

## **Kinaesthetic Cities: Studying the worlds of amateur sports and fitness in contemporary urban environments**

Alan Latham and Jack Layton

Department of Geography, University College London

[alan.latham@ucl.ac.uk](mailto:alan.latham@ucl.ac.uk), [jack.layton.15@ucl.ac.uk](mailto:jack.layton.15@ucl.ac.uk)

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### **Abstract**

Developing the concept of kinaesthetics this article undertakes a critical re-description of amateur sports and fitness to explore the topographies, materials, innovation, and socialities that make up urban environments. Extending work on affect and urban materiality within geography and elsewhere, we argue that amateur sport and fitness animates many cities in ways that are frequently overlooked. The paper aims to 1) broaden understandings of amateur sport and fitness practices; 2) reframe perspectives on the kinds of environments cities are; 3) develop a prospective politics of provision involving the design and maintenance of a social infrastructure of amateur sport and fitness.

**Key Words:** Urban, materiality, sociality, sport, exercise, infrastructure, environment, affect, publics.

## **i. Introduction**

Cities are full of people engaged in all sorts of physical fitness and sporting activity. People climbing, running, cycling, swimming, dancing, playing, training, jumping, crawling, skating, balancing, skipping, racing, diving, fighting, wrestling, walking. These are everyday activities that enliven and remake urban environments. And it is the very affordances found and provided in cities that enable many of these practices to take hold and proliferate. There is evidence from across a range of disciplines that suggests these kinds of activities can help to fight against chronic diseases (Booth, et al. 2012), mental health problems (Deslandes, 2014), loneliness (Pels and Kleinert, 2016) and even increase life expectancy (Lee, et al. 2012). In short, for those that are able to participate, sports and fitness is an important way in which life in cities can be made better. As Klinenberg (2018) has argued, now more than ever there is a need for a robust defence and celebration of the social infrastructures that facilitate connections between people and allow individuals and communities to flourish (Latham and Layton, 2019a). The infrastructures that facilitate everyday sports and fitness practices are an important aspect of this social infrastructure — and one which geographers are well placed to analyse, understand, and critique the barriers of access to. In this vein, understanding the environments that facilitate sport and fitness in cities can make an important contribution to what Simone and Pieterse (2017) argue is the social sciences' need to research in a prospective register — to re-imagine, re-describe, and advocate for making better urban futures.

This article aims to extend and amplify the lively work conducted on sports and fitness practices done by geographers, sociologists, and anthropologists (Bale, 2004; Giulianotti, 2015; Silk, et al. 2017; Andrews, 2017; Koch, 2017; Fullager, 2017). In particular it centres its research and concept building on the amateur and everyday worlds of sports and fitness practices; away from the professional, spectacular and charismatic, towards the times and spaces where ordinary people participate in sports and fitness. Moreover it aims to firmly place these activities within urban environments, exploring how these practices are facilitated, shaped, made and re-made within the cities in which they take place. Urban research has tended to refer to the most charismatic and striking examples of sports and fitness practices (e.g. Tonkiss, 2006; Hubbard, 2006; Adey, 2017), leaving our understanding of the infrastructures required to facilitate everyday sport and fitness somewhat lacking. We argue that by attending closely to the sports and fitness practices that take place in urban environments it is possible to alter our understanding not only of sports and fitness practices themselves, but also broaden and diversify our understanding of the topographies, materials, affects, and communities that exist in cities.

We start with a review of how geography has engaged with sports and fitness practices. The focus here is both empirical, reflecting on what gets studied, but also conceptual; asking whether the right tools and

registers are being used to make sense of these activities? We go on to introduce and develop the term *kinaesthetics* as a departure point for attending to everyday sports and fitness practices. This is a conceptual contribution designed to highlight the aspects of urban environments that create affordances for sport and fitness, as well as the ways in which these practices are products of innovation and cooperation. By drawing on a set of theories from pragmatist philosophy (Dewey, 1934; Shusterman, 1997), post-human approaches to the city (Amin and Thrift, 2002; Latham and McCormack, 2004; Gandy, 2014; Lorimer, 2015; Maller, 2018), as well as work on affect (Latham and McCormack, 2017; Andrews, 2017) we focus on the provision and manipulation of materials and topography. This approach foregrounds what should be protected, curated, encouraged and designed into urban environments. It is also an approach that recognises and explores the intense sociality of amateur sport and fitness. The overall argument is illustrated through two short worked examples; one on urban design in Denmark, and the other on sociality in London. These are examples based on our prior research that has grappled with the publicness of amateur sports and fitness. Although these worked examples are ~~both~~-based in two wealthy, western European, predominantly secular, liberal democracies, that have a long history of sporting culture (Eichberg, 2010), we have found that they provide distinctive examples of contemporary innovation in amateur sporting infrastructures. They are examples that highlight the importance of public investment, and the diverse socialities that are facilitated by amateur sporting infrastructure. Other research has highlighted the challenges and struggles that can be involved in undertaking sport and fitness in more fraught contexts (Hallinan and Jackson, 2008; Testa and Amara, 2016). We conclude by returning to the idea that attending to the entanglement of amateur sports and fitness practices with urban environments can inform a modest prospective politics of provision, and argue for a social infrastructure that helps construct more corporeally inclusive and engaging cities.

## ii. Geography, sport, and cities

There has been a resurgence of interest in sports and fitness in geography in recent years. Andrews' (2017) article in this journal — the first since Bale (1988) to explicitly focus on sport — neatly captures the breadth of work utilising non-representational theories to excavate the in-the-moment experience of sport. Whilst Koch's (2017) edited collection provides an important statement about the opportunities for critical geographical research in the domain of sport. And Hitching and Latham's (2017a) special issue of *Health & Place* highlights the diverse role that qualitative research might play in promoting public health. This builds on the groundbreaking work of Bale (1982; 1989; 1993 1994; 2004), Bale and Philo (1998), and others (Rooney, 1992; Philo, 1994; Norcliffe, 2001). Yet for much of the discipline the importance of sport and fitness, to urban environments, to communities of practice, and to individual's lives remains relatively marginalised. And when it is studied it is often as part of something else — urban

development (De Martini Ugolotti, 2017), urban spectacles (Koch and Valiyey, 2015), international migration (Storey, 2011; Esson, 2015a, 2015b, 2013), and such. Reflecting on what gets studied, and in what registers, can offer productive insights as to why amateur sports and fitness and the infrastructures that facilitate it, has been under-documented in the geographical literature.

