Introduction

Temporality is ubiquitous and the principal characteristic of urban places. As both localised (represented) and experiential (lived) time, temporality is suggested and expressed through complex forms of rhythms. Temporality is thus rhythmically perceived and represented in urban places. In urban places, temporality is experienced as an attribute of nature, people and space and emerges out of their dynamic relationship. Nature, people and space are, in themselves, rhythmic elements and their relationship takes the form of rhythms.

Urban rhythms are both everyday life and spatial rhythms. One can recognise rhythms everywhere in human activity and life in urban places. In this context, rhythms take concrete forms. Everyday life rhythms are social, natural and physiological/biological regularities. Structuring our social time, social rhythms are event regularities or irregularities in the form of linear sequences of activities. Natural, physiological patterns take the form of cyclical regularities, and condition social and individual behaviour in space. In addition, spatial rhythms are both dynamic and static. They involve movement or the perception of movement as suggested by bodies/objects or surface patterns in space.

These rhythms interact and mingle, adjust to each other, and engender bundles of rhythms characterising everyday social-spatial environments. Urban places are polyrhythmic fields, a compound of varied everyday life and spatial rhythms.

Everyday life and space are in themselves rhythmical organisations. The study of rhythms in daily life spaces, perceived in the form of regular temporal patterns of events/activities/practices in interaction with natural and biological cycles, and suggested through movements in space, delivers important insights on questions of everyday urban life, and in particular on the understanding of society in places.

There are two core characteristics of rhythms: they embody time and are place specific. In contrast to other social science times, such as lived time, measured
time, work time, leisure time, social time, and so on, which are mainly addressed outside spatial context, rhythms are concrete times which can only be perceived in space (Lefebvre 2004: 1–69). Rhythms in a spatial context involve interactions between people, and interaction between people and spaces, which react to displaced objects and the morphology of the spaces. These are superimposed on by natural rhythms, such as the cyclical changes of nature as seasons, day and night cycles, varying weather conditions, and so on. Social, spatial and natural rhythms together influence, shape and characterise everyday life in urban environments and are responsible for the perception of time in places and feelings of identity.

In this context, urban rhythms nurture senses of time and place. This in particular is significant for the understanding of urban places, with rhythms as traces of temporality influencing the character and perception of identity. The analysis of urban rhythm offers a new mode of observing and understanding places, with great potential for analysis, quality assessment and design of urban spaces.

In this context, the study of urban rhythms becomes a challenge for urban-space analysts in the search for a thorough understanding of what urban places are and how urban places work, adding a valuable layer of knowledge to what so far has been considered in urban place studies. Urban rhythms are temporal attributes of urban space, suggesting that temporality is the most important attribute of space to be taken into account when thinking and evaluating, and to be addressed when designing urban spaces.

This paper is divided into three main parts. The first part concentrates on both general and specific notions of rhythm, aiming for an understanding of its main characteristics, how it may be perceived and visualised in space. It starts by looking at general notions of rhythm, followed by more specific notions, such as musical rhythm and everyday life rhythm; additionally, it addresses three other concepts: polyrhythmia, eurhythmia and arrhythmia, drawing on rhythmic conditions and relationships complementary to the notion of rhythm. The second part, the core of this study, draws on the notion of urban rhythm; it tries to understand and suggest what urban rhythms may be, which form they take and in which categories they may be placed. At this point, this paper suggests urban rhythms as a compound of both everyday life and spatial rhythms. Thirdly, it opens discussions on urban rhythms as influential factors of the sense of time (temporality) and sense of place (identity and character of urban places). Finally, this paper proposes urban rhythms as a new mode of analysing and thinking about
urban places, which can complement conventional approaches to urban problems in everyday professional practices.

1. ...Notions of rhythms

Rhythms are everywhere there are people, nature and space, and they are most often spontaneously experienced and manifested. People naturally and empirically acknowledge the notion of rhythm, and everyone believes in the ability of mastering and possessing its content (Lefebvre 2004: 5). However, individual views on rhythm vary significantly. Notions of rhythm differ subjectively according to individuals’ personal interests, activities and expertise in their daily lives. Musicians tend to define rhythms in close relation to the notion of beat and measure, while historians and economists attach rhythms to the notion of cycles and eras and gymnasts relate it to closed sequences of aerobic movements. Rhythms in everyday life are subjectively perceived and may take multiple forms.

The notion of rhythm is also defined and studied in different ways and contexts. It takes form according to different disciplinary perspectives and in relation to distinct notions of time. In this way, notions of rhythm may be addressed more abstractly, taking physical and physiological perspectives, relating rhythm to notions of physical time and experiential time, or taking more specific and tangible forms, within music and biology, relating rhythm to musical or natural biological times.

In the absence of a general theory of rhythm with precise definitions, this section looks at different notions of rhythm, brought about by different sources and perspectives, with the aim of understanding and mapping its main attributes, and of searching for a general framework of what may be understood as rhythm. It starts with general concepts of rhythm and proceeds to more specific ones such as everyday life rhythm and musical rhythm. The main attributes and principles, according to which rhythm may be perceived in space, are the essential focus of this preparatory study.

