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Chapter 8  
An Anthropology of Soundtracks in  
Gym Centres

Serena Facci, translated by Elena Boschi

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My aim is to help my clients to burn fat and improve their cardiovascular and respiratory function. I can achieve the same results with individual exercises and a treadmill, but it's not the same. My discipline is effective also because we're together and there's music. This gives a boost and motivation.

Tony<sup>1</sup>

Tony is a step-aerobics and Total Body instructor and personal trainer. He trained in fitness dance choreography, an aerobic discipline that, in addition to music, uses some dance principles. In gyms, music is used extensively, and the motivations expressed by Tony, as well as by other instructors, are very articulate and denote remarkable awareness.

In this chapter I will report and comment on the results of research I undertook in a number of sport centres and gyms in Italy.<sup>2</sup> Right from the outset, it was interesting to note that music was present both in the disciplines that have been placed between gymnastics and dance (such as aerobics) since the 1980s and in activities that had nothing to do with dance, such as spinning, running, work-out machines, Pilates, postural gymnastics and so on.

**Physical Response as Musical Function**

For all animals, including *Homo sapiens*, sounds are one of the guides through which they relate to the world, and motor reaction to sounds is biologically important. For prey, it is vital to perceive motion produced by a predator and vice versa. Moreover, sounds not only produce motor reactions, but are themselves the product of motion. Psychologically, we are used to associating sounds with ideas

<sup>1</sup> Interview with Antonio (Tony), instructor at the Centro Sportivo Forum in Rome, January 2012.

<sup>2</sup> Part of the results of this research have been published in Serena Facci, "Funziona?" Valori e usi della musica nella contemporaneità', in Serena Facci and Francesco Giannattasio (eds), *L'Etnomusicologia e le musiche contemporanee* (Venice, 2009) <<http://www.cini.it/publications/letnomusicologia-e-le-musiche-contemporanee-it>> (accessed 20 January 2013).

1 of motion and therefore vitality, excitation and sometimes danger. Conversely, 1  
 2 silence evokes lull, tranquillity and, taken to the extreme, absence of life. ‘Silence 2  
 3 worries’, said one of the gymnastics instructors I interviewed when summing up 3  
 4 the complex of reasons that pushed her to use music in various ways in many 4  
 5 gymnastic disciplines.<sup>3</sup> 5

6 In an attempt to understand the relationship between music and sporting 6  
 7 activities, it is appropriate, first, to remind ourselves of this atavistic universal 7  
 8 background. The next step, however, is to understand how sounds that are 8  
 9 specifically musical (that is, organized according to rhythmic, melodic and timbral 9  
 10 criteria combined in various ways) induce and organize motion. 10

11 In his fundamental book *The Anthropology of Music*, Alan Merriam places 11  
 12 physical response in the list of music’s functions intended in the socio-cultural 12  
 13 sense, but observes how 13

14  
 15 ... it is questionable whether physical response can or should be listed in what 15  
 16 is essentially a group of social functions. However, the fact that music elicits 16  
 17 physical response is counted in its use in human society, though the responses 17  
 18 may be shaped by cultural conventions. Possession, for example is clearly 18  
 19 elicited in part at least by music functioning in a total situation, and without 19  
 20 possession certain religious ceremonials in certain cultures are considered 20  
 21 unsuccessful ... Music also elicits, excites, and channels crowd behaviour; it 21  
 22 encourages physical reactions of the warrior and the hunter; it calls forth the 22  
 23 physical response of the dance, which may be of prime necessity to the occasion 23  
 24 at hand. The production of physical response seems to be an important function 24  
 25 of music; the question of whether this is primarily a biological response is 25  
 26 probably overridden by the fact that it is culturally shaped.<sup>4</sup> 26  
 27 27

28 The ‘biological’ motor response to sound and musical stimuli that Merriam 28  
 29 talks about is very common. Just watch how our legs instinctively keep time while 29  
 30 we are listening to a song, the ease with which even small children spontaneously 30  
 31 move in the presence of singing or music, and, as recently observed, the 31  
 32 spontaneous propensity to move shown by Alzheimer patients – even in advanced 32  
 33 stages of the illness – if stimulated by music.<sup>5</sup> The phenomenon of entrainment 33  
 34 (whereby two oscillators moving at different rhythms tend to synchronize if put 34  
 35 in contact) is probably also at the basis of rhythmic interaction at a biological 35  
 36 level. Various research studies in the neurosciences, biomusicology, music therapy 36  
 37 37

38 38  
 39 \_\_\_\_\_ 39  
 40 <sup>3</sup> Interview with Alessandra, spinning and holistic disciplines instructor at the Centro 40  
 41 Sportivo Venice Gym in Rome, May 2006. 41

42 <sup>4</sup> Alan Merriam, *The Anthropology of Music* (Evanston, IL, 1964), pp. 223–4. 42

43 <sup>5</sup> Emmanuel Bigand, ‘Ethnomusicology, Evolutionary Musicology and the 43  
 44 Neurosciences’, paper presented at the 17th International Seminar in Ethnomusicology, 44  
 45 Fondazione Cini, Venice, January 2012. 45

1 and ethnomusicology, use entrainment to explain how musicians converge on a 1  
2 common tempo and interact in various ways during performances.<sup>6</sup> 2

