26

Circulation
Will Straw

For at least four centuries, the term "circulation" has been put forward in periods of social upheaval as a key to understanding how the world has been transformed. The claim that people, things or ideas now "circulate," rather than remaining fixed within social or physical structures, is a common means of describing a new condition of social life. "Circulation" has come to stand for the disruptions of tradition and crumbling of old edifices which have brought us the modern world in its various forms. Key transitions in world history, from the expansion of capitalist markets in the seventeenth century through the destruction and rebuilding of cities in the 1800s, and on to the growth of the Internet in the 2000s, have been accompanied by the argument that we now live in a world in which circulation reigns.

This use of "circulation" as a symptom of modernity may be traced back to the most important early use of the term – as a way of characterizing the movement of blood in human or animal bodies. In 1628, the English physician William Harvey (1578–1657) published a treatise arguing that, rather than "falling" through the body, or seeping between walls of tissue, blood was set in motion through a circulatory system, as a result of pumping by the heart. Harvey's theories about the primacy of the heart challenged longstanding theories of the movement of blood, but were also part of a shift towards understanding broader social phenomena in terms of their circulation. As Thomas Wright has shown, while Harvey's discovery revolutionized medicine, the physician was drawing on ideas that were already shaping the English language in the decades just before he published his findings:

> It is surely significant that around this time, many words relating to circles, circular patterns and circulation entered everyday parlance, along with the alchemical terms such as 'circulation.' "Circuit" ('to go or move in a circuit') was first used in 1611; the adjective 'circuitous' came into being in around 1620; 'circulator' (i.e. 'he who or that which circulates') entered the language in 1607, while 'circularity' had been employed since the 1580s. The currents of the English language undoubtedly carried Harvey towards his theory. (Wright 2012, 175)

The concept of circulation quickly became important as a tool for thinking about social life in general, with two consequences. One of these is that the terminology used to describe circulation (which included such words as circuit, conduit, and vessel) moved into a variety of non-medical domains. This generalization of the idea of circulation, Eric Swyngedouw suggests, would become particularly intense by the time of the French Revolution in the late eighteenth century, when political upheavals encouraged the sense that ideas, rumors, and emotions were circulating uncontrollably through Parisian society. "Circulation," in this moment, and in others to come, would seem to capture the character of a restless world in which old hierarchies were dissolving and new social forces were being set in motion. A second consequence of the new interest in circulation, to which we shall turn in detail shortly, was that society itself came to be envisioned on the model of the human body. The smooth movement of money, people, and goods would be seen as crucial to a society's "health," just as the unconstrained movement of blood sustained the human or animal body.

From our present-day vantage point, we may point to three broad areas of thinking in which ideas of circulation have proved influential. Each of these will be examined here in turn. One such domain is that of the economy. Concepts of circulation have been at the heart of models of capitalism and markets, and economists have long puzzled and argued over the relationship between the circulation of money and that of goods. A longstanding question here is whether commodities enter into circulation with their values already embedded within them or, rather, they acquire such value in their circulation through markets. A second broad area of application emerged with the incredible growth of cities. From the nineteenth century onward, the idea of urban space as a set of overlapping systems of circulation has proved highly influential to scholars studying cities and to those grappling with the problems of city governance. A key question here is whether a city is best seen as a community, defined by the social relations which have taken shape within it, or as a circulatory space, defined by the pathways of movement along which people, things, and ideas travel. Finally, we will examine the use of "circulation" as a way of describing the movement of information and cultural expression. From the oral communication of the revolutionary street in eighteenth-century France through the sharing of news items on contemporary social media, ideas of circulation have been invoked to capture those processes by which cultural expression of all kinds moves and finds its audiences. The crucial question here, forever debated in the study of culture, is whether the meaning of cultural artifacts (like films or email messages) is somehow carried within these artifacts, from person to person (or place to place), or is instead a function of the circulatory routes along which a cultural object travels as it traces links between people and places.

