



**Manchester  
Metropolitan  
University**

---

Edensor, T and Larsen, J (2018) *Rhythm analysing marathon running: 'A drama of rhythms'*. *Environment and Planning A*, 50 (3). pp. 730-746. ISSN 0308-518X

---

**Downloaded from:** <http://e-space.mmu.ac.uk/620714/>

**Publisher:** SAGE Publications

**DOI:** <https://doi.org/10.1177/0308518X17746407>

Please cite the published version

<http://e-space.mmu.ac.uk>

# **Rhythmanalysing Marathon Running: 'A Drama of Rhythms'**

## **ABSTRACT**

This paper draws on Lefebvre's rhythmanalysis (2004) to investigate the multiple rhythms of the Berlin Marathon, exemplifying and expanding understandings about the rhythms of places and mobilities. First, we discuss how prescribed rhythms are imposed on the city by urban managers and race organizers for this mega-event. Secondly, we show that a marathon depends upon the preparatory training or 'dressage' performed by the thousands who have made themselves 'race-ready'. Thirdly, we explore the changing individual and collective rhythms that continuously emerge according to contingencies and stages of the race to compose an unfolding drama of rhythms.

## **INTRODUCTION**

Running is currently a highly popular exercise, part of everyday city life (Cock, Shaw and Simpson 2017; Latham 2015). Streets and parks are full of runners and organised road races punctuate weekends. Despite being very demanding, marathons are the most popular form of road race - for example, 330,000 international runners apply for the 40,000-capacity Tokyo Marathon. As spectacular occasions, they are part of an international 'event ecology' that structures the calendar of the 'commercially promoted culture of sport' (Roche, 2003: 107). Yet marathons have been little discussed (though see Cidell, 2014; 2016) despite recent geographical and sociological interest in 'running' (Barnfield 2016; Bridal & Markula 2016; Hockey, 2006, Lorimer 2012; Qviström 2013, 2016). In redressing this lacuna, and inspired by Henri Lefebvre's rhythmanalysis (2004), this paper conducts the first rhythmanalysis of marathons, exploring how marathons are organized, and corporeally practised by runners and onlookers.

Lefebvre claims that '(E)verywhere where there is interaction between a place, a time, and an expenditure of energy, there is *rhythm*' (2004: 15). Indeed, characteristically, a key feature of place is constituted by a polyrhythmic ensemble in which a host of rhythms are braided together without dissonance. Mobile rhythms are integral elements in urban polyrhythmic ensembles (Crang, 2001) and have been explored in recent studies of coach

travel, walking (Middleton, 2010; Wunderlich, 2008) and cycling (Spinney, 2006), though rhythms of running have not yet been explored. This article critically analysis how specific relations between place, time and energy constitute marathons. By investigating the multiple rhythms of the Berlin Marathon, we exemplify and expand understandings about temporal and rhythmic control, mobile and embodied rhythms, and the rhythmic effects and experiences of running in place. We adopt an ethnographic approach through which we uniquely explore rhythms from *co*-production perspective that attends to the rhythmic practices of both runners and spectators. We further advance rhythmanalysis by elucidating upon how bodies experience external rhythms (Duffy et al., 2016) and technologically modulate their somatic rhythms while preparing for and running in an urban marathon. Our rhythmanalysis makes a distinctive contribution to running studies by demonstrating that the marathon, we contend, constitutes a drama of rhythms in which organizers assiduously work to ensure the smooth rhythmic unfolding of the event while individual runners may experience a collective eurhythmia with fellow runners but also fear the collapse of what Lefebvre terms the ‘second nature’ mobile rhythms for which they have prepared into arrhythmia.

After introducing the Berlin Marathon, we discuss relevant concepts and outline our ethnographic approach to studying rhythms. Our account is subsequently divided into three sections, each discussing a particular rhythmic element of the marathon while considering how they meld and interweave during the event.

### **Berlin Marathon**

While marathons for professional athletes have a long history, those open to recreational runners began as low-key, localised events in the 1970s. A small running club, Sport-Club Charlottenburg, organized the first Berlin Marathon in 1974 with 286 participants<sup>1</sup>. Since then, the marathon has taken place on the last weekend in September, starting on Sunday at 10 am (and supplemented by a marathon for inline skaters and a mini-marathon for children on the day before, while the Marathon Expo opens on the Thursday). This scheduling reflects how the ‘temporal organization of the running world has a fundamentally cyclical structure’ (Smith, 2002: 347) where annual events occur on fixed dates. Sport-Club Charlottenburg still organizes the marathon (under the name SCC EVENTS), employing more than 40 people and

---

<sup>1</sup> <http://www.bmw-berlin-marathon.com/en/facts-and-figures/statistics-and-history/history.html>

recruiting thousands of volunteers. Berlin Marathon is currently one of the world's largest road races, attracting elite athletes and 40,000 recreational runners (80,000 people apply, 11 months in advance) from 141 countries, international broadcasters and an estimated million spectators ([www.bmw-berlin-marathon.com](http://www.bmw-berlin-marathon.com)). It is ranked by the International Athletic Association (IAAF) as a gold medal race, a classification that recognizes that the event attracts an 'international elite field' and delivers world-class finishing times<sup>2</sup>. Indeed, the marathon is regarded as the fastest in the world, with several world records having been set, including the current men's record (2:02:57). A 'gold label' further indicates that the racecourse is ideal for those aiming to achieve a 'personal record', is well organized, excels in media services, health and safety, and athlete equality. If only elite runners featured, the event would be over quickly and would lose its dramatic and spectacular polyrhythmic qualities, besides which most elite runners are relative unknown Africans and cannot attract many spectators, television viewers or sponsorship deals on their own. Accordingly, it is imperative to include a varied mix of runners, men and women, young and old, world class and those of limited ability, to produce a distinct eventual atmosphere and commercial viability as well as a medley of individual and collective running rhythms. Nevertheless, participants must attain a certain level of ability to ensure that the race is not over-extended by those finishing many hours after the start (the time limit is 6.15 hours). We suggest watching the campaign video for 2016 race here: <https://vimeo.com/142609278>.

### **Rhythm theories and methods**

Henri Lefebvre advocated the virtues of rhythmanalysis in the slim volume of that name published after his death in 1992 (published in English in 2004). He envisaged that this would form the basis for a more extensive study and accordingly, many of his contentions are sketchy. Though replete with intriguing suggestions and important ideas, *Rhythmanalysis* inevitably contains numerous omissions that await exploration by researchers eager to follow his line of investigation. Here, we draw on three key ideas that emerge from the book.