~~We would like to make four points.~~We make four observations as departure points for our analysis.

1. *There has been a preoccupation with professional and elite sport.* Sport is a slippery concept to pin down. It is a term that encompasses wrestling, football, basketball, gymnastics and athletics, as well as cycling, horse trials, and formula one racing to name just a few examples (Guttman, 1978; Gumbrecht, 2006). Andrews (2017) uses the term in an inclusive way. References are made to professional sport competitions like international athletics and Major League Baseball, as well as to popular amateur sporting practices such as golfing, climbing, swimming, cycling, and jogging. The problem is the former are sports done by elite athletes, competing at the highest level, many of whom are paid to train full time [1]. The latter are activities done by a diverse range of people, in a diverse range of contexts, with a diverse range of skill levels. Bundling these activities together does not help us to make sense of the multitude of amateur sport and fitness practices that can be found in cities.

Studies of professional sport have highlighted the power of cultural representations in certain sports. They have unpacked the relationship between sport and national identity (Bale, 2004; Holmes and Storey, 2004; Koch, 2013) sport and gender identity (Aitchison, 2007; van Ingen, 2003), and sport and racial identity (Bale and Sang, 1996; Heiskanen, 2012). Professional sport has also been analysed as a political-economic event that has an impact on places (Gold and Gold, 2010; Giulianotti, 2015). This work has focused on the appendages of professional and elite sport: the stadia, the event-management, the commercialisation, the spectatorship (Fussey, et al. 2011; Gaffney, 2010; Boykoff, 2011; Penny and Redhead, 2009; Church and Penny, 2013). Indeed the topic of mega-events is a thriving area of study (Müller, 2012, 2015, 2017; Smith, 2012; Wise, 2017). Finally there has been an emphasis on people who take their sport very seriously, often training like elite athletes (Bale, 2004; Bunsell, 2013). Here Foucauldian concepts of discipline (Bridel, 2013), and the individualisation of society (Sassatelli, 2017), come into focus.

Although insightful, the frames of understanding derived from studies of professional sport, are not necessarily applicable to more prosaic ways of being active. They do not translate easily into situations like attending a circuit training class (Crossley, 2006), nor to people who do not identify closely with their activity (Hitchings and Latham, 2016; 2017b). Creating critical distance from professional sport brings to light a more mundane world of physical activity. This can trouble preconceptions about who and what

kinds of bodies take part in fitness activities (Pavlidis and Fullagar, 2015; Huang, 2016), where fitness practices takes place (Stahl, 2008), and the social significance of amateur sports and fitness (Woodbine, 2016).

2. *There has been a great deal of attention on extreme, transgressive, and charismatic activities.* Research that has gone beyond the world of professional sport has coalesced around the idea of ‘lifestyle sports’ — sports associated with distinct subcultures — surfing (Butts, 2001; Ford and Brown, 2006; Olive, 2015; Anderson, 2013a, 2013b, 2014), snowboarding (Thorpe, 2011; Humphreys, 1997), rock-climbing (Rickly, 2016), parkour (Ameel and Tani, 2012; Mould, 2009), and skateboarding (Beal, 1995; MacKay and Dallaire, 2013; Howell, 2005). Worth including here are studies of extreme endurance events: ironman triathlons (Bridel, 2013), marathons (Shipway and Jones, 2008; Edensor and Larsen, 2018), and long-distance swimming (Throsby, 2016). These kinds of activities have been useful for illustrating the constitutive significance of sport in shaping identity formation and social relations. Many of these activities also lend themselves to research operating in a more explicitly critical register. Charismatic practices like skateboarding, parkour, and BMX-riding are often taken — via Lefebvre (1991) — as critiques of the built environment and status quo (Borden, 2001; Chiu, 2009; Mould, 2015; Sharpe, 2012); although see Spinney (2010) for a nice counter-example.

A limitation with work on such transgressive and charismatic practices, here is that less obviously ‘subversive’ or subcultural kinds of activity may be overshadowed. The ways in which the people participating in a Saturday morning *parkrun*, for example, are ‘critiquing’ the spatial layout of a park is unlikely to be the most productive way of framing this activity (Barnfield, 2016a; Stevinson, et al. 2015). These charismatic megafauna of the everyday sporting world, practices like skateboarding, surfing, snowboarding, and parkour, also distort perceptions of who is being active. There is a plurality of bodies that are active, not all of whom are young and thrill seeking (Little, 2017; Phoenix and Bell, 2018).

3. *The configuration of the built environment is a topic that has received limited attention by those interested in sport and fitness.* Work that has talked about the built environment from a sports and fitness perspective has tended to address it in one of two ways. First, work emerging out of the mobilities paradigm (Middleton, 2010; Spinney, 2009; Cook, et al. 2016; Cook and Edensor, 2017) emphasises how urban environments are experienced. Second, research concerned with professional sport has focused on how urban environments can be transformed through the investment, and political attention that comes with hosting a mega-event (Smith, 2012). Koch (2018a) highlights that there may well be a more substantive synergy to be found between sports and urban environments. It is not just the experience of urban environments, nor these larger political-economic transformations that matter. It is also about how the configuration of

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particular environments offer affordances for certain kinds of embodied experience. To explore this further it is necessary to directly attend to the environments of cities.

Urban environments — as environments with abundant natural and artificial features (Amin and Thrift, 2002; Gandy, 2014; Lorimer, 2015) — can be invigorating places to inhabit. There is green space to run in (Hitchings and Latham, 2016; Edensor, et al. 2018).- WWater to swim in (Watson, 2006; Ward, 2017).- P Parks to play in (Neal, et al. 2015; Herrick, 2009).- sSports halls (Shove and Pantzar, 2007), roller rinks (Pavlidis and Fullager, 2015), and gyms (Crossley, 2004a; Blue, 2017). These environments permeate many cities and create affordances for a diverse range of activities. Urban environments are often put to use in playful and interesting ways by people pursuing amateur sport and fitness (Borden, 2001). Geographers are well placed to research this, attending to the relationship between the configuration of sports facilities and participation, and in turn altering our understanding of what cities are made up of.

Focusing on the affordances of urban environments also enables a substantive engagement with the politics of provision. It highlights a range of pragmatic urban concerns. What design interventions could be made to make cities more invigorating places to live (Worpole, 2000)? How might our public spaces be better configured to facilitate sports and fitness activities (Gehl, 2011)? What are the politics of planning and bureaucracy that are entangled with making better cities (Weszkalnys, 2013; Herrick 2011)? How should these facilities and environments be funded (Rosenzweig and Blackmar, 1992)? In short, what would a social infrastructure designed and maintained to create the affordances for amateur sport and fitness look like?