Rhythms

General notions of rhythm assume several aspects. Firstly, from a physical and sociological point of view, rhythm is defined abstractly as a regular recurrence (‘recurring at regular intervals’), or as movement with a regular succession of strong and weak elements; and furthermore as a cycle, an interval during which
recurrences occur, or in other words as regular recurring sequences of events. Secondly, from a linguistic point of view, rhythm (speech rhythm) is the arrangement of spoken words alternating stressed and unstressed elements, or a measured flow of words and phrases in verse or prose determined by various relations of long and short or accented and unaccented syllables. Thirdly, from a biological point of view rhythm is realised through various forms of biorhythms, which form the basis of human body experience from heartbeats, and breathing rhythms of menstruation cycles in women. And more generally, the Oxford English Dictionary defines rhythms as a ‘harmonious correlation of parts’.

The first definition illustrates how rhythms may be understood and recognised in social and physical spaces. In socio–spatial environments, rhythms are represented by the notion of (a) regular recurrences (regular repetitive sequences of events), (b) movement through a regular succession of elements, (c) patterns characterised by an accentuated succession of elements, (d) the cycle as an interval of sequences of events, and (e) a harmonious correlation of parts. Similarity, regularity, succession or sequence, alternation and accentuation are attributes of social and physical rhythms and processes through which events manifest themselves in space. Movement (or the feeling of movement) is suggested by these repetition processes of event durations. Rhythm is either a linear recurrence or a cycle of events and movement suggested by various repetitive processes of event durations.

The latter definitions are representative of the idea that the human body is in itself rhythmical and a producer of rhythms. Linguistic and biological rhythms are influential and refer to the everyday life environment. Linguistic rhythms are the key in the process of the production of social space, and biological rhythms are a vital reference in the awareness (consciousness) of personal, social and physical space.

(Musical) Rhythm
The notion of rhythm as a feature and manifestation of musical time is one of the most significant in people’s minds, on which other more general notions of rhythm and in other domains, i.e. in everyday life’s social and spatial environment, intimately depend and relate to. Musical rhythm is a concept that most people perceptively share and understand, and offers a key reference in the understanding of rhythms more generally.
In musical studies, rhythm is defined as ‘the whole feeling of movement in time, including pulse, phrasing, harmony, and meter’ (Large, Palmer 2002: 2). Yet from a cognitive science perspective, musical rhythm is more commonly described as ‘the temporal patterning of event durations in an auditory sequence’ (Large, Palmer 2002: 2). As suggested here, rhythm entails a symbiotic relation between movement (or the feeling of movement), the beat and a metrical structure – the feeling of movement according to a beat, with an identifiable metrical structure. The feeling of movement is provided by the succession of event durations and periodical accents; beat involves ‘pulses that mark equally spaced … points in time, either in the form of sounded events or hypothetical (unsounded) time points’ (Large, Palmer 2002: 2). The metrical structure is defined in musical theory as ‘an alteration of strong and weak beats over time’ (Large, Palmer: 2002: 2). Furthermore, rhythm entails phrasing and is also perceived, structurally, as a temporal pattern. Rhythmic configuration phrasing is generated by the periodical repetitive and alternating motives, the combination of accents and note duration, a mode of expression and sensitive generator of meanings. As a temporal pattern, it is shaped by a periodical and repetitive succession of event durations and/or accents. While discussing ‘rhythm and music’, Henri Lefebvre explores both the idea of rhythm as phrasing and as a temporal pattern: he refers to musical rhythm as both lologenic and pathogenic (parallel terms of expression and signification). In other words, rhythm produces meaning and emotion (Lefebvre 2004: 58, 63). Furthermore, he refers to the notion of rhythm as rhythmic structure and the idea of metrics as the one that delivers rhythm (Lefebvre 2004: 60–61).

From this brief consideration of rhythm as an aspect of musical time, significant characteristics of rhythm emerge, which enrich the more general definitions from the previous section. Movement (or the feeling of movement), beat and metrics (measure) are inherent characteristics of rhythm, and event durations and accents are primary elements that, combined through processes of succession, periodicity, and alternation, create a distinct shape in rhythms. Rhythms also entail phrasing that denotes it as a mode of expression (code), as a catalyst of meanings and emotions; further, it can be perceived as a temporal pattern of event durations.
Rhythm

Lefebvre, a major source in the study of everyday life rhythms in cities, discusses in his work *Rhythmanalysis: Space, Time and Everyday Life* (2004) the general attributes of (everyday life) rhythm. In relation to musical rhythms, he presents three major interdependent attributes of everyday life rhythms: repetition, measure and movement. There is no rhythm without repetition in time and in space, without reprises, without returns, in short without measure (Lefebvre 2004: 7ff). Repetition is an essential attribute of rhythm, yet it is indissociable from the attribute of movement: ‘For there to be rhythm, there must be repetition in a movement.’ (Lefebvre, Régulier 2004b: 78.) Furthermore, measure, the third main attribute of rhythm is suggested through either recurrent or cyclical repetitions. Though perceived naturally and spontaneously, rhythm has an identifiable measure composed of speed, frequency, and consistency (Lefebvre 2004: 8–9). In fact, repetition in a movement, recurrently accentuated with more or less intense event durations, according to a specific metrics, offers a framework of rhythms and hunches of how to trace and perceive rhythms in everyday life in the urban space.