The Circulatory Economy

For Karl Marx, understanding how a capitalist economy differed from one based on barter (that is, the simple exchange of one good for another) required that one turn to ideas of circulation, and then move beyond them. Put simply, capitalism for Marx is an endless process, in which each act of exchange initiates the movement of capital towards new commodities or new forms of investment. The fundamental deception of capitalism, Marx argues in *Capital*, has to do with the misrecognition of just what, in the process of

circulation, is moving things along. As money is used to purchase commodities, and as these commodities drop out of circulation (in order that they may serve a particular use-value), it may appear as if the movement of money is producing value and keeping economic activity alive. In fact, Marx argues, the movement of money is nothing more than "the expression of the circulation of commodities," a residue of the ongoing transformation of use-values into exchange values which are expressed in monetary terms. In Volume 1 of *Capital*, Marx devotes the entirety of chapter three to questions of circulation, stating, in an evocative phrase, that, under capitalism, "[c]irculation sweats money from every pore" (Marx 1887).

If circulation "sweats" money, however, this did not mean that value was the product of circulation. Marx believed that for economics to be a genuine science, it must move beyond the study of circulation and place capitalist relations of production at the heart of its analysis. Value was the surplus produced in the difference between the return on goods and the investments needed to sustain the social classes who engaged in the labor which produced those goods. Nevertheless, in Marx's discussion of circulation we find several of the key motifs which will appear in later treatments of the concept in several fields. These include, first, the argument that circulation is an endless process, rather than a circumscribed transaction between individuals, and second, the recognition that circulation fundamentally transforms the relationship between people.

The sociologist Georg Simmel, writing in the late nineteenth century, took up these motifs in highly influential terms. In modern capitalist societies, he wrote, the restless circulation of money worked to dissolve the certainties of an older world, changing the ways in which people related to tradition and to each other. As Peter Fritzsche usefully summarizes his thinking, what Simmel saw as the "substantial things and honorary ties" of an earlier world – the objects made and used within communities and the bonds of respect and responsibility which joined people together – had disappeared amidst the functional relationships of modern capitalism (Fritzsche 1996, 238). The circulation of people, from country to city or nation to nation, weakened the structures of family and social class which had once given people a clear sense of their own identities. The circulation of goods, far away from the places and traditions in which things were made, weakened the meaning of objects and contributed to a broader debasement of everyday life. In a variety of ways, then, the modern inhabitants of capitalist societies, cut off from tradition and community, circulated in estranged fashion through the social world, with money circulating around them as one cause of their estrangement.

Debates over whether capitalist economies are defined by circulation, or whether circulation merely hides an underlying "truth" of economic life (such as the exploitation of one class by another) continue, through the present, within and outside Marxist theory. Kojin Karatani's influential book *The Structure of World History: From Modes of Production to Modes of Exchange* (2014) usefully summarizes these debates, building the author's own argument for the primacy of exchange and circulation over production. Recently, as well, social critics and scholars have turned to circulation as a way of mapping the different kinds of mobility that characterize present-day capitalism. Whereas once the economic analysis of circulation focused on the movement of money and goods, it is now increasingly preoccupied with the migration of people and with the forces encouraging and controlling this migration. A commonly noted feature of contemporary life is that, while the organization of capitalism on a global basis has facilitated the free movement of commodities and capital (through international trade

agreements and other mechanisms), the movement of people is limited by tightened controls over human mobility. These constraints are, much of the time, rooted in racist immigration policies or alleged security risks. As Didier Fassin has shown, the liberalization of trade since the 1970s has gone hand in hand with restrictions on the transnational circulation of people. These restrictions, Fassin notes, affect "the majority of the population of the planet" (Fassin 2011, 214). To put it simply, money and things now circulate with relative ease, while most people do not.

Circulation and the City

Ideas of circulation have been central to how people imagine cities in the modern age. The French philosopher Michel Foucault has shown how for French town and city officials of the 1700s, the problems of governing municipalities came to be defined in large measure as problems of circulation. How could one open up a town or city so as to encourage the circulation within it of people, things, and money? How could one ensure that one's own town was well connected to broader spheres of circulation – that it was not cut off from the flow of people or capital (Foucault 2007, 27)? Foucault shows how municipalities learned to distinguish between what he called "good and bad circulation": the desirable movement of goods and money, on the one hand, and "the influx of the floating population of beggars, vagrants, delinquents, criminals, thieves, murderers, and so on" on the other (34). By the 1800s, officials in cities like Paris were speaking of a "circulatory torrent" of animals, machines, and people which cities had to move quickly to control and channel along efficient pathways (Barles 2001, 191). The building of wide boulevards, sewage and water systems, telegraph lines, railways, canals, and other conduits throughout the last two hundred years has made cities into spaces in which systems of circulation are overlaid and intersecting.

