

**Title: Physical Exercise, Health, and Post-Socialist Landscapes - recreational running in Sofia, Bulgaria**

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## **Abstract**

The changes that have been brought about since the end of state socialism include modifications to the urban landscape of cities like Sofia, Bulgaria. There has been a decline in the number of green spaces, sports facilities, and state-run sport programmes. The changing urban landscape has seen the increase in car travel, car parking, and projects such as the Sofia Metro. Citizens from Bulgaria are among the least active in Europe, this has an enormous effect on the prevalence of obesity and non-communicable diseases. However, during the last decade there has been an increase in recreational running, and in particular informal running clubs in Sofia. This paper uses recreational running to understand the changing landscape of post-socialist cities and its effect on techniques of public health. Using data from two in-depth qualitative case studies of informal running clubs from Sofia to examine the effects of the changing urban landscape on recreational fitness practices and well-being, the rationale of this paper is that this has the potential to generate fresh suggestions about the effective promotion of public health through exercise in view of how and where urban running is currently conducted in post-socialist landscapes.

## **Introduction**

### **Landscape, Health, and Running**

Public health professionals are increasingly concerned about the prevalence of non-communicable diseases (NCD) and the connection with local environments (Swinburn et al, 2011). Increasing levels of obesity have led to concerns regarding the effect of landscape on health, lifestyles and health inequalities (Christian et al, 2011; Papas et al, 2007). This concern has led urban scholars to recommend a reconnection between public health and urban planning (Coburn, 2009). These concerns have led to some urban landscapes being defined as 'obesogenic' as they increase the opportunity for inhabitants to become overweight and dangerously unhealthy (Townshend and Lake, 2009). These landscapes offer limited access to affordable, healthy food and act to restrict physical exercise and active lifestyles (Ward Thompson, 2013). The concept of obesogenic landscapes has suffered from environmental determinism (Evans, 2010). Nonetheless, the question of how landscape might encourage people to be more physically active forms an increasingly important part of critical studies into the health implications of the built environment (Bull et al, 2010).

Running for fitness is a physical activity that is suggested as beneficial for health (Lee et al, 2012). The recent interest in running for exercise developed in the 1960s and grew through a 1980s boom in marathons and charity events (Latham, 2015). The physiological benefits of running encompass body muscularity, metabolic system changes, and increased cardio-vascular strength (La Gerche and McMullen, 2015). Reduced stress, lower blood pressure, and improved self-esteem are also among the health benefits of regular running (Jackson, 2003; Penedo and Dahn, 2005). These health benefits are not just for the young. Running in later life is one approach in support of healthy ageing and life-long health (Katz and Calasanti, 2015). In addition to improving health and wellbeing in later life, running

challenges the ontology of ageing as decline. Running offers a means of re-inscribing bodies with a different mind and body relationship that is about discovering new corporeal potentials and experience (Tulle, 2007).

Running leads to the development of particular landscapes. Qvistrom (2013) describes the formation of a network of outdoor running centres throughout Sweden from 1958 to 1971. This 'portable landscape' combined the individual pulse (or heartbeat) as a reductive measurement of health of the population with the promotion of a model fitness facility. The growth in running for fitness that ensued, one that expressed a particular landscape ideal of standardised outdoor exercise centres, spread throughout Sweden. However, running can fit into all sorts of different spaces other than specialist tracks or centres. Parks are frequently seen as spaces for exercise and leisure in cities. They originated as spaces of civilisation and fitness in dense urban areas (Brown, 2013). Krenichyn (2004; 2006) found that urban parks provided a safe space for women to run and were considered to be one of the few places in a city where women felt they could be outdoors. Therefore, landscape plays an important part in people instigating and maintaining exercise. As such, urban landscapes are more than a static backdrop animated solely by human action, they are a complex assemblage of practices, techniques, and technologies, which are shaped by physical, social, cultural, and political processes (Valverde, 2011).