4. *A range of critical and affirmative registers are needed to make sense of the ethics of amateur sport and fitness.* There has been important work done that recognises how an un-critical advocacy of sport can be problematic. Drawing on the work of Foucault (1975, 2008; see also: Rose, 2007) scholars have recognised the biopolitical and governmental aspects of sport and fitness (Wright and Harwood, 2009; Millington, 2017). This involves people's bodies becoming a terrain of political intervention and concern. The work of people like Herrick (2011), Evans and Colls (2009), and Sassatelli (2015) help to demonstrate how what is thought 'normal', 'healthy', and 'sensible' can in all sorts of ways be affected by regimes of power (Markula and Pringle, 2006). Here seemingly reasonable and innocuous attempts to encourage healthier habits, including greater levels of physical activity, are enfolded into unacknowledged and unexamined structures of inequality and exclusion (Davies, 2015; Cederström and Spicer, 2015; Greif, 2016). Moreover efforts to engender a sense of personal responsibility for ones<sup>2</sup> own health and well-being can all too easily align with ideas of individualisation and neoliberalism (Sassatelli, 2017; Bridel, 2013; Andrews and Silk, 2012; c.f. Wiltshire, et al. 2018). These processes are also driven through culture. Sports and fitness advertising campaigns, magazines, social media, and videos have all been critiqued for the way

they can (re)inscribe certain oppressive and restricting gendered and sexual norms (Jette, 2006; Thorpe, 2008; Olive, 2015; Mansfield, 2011; Lloyd, 1996). There has also been valuable research conducted on the ways in which race, gender, sexuality, and disability can limit and curtail people's access to sports and fitness facilities (Wilste, 2007; Hoffmann, 2016; Coen, et al. 2018; Coen, 2018).

This does not mean we should not advocate for sport and fitness. In Foucault's own writing there are affirmative accounts of the ways in which self-care can become a way to experience somatic pleasure (Foucault, 1984; Shusterman, 2008). Gomart and Hennion (1997) argue that Foucauldian concepts like 'dispositif' can be utilised to explore the ways in which people assemble various human and non-human actors around them to create new capacities to experience pleasure. Taking this argument further Eichberg (2010) has developed the idea of bodily democracy as a guiding ethical principal. This is the idea that more people — all people — should be able to experience the somatic pleasures and well-being available through sports and fitness practices (Vlieghe, 2013; Petrzela, 2018). To return to the introduction, part of our argument is that by attending to the times and places where amateur sports and fitness is flourishing — for a diverse range of bodies — it is possible to learn how to construct an inclusive and accessible social infrastructure that can facilitate engaging and fulfilling practices (Hitchings and Latham, 2018; Venkatapuram, 2011). In the next section we set out a range of conceptual tools that will help us attend to the ways that urban environments and amateur sport and fitness are entangled, and to recognise the affordances that cities can provide.

### iii. Kinaesthetics

How then should we go about exploring the amateur worlds of everyday sport and fitness in urban environments? Contemporary work in geography has developed — but not yet brought together in this context — a diverse range of concepts that are useful. In particular we bring post-human approaches to the city (Amin and Thrift, 2002), and work on the non-representational and affect (Thrift, 2008; Anderson, 2014) into dialogue with the concept of kinaesthetics. Kinaesthetics is a term that has some currency in geography, typically used to speak to an awareness of the body in motion and proprioception (Spinney, 2006; McCormack, 2008; Dixon and Straughan, 2010). The word draws attention to both the kinetic body — running, jumping, climbing, swimming; but also as well as to how the body might move other objects — transferring kinetic energy to a tennis ball for instance. Bringing these different concepts into dialogue provides critical insight into the affordances available in urban environments, helping us to provide a re-description of already existing activity to help imagine better urban futures (Simone and Pieterse, 2017).

The way we use kinaesthetics derives from Dewey's pragmatist philosophy of aesthetics. In *Art as Experience* (1934) Dewey describes how the process of engaging with and manipulating material for the purpose of considered reception can be 'an experience' that is cohesive and more intense than the background of everyday life. In other words, purposeful activity done with skill can bring into being intense and enjoyable experiences. This is an insight that has clear resonances with Ingold's (2007, 2011, 2013) writing which explores the satisfaction and virtues of doing tactile work. Taking this further Shusterman (2008, 2011) has done much to highlight how the experiences and sensations available to the body can in all sorts of ways be considered aesthetic; something that the writing of Wallace (1997), Throsby (2016), and McDougall (2010) make clear. This is a useful contribution to the extensive research done by those utilising non-representational theories to capture the intensities of experience available through sports and fitness (Andrews, 2018).

Non-representational approaches to sport and fitness have provided a wide ranging set of insights into cycling (Spinney, 2006), swimming (Ward, 2017; Foley, 2017), dancing (Thrift, 1997; McCormack, 2003), running (Barnfield, 2016a; 2016b), and yoga (Lea, 2009) to list but a few examples, and it is clear there is much to be gained by thinking through the affectual dimensions of sports and fitness activities (Latham and McCormack, 2017; Thorpe and Rinehart, 2010). Kinaesthetics helps ground the non-representational and affect into particular sets of empirical worlds. Moreover it prompts a consideration of the contingency of affect, how the capacity to affect and be affected is not open to all at once, but requires that skills of execution and perception be honed over time (Shusterman, 2008) — an idea also explored by geographies of habit (Dewsbury and Bissell, 2015). It is also to remember that such affects depend on the environments these activities take place in. A further contribution is the ethical resonances that come with aesthetics. Part of Dewey's argument is that the aesthetic exists on a continuum with everyday life. As social scientists we are interested in witnessing the various ways people try to live their lives well, and the interventions that can be made to increase opportunities for them to do so (Amin, 2006; Simone and Pieterse, 2017; Sennett, 2018). Moreover, there is an imperative to reach out beyond our own positionalities and research contexts, highlighting the writing of women and Black and Minority Ethnic scholars, and examining the role that aesthetic activities like amateur sport can play in the lives of historically disenfranchised and marginalised communities (Woodbine, 2010; Carey and Hicks, 2011; Burdsey, 2009; Hamilton, 2018).