First, we explore how the marathon is organized by particular strategies that reveal how, according to Lefebvre, the powerful know 'how to utilize and manipulate time, dates, time-

---

<sup>2</sup> <https://iaafmedia.s3.amazonaws.com/competitioninfo/c2127e60-9aa4-40d9-bd90-43fd7db3d607.pdf>

tables' (2004: 68), in addition to prescribing rhythmic and temporal norms about when, for how long and at what speed social practices should occur (Adam, 1995). As part of the everyday regulation of the city, politicians, bureaucrats and the agents of the law establish consistent rhythms of commerce, work, leisure and mobility, forging what Amin and Thrift call the 'repetitions and regularities that become the tracks to negotiate urban life' (2002: 17). Lefebvre terms these hierarchically synchronised rhythms 'isorhythmia'. From his Parisian balcony, he identifies the regular pulsing of the traffic lights, and the alternate surgings of vehicles and pedestrians, dominant rhythms consolidated by the co-ordinated routines of individuals who align their daily and weekly practices with each other. Yet alternative and dissonant rhythms stand out starkly against this usual everyday rhythmic backdrop. While marathon organizers also impose specific, highly ordered rhythms upon the event, they simultaneously produce a rhythmic order that replaces and is at variance to the usual daily rhythms that repetitively pervade the city. These procedures also require rhythmic conformity from participants and spectators as co-producers of the event. And yet in exploring the limits of these rhythmic constraints, we also investigate how runners modulate and manage their own rhythms, or are unable to follow prescribed and desired rhythms.

This brings us to the second theme which is to examine what Lefebvre terms 'dressage', the process through which the state and capital impose disciplined rhythms of work, rest and play upon workers, as a domestic animal might be trained to comply with its owner's demands. Crucially, such gestures are incorporated into the body, shaping its unreflexive habits and typically rendering it docile. We contend that the extensive training undertaken by runners to prepare for the marathon precisely captures the bodily training to which Lefebvre alludes. Here, however, without minimising its potential to mould the embodied habits of workers, schoolchildren and soldiers, we explore how dressage might be constituted in a more productive way, less directed towards achieving an overarching biopolitical control over bodies than with the willing adoption of drill and schedule to achieve the self-esteem generated by fulfilling a particular personal goal.

Third, we seek to explore in greater depth the embodied rhythms that Lefebvre addresses, drawing out tensions between the dressage-induced rhythms, long cultivated through preparation, the passages when runners' rhythms harmoniously synchronize with each other and external rhythms, and those occasions when running bodies fail to perform in anticipated ways. In so doing, we develop the notions of *eurhythmia* and *arrhythmia* beyond Lefebvre's discussion, exploring how individually and collectively, mobile bodies attune to running

space harmoniously and are encouraged to maintain a steady, eurythmic flow by onlookers, or alternatively, experience arrhythmia via unanticipated disruptions or physical breakdown. We subsequently explore how marathons also open up possibilities for atmospheric soundscapes and festive, less disciplinary rhythms to be performed by bands and spectators, who contribute to the sensory and affective alterity of the occasion.

In exploring these themes, we focus upon Lefebvre's emphasis to foreground the body. For he suggests that we should call on all our senses to make us 'sensitive' to time-space ensembles: the rhythm analyst 'draws on his breathing, the circulation of his blood, the beatings of his heart and the delivery of his speech as landmarks' (Lefebvre, 2004, 21; *sic* throughout). Here, the rhythms of the researcher's body – its 'respirations, pulses, circulations, assimilations – durations and phases of durations' are key to understanding, for it is through the body that we may sense the rhythms of different spaces and practices: 'He listens – and first to his body; he learns rhythm from it, in order consequently to appreciate external rhythms' (Lefebvre, 2004: 19). Starting with the body, which serves as a metronome, the rhythm analyst becomes aware of the relative movement and timing of everything. Yet as Simpson has pointed out, Lefebvre's focus too frequently turns to epistemological considerations and the social disciplining of the body rather than its 'visceral, elusory nature' (2008: 824) and its capacity to affect and be affected by a multitude of other rhythms. In this account we endeavour to draw out these somatic rhythmic experiences and effects.

These limitations, suggestive of detachment, are exemplified by Lefebvre's adoption of the balcony as a key site from which to observe urban rhythms. While Lefebvre could no doubt hear, smell and observe the city, this stationary position cannot experience embodied rhythms immersively though it can identify rhythmic patterns and phases in space. As Paterson (2009) observes, such a spectatorial view is too distant and too discordant with the beating hearts and somatic sensations below. Accordingly, our approach has been to adopt a mobile ethnography that registers this embodied rhythmic immersion drawing on insights from sensuous ethnography (Simpson 2008), mobile methods (Spinney 2006), haptic geographies (Paterson 2009) multi-sensuous accounts of running (Hockey, 2006, 2013; Hockey and Collinson, 2006). Hockey (2013) accounts for how running is emplaced in and enabled by terrain to which runners become attuned and attentive (Lorimer, 2012). Yet spectatorial approaches also remains essential in drawing out the marathon's sensuous and rhythmic qualities, and distinguishing this from other mobile and sporting practices, and more

specifically, the very different rhythms of other running practices such as the regular jog in urban space or competitive sprinting.

The race day rhythms ‘grasped’ us from both insider and outsider perspectives - of running and spectatorship respectively. X’s running allowed us to focus on the collective and individual rhythms of running. X ran slightly slower than usual marathon since he was *pac*ing two friends for a sub 3.10 time. He left the race after 32 km as he was due to run another marathon a month later. This participatory approach sits within established ‘sensuous ethnographies’ of ‘mobile bodies’ (Spinney, 2006), and accounts directly for the embodied rhythms of X and his two co-runners.

Y’s mobile spectatorship, staged at various locations, allowed him to observe and listen to diverse rhythms and bodies: from the world’s fastest African runners to the thousands of slower (and heavier) bodies that later jog (and walk) by; the varied musical bands on route; the clapping and exhortations delivered in many languages by spectators. We met up at 35 km, and walked along the route towards the finish line. Animated and absorbed by the affective rhythms of the event, our feet moved to the beats of the music, our hands clapped vigorously, and our voices shouted support to agonized runners.

Besides these methodological strategies, from Thursday to Saturday, outside the Expo we conducted short individual interviews and 17 group interviews (from two to six participants) that lasted between 10 and 25-minutes and covered preparation, ‘game plan’, expectations and running biography. To reflect the polyrhythmic nature of the event we interviewed a roughly equal number of women and men, and heterogeneous runners with different ambitions, ‘personal bests’ (PBs) and training routines. We subsequently contacted some of them to investigate how their race turned out.

Beforehand, we ran along parts of racecourse to get an initial sense of its affordances and the day after the event, cycled its entire length to scrutinize its qualities, sense the distance, and appreciate the everyday rhythms that the marathon displaces.