In the nineteenth century, as the literary theorist Karlheinz Stierle has argued, the images which came to stand for well-known cities had less and less to do with a central place (like a government building) which was recognizable to all and through which the city expressed its identity. Rather, the city had become a circulatory system, an open totality in constant movement. Images of such movement now became the favorite means by which a city's character was represented; scenes of busy boulevards or transportation systems pushed aside those of iconic buildings (Stierle 2001, 322). As Matthias Armengaud has written of European cities, "the centre is no longer the palace square, but the network of ordered and controlled circulations" (Armengaud 2009, 71).

We may distinguish two broad ways of imagining the city as a circulatory space. One has taken shape in the thinking and actions of bohemians or artists. From the nineteenth-century poet Charles Baudelaire through late twentieth-century radical movements like the French Situationists, artists have engaged in the activity of drifting along city streets, immersing themselves in the circulatory flow of people and things. When large cities were new, as they were for Baudelaire's *flâneur*, this drifting was meant to open the artists' eyes to the rich and unfamiliar diversity of city life. A hundred years later, artists were more likely to seek out the unusual in cities which by then seemed to have become sterile and uniform. Urban activists like the French Situationist Guy Debord set out to challenge the stifling conformity of post-World War II urban planning through an activity called the drift (or *dérive*). The Situationists moved through the city

(usually Paris) in groups, tracing pathways different from those highlighted in official maps. The "psychogeography" of Debord and his companions produced alternate versions of a city map, seeking to restore, to the highly functional modern city, a sense of the unexpected and miraculous. In the Situationist *dérive*, the circulation of emotions and intensities through a city was of more importance than the pathways of automobiles or commodities (Sadler 1998).

Another, very different idea of the city as circulatory space has been at the heart of major (and usually controversial) initiatives in city planning and urban design over the last hundred years. Well-known science fiction images of futuristic cities (such as those we see in films like *Metropolis* from 1927, or *Just Imagine*, 1930) show us walkways in the air which link buildings, or highways in the sky along which automobiles travel with few impediments to their movement. Unlike the twentieth-century city, which had come to be associated with traffic jams and congestion, the imagined cities of the future would contain infrastructure for smooth circulatory movement. The building of freeways in western countries, particularly in the decades following World War II, was intended to turn cities into efficient spaces of circulation. If, in the famous words of the architect Le Corbusier, the house was a "machine for living," the city was to be a machine for the smooth circulation of people and goods. "A city made for speed," Corbusier said, "is made for success" (Le Corbusier 1987, 179).

The urban theorist Ben Highmore has suggested that circulation may no longer be the most useful term with which to think about the structure of contemporary cities. As older infrastructural elements like freeways or plumbing systems come to seem less important than electronic networks, we might ask, with Highmore, whether "circulation has been transplanted by communication" (Highmore 2005, 138). In this case, perhaps, Harvey's model for the circulation of the blood may give way to modes of imagining cities which are based on the analogy of the nervous system, with its pulses and synapses.

Circulation in the Domain of Discourse

Since the early 2000s, the term "circulation" has enjoyed something of a boom among those engaged in the academic study of cultural forms. By cultural forms, we mean both media objects (like magazines and DVDs) and genres of discourse (like novels or news) which may be "carried" by a variety of media objects. For a long time, those engaged in studying cultural forms had debated the relative importance of producers and consumers in determining the meaning of cultural expression. In studies of literature and media, the notion that meaning was something deposited in a work of culture by its author, and then transmitted in its coherent totality to a reader/consumer, had long been dismissed as overly simplistic. In the place of a creator-centered study of culture, a variety of methodologies argued for an emphasis on the ways in which meaning took shape within acts of reading, reception, and consumption.