The novelty of what we are arguing here is connecting Dewey's emphasis on the manipulation of material elements, with post-human approaches to the city which understand urban environments as assemblages of humans and materials (DeLanda, 2006; Amin and Thrift, 2002; Gandy, 2014; McFarlane, 2011; Lorimer, 2015). Our point is that where we find kinaesthetic practices, we will also find the topographies and materials of the urban environment being put to use in interesting and invigorating ways. What is the

creativity of skateboarding without its architecture (Borden, 2001)? What is the sociality of swimming without pools and ponds (Watson, 2006)? What are the communities that coalesce around boxing and basketball, without the infrastructures of boxing gyms and basketball courts that support them (Wacquant, 2004; DeLand, 2012)? Examples like Neal, et al. (2015), Carr (2010), Cook, et al. (2017), along with Hitchings and Latham (2017b), and Edensor, et al. (2018) have shown that geography can be adept at highlighting the public-ness to be found in amateur sports and fitness practices — even when the public-ness is not the primary focus of the research. What an attention to the kinaesthetics of these activities contributes is a sharp focus on the public facilities, equipment, resources, terrains, and technologies that are required to pursue these activities. It helps to highlight the affordances that we would want to protect, curate, design, and encourage in cities to provide a social infrastructure of amateur sport and fitness.

#### **iv. Sport, fitness, and the urban environment**

How to put this conceptual grounding to use? As mentioned above the concept of kinaesthetics is productive because it helps us to look at amateur sport and fitness in fresh ways. As Simone and Pieterse (2017) have argued in other contexts, social scientists' ability to re-describe is an essential technique for developing a prospective register of engagement with cities and social relations. Their point is that through re-description it is possible to highlight what is already happening and what alternate trajectories for the future might be possible (p. 10-13). To connect back to Klinenberg (2018), a re-description of amateur sports and fitness is also a way to articulate a defence and argument for the social infrastructures that can facilitate improved health, social connectivity, and well-being for the general public. Kinaesthetics enables a re-description of the times and places where amateur sport and fitness practices are taking place to highlight the aspects of cities that make life better. The examples we draw on are wide ranging; highlighting cities in many locations, and many different bodies doing all kinds of activities. Our aim is to give a sense of the plurality of practices of amateur sport and fitness and the multiple ways that they can manifest in different settings. The examples are by no means comprehensive or definitive, but we hope will spark future research.

The critical utility of kinaesthetics is its focus on the skilled manipulation of material elements. As urban researchers this directs our attention to the *affordances* of cities. Below we highlight 'topography' and 'materials' to explore how the configuration of the natural and artificial features of urban environments, as well as the specific properties and qualities of materials, can facilitate and create the affordances for amateur sport and fitness. We invoke a fractal topographical imaginary, as interested in city-wide infrastructure as architectural features; one focused on the topographies and materials required for

ordinary, as much as charismatic sports and fitness practices. In paying attention to how facilities are provided, attention is also drawn to the changing ways these practices get done. We therefore go on to discuss ‘innovation’ and ‘sociality’ as important dimensions of how kinaesthetic practices emerge, evolve, and lead to particular ways of being together. These concepts are a reminder that sports and fitness practices can be considered social achievements; as much a product of cooperation and collaboration, as provision and prescription.

We now turn to this work of re-description, starting with how a charismatic practice has become part of the ordinary fabric of urban life.

#### a. *Topography*

Sports and fitness practices are one of the more explicit ways people make use of the topographical affordances thrown up by urban environments. Take skateboarding. Its history is as much about the topographical affordances of Los Angeles in the 1960s and 70s as it is about a counter-culture. Borden’s (2001) history of skateboarding sketches out how the sloping tarmac-ed roads, concrete banks, and public school yards of Los Angeles facilitated the emergence of skateboarding as a practice. As Borden puts it ‘surfer-skaters ... use[d] these schoolyard banks around 1968 transcribing surfing techniques directly on to the tilted surfaces ... [riding their] skateboards along the length of the bank, just as a surfer ‘carves’ across a wave’ (p. 32). The practice of skateboarding then reoriented skateboarders’ relation to urban environments. They sought out particular topographical features putting them to use in novel ways. Suburban pools were one such feature. Emptied, most domestic swimming pools in LA had steep walls, a flat bottom, and a curved transition. In the early 1970s skateboarders discovered they could ride and play with these geometries to create rapid acceleration (*Dogtown and Z-Boys*, 2001). The practice continues today (Razo, 2017) and has gone onto inform the design and provision of skate parks (Trufelman, 2017). The geometries of found spaces have become institutionalised and formalised as part of the everyday vernacular of urban design in the form of skate parks — which have proliferated around much of the the world (Borden, 2019). It is also worth highlighting the work of the non-profit Skateistan that ensures young people have the opportunity to skate in locations like Afghanistan, Cambodia, and South Africa (*Land of Skate*, 2017); showing skateboarding is often a taken-for-granted privilege. This can be understood as a way in which a particularly invigorating kind of topography has become a part of the social infrastructure of urban life, making the pursuit of skateboarding accessible to more people in more places ~~— And~~ in a sense making the charismatic ordinary.

Particular kinds of topography need not only occur by accident. This can include purposeful design such as that found in Malmö, Sweden where a series of platforms were opened in the harbour, encouraging people to bathe, dive, and swim in the water of the city (Agrell, 2008). It also includes interventions that

work with the existing infrastructure of the urban environment. In Bogotá, Colombia as part of a wider campaign to improve quality of life, 97km of public roads are incorporated into a route set aside for sport and exercise programmes (del Castillo, et al. 2011; Barney, 2017). The wide hard flat surfaces of the roadway become available for the play of cyclists, runners, walkers, rollerbladers, and skaters. The success of this programme has meant it has travelled, and has now been replicated in other cities throughout South America and elsewhere. Paying attention to kinaesthetic practices suggest other examples of working with the topography of cities. In Wellington, New Zealand a series of mountain bike trails have been cut into the hills running through and behind the city (Wellington City Council, 2016). Whilst runners highlight all sorts of topography in the way they seek out gradients to run up and down, rivers to run alongside, and parks to run in (Hitchings and Latham, 2016; Cook, et al., 2016). Attending to kinaesthetic practices and re-describing particular topographies reveals that cities are not merely flat concretised spaces, but full of ‘surfaces and slopes’ (Lorimer, 2012) that are put to use in a multitude of unpredictable ways. Specifically the topographies of urban environments are being put to use to facilitate a diverse range of aesthetic, pleasurable, and exhilarating — albeit at times painful — affects. Moreover these topographies are designed and built, as much as they are found and interpreted.