However, running is not for everyone. The literature on running tends to focus on the perceived benefits without recourse to the difficulties some people will have in simply establishing a routine. Landscapes may constrain physical activity through land use mix, urban design, travel behaviour, and green space allocation (Brownson et al, 2005; Heath et al, 2006). Thus, increasing physical activity in urban landscapes is a complex issue (Rutter, 2012). Das and Horton (2012, p. 189) argue that there has been too much focus on individual level changes and not enough deliberation on the social and physical environment that enable physical activity, noting that "efforts beyond the health sector through social and environmental change will be necessary if we are to see greater uptake of this healthier behaviour in people's lives".

Research on running has also revealed other embodied effects, sensory qualities that are embroiled in this type of exercise (Barnfield, 2015). Changes to the body are more than physiological; a 'shifted sensorium' develops through kinaesthetic practice that enables the body to feel different, to feel comfort through exertion and 'at home' in physical activity (Thornsby, 2013). This involves being alert and engaged with urban life, participating in an embodied experience of the world, and engaging in transgressive forms of urban mobility practices (Cidell, 2014). Corporeal experience of running is associated with being outside in the landscape; as Allen-Collinson (2011, p. 290) argues, her "body as part of the elemental world is a fundamental component of [her] running experience". The runner is closely entangled within the city as they run through it, largely unprotected.

Landscape is integral in enabling or constraining the act of running and in the sensory experiences that are produced. The landscapes of post-socialist cities in Central and Eastern European countries have been widely studied since the end of state-socialism. However, the effects of these landscapes in relation to health and wellbeing has been neglected to a large extent. This paper looks to redress this imbalance by examining how the landscape of Sofia, the capital city of Bulgaria, affects the practices and people who run for fitness, health, and wellbeing. This paper explores the geographies of running for fitness in urban landscapes and has three aims: (1) to examine how urban landscape plays an important role for health in post-socialist cities, (2) to consider the experiences of runners in relation to a post-socialist landscape, and (3) to explore the barriers to landscape being used to support health. The paper does this through the lens of non-representational theory, an approach that prioritises the spatiality of affect and the primacy of practices in sense-making.

## Non-representational theory

Landscape is about affect, embodiment, and practice. This involves interactions between bodies, materials, and spatial formation. There are a number of different techniques with which to consider these ideas. This paper attends to landscape and health, and the effects of landscape on practices of running for fitness, through Non-Representational Theory (NRT). NRT developed in cultural geography, particularly from the writings of Nigel Thrift, who sought to unite concepts that were fundamental to his thinking: time-space, practice, subjectivity, and agency (Waterton, 2013). It has particular promise for landscape research by arguing that sense-making in the world happens in the background interactions of everyday life; how human and non-human interactions are performed and not merely on what is produced (Anderson and Harrison, 2012). This was prompted by an orientation in thinking that comprehends the world in practical and processual ways. To use the Deleuzian language of NRT, this involves approaching the world as being in a perpetual state of becoming (Thrift, 2008).

A central element to NRT is that a considerable portion of the world occurs in everyday life but is left unrepresented by social constructivist approaches (Andrews et al, 2014). This epistemologically contests the precedence of representations as the basis of sense-making. In doing so NRT challenges perceptions of the world ontologically by being attentive to the emergent nature of the world. This is an emergence that is a result of an array of spatial processes that do not rely on breaking a threshold of thoughtful cognition (McCormack, 2003). Subsequently, this contests the very notion that ontology and epistemology can be divided into discrete categories of knowledge. This means that landscape and people are repeatedly evolving through contact with each other (MacPherson, 2009). Bodies are constantly taking shape through interactions with landscape and objects; they are relational. This works to complicate the socially constructed or individualised medical representations of the body (Macpherson, 2010). The body is thus comprehended to be a field of biological and cultural-neurological habits which are emergent through an immersion within-the-world (Dimasio, 2004).