Lefebvre sets up main principles and guidelines in the analysis of rhythms: ‘For there to be rhythm, strong times and weak times, which return in accordance with a rule or law – long and short times, recurring in a recognisable way, stops, silences, blanks, resumptions and intervals in accordance with regularity, must appear in a movement.’ (Lefebvre, Régulier 2004b: 78.) Also, ‘rhythm presupposes: a) Temporal elements that are thoroughly marked, accentuated, hence contrasting, even opposed like strong and weak times. b) An overall movement that takes with it all these elements (for example, the movement of a waltz, be it fast or slow).’ (Lefebvre, Régulier 2004b: 78.) Lefebvre, furthermore, writes that there is a rhythm ‘everywhere there is interaction between a place, a time and an expenditure of energy’ (Lefebvre 2004: 15).

Polyrhythmia, eurhythmia and arrhythmia

Lefebvre’s *Rhythmanalysis* also includes the study of rhythmic fields/environments, and seeks an understanding not only of single rhythms, but also of forms of their interaction. Notably, rhythms are relative to each other; they may only be perceived in relation to other rhythms. Lefebvre writes: ‘A rhythm is only slow or fast in relation to other rhythms with which it finds itself associated in a more
or less vast unity.’ (Lefebvre, Régulier 2004a: 89.) In addition, one must consider ‘the plurality of rhythms, alongside that of their associations … or reciprocal actions’ (Lefebvre, Régulier 2004a: 89).

In this context, the notion of rhythm requires ‘complementary considerations’, namely in the notions of polyrhythmia, eurhythmia and arrhythmia (Lefebvre 2004: 16). Polyrhythmia is the overlay and superimposition of multiple rhythms. In polyrhythmia, bundles of rhythms intermingle and interact with each other and, as a result, form complex rhythmic fields. Our body and the complexity present in urban environments are examples of polyrhythmic fields.

In everyday life, cyclical and linear rhythms are superimposed on each other, forming complex polyrhythmic ensembles within an ‘antagonistic unity of relations’ though giving ‘rise to compromises, sometimes to disturbances’ (Lefebvre 2004: 8). There are, further, two other notions which characterise two basic modes of interaction between rhythm: eurhythmia as symbiotic relation and arrhythmia as disruption. Eurhythmia is a harmonic and symbiotic relation between rhythms and ensembles of rhythms. It happens when ‘Rhythms unite with one another in the state of health, in normal … everydayness.’ (Lefebvre 2004: 16.) Arrhythmia is a ‘pathological state’ in which rhythmic fields suffer disruptions/disturbances; a case of rhythmic disruption or catastrophe (Lefebvre 2004: 16). These two modes of interaction are typical rhythmic conditions one finds in complex polyrhythmic fields, i.e, everyday life/environment, our own body, and others, when trying to isolate and study rhythms, such as continuous streams of cars on the road, or the disruptive accident that changes the symbiotic interaction.

From this review two important issues are worth noting. First, singular rhythms embody aspects of (localised and experiential) time, and second, rhythms are relative and interact with each other as constituents of everyday life. This connects to the second chapter: the notion of urban rhythms. Rhythms as inherent elements of everyday life can be perceived in urban spaces. Ensembles of everyday life are distinct from place to place, and interact and are constrained by the local (rhythmic) spatial setting. An urban place in this context can be understood as a constellation of particular and distinct everyday life and spatial rhythms.
2. ...Urban-rhythms

[Rhythm] is found in the workings of our towns and cities, in urban life and movement through space. Equally in the collision of natural biological and social timescales, the rhythms of our bodies and society, the analysis of rhythms provides a privileged insight into the question of everyday life. (Elden 2004: viii.)

In contrast to rhythm in general, urban rhythms are specific to urban context. ‘Urban’ offers specificity and location to rhythms; it is frame, condition and context. ‘Urban’ entails urban life concentrated in a spatial context. Urban life is intense and inter-related social and human activity (society and being), and urban spaces are dense and complex man-made/artificial spaces. These particular socio-spatial conditions make urban rhythms an outstanding field of rhythm studies.

Urban rhythms can be perceived and experienced in an urban context. They are specific to cities, thus urban places. The concentration and superimposition of social and human activity, overlaid by forces of nature and constrained by man-made spaces, makes urban places an exciting context to study a broad variety of urban rhythms.