Notions of circulation entered this debate when it was felt that both these approaches – those centered on either producers or consumers – still assigned too much importance to the isolated encounter of a cultural object (a book or television program, for example) and the person reading or consuming it. Important, manifesto-like articles by Gaonkar and Povinelli (2003) and Lee and LePuma (2002) urged those

who analyze culture to move beyond a model centered on producers and receivers in order to examine what they called "cultures of circulation." To study these "cultures of circulation" meant to study the distances across which cultural forms travel, the rhythms of their movement, and the conditions which make possible various kinds of encounter. The encounters in question are not simply those between cultural objects and their consumers, but, just as importantly, those by which cultural objects join up with each other and position people in new relationships to cultural expression. Large-size screens which display the tweets of those attending public events, for example, bring short messages to readers in new ways, taking them out of individual devices and making them the focus of collective attention. The same kinds of display also set small-scale messaging amidst the posters, video screens, Powerpoint presentations, and other forms of expression which make up the media environments of these events. Tweets are therefore made to circulate across new kinds of visible surfaces, where they join together with other forms of expression which each have their own pathways of circulation.

As Highmore has noted, "rhythmic terms such as 'circulation' overcome the sort of fixity that comes from studying production and consumption in isolation from each other: circulation is the articulation of their relationship" (2005, 9). In influential scholarship on the early development of the printed press in the United States, Michael Warner showed how the existence of a "public" for newspapers and magazines required "not just diffusion to strangers, but a temporality of circulation" (2002, 66). By "temporality of circulation," Warner meant a certain rhythm of publishing, but he was also referring more broadly to the ways in which the circulation of printed matter produced a particular experience of time. One issue of a periodical might refer to earlier issues of the same periodical or anticipate issues to come. The texts in one magazine might engage in polemical discussion with other articles appearing alongside them, in other periodicals, perhaps by denouncing those other articles as out of date. As magazines spoke to each other and succeeded each other, they produced Warner's "temporality of circulation," distinctive rhythms through which the new replaced the old, and by which readers experienced time as forever moving forward.

The usefulness of "temporality of circulation" as a concept does not require that we know much about the content of individual articles appearing in these periodicals. We may say that the speed of circulation acts independently of content to give particular realms of culture their specific character. Niilo Kauppi, in a study of French intellectual life in the 1950s and 1960s, shows how the rapid circulation of ideas – in books, magazine articles, and television talk shows – led thinkers and writers in France during this period to adopt extreme positions on culture and society in order to hold the public's attention. Here we have evidence of circulation producing a rapid sense of change and encouraging high levels of differentiation between those involved in the world of culture. Conversely, we may see the global circulation of present-day paperback crime novels, by well-established writers from places like Scandinavia, as slowing down the rate of change in crime literature by relying on a system of translation and promotion which extends the life of any one novel, while also setting in place a readership (often consisting of air travelers) that remains loyal over several years to familiar writers and formulaic plots.

Some of the most suggestive recent uses of circulation theory have been in relationship to digital media. Two characteristics of such media have highlighted the usefulness

of "circulation" as a concept. One is the fact that images, texts (like novels), and audio-visual works (like films) now move across several different technological devices and formats, like smartphones, tablets, and computer screens. Part of the life of a text today is its ability to change form as it circulates across the different interfaces through which it will be consumed. In the circulation of a film across platforms, for example, its size, proportions, and intensities (of color and sound) will shift; so, too, will the extent to which consuming it involves holding it close to one's eyes or setting it at a distance. From one experience of a film to another, the interconnection between the human body and the technological interface is different, and the ratio of human senses brought into play will be altered. We can no longer speak of a primary, pure vision of the film, but rather of a body of digital information that circulates across different contexts of viewing and is transformed for each such context.

A second characteristic of digital media highlighting the pertinence of circulation is the relative simplicity or triviality of so much content. As individuals share or transmit dozens of video clips or photographs on a daily basis, a deep analysis of each one of these seems less important than measuring the rhythms of their sequential transmission or mapping the patterns by which they are shared. The speeds and pathways by which bits of culture travel in the contemporary world seem to say more about the role and place of culture than the meaningful substance of any one of those "bits." In this respect, as I have argued elsewhere, present-day cultural life lends with particular ease to what the literary theorist Franco Moretti has called a "distant reading," in which the interconnection of small elements becomes more important than the deep interpretation of any one (Moretti 2005; Straw 2010).

A key terrain in which this "distant reading" shows its usefulness is that of contemporary journalism. We are accustomed, with the Internet, to seeing news stories broken down into photographs, quotes, opinions, and other units which may gather in one story, then are pulled apart and sent off to join up with other "bits" on different sites. Any online piece of journalism, in this sense, becomes the raw material for processes of circulation which send its various materials elsewhere. As Henrik Bødker shows, the logos which invite us to share a story on Twitter or Facebook are triggers for this circulation: "these are the various 'handles' that allow people from different cultures to hurdle an image or text further on out of and into (new) cultures of circulation; to follow such trajectories would be something like following a space explorer capsule as it is propelled into the galaxy by the gravity of different planets" (Bødker 2015).