### **Managing marathon rhythms**

A mega-event like the Berlin Marathon provides an ‘interruption or rupture of everyday life routines, habits, and memories’, generating awareness amongst participants that they are involved in an event-ful occasion (Pløger, 2015: 2). Its staging demands intensive planning and management so that the rhythms of the day proceed smoothly. These rhythms are expressed in the management and design of the course, Expo Area, the mobilities of thousands of runners, positioning of spectators, performances of musicians, media schedules,

routines of photographers, procedures of sports authorities, medical teams and volunteers, mobilisation of timing technologies, regular dispensing of liquids and foods, and police and security measures (Cidell, 2016). Here we focus upon the management of the racecourse, where many of these rhythms come together.

The rhythmic template for the race is laid down by the international regulations and design manuals of the IAAF (International Association of Athletic Federation) that standardise marathons as codified *athletic* places. Gold-label marathons such as the Berlin event must take place on roads closed to vehicular traffic and without parked cars, the prescribed distance of 42.195 kilometres (26.219 miles) is measured by the Association of International Marathons and Distance Races (AIMS) standard, and full electronic timing is provided. While a marathon utilizes existing infrastructures, much preparatory and on-the-day work is required to transform streets into a world-class circular racecourse with a large start and finish area. The route is clearly delineated with signs marking every kilometre; metal fences, and police officers and volunteers ensure that other mobile bodies do not enter or cross the route. Moreover, runners are individually tracked and timed every five kilometre (called ‘split time’) through compulsory start numbers and chips (all individual times and placings are retrievable on the public result lists); and all finishers receive a medal<sup>3</sup>.

Thus a disciplinary isorhythmia that fosters linear progression from start to finish is produced by a host of managers and volunteers. Marathon organisers have the permission and power to reorganise streets, bypass traffic lights and remove photographing tourists, pedestrians and cars, so that the course belongs exclusively to the runners. This exemplifies how on this annual occasion, these urban spaces, timings, materialities and mobilities are orchestrated to provide ‘relatively smooth “corridors”’ for some’ (Sheller and Urry, 2006: 213) – namely those runners privileged on this day, in contradistinction to the traffic that is usually privileged on these routes.

The scale and effort required to displace these usual everyday rhythms was apparent when we cycled the route of the race the day after the event, and witnessed the equally regulated normative isorhythmic order laid down by powerful commercial and state forces that are usually followed by citizens and bestow an ontological predictability and security upon time, space and place. These rhythmic practices and regular paths and points of social intersection constitute the everyday time-geographies (Gren, 2001) and shared ‘place ballets’ (Seamon, 1980), the ‘openings and closing of shops, the flows of postal deliveries, bank

---

<sup>3</sup> <https://iaafmedia.s3.amazonaws.com/competitioninfo/c2127e60-9aa4-40d9-bd90-43fd7db3d607.pdf>



deposits and coffee breaks' (Labelle, 2008: 192) that the marathon utterly displace and thereby reveal.

During the event, large numbers of police and other security personnel restrict entry to roads and mobilise surveillance operations, especially at the starting and finishing areas. The concentrated focus of these forces generates what Adey (2014) terms 'security atmospheres'. This is particularly evident at the EXPO area where passports are controlled, during the race with the aforementioned tracking of runners and by the increased presence of police helicopters, video cameras and security personnel along the route. This concern has been amplified by awareness that terrorist actions could punctuate the race, as with the bombing at the 2013 Boston Marathon. This also explains why most marathons take place on a Sunday when many of the usual weekly rhythms of the city are suspended or less frenetic, with an absence of school children, commuters and many shoppers. Moreover, closing-off busy roads on any workaday morning would cause traffic chaos and outcry; much of the city would come to halt.

On the preceding days and immediately before the race, nutrition stations and timing devices are erected along the route by volunteers, as are metal crowd barriers designed to exclude vehicular and pedestrian passage (Boyle and Haggerty, 2009). During the race itself, volunteers and officers ensure that others do not interfere with runners.

This temporarily 'transgressive' (Cidell, 2014) occupation of streets reveals how urban marathons are designed to produce a smooth, unhindered flow of running on a clearly designated racecourse. Getting 40,000 excited and primed runners off to a good start is a logistic challenge and the key – for organisers and participants – is to avoid an arrhythmic start caused by congestion and mixing of fast and slow runners. Thus runners are spatially divided into corrals according to their intended speed. The fastest runners start first while the slowest commence half an hour later (hence, the use of *brutto-time* - when the race starts - and *netto-time* - the actual time of each individual runner). This ensures that all runners are afforded the best conditions in which to achieve their goals, minimising bunching and any delay in an event where each second counts.

The selected streets are wide and the tarmac is smooth, without cobblestones. There are long stretches without speed-reducing sharp turns, and crucially, pervasive flatness. Such smooth and linear asphalt is ideal for energy-efficient running, and late September typically affords ideal conditions with little wind and optimal temperatures. This design reflects how serious runners prefer standardised routes that afford speed, measurement and comparability. Indeed, Bale (2004) discusses how elite running is typified by 'placeless places'. Like the

identical tracks in stadiums, the urban marathon's route transforms usually traffic-bound streets into an extended racecourse along which running is the master rhythm. Runners are encouraged to optimise performance with the provision of regular facilities along the route, with extensive drink and nutrition stations positioned every three km so all may access refreshment and potential medical assistance.

Runners also crave 'external' rhythms of support, atmosphere and unique features. Accordingly, organisers facilitate an affective event by transforming streets into a vibrant outdoor stadium, encouraging bands to play along the route and distributing 'clapping devices' to motivate spectators to play a role in making the event. These sonic rhythms contrast but sometimes align with the disciplined rhythms of running and as discussed below, inspire runners<sup>4</sup>. Ultimately then, marathons are more than standardised sport spaces: they incorporate spectatorial participation, besides promoting place-specific qualities to attract tourists and TV-viewers. For the selection of iconic, spectacular sites is integral to the planning of Berlin Marathon. The event commences in the middle of the Tiergarten's central road and symbolically ends at the Brandenburg Gate. In between, runners, spectators and viewers are taken on a tour around some of the city's iconic sights and neighbourhoods, passing through Regierungsviertel (government quarter) with the spectacular Reichstag, the iconic socialist landscapes of East Berlin, multicultural Kreuzberg, the green and affluent southwestern neighborhoods, famous Kurfürstendamm Boulevard, NeueNationalgalerie and the Berliner Philharmonie, the modernist landscape of Potsdamerplatz, the two cathedrals on Gendarmenmarkt square, and Unter den Linden boulevard<sup>5</sup>. Each urban marathon is thus paradoxically both place-less *and* unique.