**Proposition: urban rhythm as everyday life rhythms and spatial rhythms**

Specific to urban environments, urban rhythms are a compound of two sorts of rhythms, **everyday life rhythms** and **spatial rhythms**. Both everyday life and space are rhythmic organisations. Everyday life rhythms are social, natural and physiological/biological regularities. As discussed in the first section, they are linear and cyclical regularities, ordered sequences of socio-spatial practices referenced in clock time, in dialogue with external natural, natural circadian and circannual changes, and biological internal rhythms of bodies. These everyday life regularities interact and intermingle in space, in itself a complex of rhythmic spatial arrangements. Spatial rhythms can be classified in rhythmic spatial patterns of two sorts: dynamic and static. Dynamic spatial rhythms involve objects that move in space with a particular speed, frequency and regularity. These spaces/bodies/objects are perceived moving in relation to the (still) observer. Static spatial rhythms involve objects and surface patterns displayed in space that are still, yet evolve as rhythms from the perspective of the moving observer.

Urban places are polyrhythmic fields and a compound of everyday life rhythms and rhythmic spatial patterns. They are also principal ‘spaces of representation’ in
the city and thus are overlaid by codified specific and disruptive activities that add rich complex layers to the rhythmic fields of these spaces.

**Lefebvre and Zerubavel vs. the study of urban rhythms**

These notions of everyday life and spatial rhythms as urban rhythms, suggested in this paper, are anchored in the studies of both Eviatar Zerubavel (1981) and Henri Lefebvre (2004). Both authors studied rhythms of society in everyday life. More specifically, the former concentrates on the temporal regularity of everyday life, identifying various regular patterns which constitute and influence daily life. In particular, Zerubavel concentrates on the ‘temporal structure of social organisation’ (Zerubavel 1981: 3). Lefebvre focuses on both the concept of rhythm and rhythm analysis, in search of principles and guidelines for the understanding of the rhythms of everyday life in the city.

Both authors contribute categories of rhythms, which although not specifically targeting urban space and inherent rhythms, are a useful basis for gaining an understanding of urban rhythms, of what urban rhythms are and under which form they are perceived in urban places.

For Zerubavel ‘the world in which we live is a fairly structured place’, and one perceives in our environment a certain degree of orderliness (Zerubavel 1981: 1). He shows that this orderliness is represented through numerous temporal patterns.

Drawing on the sociology of time, Zerubavel argues that everyday social life is rhythmically structured according to ‘mechanical time’in sociotemporal orders, in parallel with other physiotemporal, naturaltemporal and biotemporal orders.

These temporal orders produce temporal patterns, expressed through specific temporal regularities (rhythms), and he describes them as follows:

a) Physiotemporal regularities (physiorhythms) may be ‘lightning under thunders …, duration of flights of projectiles … day’ or night ‘periods during which the sun completes a rotation on its own axis’, or ‘a planet completes a revolution around the sun’, and so on. The physiotemporal order ‘regulates the movement of physical bodies’; its patterns ‘lie in the domain of the physicist and astronomer’ (Zerubavel 1981: 2).

b) Biotemporal regularities (biorhythms) may be ‘sequential relations among the stages of being a larva, a cocoon, and a mature insect …, fixed duration of pregnancy periods …, puberty within life cycle …, uniform circadian rhythms
that govern body temperature’, and so on. Biotemporal patterns ‘lie in the domain of the biologist’ (Zerubavel 1981: 2).

Both physiorhythms and biorhythms have predictable times, or rather are predictable times.

c) Sociotemporal regularities (sociorhythms) are divided into four sorts. First, rigid sequential structures, which are inflexible sequential structures in social behaviour, i.e. people go to work in the morning, go to the corner sandwich shop at lunch and go home in the evening; people always meet on Friday after work for a beer in pubs. Second, fixed durations, which are themselves specific durations which one associates with particular events, activities and practices of daily life. Certain durations correspond to certain events, which for instance regularly repeat over time, and many events and practices are actually expected to have a particular timing, i.e. concerts take no more than two hours, a movie takes around an hour and a half, work meetings a maximum of two hours; in a park when people sit to relax they stay for at least fifteen minutes (Zerubavel 1981: 4–5). Third, standard temporal locations, which are fixed sequences of events, activities or practices with expected duration. Both the sequence and duration of the event is spontaneously lived as part of social structure behaviour, i.e. routine daily activities, and particular times of the day and days of the week: lunch time, dinner time, break at 11:00, cleaning days, normatively prescribed hours to go to work, eat, meet friends, go to concerts, and so on (Zerubavel 1981: 7–9). Fourth, uniform rates of recurrence, which are recurrent activity patterns. They take the form of social cycles of activities and events, social cultural rhythms and periodicities (Sorokin 1941), and are responsible for the appearance of rhythmicity in daily life (Zerubavel 1981: 9–13).

These social temporal regularities are ‘regular patterns of associated social events and activities’, ways in which social rhythms manifest themselves in space. Social temporal regularity implies the rigidification of social situations, activities and events. These constitute binding normative prescriptions, regulating the structure and dynamics of social life (Zerubavel 1981: 2), which are reflected in the use of urban spaces.