Conceptualising affect is a feature of much work in NRT. It is an attempt to enunciate the pre-linguistic processes that modulate experience. This is different to emotion in psychological literature, in that it speaks to more than the socio-culturally imbued interpretations that affect triggers. Affects are sensations, sense-making intensities that shape everyday existence (Manning, 2013). They are never personal, despite being felt, registered, and sensed in, by, and through bodies (Massumi, 2002). Anderson (2009) has suggested that the terminology of atmosphere best grasps the essence of the concept, as it speaks to the ephemeral and transitory nature of affect, concluding that, “the concept of atmosphere is good to think with because it holds a series of opposites – presence and absence, materiality and ideality, definite and indefinite, singularity and generality – in a relation of tension”. (2009, p. 80). Conradson and Latham (2007, p. 235) comprehend affect ‘at the broadest level: as a consequence of the interactions that occur between the bodies, objects and materials that comprise particular ecologies of place’. Affects linger after the moment has passed, repeating and returning the felt responses, working as refrains that continue to reformulate experience after an event has occurred (McCormack, 2013). Affect de-centres the subject-object relationship as space is imbued with potentiality that has the power to shape, move, and push in all sorts of ways.

## Post-Socialist Landscapes

Cities in former state-socialist countries across Central and Eastern Europe (CEE) have borne witness to many physical, social, and cultural changes over the last twenty-five years (Sýkora and Bouzarovski, 2012). The changes in the urban fabric brought about by planning, redevelopment, and attempts at adapting incomplete socialist era building projects have been studied across the region (Light and Young, 2010). While the socialist city had common landscape qualities--a clearly-defined urban

perimeter, specific aesthetic character and spatial scale, and a functional balance between public/private and retail/industry (Hirt, 2012)--the post-socialist landscape is not marked in the same way. However, contemporary urban landscapes of the region do share some similar features: high-rise modernist housing developments, imposing public buildings, poorly funded public transportation systems, and blurring of their sharp urban edge (Hirt, 2007).

The reforms that were carried out following the end of state socialism led to the withdrawal of state involvement in building projects, the introduction of private capital, and planning reform that gave more priority to the private sector and individuals: "Thus, the post-socialist reforms in the CEE region can be depicted as an attempt to make a desperate leap from totalitarian existence to capitalism in a matter of only a few years. Therefore, it is not surprising that the post-socialist city takes on many of the characteristics of the North American patterns of urban development" (Stanilov, 2007 p. 7). This includes urban sprawl, where the private motor vehicle is the main means of transportation, single dwelling housing estates, and 'big box' out of town retail spaces.

However, post-socialist cities do not experience an identical development trajectory (Wilson, 2013). Therefore, the idea that post-socialist cities are in a process of 'transition' is problematic (Stenning and Horschelmann, 2008). It presents post-socialist cities as part of a teleological procession that ultimately ends with a Western ideal. Further, the notion of transition reduces the idea of post-socialism to a flat ontology that diminishes difference and complexity between contrasting regions and spaces. This works to diminish the term of any contemporary explanatory power in the same way other 'post' concepts do (e.g. post-colonial) (Stenning, 2005). Researching physical fitness and urban landscape offers a way past the idea of transition and a technique for attending to the role of landscape in health practices (for travel by bicycle in Sofia see Barnfield and Plyushteva, 2015). Running is a practice of immersive entanglement with the urban fabric of cities like contemporary Sofia.

## **Sofia the city**

Sofia is the capital city of Bulgaria, which is located in the southeast of Europe. The country joined the European Union in 2007. In the 2011 Census the population of Sofia was 1.241 million. The city is the fifteenth largest in Europe and is among the less densely populated (Eurostat, 2012). Sofia became the capital of an autonomous Bulgarian state in 1879. In 1946, following a Soviet backed coup, Bulgaria was drawn into an era of state socialism that ended in 1990. The urban landscape of post-socialist Sofia includes many features that are shared across the region and echo back to the socialist past: high-rise housing districts, large plazas, and imposing government buildings that characterised the reach of the state (Dmitrieva, 2009). Overall, there has been a reduction in the scale of new building in post-socialist Sofia (Hirt, 2012). There has also been a decline in public transport and an increase in car ownership as well as, again echoing cities in the region, a rise in retail space, suburban sprawl and gated communities, and the illegal destruction of green spaces and socialist era sports facilities during the 1990s (Hirt, 2008).