The carefully devised route and the efficient assembly of an extensive temporary infrastructure are designed to make the event run smoothly, and this substitution of the usual rhythms of the city bestows on the marathon a sense of specialness – this day is like no other. This rhythmic alterity compelling reveals the everyday temporal and rhythmic order of the city, with its timetabled periods of commerce and bureaucracy, rush hours, school runs and meal-times, and the conformity of inhabitants to these rhythms that ensures the city works. And yet although the staging of the marathon involves agents who endeavour to produce a distinctive, eventual isorhythmia, runners are free to follow whatever rhythm and pace they

---

<sup>4</sup><http://www.bmw-berlin-marathon.com/en/news-and-media/news/2012/08/31/countdown-only-30-days-left-the-music-marathon.html>

<sup>5</sup> <http://www.bmw-berlin-marathon.com/en/race-day/course.html>

wish, and devise their own race management based upon their individual abilities developed through months of training. It is to this preparatory practice that we now turn.

### **Rhythms of training: dressage and running**

The smooth operation of the marathon also depends upon the thousands of runners who must make themselves ‘race-ready’ (Goodsell and Harris, 2011; Robinson, Patterson and Axelsen, 2014; Smith, 2002). This preparatory training can be considered to be a form of what Lefebvre terms ‘dressage’, training bodies to absorb rhythm through prolonged practice so that it becomes habitual, a ‘second nature’.

Months of repetitive training are required to build up the physiological capacity and ‘embodied mind’ to run at a certain pace in order to achieve a desired finishing time. Since somatic sensations of pain are unavoidable, runners also need to learn ‘dig in’, which means:

setting one’s ‘enduring consciousness’ (i.e. an enduring frame of mind) to defend the athlete from her/his own frailties in the face of fatigue, discomfort, pain, and a gamut of geographic and climatic stressors ...So, whilst physiological and muscular-skeletal endurance is built through physical training, so also is a kind of stoic consciousness, which learns to endure the rigours of training (and racing) (Hockey and Allen-Collison, 2015: 229).

During these many hours of training in diverse weather conditions and local environments, the actual race has been present in the imagination and motivated runners to keep going. As Smith writes:

The training of the competitive runner is organized to mesh with these cyclical patterns. In terms of time and effort expended, training constitutes the larger part of running activity; typically, races are the “ends” to which training is the “means.” Training involves the cultivation of one’s athletic abilities, and it must be undertaken systematically if the runner is to reap a satisfactory reward (2002: 348).

Such recurrent, mundane preparation requires substantial effort and commitment and runners must synchronise their training with work and family rhythms (Goodsell and Harris 2011; Cook, Shaw and Simpson, 2017). Running is a learning process, a matter of constant becoming developed through specific rhythms, of pace, style, racing, tapering and resting

(Hockey, 2006; Latham, 2014). Interviewees typically trained from 30 to 110 km in three to six sessions each week, and the majority – especially those not training regularly with others – followed a training program that ranged from 12 to 16 weeks tailored to their specific ability and ambitions (for example, to attain a sub 3 hours finish).

While the state may provide a running infrastructure that establishes normative exercise rhythms (as in Sweden, Qviström, 2013) and although elite runners often become so dependent upon their coach that they are treated as *pets* (Bale, 2004), interviewees were self-motivated to take on the dressage necessary for the completion of a marathon, albeit aided by a plethora of expert advice and prescriptive training programs (Bale, 2004; Hockey, 2006; Latham, 2015) that ensure the necessary ‘automatism of repetitions’ (Lefebvre 2004: 49) to develop marathon running potential.

Training programs that disciplined and motivated them to run were chosen because they were generally considered to be based on sports science, and effective in improving performance and avoiding injuries. They were also thought to simplify running, authoritatively outlining the pace, duration and length of training runs. ‘Experts’ advise against running more than two marathons (at least all-out) a year and to allow five or six months between them for recovery and rebuilding. Accordingly, many runners follow a cyclical rhythm, participating in a spring and autumn marathon. A typical schedule includes recovery for a month, followed by three to four months of progressively intensified training.

Each weekly schedule characteristically includes multiple specific rhythms shaped by pace and distance to gradually build up speed and endurance, and avoid a disruptive injury. Nevertheless, even when following a rigid plan, an unexpected injury may occur because of the high impact of running on the legs (Allen-Collinson and Hockey, 2001; Collinson, 2003). Schedules tend to be divided into sessions of short distance speed intervals, high tempo runs for three to four kilometres, shorter and longer runs at the intended marathon pace, ‘LSD training’ (long, slow, distance) to train endurance (and learn to drink and eat nutrition gels while running) and many slow recovery runs (Hockey, 2006; Mills and Denison, 2015; for marathon programs, see Runkeeper<sup>6</sup>; Runnersworld<sup>7</sup>; Halhigdon<sup>8</sup>). Such varied running is essential to build anaerobic *and* aerobic strength so that a body gradually becomes conditioned to sustain a consistent pace over long distances (Hockey, 2006).

---

<sup>6</sup> <https://runkeeper.com/search/fitness-classes/running/finish-a-race/marathon-plans>

<sup>7</sup> <http://www.runnersworld.com/tag/marathon-training-plans>

<sup>8</sup> <http://www.halhigdon.com/training/51135/Marathon-Training-Guide>

A personalised program normally specifies the speed, distance and number of intervals during each training session, and how difficult they ought to feel, based on the runner's breathing and pulse, and any subsequent muscle soreness. While runners learn to evaluate their movement against such internal biological and cyclical rhythms, many also become fully dependent upon GPS-watches and even heart monitors, as key sessions presuppose the exact timing of pace and measurement of distance and heart rate, as well as the recording of such information (often uploaded to social media programs such as *Strava*). Such approaches value the abstract quantitative clock-time, and new portable technologies have made such measurement more precise. Technologies also monitor heart rhythms and suggest needed restitution while certain programs judge environments according to their running affordances and may suggest appropriate terrain for particular sessions and modes of running, where, for example, 'flat, smooth road surfaces allow fast, short "interval" running which runners term "speed work"' (Hockey and Allen-Collinson, 2006: 78).

These multifaceted forms of dressage condition runners to complete a marathon at a desired eurythmic pace and are devised to prevent arrhythmic disturbances, such as 'hitting the wall' too early or too badly, in order to ensure a desired finish time. Marathon running is not only about overcoming the daunting distance, it is also a *temporal* practice (Bale, 2004) where success is measured in clock time - and faster is always better. As Smith writes:

The temporal dimension is a conspicuous feature of the talk and activity of runners at every level of ability and involvement. Close students of running and runners themselves take a keen interest in the "lap times," "personal bests," and "records"... Time, that omnipresent characteristic of social life, has special significance in the running world. Runners learn to attend to time as finely tuned markers of running achievement, as careers with stages and turning points, and as cyclical calendars (2002: 343).

