Mobilities Design

Affordances, Atmopheres, Embodiments

Jensen, Ole B.

Published in:
Mobility Design

DOI (link to publication from Publisher):
10.1515/9783868597943-003

Publication date:
2023

Document Version
Publisher's PDF, also known as Version of record

Mobility Design

Mobilities Design

Affordances, Atmospheres, Embodiments

Ole B. Jensen

This chapter introduces the new research area of mobilities design. It situates the development of mobilities design in relation to transportation and urban planning, urban design, and architecture while also connecting it to the humanistic and social sciences that it embraces. Some of the pivotal concepts within the mobilities design research field are affordance, atmosphere, and embodiment. The chapter will explore the relationship between these key concepts, specifically, and discuss how they form an important foundation to the mobilities design field. The chapter ends with some key pointers for future research within this emerging and growing field.

Introduction

Humans are mobile animals. We walk and run by our own bodily force, and our mobility technologies have shaped the way we live in ways not to be underestimated. Sailing, flying, driving across space and time at scales from neighborhoods to the globe (and these days even beyond with the »billionaires' race to space«), we are indeed »homo movens« (Vannini 2010). Our cities have over the last century taken shape after the most influential of all mobilities modes: the car. The ways in which flying has contributed to cultural exchange and globalization (and carbon dioxide emissions) is also hard to underestimate. We are mobile as a species in our »naked capacities« (Ihde 1990). However, the artificial landscapes of urban infrastructures that now has become »second nature« are also only inhabitable via mobility.

In the early days of the »mobilities turn« most disciplinary resonance was found in sociology and human geography. However, for more than a decade a turn to architecture and urban design has enabled the establishment of the research area of »mobilities design« (Jensen 2013, 2014; Jensen and Lanng 2017). Paying attention to the role of design in the making of the infrastructural landscapes of contemporary mobilities was only one dimension hereof. Another was a turn to the concepts and vocabularies within architecture and design enabling researchers to develop a sense of materials, spaces, volumes, voids, shapes, forms, and so forth. Learning from the design fields has also meant being inspired by the critical and creative approaches to shaping and making cities. To broadly simplify the matter, the social sciences developed a fine-tuned sense of problems, but it takes the architecture and design fields to enhance a sense of potentials. Mobilities design merges the critical sense of problems with the creative understanding of potentials in a research strategy that is much better equipped to understand the mobile life conditions of contemporary urbanites.

This chapter is structured in the following manner. After the introduction, a section follows explaining the shift from transport to mobilities and then further on to mobilities design. To explain in more detail the capacities of mobilities design research, three key terms are then related in the framing section. The notion of affordances, atmospheres, and embodiments constitutes the rough contours of a theoretical framework for understanding mobilities design. The chapter ends with some concluding reflections and thoughts about future research.

From Transport to Mobilities (Turn 1) to Mobilities Design (Turn 2)

The multiple movements across and between cities have deep repercussions for who we are and what relationships we can engage in. This discussion is already well known under the rubric of transport (Shaw and Hesse 2010). Movement from point A to point B has shaped the form of cities and nation-states and has become a huge and globe-spanning logistics operation. Getting people, goods, and information from A to B in the shortest possible span of time, via the quickest routes, or most cost-efficiently has become the territory of transportation engineering and planning. However, there is more to mobilities than movements between A and B! The ways in which mobilities shape identities and societies has been the key interest of the »mobilities turn,« which emerged within social science around the millennium (Jensen 2015; Sheller 2021). Moving »beyond societies,« as Urry (2000) titled his agenda-setting book *Sociology Beyond Societies*, meant focusing on mobility and immobility in networks rather

than on static structures. The turn to mobilities has roots back in the early social sciences (Jensen 2015; Simmel 1994), but with the emergence of a new interdisciplinary way of thinking about cities and societies in the light of mobilities across sociology, geography, planning, and anthropology a new agenda was shaped. Mobilities research is thus an important rethinking of the role that movement and transportation have in making societies. It moves beyond the instrumental and into the more complex questions of identity, belonging, and situatedness of human practice.

We might say that transport has been about instrumental movement from A to B in efficient and safe ways. Opening up to mobilities does not remove those concerns, but rather adds two vital dimensions: experiences and aesthetics; and power and sociality. If we think of these four dimensions—instrumentality, safety, experience, and sociality—then the turn from transport to mobilities can be said to add the latter two to the first two. In the last ten to fifteen years, mobilities design has made a second turn, exploring the meticulously detailed relationships between the »made« (or designed) spaces, infrastructures, and technologies, and moving human bodies. The lesson learned from engaging with design »sensitizes us to the detailed entanglements with matter, surfaces, volumes, physicality, etc. that we know are important for the sensorial experiences of mobile subjects enrolled into various Mobilities systems and infrastructures« (Jensen 2016, 594).