Some of the most interesting treatments of circulation in relation to culture have been in the field of the visual arts. Many of these treatments begin with the recognition that images, or other cultural objects, have been in abundance for some time. The problem of culture, then, is not how we might produce more cultural expression but how this expression circulates through society. In their study of France during the 1930s – a time of heightened political tensions and cultural activity – Andrew and Ungar speak of the difficulty, for political movements or cultural "fronts," of controlling or channeling the enormous amount of cultural expression in circulation. While political forces (like the left-wing "Popular Front" which took power in 1936) took shape in the slow clustering of people around political aims, culture circulated quickly through and around these clusters, sometimes joining with them (to support or give voice to a political project), and sometimes disrupting them (by serving as distractions) (Andrew and Ungar 2005, 13).

One way of understanding these processes is through the tension between the slow (what Andrew and Ungar call "molecular") circulation of people around political forces and the more dynamic and rapid circulation of cultural objects like films or newspapers.

Writing of contemporary art worlds, the critic-scholar Jorg Heiser has argued that we no longer live in a world in which the typical artist works in solitude, then brings forth a work which finds an audience. Rather, the artist is likely to work with things already in the world (preexisting images, documents, places, and so on) and then find ways of bringing these to audiences in distinctive arrangements and specific contexts. "The term 'circulation,'" Heiser writes, "is shorthand for the ways in which the fluctuating relations between forms (from both inside and outside art) co-define the relations between artists and their audience" (Heiser 2005). For an artist to bring objects such as food, bureaucratic documents, or children's toys into a space that is used, if only temporarily, for art events, is to be part of a culture of circulation, in which forms, objects, and people are pulled out of their pathways of circulation and brought together in new, usually short-lived combinations.

If culture is more and more defined by circulation, by its movement between places and people, then the question of what effects this movement might have on the value of culture becomes inescapable. Key twentieth-century debates over mass-produced, popular culture were in part about whether the wide circulation of culture was democratizing (in the positive sense of expanding accessibility to culture) or degrading (because, in order to travel far, culture was required to make compromises with popular taste and a market economy). Among the most interesting recent interventions in this debate is that of the U.S. art historian David Joselit, who suggests that while the mass circulation of culture once depleted its value, in part by rendering it over-familiar, circulation is now necessary to mobilize the interest and attention of large populations of people, rendering culture more and more subject to compromises intended to enhance its appeal to popular taste. The "buzz" which accompanies the circulation of a cultural object, and which is so often condemned as a sign of that object's triviality, is now proof that culture has acquired meaning:

> A buzz arises not from the agency of a single object or event but from the emergent behaviors of populations of actors (both organic and inorganic) when their discrete movements are sufficiently in phase to produce coordinated action – when bees, for example, organize themselves into a swarm. Such events are not planned or directed by a single focused intelligence – they are "distributed" over several small acts that, taken individually, may have no intention, or consciousness of a bigger picture. Buzz indicates a moment of becoming – a threshold at which coherence emerges. (Joselit 2012, 18)

In this vision, works of culture circulate, gathering up the small "bits" of attention or excitement which render them meaningful in collective life. "Buzz," then, is the by-product of circulation, the force which drives it forward and the energy it gives off. Whether we see "buzz" as the ultimate sign of culture's debasement (its transformation into little more than hype) or proof of culture's ability to mobilize public attention and interest, writers such as Joselit insist that it is central to our present-day culture of circulation.

Conclusion: Circulation Forever?

While few would deny that ideas of circulation are useful for understanding the behavior of social and cultural phenomena in the world, some key disagreements continue to surround the concept. One of these has to do with whether circulation is best conceived as a liberating process, in which people or ideas become detached from constraints which limit their movement, or is more accurately seen as a kind of entrapment, by which we become stuck to deeply rooted circuits and pathways. Circulation may be both of these, of course, but the ways in which we imagine it will determine the extent to which the very concept inspires or limits the making of a better world. Is circulation a casting-off and setting-free, by which we come to follow ever-expanding circles of possibility? Or is it, like the rounds of employment offices followed by job-seekers, a sign of the futility and repetition which mark so many lives?