#### b. *Materials*

An inquiry into the affordances of the urban environment should also attend to the materials that facilitate and shape amateur sport and fitness. Particular materials with particular properties affect how accessible a practice is, and the kinds of practices that can be done (Ingold, 2007). [Running — one of the most popular amateur fitness practices — is a good place to start a re-description.](#)

~~Let's start with a re-description of one of the most popular amateur fitness practices, running.~~

Running has not always been a mass participation activity, and running shoes did not exist in a form we would recognise today until the early 1980s (Latham 2015). In the 1960s the idea of running on roads and pavements in urban areas was novel. And people used all sorts of footwear to protect their feet, popular choices included the thick rubber soles of Converse Chuck Taylors and Dunlop tennis shoes; the comfort provided by Hush Puppy loafers; or the durability offered by army boots (Bowerman and Harris, 1967). Bill Bowerman, University of Oregon track coach and co-founder of Nike™ was at the forefront of developing shoes that could deal with the stresses of running on the hard surfaces of roads and sidewalks. Running might have had an “esthetic, sensual, component” (Winters 1980: 22), but it also caused no end of discomfort and injury to its initial practitioners (Sheehan, 1978). Experimenting with a wide range of plastics, rubbers, leathers, and synthetic fabrics Bowerman sought to develop shoes that were comfortable, inexpensive, lightweight, and could support the body running in places other than forests, fields, beaches, and running tracks (Bowerman, et al. 1978; Bowerman, 1974; cf. Qviström, 2017).

What this suggests is that along with topographies, access to the right kinds of materials with the right kinds of properties, can help facilitate participation in an activity.

Tracing these different materials expands our accounts of how urban inhabitation is facilitated and shaped by non-human elements. It is also to connect with Ingold's (2004: 331) call to attend to how 'knowledge of the environment is altered by techniques of footwork and by the many and varied devices we attach to our feet'. Of course, there is much to this materiality beyond footwear (Shove and Pantzar, 2005; 2007; Fullagar, 2017). A crucial aspect of how topography left its imprint on skateboarding, is that new environments became skateable with the invention of polyurethane wheels. They were softer, more durable and offered better traction than their earlier clay counterparts (Borden, 2001; Davidson, 1985). Whilst the same material — polyurethane — when woven into a fabric becomes *lycra*. An important unexpected benefit of lycra was that it facilitated the invention of the sports bra, which in turn made sports and fitness practices more accessible to women (Williams, 2012; Flanigan, 2017). Clothing continues to be a terrain of dispute as many Muslim women struggle to find appropriate clothing for sport (Tagg, 2008), and often face problems when they do (Hargreaves, 2007; Koch, 2018b).

A line of inquiry centred around the materials that facilitate amateur sport and fitness has wider relevance. In no small part because the materials designed for sport and fitness travel. For example, modern wheelchairs designed in dialogue with Paralympian wheelchairs are more lightweight; now including carbon fibre elements (Burton, et al. 2010; c.f. Howe, 2011). The proliferation of these devices can ease and enhance the way that people that use wheelchairs inhabit the urban environment. What would contemporary cities look and feel like without running shoes and their EVA foam cushioning? What ways of inhabiting the urban environment would be impractical without lycra, and indeed the sports bra? How might experiments with new materials like carbon fibre affect inhabitation in years to come? Cities are animated by the design and organisation of these more-than-human elements, and they should be incorporated into plans for how to design the cities we live in.

### c. *Innovation*

Through tracing the topography and materials involved in kinaesthetic practices, it is evident there is a distinct history and trajectory of experimentation and innovation involved in amateur sport and fitness. How these practices come to be done changes over time. Again, by following this innovation, the imprint of the urban environment can be found. Cycling started as a recreational and sporting activity for upper-middle class gentlemen with the invention of the velocipede in 1817 (Bijker, 1995). It took the innovation of the 'safety bicycle' in 1885 for cycling to become more accessible (Vivanco, 2013). Waves of material innovation and political contestation made cycling more accessible to more people (Macy, 2011; Norcliffe, 2015). In the century since, ways of cycling have proliferated. In contemporary cities it is

possible to find cyclists racing around on fixed gear bikes (Fincham, 2008; Kidder, 2011; *Fixation*, 2012). Participating in trial riding and BMX-ing (Spinney, 2010). Commuting from A-to-B (Jensen, 2013; Larsen, 2014; Aldred, 2010) — which itself can involve ‘kinaesthetic pleasure’ (Spinney, 2008: 29; Brown, 2017). Whilst for many cycling is still difficult in places around the world, the impressive example of the Ciclovía in Bogotá and elsewhere highlights the need for ongoing innovation and investment in cycle infrastructure for all (Sarmiento, et al. 2010; Cervero, et al. 2009). Technology is also enfolded into new ways of cycling, Strava — a popular GPS tracking app — measures ‘segments’ which allows cyclists to compare their speed across shared space. This has led to new forms of sociality as users ‘compete’ (Barratt, 2017). The history of cycling is an example of the way cities — as sites of economic innovation (Storper, 2013), population density (West, 2017), and the moments of sharing and collaboration that they can facilitate (Jacobs, 1984) — can lead to the proliferation and diversification of a practice.

It is also possible to think about the ways that innovation in the configuration of cities themselves lead to opportunities for amateur sport and fitness. In the UK public swimming baths were a 19th Century invention that facilitated the practice of communal bathing and swimming (Back, 2016; Gordon and Inglis, 2009). In the early 20th Century there was a trend towards outdoor swimming facilities. London County Council aimed to make London a ‘city of lidos’ in the 1930s (Smith, 2005: 30-31). Such innovations aimed to facilitate hygiene and cleanliness, but also exercise, as well as a whole range of affects around enjoyment, and sociability (Worpole, 2000). These spaces, as Wilste (2007) and Iveson (2007) have shown, can be highly contested. More recently, in the UK at least, there has been a proliferation of indoor facilities (McLauchlan, 2017) — even while elsewhere there has been a rediscovery of the pleasures to be found in swimming outdoors and in more natural environments (Foley, 2017; Jensen, et al. 2015). An attempt to encourage hygiene in the 19th Century, has evolved to a place where swimming is now one of the most popular forms of amateur sport and fitness (Sport England, 2018).