Yet there is no guarantee that it will pay off since marathon runners seldom exceed 32 km in training (greater distances are too hard for the body) and such long runs tend to be performed at a significantly slower rhythm than an intended marathon pace. As running lore commonly decrees that a marathon really begins at 30 km, the actual rhythmic performance and pain that awaits is partly beyond preparation. Moreover, the 'stoicism of consciousness' that is developed through training 'is never total or complete' as 'vulnerability is always liable to emerge as one inevitably has "bad days" in both training and racing' (Hockey and

Allen-Collins, 2015: 232). No wonder then, that even experienced interviewees were extremely nervous about how their exhausted bodies would react to the gruelling work that awaited them after 30 km.

### *Anticipation and final preparation*

Three weeks before the marathon, preparation devolves into the less intense training rhythms of ‘tapering’ to ensure fresh legs on race day. Around this time, runners may obsessively check the weather forecast, fearing that their preparation will be disrupted by the contingent rhythms of storms or extreme temperatures, or worse, that they will become ill.

The last few days before the marathon involve their own preparatory rhythms of travelling (many arrive two days beforehand to avoid jetlag), collecting one’s start number and timing chip, obtaining requisite food (so-called ‘carbo-loading’ of low glycemic foods like pasta to maximize the storage of glycogen in the muscles and liver), hydrating and relaxing. At this stage, runners are wary of expending undue energy. However, this preparation may go awry. For instance, one interviewee explained how socialising with old friends in Berlin meant that she did not obtain the requisite sleep, impairing her race performance. Others walk too far in ‘obligatory’ sightseeing with their non-running family.

Marathons require an early rise on race day. However, with excitement running through the body it is not difficult to get out of bed, even for those with pre-races nerves that do not sleep well:

*The alarm clock beeps at 5.45 and I jump out of bed. All there is on my mind now is the final preparation for the run that starts in little less than three hours. The next hour is crucial: I need to drink and eat wisely, enough but not too much. And not least, I need to defecate. It is about sticking to the routines. I mix myself a 750 ml energy drink. Sweet, awful stuff. I know that I need to stop drinking two hours before the race to avoid a disastrous pee at the beginning. Because of the marathon, the breakfast is served early. Unsurprisingly, it is only runners and their families that make such an early morning start. I eat a small muesli bowl and a banana. Juice. Coffee. Oh yes, my ‘stomach works’ (field notes).*

Almost all interviewees had a ‘game plan’, including what to wear and how to hydrate. Many run with GPS-watches and some use heart rate monitors, believing that they will run

too slow or fast without them. For many, it is the *time* that determines whether the run was successful, and triumph ensues if they achieve a new PB.

For others, especially slower runners, novices and experienced older runners, the main ambition is to enjoy running this iconic marathon while avoiding a physical meltdown or injury. Though ostensibly less important, many retain a secret ambition to beat a time:

I'm hoping that Berlin is like London in terms of experience and atmosphere and that everybody around the racecourse is taking part in it. That's what I'm looking forward to: Getting around the racecourse, seeing all the people and hopefully get past 4.30 (Ben, English Middle-aged).

Even serious, PB-chasing runners looked forward to experiencing Berlin as a scenic backdrop and the noisy, carnivalesque atmosphere that they believe would motivate them, especially when fatigue kicks in.

This discussion emphasises that though dressage may be a biopolitical technique to render bodies docile, the willingly performed forms of dressage undertaken by runners to prepare for the marathon reveal that it may not necessarily be organized for coercive ends but adopted to fulfil personal goals and enhance self-esteem. For all runners, pacing oneself and marching to one's own beat is key, timing their performance so that they do not run out of energy by starting too fast or arrhythmically. Many have a precise notion of the exact pace they should follow, and whether they should run faster (so-called 'negative split') or slower ('positive split') in the second part of the race. For example, serious leisure runners Rasmus and Casper (in their late 20s) have trained so much together that their running rhythms have synchronized so that they typically run together at a 3.45-46 pace. However, they agreed that neither would slow down if one struggled with this pace, and could speed up after 30 km without consulting the other. They realized that once the marathon commences, all preparations and expectations can be confounded by unexpected events and by a recalcitrant body. For as we now discuss, the event devolves into a drama of rhythms in which rhythmic phases evolve as the race progresses, some eurhythmic, others arrhythmic.

### **Race rhythms: eurhythmia and arrhythmia**

*The start and first part: eurhythmia prevails*

*Wow. It is crowded. Claustrophobic. We are almost rubbing shoulders. And there is much pushing from behind, with people eager to get further up.*

*10-9-8-7-6-5-4-3-2-1 Bang. Bang!*

*We are off. Jesus. It's a survival game in this sea of psyched-up runners. We run in close proximity and one's attention is fully devoted to not being hit by, or running into, another runner.*

*There is some elbowing and near-accidents. You don't want to trip over here (field notes)*

At the start, the elite runners surge ahead with their prodigious speed, leaving all behind. Afterwards, the bunching together of large crowds of runners tends to produce a mass collective rhythm as participants disregard wider surroundings, focusing on avoiding collisions with others.

Interviewees stressed the importance of not being carried away by the atmosphere, adrenaline and faster runners, to become victim of a too sprightly gait, in part because the body is not warmed up yet. Seasoned runners know of the dangers of starting too fast, and stress the need to get into their intended rhythm as quickly as possible. However, they are also wary of being blocked by slower runners if they start too far back in the corral.

The hectic, somewhat arrhythmic first few kilometres are succeeded by a more regular 'getting into one's rhythm' period along quiet, tree-lined passages. The thick, consistent flow gradually disaggregates as the faster move beyond the slower and those whose excitement and adrenaline have spurred them to go out too quickly. Runners accommodate themselves to the racecourse affordances and the job-at-hand, taking full advantage of the fast, smooth surface on which running – and sounds of shoes hitting the asphalt – is the master rhythm. Eurhythmia emerges. Runners might rejoice from the fact their legs are light and strong, full of energy, and their pulse is low despite the relative high pace. The body may feel like a machine at this point.

Runners remark upon how the sequestration of the streets eclipse many of the ordinary practices and rhythms that they habitually experiences (Cidell, 2014): they are no longer wary of pedestrians, unleashed dogs, playing children, noisy, air-polluting vehicles, and traffic lights (Cook, Shaw and Simpson, 2017; Ettema, 2015), arrhythmic features that disrupt typical training runs. There is no need for 'improvisation' and alertness; one can simply go with the flow, on 'auto-pilot' (Middleton, 2010: 583).