The habitats of contemporary urbanites are huge artifacts. Urban networks and infrastructural landscapes are »made«; hence, the focus on design as something that explores »making« (Gänshirt 2021). As mentioned, there are two dimensions to mobilities design research. One is the enhanced understanding of the role of materials, spaces, and artifacts. The other is concerning the processes within design. It is what some research environments have come to see as critical and creative approaches to look for potentials as well as problems (Jensen and Lanng 2017). The argument for mobilities rather than transport is thus well explained. However, why term it mobilities design and not, for example, »traffic architecture« (as proposed by Buchannan 1964). The argument here reaches back to the situated and pragmatic focus on the mobile situation (Jensen 2013). What is of interest is that which affords a specific mobile situation. Honing in on architecture is simply not precise enough. We might face cases where the mobile situation is shaped by algorithms of traffic-light coding or the service design of ticket systems. These dimensions are hardly architecture, so the pragmatic research interest is much better taken care of if we use the broader notion of design. To put in one line: we are exploring mobilities, not transport; design, not architectures:

Affordances, Atmospheres, Embodiments: Framing Mobilities Design Research

The key question to mobilities design research is: »what design decisions and interventions afford, enable, or prevent concrete mobile situations?« (Jensen 2016, 590). To explore this, a number of relevant and interesting theories and disciplines might be mobilized. This chapter focuses on three key concepts that will enable us to get closer to understanding the actual, situated, and practical dimension of mobilities. In short, we need concepts for a vocabulary that enhances our understanding of what enables the mobile practices by humans (see Jensen and Lanng 2017 for a more elaborate argument).

Affordances The concept of *affordance* was coined by environmental psychologist James J. Gibson (1986). The affordances of an environment are what it »offers« the animal, what it »provides« or »furnishes« (Gibson 1986, 127). Gibson argued that:

> Air affords breathing, more exactly, respiration. It also affords unimpeded locomotion relative to the ground, which affords support … water is more substantial than air and always has a surface with air. It does not afford respiration for us. It affords drinking. Being fluid, it affords pouring from a container … a horizontal, flat, extended, rigid surface affords support (Gibson 1986, 129–35).

Affordance is a relational term. This means that we are looking at what a ramp or a bench may do or enable in relation to a human body. This is precisely why the situational mobilities research has found value in the notion of affordance (Jensen 2013). With its focus on the staging of mobile situations, the notion of *mobility affordances* was articulated to capture »how the specific relation between the moving body and its material environment opens up (or narrows down) to particular modes of mobilities, different speeds, trajectories etc.« (Jensen 2013: 120). Mobilities design research explores mundane mobilities practices that could be:

> a fine-grained asphalt floor of a road (one of the most ubiquitous types of pavement in spaces of mobilities), which affords frictionless and smooth car rides; or a traffic signal, which affords the ruled organization of intersecting mobilities and sets the scene for embodied and interactional mobile situations, such as waiting in a crowd with other pedestrians. Affordance is thus a concept that enables us to target the performative effects of mobile situations through the relational mobile subject—body—materiality couplings (Jensen et al. 2016, 30).

Much more could be said about affordances, but hopefully its relevance to mobilities design research is clear.

Atmospheres The second concept that we will introduce as a cornerstone of mobilities design is the notion of *atmosphere* (or ambience). This is a vital concept to engage with the added dimensions we saw with the first turn from transport to mobilities. If we are to understand how mobilities relate to experiences, aesthetics, power, and sociality we need concepts like atmosphere. Bissell argues that »affective atmospheres are central to everyday conduct whilst on the move since different atmospheres facilitate and restrict particular practices« (Bissell 2010, 272). And Borch points to the fact that atmospheres exercise a »subtle form of power« where people's behaviors, desires, and experiences are managed and controlled without their awareness (Borch 2014, 15). Atmospheres shape a »manifestation of the co-presence of subject and object,« and are characterized as the »prototypical ›between‹ phenomenon« (Böhme 1998, 114). And a final quote to include from one of the founding figures of the mobilities turn, John Urry: »Atmosphere is in the relationship of peoples and objects. It is something sensed often through movement and experienced in a tactile kind of way, what Thrift terms ›nonrepresentational‹ practices (1996)« (Urry 2007, 73).