Lefebvre also develops, yet differently, categories of everyday life rhythms. In addition to the study of rhythm per se, he refers to manifold groups of rhythms which one finds in everyday life in cities. Overall he divides everyday life rhythms
into three broad groups: 1) repetition of movements, gestures, action situations, and differences; 2) interferences of linear and cyclical processes; 3) life-times, i.e. birth, growth, peak, then decline and end (Lefebvre 2004: 5–18).

Yet during his further study he concentrates on two principle categories of rhythm: cyclical and linear rhythms, to which all other everyday life rhythms, secret, public and fictional rhythms, codes and rituals, ‘of the self’ and ‘of the other’, relate to (Lefebvre, Régulier 2004a: 95ff).

a) Cyclical rhythms (the cyclical)

The cyclical may be ‘processes and movements, undulations, vibrations, returns and rotations’ (Lefebvre, Régulier 2004b: 76). They are cosmic, worldly or natural. They are of two kinds: 1) social organisation in big and simple intervals, such as historic recurrences or birth and death, or 2) alternating recurrences with short intervals, such as day and night, seasons and years, tides, solar and lunar rhythms, or hours or months, and so on. The cyclical rhythm has a fixed frequency or periodicity and always begins again, and the numbering systems ‘best suited to it are duodecimal’ (Lefebvre, Régulier 2004a: 90).

Cyclical rhythms are perceived favourably (Lefebvre, Régulier 2004b: 76).

b) Linear rhythms (the linear)

Linear rhythms are sequences of monotonous actions and movements (Lefebvre 2004: 8), or ‘series of identical facts separated by long or short periods’ (Lefebvre, Régulier 2004b: 76). These rhythms are imposed structures, originating from social practice, in general human activity; they emanate from human and social activities and particularly from the motions of work. It is further ‘Defined by consecutiveness and the reproduction of the same phenomena, identical or almost at more or less close regular intervals.’ It includes lines, trajectories and repetitions measured on a decimal base. Lastly, as opposed to cyclical, linear rhythms are described as monotonous, tiring and even intolerable (Lefebvre, Régulier 2004b: 76; Grönlund 1998). Lefebvre has studied further groups of rhythms that intensely characterise temporal everyday life in cities, although separation is not distinct and some fall in either the cyclical or linear categories.

c) Secret, public and fictional rhythms

Secret rhythms, public rhythms, and fictional rhythms are three categories from within the secret and public, and external and internal domains of everyday life. Secret rhythms are physiological and psychological rhythms, recalled
and memorised; public rhythms are social rhythms, i.e. calendars, fetes, ceremonies and celebrations, or other sorts of rhythms declared and expressed, i.e. digestion, tiredness etc.; fictional rhythms are verbal or other expressive rhythms, such as through elegance, gestures and learning processes.

d) Codes and Rituals

Codes are a set of gestures, of conventions, of ways of being. They are rhythms of both time and relations (Lefebvre, Régulier 2004a: 94).

Rites are social and collective rhythms. They are forms of alliances that human groups give themselves. Rites have their own time/rhythm, and punctuate everyday time. These may be gestures, solemn words, acts prescribed in a certain sequence. Rites take the form of religious rites, broad sense rites, simultaneously sacred and profane, i.e. festivals, carnivals, and so on, or rites of intimate convivialities or external sociability, political rites, i.e. ceremonies, commemorations, votes, and so on (Lefebvre, Régulier 2004a: 94).

e) Rhythms ‘of the self’ and ‘of the other’

In contrast to other groups of rhythms that are part of social time, these rhythms belong to asocial time. Rhythms ‘of the self’ are closer to ritual rhythms. They are quiet rhythms, and intimate forms, of consciousness. They have presence yet they do not represent, opposing self-presence to representation. They organise a time turned towards private life. Rhythms ‘of the other’ are activities turned outward, rhythms of representation, formalised and corresponding to frontal expression (Lefebvre, Régulier 2004a: 95).

Summary (reflections)

With these categories/groups of everyday life rhythms both Lefebvre and Zerubavel lay an important foundation for the exploration of rhythms in cities. Although they explore rhythms from within a mixed philosophical/political/sociological or strictly sociological disciplinary perspective, respectively, these contributions present everyday life and social rhythms as location specific. They are indissociable from places where they occur and are denoted by particular behaviours. Descriptions of various rhythms of society are always drawn from the description of both the social and spatial environments in which they take place. Space is implicitly of essence.

This fact makes Zerubavel’s and Lefebvre’s groups of rhythms significant samples and starting points in the study of urban rhythms. The rhythms de-
scribed fall into the two categories described at the beginning of this sentence: everyday life rhythms and spatial rhythms.