Football provides a further example. Innovations in pitch surfaces have facilitated a multitude of ways of playing football: from traditional Sunday League football on open, flat, grass (British Pathé, 2014; Burdsey, 2009), to the abundance of artificial 3G and 4G pitches which are often used for 5-a-side football. Whilst innovations born of necessity — such as the existence of small pocket concrete pitches in between blocks of flats — has facilitated the emergence of a distinct culture of street football in France (Adang and Boulanouar, 2016). We can also think about more thoroughly social innovations, such as how football (or soccer) has evolved into being a sport played by women as much as men in many places. Coming back to running, Black Girls RUN! is a group set up to encourage black women in the United States to participate in running. As an underrepresented demographic in amateur sport and fitness, this group utilised new kinds of social media such as Instagram, Facebook, and Twitter to challenge perceptions around what kinds of bodies can do what kinds of activity (Carey and Hicks, 2011). Whilst

the all-women running group Jeddah Running Collective in Saudi Arabia, illustrates how new some practices can still be when done in places where exercising in public is – if not outright banned – then certainly a cultural taboo (Hamilton, 2018; Sehlkogl, 2016; Hargreaves, 2007). Sports and fitness practices are not stable but change and evolve. They are made, re-made, and experimented with in the urban environment as concentrations of people, facilities, and materials encourages innovation.

#### d. *Sociality*

The final aspect of amateur sport and fitness we want to re-describe is its sociality. Not only because sociality is an important factor in how these activities get done and are experienced (Shove and Pantzar, 2005; 2007; Hitchings and Latham, 2016), but because foregrounding the sociality facilitated by amateur sports and fitness should not be lost from our accounts of cities. This is to reiterate the arguments of Simone and Pieterse (2017) and Klinenberg (2018): that the social benefits of infrastructural arrangements are important.

Wacquant's (2004) study of a boxing gym in the highly racially segregated South Side of Chicago explored the social significance of boxing to a predominantly black community. Similarly Woodbine (2016) outlines how street basketball functions as a site for celebration, mourning, and solidarity in Boston's predominantly black neighbourhoods. And DeLand (2012) studies informal basketball games as social achievements that facilitate play. What we find is that amateur sport and fitness can be an important register of sociality for Black and Minority Ethnic communities in North America. Nor is this only about male sociality. Exercise classes like Jazzercise and Zumba generate distinctive ways of being together through shared movement. Jazzercise in the words of its founder Judy Sheppard Missett offered an opportunity for women to be 'unapologetically "in their bodies"' (Petrzela, 2018: 97) — and crucially with others. And Zumba has become a contemporary way for Latino American women in downtown Los Angeles to reclaim urban space (Scott, 2015). Whilst in China, it is the elderly that have fashioned novel kinds of communal sociality through dance in city squares (Chen, 2010; Huang, 2016; see also: Kwan, 2013). In each of these instances distinctive social situations — amongst strangers, acquaintances, and friends — emerge out of everyday sports and fitness practices taking place in the urban environment. These interactions are more than a 'being together of strangers' (Young, 1990), and more than sites of encounter (Watson, 2006; Wilson 2017). They reveal a register of sociality in cities that is closer to Maffesoli's (1996) interpersonal energy — 'puissance' — that animates membership to 'tribes'. It resonates with what Amin and Thrift (2002) discuss as part of their 'city of passions', as well as with Sennett's (2012) exploration of cooperation through shared endeavour. It is precisely these kinds of relationships that non-representational theories — with their focus on the precognitive intensities of feelings that can move and pull people together — seeks to attend to and validate (Thrift and Dewsbury, 2000; McCormack, 2013; Anderson and Harrison, 2010).

It is also worth highlighting how sports and fitness practices emerge as distinctive sites and registers of public-ness (Neal, et al. 2015). These can be low key: the prosaic conversations between people in an exercise class (Crossley, 2006), the 'ethics of care' produced by shared active use of a New York City park (Krenichyn, 2004; 2006), or just the recognition of co-presence while at the gym (Sassatelli, 2010). These are the facts of being out in the world doing an activity, encountering and noticing others. And these mundane practices of public-ness can coalesce into more concrete kinds of public activity like campaigning (Watson, 2006; Iveson, 2007; Carr, 2010; Latham and Layton, 2019b). Further, it is common to find references to fitness practices as adding to the vitality of well used public spaces (Carr, et al. 1993; Hollis, 2013). Here it is not the exerciser that is the focus, but the rest of the people outside noticing the life, or 'ballet', of the street (Jacobs, 1961; Amin, 2006). These kinds of social benefits are part of what makes effective social infrastructure important. Ensuring there is an infrastructure that can facilitate amateur sport and fitness can contribute to the ethics of living together in cities. As seen in the examples presented, this infrastructure includes city streets, but also public facilities like swimming pools, as well as school gymnasiums and church basements as used by Missett's Jazzercise classes, and even the retro-fitted spaces of storefronts for Zumba. As Amin (2008; 2012) has argued it is precisely issues around shared use and inhabitation that can facilitate trust between strangers.

#### **v. Kinaesthetic cities: two illustrative examples**

What might a research agenda that focuses on amateur sport and fitness, and has a view to improving the social infrastructure of cities to aid health, well-being, and connected-ness look like? We have been arguing that starting with an appreciation of amateur sport and fitness as kinaesthetic takes our analyses and re-descriptions in a number of productive directions. To start, it necessitates attending closely to the environmental affordances that facilitate activity. Here it becomes important to account for the public facilities — the pools, parks, and pitches — that permeate cities and allow sport and fitness to happen. Not forgetting that these public facilities are by no means created equal, and issues of access, affordability, and proximity all affect who can take part. Therefore there is a need to examine the kinds of institutions and institutional configurations involved in the organisation, provision, regulation, and maintenance of public facilities. It is also important to pay attention to the perspective of women and Black and Minority Ethnic scholars who write about these topics because their positionalities will be sensitive to the intersectional lines of exclusion that can affect access to sporting facilities. Next, this agenda would not want to lose sight of the social significance of amateur sport and fitness. Not only for the distinct register of sociality they involve, but because they are in many ways public activities, creating times and spaces for encounter, togetherness, and cooperation. It is important to be sensitive to the ways in which amateur

sport and fitness practices get refracted through existing social markers such as race, ethnicity, gender, class and disability; not only for the barriers that undoubtedly exist, but for the sources of solidarity and self-worth that can be found through such practices. Finally it also involves reflecting on our warrants as social scientists (Katz, 1997): how might the research we conduct connect to and compliment (or challenge) the more medical and policy oriented research being done across academia on issues of public health, urban design, and governance?