### ***Location of Figure 1.***

Map of Sofia. The parks are indicated in green.

Sofia has retained the main parks of the socialist era. They are located in the centre, south, east, and west (see Figure 1). The central park is called Borisova Gradina (Central Park). It has trails for walking or running, a concert venue, a football ground, and a swimming pool (Figure 2). The Begach club hold running events in the park. The second biggest park is South Park (to the left of the Borisova Gradina). The ParkRun Sofia takes place on Saturday mornings in South Park (Figure 3). The main parks are accessed by metro, tram, bus, or car. Smaller neighbourhood parks are employed as pockets of green space to sit and meet with people, and are not suitable for running.

### **Location of Figures 2 and 3**

Figure 2 – Borisova Gradina pathway. Figure 3– South Park path and green area.

In terms of healthcare, service provision suffered during the 1990s. Public health in particular declined due to lack of funding and resources. Health policy in Bulgaria has primarily focussed on medical care and hospital services. Scott et al.'s (2011) study of policymakers and practitioners concluded that current public health policy faces deep-seated obstacles to any effective implementation. This is due to financial, political, and institutional stasis. There has been some success: the cardiovascular mortality rate in Bulgaria has decreased in the last decade. However, it is still the highest in the European Union and several times higher than the continental average. In addition, Eurobarometer (2014) has recently reported that non-participation in physical activity has increased to 78% of the population, while Eurostat (2012) analysis classifies 50.8% of Bulgaria's population as at risk from NCD through being overweight. The literature on the health effects of the urban landscape suggests that it could be playing a role in such a rise in NCD and other health related risks (Christian et al, 2011). Physical activity has been highlighted as a means for ameliorating these effects. In Sofia recreational running clubs are creating spaces of participation that work to help improve the landscape for physical fitness.

### **Running clubs and study method**

In Sofia there has been a growth in running organisations that arrange events, meetings, and provide information services. Recreational running clubs are groups that have no national affiliation or compulsory membership criteria (events can be entered anonymously and no membership fees are paid). These clubs promote running for fitness and health, and raise money through charity runs. The clubs are run by volunteers and rely on people donating spare time and local sponsorship. The two running clubs that the project in Sofia focussed on are the Begach Running Club and the 5km Park-Run Sofia. The Begach club was established in 2008 and their biggest event was the Sofia Evening Run in October 2013 that attracted over 800 participants. The 5km Park-Run is a regular Saturday run in South Park in Sofia and attracts over 175 participants. The club has grown to support other park-runs in several cities and running weekends consisting of longer events.

The participants involved in the study were drawn from these two running clubs. The first stage involved an online survey sent out via the clubs' social media pages (153 responses = 62 Women and 91 Men). The survey questioned the participants on, among other things, how long they have been running in Sofia, where they normally run, what other exercise regimes they have, and what informational sources they use to plan their running routes. The second stage, conducted between February and May 2014, involved one hour qualitative follow-up interviews. The interviews were semi-structured and conducted with 14 runners of different levels of experience and expertise. Six were female and eight were male; ages ranged from 23 to 46 years old. The interviews questioned, among other things, runners' use of urban space, how they constructed their running routines, the local public health guidance, and the technologies they used to participate. Two further qualitative interviews with organisers of the running clubs were conducted (both male and aged 33 and 42 years respectively). The socioeconomic status of participants was mixed, with participants from all but the bottom quintile of income distribution (based on the Mackenbach et al's (2007) definition of income distribution for the European Commission). This made the participants more representative of Sofia than Bulgaria as a country. The interviews with the runners were recorded and transcribed. The data was analysed using Nvivo software to identify the experiences that the interviewees had while running in Sofia. All participants were Bulgarian. All names reported here are pseudonyms.