Zerubavel’s contribution is particular significant in the sense that it offers three broad categories of rhythms, which are particularly useful when addressing and classifying rhythms in urban space. All three categories – sociorhythms, physiorhythms and biorhythms – are part of urban places. In each place a wide and specific variety of urban rhythms correspond to them. Some rhythms are perceived spontaneously, others only after thorough and careful observations and analysis.

In contrast, Lefebvre’s categories are of extreme relevance in the study of everyday life in cities in general, yet necessarily adequate for the specific study of rhythms in urban places. Cyclical and linear rhythms are undoubtedly significant, since generally rhythms fall in these categories, as demonstrated in the first section of this paper. In this sense, they offer strong guidelines for the observation of rhythms in urban space. Also public and fictional rhythms, as well as codes and rituals, are of obvious significance. Secret and ‘of the self’ and ‘of the other’ are internal rhythms which generally do not directly and explicitly form part of urban space. However, they influence what happens and how it happens in space. Furthermore, throughout his studies, in particular The Rhythmanalytical Project (Lefebvre, Réguiler 2004b) and Attempt at the Rhythmanalysis of Mediterranean Cities (Lefebvre, Réguiler 2004a), Lefebvre makes loose reference to everyday life and spatial rhythms, which give hints and insights to where rhythm analysis projects in urban places might focus. For example, he points out bodies, daily rhythms, gestures, movement and traffic, exchanges of all kinds, sounds, sudden events, festivity, ritual, the rhythm of moods, seasons, weather, built environments and urban functions, light and darkness, colours, smells, the present-absent, what one hides/shows/goes to see outside, tide and waves, and Americanisation.

This review, and urban space/location as a frame and condition, assist in the formulation of a framework of what urban rhythms might be and how to study them.

**Characterising urban places**

Urban rhythms may have a variety of characteristics. Some repeat and move (or suggest movement) in a regular way, according to a specific beat and identifiable measure in urban space. Everyday life and spatial rhythms each have a different
relation to space. While everyday life rhythms are to some extent influenced by location/place, spatial rhythms are an inherent part of a location or a place.

In urban places, rhythms can be distinguished within three categories: socio-cultural rhythms, natural rhythms, and spatial rhythms. Social rhythms depend on and relate to cultural rhythms, and in conjunction with natural rhythms generate sound and smells, and also influence dynamic spatial rhythms. Spatial rhythms can be distinguished in two sorts of rhythms: dynamic and static.

Broadly under these categories, urban rhythms can be identified/traced in urban spaces, in the form of social, cultural, natural, sound, smell, and dynamic and static spatial rhythms. With their inherent characteristics they characterise urban places. The following are suggestions for how to trace them and where to focus when tracing these rhythms in urban public spaces:

a) Social rhythms are particular social and spatial events/activities/practices, with specific durations, taking place repeatedly over the day or daily, weekly, monthly, seasonally or yearly. Examples are mums with their kids or groups of kids passing by together for school early in the morning, tourist or visiting groups always stopping at the same spot in a square, businessmen having long or brief meetings at particular spots, people queuing at the concert hall at 8:15 pm and at the cinema at 10 pm, restaurants full at 1 pm and empty at 3 pm, groups of skaters meeting from 4 to 8 pm every day, shops opening and closing at precise times, a weekly market, the monthly flower show, the yearly cinema festival, and so on.

b) Cultural rhythms are gestures, codes, dressage and rituals. They can be recognised in people waving, particular group practices, men in suits in the morning, children in school-clothes, young groups dressed up for clubbing or a concert evening, mixed-ethnic groups walking in specific styles of clothes, families walking together dressed up for church on Sunday mornings, church bells ringing or singing in a mosque on Friday afternoon, biking in the city, festivals, and so on.

c) Natural rhythms are circadian and circannual natural changes. This group entails, for instance, sunrise and sunset, the shortening and lengthening of shadows in spaces, provoked by the rotation of the sun over the day and year, variations of light and darkness due to changes in weather during the day, and repeated rain and stronger or lighter winds over the day and week.

d) Sound rhythms may also belong to the group of urban rhythms. They are the
murmur of crowds or loud speech of individuals, in contrast to the crescendo and decrescendo noise of the approaching and leaving sound of cars, plane or helicopter motors, birds singing, dogs barking at passers-by, singing and playing on the street, the yelling of salesmen at markets, the ringing bells of churches, clocks, private homes, and so on.

e) Similarly, smells invade urban space recurrently over time. Everyone knows the early morning fragrance of people passing, the moist earthy smell after a rainy night, lunch and dinner cooking, flowers in the garden, grass in parks, car exhaust, and so on.

f) There are two groups of spatial rhythms: 1) dynamic rhythms such as movements, trajectories, intensities of flows of people or cars with particular speed and frequency, such as the fast or slow pace of people walking or cars passing, the concentration and dispersal of people over the hour or day, groups of people or cars starting or stopping at crossings, fluxes of people at the same speed in the same direction for identifiable periods of time; 2) static rhythms such as the repetition of elements or colours in building façades and flooring, repetition in shops or restaurants or homes, harmonious displacement of objects such as in sequences, in circles, and so on.

