emphasis on tourism may encourage a sense of belonging and working together to support their local economy.

(b) *Dystopian-AI-Smart-mediated,* or *Smart-AI-Big-data-friendly mediated versus Urban Hacker-mediated Identities*: The dystopian milieu could comprise an advanced form of digital technology-augmented buildings, artefacts and people, enabling 24-hour surveillance and behaviour modification or inescapable social engineering. The identities mediated by these could be either submissive, well-adjusted, or resister communities.

Even if more benign, the urban control room dashboards of the major tech firms within big-data friendly cities could merely reproduce current civic processes, procedures and the form of extant proprietary data platforms, and could be less useful for citizens, beyond for instance, initial engagement in achieving energy and waste 'efficiency-seeking' reduction targets, or transport modal-shifts and management, based on big data analytics. Meanwhile, the property development cycle continues to speed-up with advanced BIM, CIM, construction drones, AI, etc. and the pace of change in digital tech to ensure increasing economic 'growth'.

By contrast, versions of a citizen 'hackable' city if using 'public code', could facilitate a higher level of citizen programming literacy and local digital co-production of new participatory platforms, processes and outcomes—as well as higher governance

accountability expectations, with an ability to crash parts of the system in protest, by a more demanding citizenry.

Media-technology would be in very prominent use in these three 'Smart'city milieu, and highly 'visible' at every level—serving as iconic city imagery, and as creative inspiration for architecture, the arts and cultural forms ranging from music to fashion. Cash would not be accepted in 'smart' and dystopian areas and anonymity is impossible with the universal credits which are denied for 'poor behaviour'—thus, very few residents are dissidents.

Citizen identity would be influenced by the version of smart city they reside in (whether AI-augmented impositions, or friendly/uneasy truce with private owners of city systems, or empowered by public codes). And movement between them may be restricted or otherwise discouraged. They would take pride in their high-tech, iconic skyline, and 24-hour lifestyles—viewing other cities as relatively backward and slower-moving. Time needed to interface and keep up with data feeds from all the sensors dashboards and personal media-technology may lead to a subdued social scene, with a new psychiatric disorder; *Synchronised Attention deficiency* (where groups seem to 'device-fixate' synchronously for 20 minutes at a time, become aware of others, talk for 5 minutes and return attention to their wearable gadgets and public screens).

(c) *Interspecie/Nature-Hacktivist* and *More-than-Urban-Augmented mediated identities*: However, the public code that could be developed and made available in the 'more-than-human' city, being largely or partly based on living system ecologies, could also lead to the creation of a range of human perception-enhancing techniques and methodologies, that could better guide the further development of interaction protocols, or where needed, devices to modulate and mediate inter-species co-existence and thriving, within planetary boundaries.

Media-technology would be in limited use in nature-dominated areas which would favour biomimetic and biomimicry-based design, though more visible, and not dominant in technologically-savy augmented areas. Interspecies areas would focus on cognitive/consciousness-enhancing techniques and communicative design. Key landmarks and artistic forms would aim to synthesise/fuse a wide range of natural landscape, species, human and media-based iconography.

These cities have the most diverse populations, as great value is placed on individual talents and viewpoints for communal human cognitive and landscape enhancements. Citizens are proud of their relatively simple and unhurried lifestyles which maximise 'service' through interactions and social research/learning. Nature-led areas have the highest level of tourists and study-visitors, including from the other cities, many of who vacation here or in the heritage cities. Their volume is monitored with waiting lists and consumer protocols, to conserve resources. Their service industry is second to none, including care, health/wellbeing, personal development and orgware hackathons in those districts.

A more communal identity facilitates their predominantly sharing-economy, and cultural events calendar, where universal credits are accepted, but local cash currencies and time-banks prevail. A 'steady-state' circular economy eradicated waste, as

well as financial 'booms and busts'. More-than-urban districts serve as a buffer for the countryside/wild nature zones and a 'bridge' to other areas. The creative scene in both types of 'rurban' places is eclectic in terms of fashion and art, drawing upon transcultural and vernacular local traditions to develop their own unique sense of place. Many young people initially leave for the glamour of other cities but most return to settle down.

15.11 Future Prospects?

The proposed Conceptual Framework and scenarios reflect our view that greater attention needs to be paid not just to the mediatised changes in social practices, but also to the cognitive implications of new media for spatial cultures and identities. Enactive (or co-emergent) perspectives supported by an 'umwelt' ontology emphasise the materially and performative habits or patterns of embodied knowledge transmitted down generations and across populations and species. These imply a co-evolving 'virtual dimension' of signs, with social rules and habituated constraints as a fundamental part of our cognitive capacities. In the view of Meacham's compelling analyses, these highlight the *'problem of the virtual'* as a dimension of raw potential and 'trans-individuality' hinted at, by our human level of 'situatedness' in the world.

How then might the hyper-extended virtual domain generated by digital media-technology and the internet, re-shape our own 'virtual cognition envelopes'? According to Meacham, Merleau-Ponty had insisted, following Husserl, that this virtual state of 'wild-being' is perceptually accessible—with his own studies across a wide range of disciplines—apparently seeking to access perceptions of this virtuality (in which possibilities, *are constrained by what has gone before*/ or *evolved*) in relation to actuality.[110]

We suggest radically, (and speculatively) that *if* cognition is indeed scalable in biological terms, then at the whole-organism level of humans, we appear to be at the nexus of at least three intersecting, umwelt ecologies; 1) that of our own inner milieu of constitutive biological components; 2) that of other people within our populations and species; as well as 3) that of our surrounding environment, including other species, the planet and its own umwelts. And while our media-generated virtual reality is arguably a 4th emerging axis- connecting humans with other people in the second axis via social media (critiques notwithstanding) and with the third axis, in terms of locative media, information and representations of nature—these may both be at the expense of the first axis (our own bio-ecologic drivers, which from this ontological perspective, evolved cognitively, by interacting with other people, other species and surrounding planetary environment, directly).