### **Running in a Post-Socialist Landscape: Experiencing Sofia's urban fabric**

Sofia has a contrasting urban fabric. Decaying and developing urban sites rub up against each other. In the urban landscape of post-socialist cities such occurrences are not uncommon and are shared by Western cities. In Sofia, cars often park across sidewalks, damage to the footpath is neglected, and the width and quality of footpaths is not suitable for running even in neighbourhoods removed from the centre of the city (see Figures 4 and 5). The quality of the built environment is seen as a constraint on anyone wanting to exercise: “The road facilities are really bad. The landscape of the city restricts runners; the quality of the sidewalk is poor. Serious runners need proper trails” (Yelena, F, 38). The quality of the landscape extends further than the built form. Vehicle traffic, lighting, and levels of maintenance also constrain exercise routines, “There is the air pollution, no sidewalks, and where there are some pavements they are very badly maintained” (Maria, F, 34).

### ***Location of Figures 4 and 5***

Figures 4 and 5. Lozenets neighbourhood, Sofia. A highly desirable part of the city to live, located between South Park and Borisova Gradina.

These issues develop the perception of the built environment as a precarious place to exercise, as an experienced runner explained, “Safety is a big issue for me, the streets and roads are too dangerous. The parks are better but not enough running tracks” (Yourdan, M, 40). However, green space can be found in the four main parks of Sofia (see Figure 1), and despite suffering from problems of maintenance, they do provide citizens with space to exercise. As a running club organiser explained, “the parks are easy to get to – South park especially so. They are clean and can handle groups of people running” (Grigor, M, 33). However, it is not realistic to hope that everyone can have access to the park when they have time to exercise and this highlights the challenges for many to go running in Sofia and the constraints of the urban landscape.

The runners questioned the efforts being made by the municipal and national authorities that shape the exercise landscape, “There is not any information about personal health that I know of, I wouldn’t even know where to look or who to ask” (Lucy, F, 36). Public health in particular is an area that is missing from public life, “I do not follow any given advice; if it was Bulgarian I wouldn’t believe it and if European I wouldn’t trust it. I read things in books and the internet. There is no co-ordinated approach here” (Atanas, M, 29).

The runners interviewed also spoke of how they faced particular local challenges. For example, thinking about landscapes for running, simple things like the need for hydration to exercise or places to go to the toilet were discussed: “The municipality could do some very basic things, have water fountains in the parks, toilets are another important thing especially when as people get older. Lights would help too; safety is a really important thing for women wanting to exercise” (Michael, M, 39). These challenges also included access to certain goods and public health information that would help in their endeavours to stay healthy and run more frequently. Running shoes, types of performance drinks, and facilities and infrastructure were all mentioned extensively. So too was the possibility of information on a variety of routes and options to run to and from work, which are not always apparent in Sofia.

The runners frequently compared their experiences of running in Sofia to running in other cities, particularly Prague, Czech Republic and Berlin, Germany, which demonstrates how the experiences of running foreground differences in and between post-socialist landscapes. Many of the landscape issues raised are familiar to runners in many cities throughout the world. A challenge in Sofia is how to marry together the need to improve public health awareness and physical activity levels within a society and landscape that hold many constraints to exercise. On an immediate level the running clubs have made running a visible and regular activity. On a broader level the clubs have worked to fill a void created by the retraction of the state in terms of public health initiatives. The running clubs provide a fertile setting

for people to engage in exercise and experience the city. Running is shown to be an act in which the participants immerse themselves in the urban landscape.

### **Running and Affect: insights from Non-Representational Theory**

The interviewees remarked on a range of relations that provided insights into the affective nature of running in Sofia. This covered the numbers of other people running or encounters with different spaces that equally gave rise to particular atmospheres of sensation. The respondents drew on senses of different kinds when thinking about running in Sofia. An example of the affective quality of the spaces of running that was remarked upon by the interviewees was the sensation of comfort: how the lack of people and the route precipitate an atmosphere of the landscape, “I don’t see any other runners, a few people who walk in the streets, it can be lonely. I used my local park but it was boring” (Santo, M, 27). Another runner explained that feeling comfortable is important. “I don’t like it when it gets crowded many people, many dogs. It’s not so comfortable to run, it scares me a bit. It makes me uncomfortable. I like to run the route where I can see a nice view, where there are people who are running also” (Maria, F, 37). Comfort here is an attunement to the urban landscape and non-material elements that enable the running body to ‘feel at home’ (Thornsby, 2013). This is comfort sensed while being involved in physical exertion and immersed in the urban landscape.