Social and cultural rhythms are not always separately distinguishable, so one might want to consider only one group – socio-cultural rhythms. Furthermore, social and dynamic spatial rhythms also relate closely to each other, which also makes this group particularly difficult to address singularly.

3. …Urban rhythms and senses of time and place

It is our sense of time, our sense of ritual, which in the long run creates our sense of place, and of community. In our urban environment, which is constantly undergoing irreversible changes, a cyclical sense of time, the regular recurrence of events and celebrations, is what gives us reassurance and a sense of unity and continuity. (Jackson 1994: 25.)

Senses of time: urban rhythms suggest and represent temporality in urban place

Urban rhythms nurture senses of time and influence the sense of place. One lives and perceives everyday life rhythms and spatial rhythms as times of a place, and these influence feelings and senses of place.
As argued in the first chapter of this paper, urban rhythms embody time. They have the characteristics of time and, in urban space, are often even perceived as time, i.e. the personal time of the old lady passing the crossing, the physical time of cars passing at a typical speed, the re-occurring (clock) time of children entering and leaving school, or shops opening and closing, the social time of friends chatting on the street, children’s playground time, or concert time, the cosmic time of day and night, and so on. Thus certain groups of rhythms correspond to certain senses of time. Personal and biological rhythms relate to notions of personal time, physiological and clock time to the notion of objective/abstract time, social time relates to the notion of subjective time, and natural rhythms relate to the notion of cosmic, astrological time. Overall, urban rhythms suggest and represent temporality in space, a complex of intimate/experiential/lived times and local and objective times.

Senses of place: urban rhythms are representation, memory and a way to engage urban place

Urban rhythms characterise places and also influence feelings in and of places. They have an impact on our sense of familiarity, security, intimacy and well-being in urban places. As argued earlier, urban rhythms are location- and place-specific; everyday life rhythms influenced by locations and spatial rhythms themselves form part of locations and spaces. Both groups together characterise urban places. In this way, urban rhythms create a part of the image of a place and play an important role in how one remembers places (through their rhythms). London is an exciting place to consider. The stop-and-go of traffic in symbiosis with the energetic, concentrated and speedy movement of business people on inner London sidewalks, in contrast to and in conflict with the slow pace of map-following tourists, provides one example. Another instance is the characteristic slow mood of summer in Regent’s Park, with birds endlessly repeating their singing, people scattered around on the grass, groups wandering along the paths, regularly interrupted by the pace of joggers. A third typical example is provided by scattered people frozen in front of train schedule boards in Victoria Station, waiting for the announcement of their trains, criss-crossed by people following their own business. One subconsciously recognises these social everyday life rhythms as part of these spaces and they contribute to the building of the image and remembrance of those spaces as places. Often, urban rhythms become even
more important than physical characteristics of places, thus becoming collective representations and memories of them. Besides, urban rhythms, a part of people’s life-world, are lived spontaneously; people participate and produce everyday life and spatial rhythms. In this way, urban rhythms, significantly, both describe and have an impact on the way we engage with and live in urban spaces. Thus, urban rhythms are not only traces of times in space, as discussed in the sections above, but they take the form of representations, memories and ways of engaging with urban places.

**Urban rhythms influence feelings in and about urban places**

Urban rhythms influence one’s feelings in space and about space. The way a place feels – social and intimate, or distant and cold – relates to the presence or absence of certain groups of rhythms, and to the way they do or do not relate to each other. Whether one feels a place to be social and relaxed, or speedy and stressed, depends on the intensity and dominance of certain kinds of urban rhythms in that space, either social rhythms, personal and biological rhythms (when one walks alone in a place), or, similarly, natural rhythms, and the physical rhythms and clock rhythm. For example, whether the dominant rhythms in a place are cars passing, or groups of young people meeting regularly, children’s playgrounds, or colourful surface patterns and repetition of natural elements, such as trees, planters, and so on, the feeling of place and at place varies. Thus, dominant regular or intense rhythms in urban space influence how one understands, perceives and feels places – for example, sociable, collective or impersonal – and, in this way, add to the sense of the individual and social level in the sense of place.

Furthermore, temporal regularities (urban rhythms) nurture feelings of permanence, security, familiarity and senses of fellowship, intimacy and well-being in urban places. These are based on shared experience (Jackson 1994: 25). Repeated participation, or simply the perception of regular and significant events and social practices, nurtures familiarity and awareness of the space where practices take place. Feelings of time suggested through rhythms, as discussed earlier, are the basis of our sense of identity, and a matter of deep emotional importance. Kevin Lynch and John Brinckerhoff Jackson argue that these are ‘critical for our sense of identity and continuity’ (Lynch 1990: 628; see also Jackson 1994: 25). Zerubavel also recognises that feelings of temporal regularity lead to security and a relaxed feeling, as well as familiarity and comfort in space (Zerubavel 1981: 10).
Thus, urban rhythmic regularity, as in everyday life, offers a sense of well-being in urban space.