We register atmospheres in airports, on streets, on the freeway, and all other places where we are on the move. From research into how hostile architecture or »dark design« is excluding homeless people in cities via spikes in the ground under bridges or leaning benches affording lying bodies to fall to the ground, we see a connection between mobilities and atmospheres (Jensen 2019). When homeless people move through the city in search of night shelter, the increasing number of dark design interventions orchestrates what has been termed an »atmosphere of rejection« (Jensen 2020). What this means for mobilities is that the city's rejecting response to the homeless creates »go and no-go areas« in the city and over time contributes not only to a specific atmosphere for the shelter-seeking, but also to a »jigsaw puzzle« of spaces to avoid and spaces that are attractive due to their affordances (Jensen 2019).

Embodiments The bridge from affordance and atmosphere to embodiment is not hard to see. Anderson argues that atmospheres emerge in the relational »assembling of the human bodies, discursive bodies, non-human bodies, and all other bodies that make up everyday situations« (Anderson 2009, 80). *Embodiment* means including the multisensorial and affectual experiences of the moving subject. Too little attention is given to the crucial question, »How does it feel?« within the transportation. However, we all recognize that the air quality, the temperature, and the kinesthetic and haptic experiences that shape our mobilities experiences are more than simply objective dimensions. We realize this whether we are flying in different sort of aircrafts (Jensen and Vannini

2016) or if we are taking an air-conditioned sky train instead of an overcrowded, non-air-conditioned bus (Jensen 2007). We may put this in very simple terms: we are doing mobilities (Jensen 2013). Hence, the role of embodiment becomes vital to our analysis and understanding (Jensen 2016, 593).

The relationship between bodies, spaces, and vehicles is complex. Multiple senses and affect enter the equation, as does the fact that our bodily boundaries might have to be rethought. Gerontology put focus on what is termed the *extended body* as an illustration of this phenomenon (Reynolds 2018). According to this line of thinking the body is only one component of a full mobile situation. Furthermore, we may start reflecting that we are »touching the world« in many more different and important »critical points of contact« (Jensen and Morelli 2011) than we normally think of. The body has an »osmotic« or open relation to the world as it »extends« into relations with artifacts and spaces (Jensen 2016; 2021). The American philosopher Richard Schusterman articulates it very directly when he states that:

> To focus on feeling one's body is to foreground it against its environmental background, which must be somehow felt in order to constitute that experienced background. One cannot feel oneself sitting or standing without feeling that part of the environment upon which one sits or stands. Nor can one feel oneself breathing without feeling the surrounding air we inhale. Such lessons of somatic self-consciousness eventually point toward the vision of an essentially situated, relational, and symbolic self rather than the traditional concept of an autonomous self-grounded in an individual, monadic, indestructible and unchanging soul (Schusterman 2008, 8).

In other words, when we are in a car, on the bus, in the bike saddle, or simply walking down the street, we are sensing a considerable number of things. In terms of consciousness, we might foreground and background certain things like paying attention to the red and green light at street crossings, other vehicles and bodies in the environment, or signage, and so forth. It is precisely this holistic and situational complexity we need to understand (Jensen 2013).

The interlinking of affordance, atmosphere, and embodiment is not the full story about the theories underpinning mobilities design research, but these are key terms and, in particular, their interrelationship is vital for showing the move from transport over mobilities to mobilities design.

Concluding Reflections

Mobilities design research may be situated and articulated in various ways, but one school of thought that has emerged is material pragmatism (Jensen 2017; Jensen and Lanng 2017). It is too much to engage in a deeper exploration of the ontological and epistemological assumptions and underpinnings of material pragmatism here, but a few indications can be made:

The analytical position of material pragmatism points to the actual effects and situations and not some abstract and generalized perspective. Material pragmatism asks »what enables this particular mobile situation?« and in answering it seeks to move beyond subjects standing before objects, humans before spaces, people before infrastructures. Rather, material pragmatism argues for a situated, holistic, materially sensitive understanding of mobilities (Jensen 2017, 10).

The research agenda of material pragmatism is thus one that invites further explorations of mobilities design. Surely more conceptual and theoretical work is needed. Moreover, there is a need to explore more methods reaching across the qualitative and quantitative data trench as one thing, but also to include more technologically innovative approaches (sensor technology, cameras, geo-sensitive approaches, eye-trackers, etc.) to »orchestrate« mobilities design research methods (Jensen et al. 2020). Following these aspirations, a future material pragmatist research agenda for mobilities design should explore the creative potentials of design thinking and practice in relation to building things, intervening, and mocking up experiments in urban spaces in a 1:1 scale as well as exploring the potential of a critical and creative

mindset, and creative processes of »what if?« design scenarios.

The latter is where the potential for public involvement and critical cocreation is located. Hence, there is plenty of work to do for fulfilling a future material pragmatic mobilities design research agenda.

Literature

Anderson, Ben: Affective Atmospheres. In: *Emotion, Space and Society* 2, 2009, pp. 77–81.