Being on auto-pilot may also allow runners to gaze upon the iconic scenery but there is a greater propensity to notice broader landscape features, other runners and their sweaty bodies, blurry gatherings of noise, clean air and excited roadside spectators. For running rhythms co-exist with the multiple rhythmic sounds and dances produced by the crowds and bands along sections of the route. Rodaway (1994: 95) notes that sound can be ‘information’ and ‘sensation’, with, for instance, the former concerned with dangers such as speeding cars and the latter with pleasurable music. The marathon soundscape is primarily ‘sensational’, a festive racket that diverges from the usual sonic rhythms of traffic, work and shopping. Every other kilometre or so there is a percussion group, beating out samba or African pulses that resonate across streets, or brass bands that play inexorably for the duration of the race, toning space and adding a sense of festivity, while rock bands serenade runners with a more urgent rhythm. Insistent techno beats and heavy rock blend with sounds of clapping, yelling and percussive implements of many kinds. There is thus a peculiar mix of skilled bands, gate-crashing street amateurs and massive speakers sited on balconies, in addition to spectators contributing continuous supportive beats at all stages of the race. Clapping, whistling and vocal exhortations form a persistent sonic backdrop, as well as the insistent rhythm of the free maps handed out to spectators that can be folded up and deployed as clappers. These are supplemented by an array of whistles, cowbells, rattles, drums, tambourines and maracas. By contrast, quiet sections where the dominant sound is that of running feet, perhaps punctuated by isolated shouts and the cawing of crows, leads to an inward, absorbed concentration, which is further underscored by the fact the runners rarely chat with each other:

*No one says a word. All you hear are shoes hitting the ground, breathing and the background noise of music, cheering and clapping. Nothing else. Except for more or less synchronised beep-sounds of watches at every kilometre sign (Diary notes).*

Thus, Berlin Marathon creates a rhythmic soundscape of shoes-hitting-the-ground, beeping watches, breathing bodies, sporadic music and almost ever-present clapping and yelling. For both runners and spectators, these sounds intensify the sense of occasion and their rhythmic qualities ‘trigger’ bodies in-the-moment’ (Duffy et al, 2011: 18). They are part of the sensuous production and shared inhabitation of a serious, yet festive, running space, forging a eurythmic connection between runners and spectators. Indeed, runners comment on how the spectator-produced rhythms provide sonic inspiration that enervates the mobile body, folding it into the space and event. As Lene (40s, third time participant) says:

The atmosphere is 'extreme'. You will experience how the atmosphere will carry you through. It is crazy how people cry at you, there is music, and there is not a moment of silence. It will be a grand experience

This eurhythmic cheering and music acts as a form of 'auditory latching', being absorbed through bodies with which it is temporarily rhythmically aligned, encouraging runners to sustain their pace. (Labelle, 2008: 190). This collective musical eurhythmia differs from the solitarily rhythmic experience of the personal stereo-user (Bull, 2000) – and few runners wear headphones.

After the first 5-10 kms, most runners continue to settle into a regular rhythm, sometimes aligning their pace with those of an equivalent standard and producing a collective eurhythmia for extended spells. The kilometre signs are crucial, signalling progress and an opportunity to compare one's lap time (and legs) against that which has been anticipated. Equally important are the nutrition stations and the encouragement from 'mobile' friends and family members at agreed locations who dispense energy gels and provide an emotional boost:

I appreciate my wife's support. It is good to know that I can get what I need or get rid of things. Water, salt tablets, gels, plaster. It is also good to know that there are points on the route where meet. It is nice to say hi, get a kiss and say 'see you in 8 kms time. It breaks up the racecourse a little (Bent, Danish, Middle-aged).

As the race progresses further, runners increasingly synchronise eurhythmically, with larger groups. Yet these groups are fluid gatherings and few people stick together for long unless it has been pre-arranged. People run at their own distinctive pace: this is not like a cycle race where competitors gain a significant aerodynamic advantage by 'wheel sucking'.

Now the hours of training reap rewards, allowing the performance of an anticipated and steady rhythm, and occasionally, a sense of flow where movement seems fairly easy. This resonates with Evans and Franklin's (2010) exemplification of how extensive, repetitive, everyday training can produce eurhythmic moments of 'floating harmony' during the equestrian pursuit of dressage, as trained bodily rhythms merge into transcendent rhythms of sensation and accomplishment, culminating in shared euphoria between horse and rider.

Yet in the marathon, such moments are contextualised by the overarching goals of running fast and a sense of flowing, pleasurable progress is for many dictated by the pace recorded by the GPS watch in the here-and-now. The insistent rhythm of the clock, notably for all runners attempting to gain a PB or good time, is monitored incessantly by many on wristbands that record the time of each five kilometers to monitor the likely finishing time. This continuous checking dictates the rhythm of their race:

*Our eyes are on the route, what is in front of us, and on our watches. Runners catch quick glances at their split times and adjust their pace. They are performing their anticipated pace, flowing (X diary notes).*

These largely eurhythmic passages can be disrupted by accidents at the drinking stages where water is spilled onto the road, leading to slips, tumbles and occasional pile-ups. Full bladders and stomach problems caused by over-hydration and too many gels may similarly produce arrhythmia, as happened with Maria at the 17 km-sign:

*“I need the loo. You two just continue”*

*“I stick with you”*

*“You are on your own, Henrik, Maria needs the loo”*

*Two minutes later we hit the road again. We are still on time. Just about. But will this interruption undermine her? We find our rhythm again. But there are signs of agony on her face. And her breathing is heavier She is behind me all the time now (field notes).*

### *Second part: emerging arrhythmia*

In the later stages of the race, those with renewed energy move beyond those with whom they have shared a steady rhythm for kilometres. Around 20 km, most runners reach the brute ‘moment of truth’ when they learn whether their training has paid off, and whether they are ready to suffer, to endure pain. The experience of the last 12 km tends to be particularly unpredictable and hitting the infamous ‘marathon wall’ is feared. At this stage, runners are apt to acknowledge that their body is *not* a machine: numerous bodily interruptions and somatic arrhythmia can seriously impede advancement as ‘rhythms break apart, alter and bypass synchronization’ (Lefebvre, 204: 67). This is the rhythmic drama of marathon running at its most brutal. Legs become heavy, with a painful sensation of burning, feet are aching, muscles are cramping, pulse is increasing and becomes more irregular, bodies are running

low on sugar and hydration, and the combination of these sensations can lead to dark thoughts that haunt the already troubled-runner. Pain is etched on sweaty faces, bodies are overheating and the running is heavier, less graceful, and with shorter strides. People desperately devour gels and drinks to regain energy but the sweet stuff is perhaps too sweet now. Runners are now so low on energy that will-power is decisive: a worn-out body begs one to stop, or at least slow down. Along the latter stages of the route are troubled bodies 'crashing': stopping, resting and plodding ahead. And most runners, even those that do not visibly crash, are running the last 10 km at a slower pace than at the start of the race. Crashes may also happen instantly, without much warning, as with Rasmus, who while running with Casper and still on time, suddenly cramped at 34 km. He had to stretch for several minutes before continuing yet managed to resume his old pace. This illustrates how the body can feel good, then bad, then good again (and so on) through the same race. This arrhythmia is evident to onlookers as the race devolves into an arrhythmic spectacle, the synchronised eurhythmia of earlier stages breaking down.