Before concluding we will present two illustrative examples of where this research agenda might go. The first is an example of innovative urban design from Denmark. The second explores the worlds of fitness crews in London as distinct kinds of social life. These cases are taken from our own research, and despite their highly situated position — in two wealthy western European liberal democracies — they provide distinctive examples of contemporary innovation in amateur sporting infrastructure. Although — in a sense — these examples could be considered extra-ordinary, they are two examples that highlight the importance of public investment in infrastructure, and the diverse socialities that can be facilitated by community groups acting as a kind of infrastructure. Our contention is that these are by no means universal models to be followed, but rather should be recognised as the partial, contextually embedded examples that they are; suggestive but leaving open further questions and research about the extent these examples resonate and have parallels in other geographical places.

*a. Designing kinaesthetic landscapes*

Pulsparken in Kilderbjerg Ry, is a park on the suburban fringe of Aarhus in Denmark. Built on a floodplain the park includes a forest of tree-like climbable sculptures (see fig. 1A), a large concave bowl for cycling, scooting, and running, along with a concrete structure for scaling, sitting, and even trial riding. At its centre is a small lake, in the middle of which sits an open-air pavilion used for yoga, calisthenics and meditation. The park is a striking piece of landscape architecture organised around a range of affordances for physical movement, kinaesthetic engagement, and affectual pleasure. Designed by CEBRA Arkitekter, the park is a collaboration between Lokale og Anlægsfonden and the local council (Lokale og Anlægsfonden, 2012).

Lokale og Anlægsfonden (Danish Foundation for Culture and Sports Facilities) is an independent government funded organisation tasked with encouraging innovation in the provision of communal sports and fitness facilities in Denmark. Working with local sports clubs, community groups, along with architects, landscape designers, and sports scientists, the organisation is a leader in thinking about how environments such as parks, sports centres, and similar facilities can be re-designed and re-imagined. A central aim is to provide blueprints that other projects in other places might draw inspiration from; a kind of open-source resource for planners and architects. Fundamental to their remit is the collective public

provisioning of high quality facilities for sports and fitness (Lokale og Anlægsfonden, 2012; 2014). If we concentrate only on American and British examples there is a sense that innovation in sport and fitness is driven by private enterprise. Recently for example, Florida and Boone (2018) have argued that the provision of high end private fitness facilities such as ‘SoulCycle, Flywheel, Barry’s Bootcamp, CrossFit, CorePower, and Orangetheory’ (np.) have become essential amenities of upscale inner-city neighbourhoods. The Danish example highlights that there are other dimensions and trajectories to innovations in provision.

The unusual sites found for sport and fitness is a striking feature of many Lokale og Anlægsfonden’s projects. Konditaget Lügers in Copenhagen, locates an outdoor sports centre on the roof of a multi-story carpark (fig. 1B). Havenbadet Islands Brygge transforms a sections of Copenhagen’s harbour into a site for swimming, diving, and jumping (fig. 1C). Here is the discovery and construction of a corporeally engaging, affectually invigorating, topography — of slopes, curves, planes, steps, lines, surfaces — all of which have been carefully designed to afford corporeal kinaesthetic movement. It is also a landscape of all sorts of distinctive materials. In these examples materials have been carefully chosen to maximise traction, grip, bounce, leverage, or any range of kinetic moves. Similarly Atletikanlæg ved SDU in Odense, is an inventive reimagining of the standard athletics track (fig. 1D). It uses the ‘information’ embedded into a 400m oval — the sense of the relationship between distance and effort — but interweaves hills, bridges and obstacles around this; making use of the response, traction, and durability offered by the standard running track surface, but also adding to the experience available (Lokale og Anlægsfonden, 2012; 2014). What Lokale og Anlægsfonden are pursuing is the realisation of a social infrastructure designed to facilitate amateur sport and fitness.

[Insert figure 1 here]

#### b. *Fitness crews*

Every Tuesday evening a group of runners sets out from Truman’s Brewery in East London into the city — they are *Run Dem Crew*. Split into five speed-based groups, the ‘crew’ seeks out interesting topographies to run through. The session might involve sprints over the bridges that criss-cross the River Thames, circuits around the concourse that circles Arsenal Football Club’s Emirates stadium, or racing through Liverpool Street train station. The runs are exhilarating. And a key part of that exhilaration is the experience of running with others. Before the run starts the group goes through a mass warm up; arms in the air, high knees, and collective cheers. This sets a tone that the running is going to be done together. The shared physical exertion and rhythm — the steps, the breathing — of the run can help to develop bonds between the people participating (McNeill, 1995; Crossley 2004b; Collinson, 2008). Heading out with *Run Dem Crew*, members are able to experience powerful interpersonal intensities within a safe, and

distinctly urban, context of running together through the streets of London at night. A kind of worked at and engineered affectual attunement produced by running together.

*Run Dem Crew* — and groups like them — are entangled with the urban environment. They make use of the variety and abundance of topographical features found in cities. *November Project*, a free fitness movement founded in Boston, make use of the empty stadium bleachers of Harvard Stadium and the affordances they offer to step, climb, ascend and descend (Graham, et al., 2016; fig. 1F). Here existing facilities are repurposed for group exercise — a stadium with steep steps becomes a space where a distinctive kind of technique can happen. Primrose Hill in central London serves a similar kind of purpose for a number of running groups. *Track Mafia*, and *Project Awesome*, both spend time on the hill, racing up and down the steep incline for hill repeats (Runner's World, 2018). With little more than a slope and the promise of a view, some interesting topography creates the affordance for a focused and effective sociality between people exercising together. In a similar way, park benches, lampposts, other exerciser's bodies, curbs, railings, ledges, walls, underpasses are repurposed, reinterpreted and appropriated by groups such as *Project Awesome* as sites and facilitators of kinaesthetic engagement.

*Run Dem Crew*, *November Project*, *Track Mafia*, and *Project Awesome*, all use social media to document, organise, and celebrate their activities. The charismatic photos shared on *Run Dem Crew's* Instagram account helps to pull other people into the activity[2]. *November Project* and *Project Awesome*, both use Facebook to organise their regular activities, letting people know when and where to be. On the one hand this is a pragmatic point, the social internet, as a piece of communications infrastructure, makes it easier to organise people; it allows for the assembling of an exercising crowd. On the other hand this use of the social internet is about facilitating charismatic engagement. These activities look fun. They look engaging. And they look open to a diverse range of bodies doing them (fig. 1E). This is a task developed explicitly by *Run Dem Crew's* sister project *Swim Dem Crew*, who use their Instagram to promote the representation of black bodies swimming [3]. The effervescent joy experienced on an evening with *Run Dem Crew*, can be found in the camaraderie produced between women during roller derby (Pavlidis and Fullagar, 2015). And this kind of affective appeal is at the heart of how people are pulled into volunteer work in the local community through the innovative exercise group *Good Gym* (Gilmour, 2015). In many of the cities discussed above these distinct kinds of sociality and public-ness are coalescing around amateur sports and fitness practices and the experience of exercising with others.