Bissell, David: »Passenger Mobilities: Affective Atmospheres and the Sociality of Public Transport. In: *Environment and Planning D*, 28, 2010, pp. 270–289.

Böhme, Gernot: »Atmosphere as an Aesthetic Concept.« In: *Daidalos*, 68, 1998, pp. 112–115.

Borch, Christian (ed.): *Architectural Atmospheres: On the Experience and Politics of Architecture*. Basel 2014.

Buchannan, Colin: *Traffic in Towns*. Harmondsworth 1964.

Gänshirt, Christian: *Tools for Ideas: Introduction to Architectural Design*. Basel 2021.

Gibson, James J.: *The Ecological Approach to Visual Perception*. New York 1986.

Ihde, Don: *Technology and the Lifeworld: From Garden to Earth*. Bloomington and Indianapolis 1990.

Jensen, Ole B.: »City of Layers. Bangkok's Sky Train and How It Works in Socially Segregating Mobility Patterns.« In: *Swiss Journal of Sociology*, 33, 3, 2007, pp. 387–405.

Jensen, Ole B.: *Staging Mobilities*. London 2013.

Jensen, Ole B.: *Designing Mobilities*. Aalborg 2014.

Jensen, Ole B. (ed.): *Mobilities*, vols. I–IV. London 2015.

Jensen, Ole B.: »Of ›Other‹ Materialities: Why (Mobilities) Design is Central to the Future of Mobilities Research.« In: *Mobilities*, 11, 4, 2016, pp. 587–97, DOI: 10.1080/17450101.2016.1211826.

Jensen Ole B.: »Urban Design for Mobilities—Towards Material Pragmatism.« *Urban Development Issues*, 56, 2017, pp. 5–11, DOI: 10.2478/udi-2018-0012.

Jensen, Ole B.: »Atmospheres of Rejection: How Dark Design Rejects Homeless in the City.« In: *Ambiences, Alloœsthesia: Senses, Inventions, Worlds*. Proceedings of the 4th International Congress on Ambiances. Santa Barbara 2020, pp. 326–331.

Jensen, Ole B.: »Pandemic Disruption, Extended Bodies, and Elastic Situations: Reflections on COVID-19 and Mobilities.« In: *Mobilities*, 16, 1, 2021, 66–80, DOI: 10.1080/17450101.2021.1867296.

Jensen, Ole B.; Lanng, Ditte Bendix: *Mobilities Design: Urban Designs for Mobile Situations*. London 2017.

Jensen, Ole B.; Lanng, Ditte Bendix; Wind, Simon: »Mobilities Design—Towards a Research Agenda for Applied Mobilities Research.« In: *Applied Mobilities*, 1, 1, 2016, pp. 26–42.

Jensen, Ole B.; Morelli, Nicola: »Critical Points of Contact: Exploring Networked Relations in Urban Mobility and Service Design.« In: *Danish Journal of Geoinformatics and Land Management*, 46, 2011, pp. 36–49.

Jensen, Ole B.; Bueno, Andrea V. H.; Smith, Shelley; Christensen, Cecilie B.: »Methods of Mobilities Design Research.« In: Büscher, Monika; Freudendal-Pedersen, Malene; Kesselring, Sven; Nicolaj G. Kristensen (eds.): *Handbook of Research Methods and Applications for Mobilities*, pp. 354–364. Cheltenham 2020.

Jensen, Ole B.; Vannini, Philipp: »Blue Sky Matter: Towards an (In-Flight) Understanding of the Sensuousness of Mobilities Design.« In: *Transfers*, 6, 2, 2016, pp. 23–42, DOI: 10.3167/TRANS.2016.060203.

Reynolds, Joel M.: »The Extended Body: On Aging, Disability, and Well-Being.« In: *Hastings Center Report*, 48, 5, 2018, pp. 31–36, DOI: 10.1002/hast.910.

Schusterman, Richard: *Body Consciousness: A Philosophy of Mindfulness and Someaesthetics*. Cambridge 2008.

Shaw, Jon; Hesse, Markus: »Transport, Geography and the ›New‹ Mobilities.« In: *Transactions Institute of British Geographers*, NS 35, 2010, pp. 305–312.

Sheller, Mimi: Mobilities. Cheltenham 2021.

Simmel. Georg: »Bridge and Door.« In: *Theory, Culture & Society*, 11, 5, 1994, pp. 5–10.

Urry, John: *Sociology beyond Societies: Mobilities for the Twenty-First Century*. London 2000.

Urry, John: *Mobilities*. Oxford 2007.

Vannini, Philipp: »Mobile Cultures: From the Sociology of Transportation to the Study of Mobilities.« In: *Sociology Compass*, 4, 2, 2010, pp. 111–121.