However, some experienced runners never hit the wall, and might even increase their speed at this stage, gliding past suffering runners, whose torment seems to make them stronger and their own pain more bearable. Running in a 'negative split' is not only likely to provide a faster overall run<sup>9</sup>, it also feels better despite the increased speed: thoughts are positive, legs are light and somatic eurhythmia persists.

In the final stages, the potent sonic rhythms of upbeat dance music and thousands of vocal spectators spur runners on to complete one last spurt, to mobilise their last reserves of energy, an atmosphere that augments the powerful symbolic charge of running through the iconic Brandenburg Tor. The world elite male runners finish just after two hours and the winning time (02:04:00) is just a couple of seconds short of the world record set in Berlin the previous year. Between 2.5 and 3.0 hours, serious leisure runners who have collectively co-performed a regular, insistent rhythm finish the race eurhythmically. They sprint towards the finishing line if they can mobilise any energy and many raise their arms to celebrate. Having finished, many momentarily collapse as cramps immediately kick in. Casper crosses the line in 02:41:15, slightly slower than he hoped, but he is still euphoric with the 10-minute improvement on his previous PB. He waits anxiously for Rasmus and is jubilant when he finishes a couple of minutes later, also with a greatly improved PB. Henrik managed without pacing as he finished in 03.08, a remarkable PB for a relative novice runner in his fifties.

---

<sup>9</sup> <http://www.runnersworld.com/race-training/learn-how-to-run-negative-splits>

Anne also regained her momentum and managed a PB despite a third disruptive visit to the toilet.

After this, the less purposive runners near the end of the race, some wearing carnivalesque costumes, many high-fiving spectators, laughing and celebrating, looking round, hugging family members, and urging each other on in a less insistent rush towards the finish. Others dance along the finishing strait or stop to jive to the music on the spot, joining with the street dance troupe at the roadside (Sheehan, 2006). Others are visibly in pain, with wobbly legs, and seem oblivious to their surrounds. They can barely move their feet. Spectators call out (there are personalised names on the start number): '*Come on Sven, just another 1 km, you are almost there. You can do this*'. They occasionally respond with a smile and few lighter strides. All subsequently enter a different rhythmic world of recovery, rehydration and consumption in the large park reserved for runners along the finishing stretch.

## **Conclusion**

In this paper, we have explored understanding of running in general and marathons as sites for running and as mega-events in particular. In undertaking a rhythmanalysis of the Berlin Marathon, we investigate how the ideas championed by Henri Lefebvre might be expanded, augmented and developed, as well as exemplified. Though Lefebvre's ideas are gaining traction across geography and the social sciences, such rhythmanalyses remain uncommon, a dearth we have partly sought to address. In addition, we want to bring out three key points raised by our rhythmanalysis.

First, the Berlin Marathon exemplifies the widespread contemporary eventification of place, a process through which bureaucratic, commercial and achievement oriented rhythms are instantiated to reproduce the normative meanings, values and practice of the marathon and ensure its efficient delivery. This isorhythmia imposes a temporary but rigid social order on time and space. Yet though key managers and manipulators rigorously implement authoritative procedures, the staging of the marathon requires the drawing together of an extraordinary array of participants, including runners, spectators, volunteers and diverse professionals, revealing how such power is distributed amongst multiple co-producers. The sheer scale of this synchronised, rhythmic coordination is usually overlooked, taken for granted. In exploring this isorhythmic production, we demonstrate that inscribing normative

rhythms on place requires vigilant management, technological augmentation, procedural practice and ongoing maintenance, revealing that the ordinary achievement of rhythmic order and temporal ‘common-sense’ is usually overlooked despite being suffused with powerful norms to which inhabitants generally conform. Indeed, the Berlin Marathon would slide into rhythmic chaos, evade control, if runners and spectators did not accede to these norms.

Second, we deploy Lefebvre’s notion of dressage to characterize the extensive training undertaken by runners in the months leading up to the event. Yet we diverge from his particular conception, for he primarily conceives dressage as the means by which state and capital discipline bodies into docility, so that they efficiently perform work tasks, military drill and commemorative rituals unreflexively, corporeally absorbing these enactments so that they become habitual. Certainly, much marathon running occurs in ‘a prison of measured time’, where like factory workers, runners are slaves to the alienating beats of time (Rigauer, 1981; Bale, 2004). Here, however, dressage is an enabling practice rather than one which seduces bodies into embodied conformity with proscribed somatic procedures. We emphasize that runners are active, knowledgeable about training regimes, nutrition and pacing, and the rhythms dictated by clock-time and repetitive training can be meaningful and pleasurable, echoing the arguments of Hockey (2006) and Hockey and Allen-Collinson (2006). A complex array of training techniques that deploy different rhythms at distinct stages are successively combined with the intention to facilitate smooth, eurhythmic progress on the day of the marathon, fostering a sense of individual achievement and self-worth.

Thirdly, we emphasize that the marathon is characterized by both eurhythmia and arrhythmia, typically during different stages of the race, thereby extending and grounding Lefebvre’s identification of these two temporal conditions and foregrounding our contention that the event can be characterized as a *drama of rhythms*. We show that contingencies or careless final preparations may thwart the extensive training that has preceded them. Despite the extensive organization that has gone into the production of the event and the dressage that has conditioned and prepared runners, runners may experience eurhythmia, arrhythmia or a mixture of both on the day itself. At one level, this drama is provided by the opening up of the city to rhythms that contrast with those temporarily suspended rhythms that typify everyday urban life. But more crucially, we demonstrate how within the marathon’s temporal and spatial framework, any individual runner’s experience of rhythm may continuously change. Drama is thus provided by this interweaving of rhythmic patterns along the route, by the arrhythmia that strike bodies, by the eurhythmic alignments and synchronisations that conjoin participants for spells and by the breakaways that fracture them, and by the roadside

music that embellishes runners' rhythms. A theatrical composition of shifting collective choreographies, individual struggles and triumphs, and audience participation means that the marathon always exceeds any fantasies of seamless sporting excellence or synchronic collective spectacle in its dramatic unfolding. Emphatically, rhythms are never given and predetermined especially when they are in contact with 'what is least rational in human being: the lived, the carnal, the body (Lefebvre, 2004: 9). Accordingly, we conclude that marathons attract and excite so many runners and spectators precisely because they constitute such a drama of rhythms. We contend that in expanding the application of a Lefebvrian rhythmanalysis, we might draw out how different geographies of isorhythmia are produced by the powerful, while considering their limitations and precarity. We may investigate other spatial contexts in which the productive or coercive consequences of dressage unfold, and we might explore the conditions under which forms of eurythmia and arrhythmia emerge and assess the extent to which they constrain or liberate bodies.