Yet even the disruption of the rhythm of a place with exceptional events, and intense personal involvement in events/practices in a place contribute to the ‘acquisition of density of meaning and stability’ (Tuan 1977: 143). These may be festivals or street performances, or even a building site, or the place of the first kiss, or the meeting of a good friend after many years’ separation at a particular spot. The feelings of security, the sense of fellowship, well-being, shared experience (Jackson 1994: 25), permanence, intimacy, and familiarity, density of meaning and stability (Tuan 1977: 140, 143–145, 179) are all characteristic traits of place.

Notably, the way one perceives and draws attention to rhythms in urban space relates to and depends on one’s internal biological and psychological rhythms. These cannot be recognised in space and are internal to people, though they are influential in the way people perceive, engage and remember certain rhythms and, as a consequence, places.

Summary
There are a few important points worth noting. Urban rhythms nurture a sense of time in urban places. They suggest and represent temporality. In fact, they embody time and are perceived as time in urban places. Also, they influence the sense of place. They relate and influence particular feelings of places and in places. While nurturing particular feelings of time, i.e. social, personal, collective or physical time, rhythms intimately influence feelings of place, i.e. social space, personal or collective space, or physical space.

Urban rhythms characterise urban places, as they are location/place specific. Everyday life rhythms are influenced by locations, and spatial rhythms are a part of locations and spaces. In this context, urban rhythms strongly characterise urban places. Places are perceived rhythmically and urban rhythms are built and are part of the images of places. Most significantly, urban rhythms are not only representations, but also memories and ways of engaging urban places.

Furthermore, urban rhythms also catalyse particular feelings in places. The feeling of place is also affected by more or less intense, and/or dominant, urban rhythms in a space. And, they have an impact on our sense of familiarity, security, intimacy, and general well-being in an urban place. On one hand, rhythmic
regularity contributes to people’s well-being in urban space. On the other hand, disruption of the rhythm of a place and intense involvement in particular events contribute to a growing density of meaning. Yet, both together contribute to a feeling of stability.

Overall, urban rhythms both nurture senses of time and influence the sense of place. And, in this context, urban rhythms play an important role in the design and feeling of the character and identity of urban places.

...Challenges to the urban analyst

Until recently environmental design was preoccupied with permanent physical artifacts: buildings, roads, and land. But the human activities occurring among those artifacts are of equal or greater importance to the quality of a place. With this principle in mind, physical design has been broadened to become spatial design, planning the form of behavior and things in space. But if it is to deal with behavior, it must consider the temporal as well as the spatial pattern, and it becomes an art of managing the changing form of objects and the standing patterns of human activity in space and time together. (Lynch 1995: 72.)

This paper, besides introducing the concept of urban rhythms, proposes a new mode of looking and thinking about urban places, which is focused on inherent dynamics as complements to static patterns of physical forms and surfaces. More than what one can find in spaces, in terms of elements or physical configurations, it is important to observe and understand what actually happens in spaces. This will allow a better understanding of how human activity patterns actually interact, engage and respond to urban spaces and how these spaces receive value and meaning through that. Physical spaces should not be observed separately from their embodied patterns of everyday life rhythms, which enrich their identity. Rhythms, beside other factors (history, spatial attributes, stories and myths) encompassing the essence of space, nurture sense and understanding, and build the mental map and remembrance of a place.

Urban places are temporal-socio-spatial places. Their dynamic is of essence and evolves from physical space, people, nature and time. In this context, urban rhythm analysis could become a potential mode of observing and analysing places, which can deliver valuable insights on the temporal-socio-spatial profile of urban places, as well as an understanding of the concept of a sense of place. It may tell
what really happens in urban spaces and will directly serve the urban professions, from urban designers to architects to planners (to name just a few), adding a significant layer of understanding to the typically addressed urban elements/processes in these professions.

A thorough understanding and observation of rhythms will help when attempting to create the ‘right’ type of place or environment. It might forestall certain urban design solutions which in their desire for uniqueness often become generic and exchangeable, and frequently fail to relate to specific characteristics and requirements of a particular place and its inherent everyday life rhythms.

Temporal territories peculiar to a group can be established, just as we establish spatial territories. Form can dramatize activity as well as support it. We can be given a sense of how our time fits with the time of other people and other living things. Environment can make us aware of being alive now and together in a common present, in which we sense the flow of events and to which we can attach our hopes and fears.

We act now, modifying our environment for the future. We recall now. We learn now, which is to say we modify ourselves to act more effectively in the future. An environment that facilitates recalling and learning is a way of linking the living moment to a wide span of time. Being alive is being awake in the present, secure in our ability to continue but alert to the new things that come streaming by. We feel our own rhythm, and feel also that it is part of the rhythm of the world. It is when local time, local place, and our own selves are secure that we are ready to face challenge, complexity, vast space, and the enormous future. (Lynch 1995: 88–89.)
References


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