[110]Merleau Ponty, Maurice *(1962) Phenomenology of Perception. English Translation. Colin Smith*. Cited in *Meacham, 2016, Op. Cit.*

However, if perception and human adaptive responses to cues and 'signs' from these ecologies were semiotic keys to our evolutionary 'becoming' as part of more complex co-umwelts, then societies cannot afford to leave technology to do the sensing for us, or to otherwise mute the cognitive signals reaching us. While media-technology has clear benefits, enabling people to 'share' the virtuality' of individual cognitions more readily with others—as well as in maintaining distant relationships and facilitating social movements, the dis-benefits include the divisiveness of current social media 'filter bubbles'—with a few online platforms wielding near hegemonic power, and mass surveillance capabilities.[111]

Instead, media-tech could be used positively to fill gaps in knowledge about the features we need to learn to better perceive—to identify hidden actants, processes and dynamics—How could our awareness of these be enhanced—by a greater focus on developing human 'cognitive capacities'—to perceive and engage with these meaningful structures? Locative media is only a first step, which (counter-intuitively) could be usefully deployed as a means of extracting and reengaging with navigational principles, for the development of cognition-enhancing techniques and methodologies. Only then could the continued enhancement of human 'becoming' with human co-umwelten be assured, towards which we are now at high risk of mal-adaptative outcomes (according to climate scientists[112]).

By embracing the implications of a bio-enactive ontology, humans could (as the larger, organism-level umwelten that human individual biological constituents are in turn, responding to—help to enlarge their virtual envelopes of possibility. Securing the integrity of their micro-networked processes—potentially scales up cumulatively (epigenetically) to our future ability to co-evolve into 'human 3.0' via adaptive autonomy with more complex signs and wider possibilities in our species-level virtual cognition. Media technology alone, such as technology augmentations cannot do this for us, though it could usefully help 'free' us to focus on the opportunity to develop human potential and wellbeing (rather than profit-making potential) if used strategically—and there appears to be a choice to be made;

First, on one hand, increasing levels of human resources (energy, time, attention, ingenuity) could continue to be invested in developing the capabilities of silicon-based devices and AI—aiming to achieve basic levels of algorithmic sentience—while the human biologically-evolved cognitive inheritance[113], risks stagnating or even regressing in relative terms, as a 'de-mergence' of our evolved complexity. Although enactivism posits an 'embodied' and 'extended-emergent' mind that can draw upon environmental structures to support internal cognitive processes, at what point/level, and with what types of structure/living system interactions—for instance, anticipated advances in mechatronic 'plugins'—does such reliance (if parasitic on external resources) become counter-evolutionary or maladaptive to humans as a

[111]Lanier, Jaron. (2006) "Digital Maoism: The Hazards of the New Online Collectivism," The Edge 183, 183, no. 30: 2.

[112]Green, Alison et al. "Facts about Our Ecological Crisis Are Incontrovertible. We Must Take Action." The Guardian. October 26, 2018.

[113]*Olson* (2011) "The Extended Self".

specie? Evidence shows current human impacts on other species and the environment (our third proposed overarching umwelten) in which at least a number of key 'planetary boundaries' have already been exceeded.[114]

Secondly, an alternative choice, is of recognising the value of spatiality and of 'places' which still matter, perhaps more than ever, as the situated umwelt of human 'being and becoming'. Used judiciously, appropriate types of social media, may enable humans to modulate and better manage individual and population-level conflicts, via self/other co-determinations of hybrid-personal and communal identifications. However, to what extent are the current virtual-media menus of identity profiles, an enabler or constraint on these possibilities? It would appear that continued interactions with places and other species are needed for humans to potentially co-evolve a more complex level of cognitive-capacities involving embodied, emergent-extended and embedded mind features. Media-technology should help *humans* enhance these capacities—and it is hoped our explorations suggest possibilities for future interdisciplinary research initiatives. These of course, are one set of perspectives—Readers may place less emphasis, on the role of our environment, /urban -habitats or /places as identity-mediators. The highlighting of cognitive issues may also seem an unduly speculative perspective, given current political, economic and smart technology drivers. It is recognised the proposed conceptual frame and scenarios are crude at best, with seemingly limited, *types* - while a wider range of hybrid identity patterns are likely a more realistic outcome. This provocative (partly polemic) cognitive approach is intended to spark a conversation about the futures of place and human identity between our disciplines and cognitive science.

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[114]Rockström, J, W Steffen, K Noone, and M Scheffer. (2009) "A Safe Operating Space for Humanity," Nature 461, 461, no. 7263: 472–475. https://doi.org/10.1038/461472a. And Rockström, Johan, Will Steffen, Kevin Noone, Åsa Persson, F. Stuart Chapin, Eric Lambin, Timothy M. Lenton, et al. (2009) "Planetary Boundaries," Ecology and Society 14, 14, no. 2 (December 1): 32.

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Correction to: Being and Becoming: Emerging Relationalities with Space/Place and Socio-Technical Geographies

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The original version of the book was inadvertently published with omission of co-author's name in chapter 1, which has now been updated and approved by the editor. The chapter has now been updated with changes.
The name of the co-author is:
Maryan Fazel
Tehran, Iran

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