## **Bibliography**

Adam, B. (1995) *Timewatch: The Social Analysis of Time*. Cambridge: Polity.

Adey, P. (2014) Security atmospheres or the crystallisation of worlds. *Environment and Planning D: Society and Space* 32: 834-851.

Allen-Collinson and J. Hockey (2001) *Runners' tales: autoethnography, injury and narrative*. *Auto/Biography*, IX (1&2): 95-106.

Allen-Collinson, J. (2003) *Running into injury time: distance running and temporality*. *Sociology of Sport Journal* 20: 331-350.

Bale, J. (2004) *Running Cultures: Racing in Time and Space*. London: Routledge.

Barnfield, A. (2016) Physical exercise, health, and post-socialist landscapes—recreational running in Sofia, Bulgaria. *Landscape Research* 41: 628-640.

Bridel, W., Markula, P., and Denison, J. (Eds.) (2015). *Endurance Running: A Socio-cultural Examination*. London: Routledge.

- Boyle, P. and Haggerty, K. (2009) Spectacular security: mega-events and the security complex. *International Political Sociology* 3: 257–274.
- Bull, M. (2000). *Sounding out the City*. Oxford: Berg.
- Cidell, J. (2014). Running road races as transgressive event mobilities. *Social and Cultural Geography* 15: 571-583.
- Cidell, J. (2016). Time and space to run. In: K. Hannam, M. Mostafanezhad, J. Rickley (eds.) *Event Mobilities: Politics, Place and Performance*. London: Routledge, pp. 82-94.
- Cook, S., Shaw, J., and Simpson, P. (2017). Jography: Exploring Meanings, Experiences and Spatialities of Recreational Road-running. *Mobilities*, 1-26.
- Crang, M. (2001) ‘Rhythms of the City’, in J. May and N. Thrift (eds) *Timespace*, London and New York: Routledge, pp. 187–207.
- Duffy, M., Waitt, G., Gorman-Murray, A. and Gibson, C. (2011) Bodily rhythms: corporeal capacities to engage with festival spaces. *Emotion, Space and Society* 4: 17-24.
- Ettema, D. (2015). Runnable Cities How Does the Running Environment Influence Perceived Attractiveness, Restorativeness, and Running Frequency?. *Environment and Behaviour* 48: 1127–1147.
- Evans, R. and Franklin, A. (2010) ‘Equine beats: unique rhythms (and floating harmony) of horses and their riders’, in T. Edensor (ed.) *Geographies of Rhythm*. Aldershot: Ashgate, pp. 173-188.
- Gren, M. (2001) ‘Time-geography matters’, J. May and N. Thrift (eds) *Timespace: Geographies of Temporality*, London: Routledge, pp. 208-255
- Goodsell, T. L., and Harris, B. D. (2011). Family life and marathon running: Constraint, cooperation, and gender in a leisure activity. *Journal of Leisure Research* 43: 80-109.
- Hockey, J. (2006). Sensing the run: The senses and distance running. *The Senses and Society* 1: 183-201.



- Hockey, J. (2013) Knowing the 'going': The sensory evaluation of distance running. *Qualitative Research in Sport, Exercise and Health* 5: 127–141.
- Hockey, J., and Collinson, J. A. (2006). Seeing the way: visual sociology and the distance runner's perspective. *Visual studies* 21: 70-81.
- Hockey, J., and Allen-Collinson, J. (2015). 'Digging in'. In W. Bridel, P. Markula, J. Denison (eds.) *Endurance Running: A Socio-Cultural Examination*. London: Routledge, pp. 227-242.
- Labelle, B. (2008) 'Pump up the bass: rhythm, cars and auditory scaffolding. *Senses and Society* 3: 187-204.
- Latham, A. (2015) The history of a habit: jogging as a palliative to sedentariness in 1960s America. *Cultural Geographies* 22: 103-126.
- Lefebvre, H. (2004) *Rhythmanalysis: Space, Time and Everyday Life*. Trans. Stuart Elden and Gerald Moore. London: Continuum.
- Lorimer, H. (2012) Surfaces and slopes. *Performance Research* 17: 83-86.
- Mills, J. P., and Denison, J. (2015) Charting the development of contemporary endurance running training theory. In W. Bridel, P. Markula, J. Denison (eds.) *Endurance Running: A Socio-Cultural Examination*. London: Routledge, pp. 50-60.
- Middleton, J. (2010) Sense and the city: exploring the embodied geographies of urban walking. *Social and Cultural Geography* 11: 575-596.
- Pløger, J. (2015). The evental city: moment, situation, presence. *Space and Culture* 19: 260–274.
- Qviström, M. (2016) The nature of running: On embedded landscape ideals in leisure planning. *Urban Forestry and Urban Greening* 17: 202-210.
- Qviström, M. (2013) Landscapes with a heartbeat: tracing a portable landscape for jogging in Sweden (1958–1971). *Environment and Planning A* 45: 312-328,
- Rigauer, B. (1981). *Sport and Work*. New York: Columbia University Press

Robinson, R., Patterson, I., and Axelsen, M. (2014). The “Loneliness of the Long-Distance Runner” No More: Marathons and Social Worlds. *Journal of Leisure Research*, 46: 375-388.

Roche, M. (2003) Mega-events, time and modernity: on time structures in global society. *Time and Society* 12: 99–126.

Rodaway, P. (1994). *Sensuous Geographies: Body, Sense and Place*. London: Routledge.

Seamon, D. (1980) Body-subject, time-space routines, and place-ballets in A Buttimer and D. Seamon (eds) *The Human Experience of Space and Place*. London: Croom Helm, pp148-165.

Sheehan, R. (2006) Running in place. *Tourist studies* 6: 245-265.

Simpson, P. (2008). Chronic everyday life: rhythmanalysing street performance. *Social and Cultural Geography* 9: 807-829.

Smith, G. (2002) Racing against time? Aspects of the temporal organization of the runner's world. *Symbolic Interaction* 25: 343-362.

Spinney, J. (2006) A place of sense: a kinaesthetic ethnography of cyclists on Mont Ventoux. *Environment and Planning D: Society and Space* 24: 709-732.

Vergunst, J. (2010) Rhythms of walking: History and presence in a city street. *Space and Culture* 13: 376-388.

Wunderlich, M (2008) Walking and rhythmicity: Sensing urban space. *Journal of Urban Design* 13: 125-139.