## vi. Conclusion

For many urban geography and urban studies centre on questions of social justice and creating a fair society (Fainstein, 2011; Harvey, 1973; Low and Iveson, 2016). Why? Because cities and urban environments can manifest some of the crassest divisions of wealth and opportunity. In order to counter this prevailing urban condition, Klinenberg (2018) has argued that good cities require extensive, robust, and universally accessible social infrastructures; infrastructures that facilitate connections between people and allow individuals and communities to flourish. Amateur sport and fitness practices can be an important dimension of this. Public facilities like parks, leisure centres, swimming pools, and gyms, but also aspects of the urban environment such as abundant and safe sidewalks and green spaces — all constitute what can be understood as a social infrastructure that facilitates amateur sport and fitness. For Klinenberg, social infrastructure is all about binding people together and mitigating social isolation. And what we find is that for many people, amateur sport and fitness is an area of life in which they open themselves up to all sorts of encounter and community. Moreover it is also an area of life in which they find sources of pleasure and well-being, and can even improve their health. It is therefore vital to be alive to who has access to the kinds of environments and facilities we have been discussing in this article. This involves analysing how such facilities are designed, provided, funded and maintained; but also ensuring that they create a diverse range of affordances, for a diverse range of bodies, doing a diverse range of activities (Amin, 2008; Corburn, 2009). To talk about access to the infrastructures that facilitate sport and fitness, is to talk about a politics of provision, and is a way to imagine what a more just city would look like.

This work of imagination begins with re-description (Simone and Pieterse, 2017). It begins with re-describing the aspects of cities and urban environments that allow life to be lived well. In turn, this allows an argument to be developed *for* the parts of urban environments that should be protected, curated, encouraged, and designed into cities. Focusing on the kinaesthetic practices of amateur sport and fitness has guided our critical re-description, and allowed us to begin the work of composing what a social infrastructure of amateur sport and fitness could look like. Sports and fitness practices poach upon and demand specific topographical affordances. This has led to new, distinctly urban forms, such as lidos, skate parks, and durable weatherproof astroturf pitches. Topographies like these are an important and valuable part of the urban environment. And as the illustrative example from Denmark highlighted, there is a clear role for public bodies to play in designing inclusive interventions in cities that enhance the topographies available to all — although the precise form of these may vary enormously from city to city. What the Danish example also highlighted was the importance of the specific materials that are embedded into and accessible within the urban environment. The potential of what a successful social infrastructure for amateur sport and fitness looks like can be glimpsed with our second illustrative example. With fitness crews we find evidence of novel, emergent, socially invigorating communities forming around a kinaesthetic practice. Although the example is striking, it is indicative of other, more ordinary pursuits as

people discover and practice public-ness through activities like basketball, dancing, football, exercise classes, and zumba. If we want to inform a politics of provision, paying attention to the times and places where amateur sport and fitness flourish is important; it can help inform our understanding of how to encourage corporeally inclusive and engaging cities (Hitchings and Latham, 2018; Venkatapuram, 2011). In this way human geography can help rethink how cities can be made better, more enchanting, more inclusive, and playful places to live.

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### **Footnotes**

[1] It is worth noting that the line between professional and non-professional elite sport can be complicated depending on context (Llewlyn and Gleaves, 2016; Ryan and Watson, 2018).

[2] See: [www.instagram.com/run.dem.crew/](http://www.instagram.com/run.dem.crew/)

[3] See: <http://www.instagram.com/swimdemcrew/>

### **Figures**

Figure 1:

A. Lokale og Anlægsfonden (2013) Pulsparken I Kilderbjerg-Ry. *Lokale og Anlægsfonden*. URL: [www.loa-fonden.dk/projekter/2013/pulsparken-i-kildebjerg-ry/](http://www.loa-fonden.dk/projekter/2013/pulsparken-i-kildebjerg-ry/) (accessed 7 June 2018).

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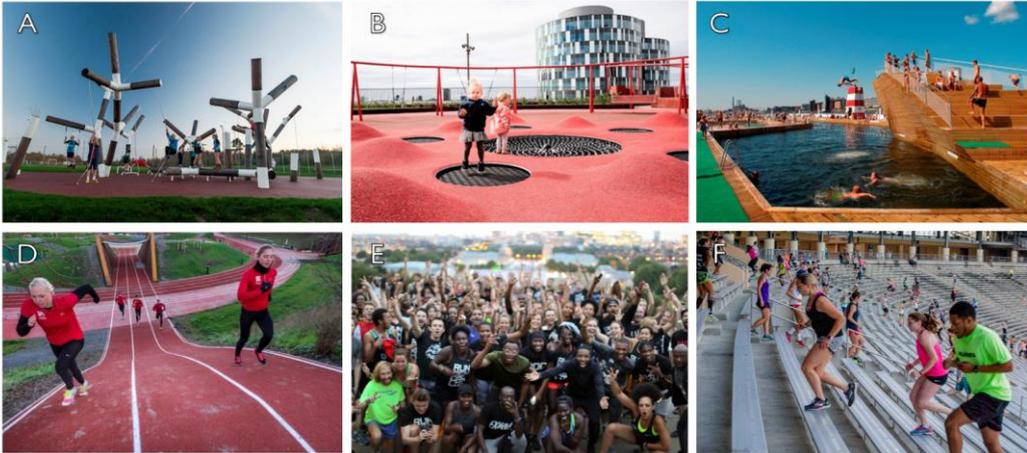
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Figure 1. Kinaesthetic Cities



A. Tree sculptures for climbing at Pulsparken in Kilderbjerg Ry.

B. The active playground on top of a multi-story carpark in Copenhagen

C. Jumping into Copenhagen's harbour at the Havenbadet Islands Brygge.

D. The Atletikanlæg ved SDU in Odense, a running track that interweaves hills and bridges.

E. Run Dem Crew group shot at the top of the hill at Greenwich Park, London

F. November Project climbing the stairs of the Cotton Bowl stadium, Dallas, Texas.