The double meanings of circulation are nicely conveyed in the distinction made by geographer Clive Barnett between circulation as either a "scattering and dispersal" or as a "circular, tightly-bound process" (Barnett 2008). The difference between these two visions of circulation may be illustrated using two examples from the history of the urban newspaper. The spread of metropolitan newspapers in the nineteenth century had much to do with the presence of armies of newsvendors, usually young boys, who moved chaotically through urban spaces calling out headlines and seeking buyers through chance encounters. In this process, the spread of the newspaper was marked by "scattering and dispersal," as news and those who sold it moved in multiple directions. By the middle of the twentieth century, the distribution of newspapers in North American cities had become much more of a "tightly-bound process," as middle-class young people delivered them to individual homes along well-established routes administered from central offices. In the first example, the circulation of news is part of the chaotic unpredictability of urban life; in the second, it stands for the repetitive, bureaucratized character of routines.

A larger tension surrounding ideas of circulation has to do with the applicability of the concept across history. The question, put simply, is this: has the circulation of people, things, and ideas always been central to human societies, or has it only become significant in recent times (in the last 150 years, for example)? Does "circulation" name the process by which people and objects participate in every society, or is it appropriate only to those societies in which high levels of mobility have followed the breakdown of earlier forms of stability? Is our present-day world more "circulatory" than in times past?

The most common answer to this question is that circulation is a product and symptom of modern (or postmodern) times. For thinkers like the sociologist Georg Simmel, the ascendancy of circulation is a historical phenomenon, a result of the multiple disruptions which transformed life in western societies in the eighteenth or nineteenth centuries. Before these transformations, Simmel suggests, ideas and habits were held within the stable structures of tradition, just as people and goods remained more tightly rooted in the places in which they were born. With the death of tradition, Peter Fritzsche has written, the nineteenth-century inhabitant of western cities confronted "fugitive appearances, unexpected encounters, and rapid fluctuations" – symptoms of a world in which circulation now reigned.

On the other side of this debate are thinkers like the Japanese theorist Karatani, for whom the history of societies across time must be rewritten in order to give primacy to processes of exchange and circulation. Challenging the Marxist emphasis on modes of production, Karatani argues that we must see exchange and circulation as the fundamental processes governing relations between people (2014, 161–162). Elsewhere within present-day cultural theory, the emphasis of Deleuze, Guattari, and their followers on the flows and circuits along which desire, capital, and other forces pass offers another model in which circulation has always been primary and in which the key political struggles are against those forces which seek to constrain or divert it (see, for example, Deleuze and Guattari 1987).

Middle-ground positions are more and more staked out by those engaged in intellectual or economic history, who continue to push the rise of circulation further back in time, challenging our sense of earlier worlds as static through new histories which trace the mobility of people, things, and ideas within and before what historians call the "early modern" period (roughly from 1500 to 1800) (e.g., Roche 2003; Beaurepaire 2014). The debate over whether societies have always been circulatory, or have only become so recently, returns us to fundamental questions about the conceptual tools we need to make sense of the cultures in which we live.

- see CHAPTER 11 (DIASPORA AND MIGRATION); CHAPTER 24 (DIGITAL AND NEW MEDIA); CHAPTER 32 (SCALE)

References

Andrew, Dudley, and Steven Ungar. 2005. *Popular Front Paris and the Poetics of Culture*. Cambridge, MA: Harvard University Press.

Armengaud, Matthias. 2009. "The Infrastructural Nature of the Nightscape: Night as Revealing of the Large-Scale, of the Networked Territory." *Nightscapes/Paisajes nocturnos/Nocturnal Landscapes*. Ed. Marc Armengaud, Matthias Armengaud, and Alessandra Cianchetta. Barcelona: Editorial Gustavo Gili. 65–103.

Barles, Sabine. 2001. "'La voie publique est spécialement affectée à la circulation.' La gestion de la circulation et du réseau viaire à Paris au cours du premier XIX siècle." *La modernité avant Haussmann. Formes de l'espace urbaine à Paris 1801–1853*. Ed. Karen Bowie. Paris: Éditions recherches. 191–202.

Barnett, Clive. 2008. "Convening Publics: The Parasitical Spaces of Public Action." *The Sage Handbook of Political Geography*. Ed. Kevin Cox, Murray Low, and Jennifer Robinson. London: Sage, 403–417.