The affective sensations of running with, (or the absence of) other moving bodies, the conviviality of moving with others, were drawn out in the interviews with runners of different skill and levels of experience. The participants spoke a number of times about this sensed conviviality. In particular this resonated with the organisers of running clubs who paid attention to ways of fostering these atmospheres in mass events. As an organiser of one of the running clubs highlighted: “We put on shorter runs so people have the time to get in shape, which is good for the body. We have found that getting people interested in physical exercise through a free and short run, they realise they can fit exercise into their daily life, which is so important in a city like Sofia. The distance needs to be chosen in a way that they [runners] can see other runners and know that running means other people and enjoying yourself” (Emil, M, 42).

Affect was also discussed by runners as a sensation of bodily movement. It was talked about as part of enjoying exercising, ultimately and intimately bound with the landscape and the sense of pleasure that was derived from moving through different urban spaces of Sofia. As one runner noted, the sensation of movement was tied to moving through many different spaces and routines, “I started to train athletics – doing different types of jumping and running. I just love running but I still do other exercises. It is a question of health; it gives me many positive emotions. I run in the mountain, my local park, and the central park” (Anna, F, 39).

The lack of infrastructural provision for running has produced in Sofia a certain type of sociality. The runners interviewed spoke of how running in the city involves numerous forms of interaction with other residents, both positive and negative. This included people getting in their way, people not controlling their dogs, and a general disposition that was not used to exercising bodies. The public nature of running in this post-socialist city is often about the unspoken negotiation and compromise between groups whose physical proximity is not mediated by any type of vehicle or social norm. As a regular runner explained, “It can be difficult to run through the streets as there are many people who do not anticipate you there. But there is also little space at the crossing point so you have to be brave and force yourself in. I don’t do it very much, I tend to run when it is quieter, I go early” (Atanas, M, 29).

The sensations of running are associated with the landscape but are also transient. Acting as a refrain, the sensations of running continue after the act of running has been completed, “After running I feel like I am full of energy. After I go home [from work] I say I cannot do 5km but after I feel good, like new

born. I go back home, sweaty and I feel very energetic” (Santo, M, 27). In one interview the respondent considered the feeling of the spaces in the city where she had run and where she preferred to exercise, “I don’t like the feeling of running in my district. I tried running in the roads but it’s quite dirty and dangerous. I prefer to run somewhere where I don’t have to breathe that air, the cars are packed all over the pavements. In the park I stay on the grass, it is a better feeling for my body” (Mishka, F, 32). The quality of lighting in the parks or street lighting in neighbourhoods and the quality of roads are other aspects of the landscape that have an impact upon runners in Sofia. Landscape is sensed and these sensations are fundamental to experiences of running.

### **Running and materiality: How devices mediate landscape and running**

Running is a democratic activity; little equipment is needed to begin. This starts with running shoes and simple exercise kit of shorts and a t-shirt but can work up to music players, route trackers, and performance monitors. The devices that form part of a running routine work to attune the runner and the landscape. This could be either tracing a map of a running path through a city or a map of exertion through heart beats and effort. Devices, when considered as part of exercise routines, are not mere adornments. Rather, they are practical means of sense making that shape everyday life (Critchley, 2005), shaping how human bodies interact with landscapes and modulate or experiment with the experience of running (McCormack, 2013).

The runners in the study discussed their use of several devices. The incorporation of devices worked to help shape particular bodily dispositions that establish new methods of participation. It was about interacting with different landscapes of running, through measuring the landscape and running in various ways: temporally, through expenditure of effort, and distance covered. As one participant explained, they felt the landscape through the devices they used, “I have a running chart. I have had it for a few years. I log my distance, weekly mileage. Actually day by day. The same with my times. I also say where and what surface, incline. All by GPS” (Maria, F, 37). Running shoes were also an integral part of the connection with the landscape. Ingold (2011) has suggested landscape is sensed through techniques of footwork. The first sensation of running is felt through the foot, giving rise to a heightened sense of footwork. As a runner explained, “I have a running shoe that corrects my body, it’s in the right shape for moving. I am very conscious of my body. I feel the asphalt and think about how my feet land and push. I am very methodical. I feel the connection to the route I am running” (Yourdan, M, 40).

Heart rate monitors (HRM) were another device used by runners, who discussed them in the interviews as a tool for examining exercise performance and physical exertion, as a technique of engagement with a specific milieu of practice, and as part of the assemblage of technologies that comprise the running body. As one participant explained, devices helped to develop them as a runner “I started very amateur, casual outfit and running shoes. I bought a pulse meter [HRM]. So I can use my phone app to check progress. And the pulse meter I use to check my heart rate. I watch it all the time as I am running” (Danil, M, 28). Another explained that their device was an active element of going running, “I get as much data as I can. If I didn’t have the HRM readings it’s like I didn’t run. I am always running with the HRM. I analyse the data and try to make improvements in my running from this” (Peter, M, 38).

As the participants explained, the objects they used were integral to their exercise routines and ultimately to their health. The sensations and movements of the moving, running body are entangled within a field of non-human entities. Approaching devices and landscape as active elements of daily life has the potential to open up the politics of health research to new possibilities of practice and ethics (Braun and Whatmore, 2010).

### **Conclusion**



Reducing levels of inactivity, obesity, and NCD are complex issues (Rutter, 2012). This paper is not suggesting that it is straightforward for cities like Sofia to get people exercising more. This paper has explored the geographies of recreational running in Sofia and the effects of the urban landscape on physical activity practices. The urban landscape presents a range of challenges for recreational runners. In Sofia this includes poorly maintained surfaces across the city, poor quality of lighting that make spaces feel unsafe, and difficult interactions with fellow citizens that limit the options for running. The experiences of the runners in Sofia speak to many issues faced by runners throughout the world. The landscapes of cities are going to be increasingly under pressure from growing urban populations; this means that where, when, and how people exercise for health and wellbeing are going to be as important to study as the reasons people are physically inactive. Despite the many issues in Sofia, it was a landscape which runners said featured spaces that were enjoyable and safe to run in. Working with runners and other non-motorised forms of movement, like cycling or walking, would lead to positive insights in developing urban landscapes to be open to physical activities of all types.

The practicalities of establishing a running routine involve drawing together different sets of skills. Running is an accumulation of practices that are brought together on the run. Sofia has recently seen a rise of people wanting to exercise and cohabit the city's public spaces with moving, exercising bodies of all types. The running clubs of Sofia are working to make running a mundane public act. This normalisation aspect is a key part of their work. On the one hand it helps to make running a visible and safe way of exercising and on the other it adds more importance to suggestions to help develop the urban landscape of Sofia in a way that is sensitive to the needs of citizens and local health concerns. This will be an important area as Bulgarian President Plevneliev has announced that during 2016 there will be essential reforms to health and healthcare provision throughout the country (Dnevnik, 2015).

Finally, this paper has highlighted the potential of non-representational approaches to examine practices of landscape and health by drawing out the practices and sense-making activities that shape daily interactions in urban landscapes. Health research has tended to approach landscape as an inert background that is only activated by human action. However, this paper demonstrates that non-representational approaches oriented towards thinking with affect emphasise the urban landscape as an assemblage of multiplicities, all of which have an effect on people wishing to engage in practices of physical exercise. Health research needs to consider the dynamism of urban landscapes when thinking about the techniques and technologies of engagement in practices such as running, and how these can be incorporated into attempts to reduce NCD, instances of obesity, and levels of physical inactivity. However, it is vitally important to note that health is not simply about getting more people to exercise. Rather, public health policy should take into account all the affects, materials, and practices that shape urban landscapes. This is complicated; to increase physical activity to nurture health, the urban landscape across all sorts of spaces should be able to accommodate all types of bodies, moving in all sorts of ways.

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