Beaurepaire, Pierre-Yves, ed. 2014. "Formes de circulations savantes dans une Europe multilingue." *La communication en Europe: De l'âge classique au siècle des Lumières*. Ed. Pierre-Yves Beaurepaire. Paris: Belin. 99–105.

Bødker, Henrik. 2015. "Journalism as Cultures of Circulation." *Digital Journalism* 3.1: 101–115. DOI: 10.1080/21670811.2014.928106

Deleuze, Gilles, and Félix Guattari. (1980) 1987. *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. Brian Massumi. Minneapolis: University of Minnesota Press.

Fassin, Didier. 2011. "Policing Borders, Producing Boundaries: The Governmentality of Immigration in Dark Times." *Annual Review of Anthropology* 40: 213–226.

Foucault, Michel. 2007. *Security, Territory, Population: Lectures at the Collège de France, 1977–78*. Ed. Michel Senellart. Trans. Graham Burchell. Basingstoke: Palgrave Macmillan.

Fritzsche, Peter. 1996. *Reading Berlin 1900*. Cambridge, MA: Harvard University Press.

Fritzsche, Peter. 2002. "Readers, Browsers, Strangers, Spectators: Narrative Forms and Metropolitan Encounters in Twentieth-Century Berlin." *Printed Matters: Printing, Publishing and Urban Culture in Europe in the Modern Period*. Ed. Malcolm Gee and Tim Kirk. Aldershot: Ashgate. 88–104.

Gaonkar, Dilip Parameshwar, and Elizabeth A. Povinelli. 2003. "Technologies of Public Forms: Circulation, Transfiguration, Recognition." *Public Culture* 15: 385–397.

Heiser, Jorg. 2005. "Good Circulation." *Frieze* 90: 79–83.

Highmore, Ben. 2005. *Cityscapes: Cutural Readings in the Material and Symbolic City*. Basingstoke and New York: Palgrave.

Joselit, David. 2012. *After Art (POINT: Essays on Architecture)*. Princeton: Princeton University Press.

Karatani, Kojin. 2014. *The Structure of World History: From Modes of Production to Modes of Exchange*. Trans. Michael K. Bourdaghs. Durham, NC: Duke University Press.

Kauppi, Niilo. 1996. *French Intellectual Nobility: Institutional and Symbolic Transformations in the Post-Sartrian Era*. Albany: SUNY Press.

Le Corbusier (Charles-Edouard Jenneret). (1929) 1987. *City of Tomorrow and Its Planning*. New York: Dover Publications.

Lee, Benjamin, and Edward LePuma. 2002. "Cultures of Circulation: The Imaginations of Modernity." *Public Culture* 14: 191–213.

Marx, Karl. (1867) 1887. *Capital: A Critique of Political Economy*, *Volume 1*. Trans. Samuel Moore and Edward Aveling. Moscow: Progress Publishers. https://www.marxists.org/archive/marx/works/1867-c1/ch03.htm (accessed August 15, 2014).

Moretti, Franco. 2005. *Graphs, Maps, Trees: Abstract Models for a Literary Theory*. London and New York: Verso.

Roche, Daniel. 2003. *Les circulations dans l'Europe moderne: XVIIe – XVIIIe siècle*. Paris: Pluriel.

Sadler, Simon. 1998. *The Situationist City*. Cambridge, MA: MIT Press.

Stierle, Karlheinz. 2001. *La capitale des signes: Paris et son discours*. Trans. Marianne Rocher-Jacquin. Paris: Éditions de la Maison des sciences de l'homme.

Straw, Will. 2010. "The Circulatory Turn." *The Wireless Spectrum: The Politics, Practices and Poetics of Mobile Media*. Ed. Barbara Crow, Michael Longford, and Kim Sawchuk. Toronto: University of Toronto Press. 17–28.

Swyngedouw, Eric. 2006. "Circulations and Metabolisms: (Hybrid) Natures and (Cyborg) Cities." *Space and Culture* 15.2: 105–121.

Warner, Michael. 2002. "Publics and Counterpublics." *Public Culture* 14.1: 49–90.

Wright, Thomas. 2012. *Circulation: William Harvey's Revolutionary Ideal*. London: Chatto and Windus.