3 However, as Merriam stated, a physical response to musical sounds (which 3  
4 acquire different and less basic aims than simple signals) often occurs within 4  
5 complex events and is therefore intertwined, in individual as well as in group 5  
6 experience, with other aesthetic, emotional, communicative, affective and 6  
7 relational reactions, which are largely regulated by culturally shared codes. In 7  
8 his book *Il concetto di musica*, Italian ethnomusicologist Francesco Giannattasio 8  
9 proposes categorizing music's functions into three groups: (1) expressive 9  
10 functions, (2) organization and support of social activities, (3) induction and 10  
11 coordination of sensorimotor functions.<sup>7</sup> It is not difficult to recognize all three 11  
12 categories – albeit with different weights – in any musical experience. Giannattasio, 12  
13 for example, describes the wealth of functions in work chants.<sup>8</sup> In eurhythmic 13  
14 chants, in which music and work gestures share the same beat or rhythmic model, 14  
15 sensorimotor reactions are often accompanied by the chants' ability to facilitate 15  
16 social organization – evident in group work – and to communicate information and 16  
17 considerations not necessarily tied to work activities. Moreover, chants help make 17  
18 time pass more pleasantly. 18

19 In the matching of music and gymnastic activities the situation is not very 19  
20 different: the stimulus to react and organize motion is intertwined, as I will 20  
21 illustrate, with many other effects that make the presence of music significant 21  
22 on various levels, improving performance and distracting from the sensation of 22  
23 fatigue. 23

24

25

## 26 **Music and Sport** 26

27

28 In the last few decades, experimental research has been carried out on the relationship 28  
29 between music and sport,<sup>9</sup> which has highlighted music's different effects: 29

30

31 *Psychological* effects refer to how music influences mood, emotion, affect 31  
32 (feelings of pleasure or displeasure), cognition (thought processes) and 32

33

34

35 <sup>6</sup> Martin Clayton, Rebecca Sager and Udo Will, 'In Time with the Music: The 35  
36 Concept of Entrainment and Its Significance for Ethnomusicology', *European Meetings in* 36  
37 *Ethnomusicology*, 11 (ESEM-CounterPoint, 1) (2005): pp. 1–82. As far as ethnomusicology 37  
38 is concerned, the intuitions and influence on subsequent studies of John Blacking must be 38  
39 mentioned, as he positions the potential and limitations of the human body at the centre of his 39  
40 articulated reflections on music-making. See John Blacking, *How Musical is Man?* (Seattle 40  
41 and London, 1974); and John Blacking (ed.), *The Anthropology of the Body* (London, 1977). 41

42 <sup>7</sup> Francesco Giannattasio, *Il concetto di musica* (Rome, 1992), p. 210. 42

43 <sup>8</sup> *Ibid.*, pp. 218–28. 43

44 <sup>9</sup> Anthony Bateman and John Bale (eds), *Sporting Sounds: Relationships between* 43  
44 *Sport and Music* (London, 2009). 44

1 behaviour. The *psychophysical* effects of music refer to the psychological 1  
 2 perception of physical effort as measured by ratings of perceived exertion 2  
 3 (RPE) ... Music engenders an *ergogenic* effect when it enhances work output 3  
 4 or yields higher than expected levels of endurance, power, productivity or 4  
 5 strength.<sup>10</sup> 5  
 6 6

7 Such effects have been registered in all stages of aerobic activities involving 7  
 8 prolonged effort, whereas the effects of music seem to be indifferent in maximum- 8  
 9 effort anaerobic stages (for example, during sprinting): ‘The aspect of the model 9  
 10 most relevant to this phenomenon is known as the *load-dependent* hypothesis; 10  
 11 when work intensity increases beyond anaerobic threshold, external cues such as 11  
 12 music do not have any significant impact on perceived exertion.’<sup>11</sup> In this chapter, 12  
 13 I will deal with some non-competitive aerobic disciplines carried out in sport 13  
 14 centres, such as step, spinning and Pilates. In these disciplines, music is an integral 14  
 15 part of the protocol. 15

16 However, it is worth remembering that there are also experimental studies on 16  
 17 professional athletes and team sports. Music listening is a psychological aid for 17  
 18 the training of athletes, too, and the support of chanting fans and music played 18  
 19 over the stadium’s PA system conditions team performance. In this case, music 19  
 20 acts asynchronously.<sup>12</sup> 20

21 Equally significant is the function of music in individual sporting activities 21  
 22 such as athletics and running. The debate within sport, in this case, is about which 22  
 23 musics or even which songs are the most effective, and it involves technical 23  
 24 motivations (for example, the importance of choosing pieces with a beat with 24  
 25 the right tempo to run to or for aesthetic motivations, taking into account the 25  
 26 pleasure of running and training while listening to one’s favourite music. The Web 26  
 27 is full of sites that give advice on and offer selections of music to run to, sorted 27  
 28 by bpm (beats per minute). In particular, I would like to point out the website 28  
 29 Run2Rhythm, where an article extolling the benefits of running in synch with the 29  
 30 music’s tempo analyses ‘Eye of the Tiger’ by Survivor (1982). According to the 30  
 31 author and founder of the website, Gary Blake, the song’s bpm is too slow for the 31  
 32 right running rhythm – despite the extramusical reference to the soundtrack of the 32  
 33 film *Rocky III* (Sylvester Stallone, 1982) and the routine use of the song at the 33  
 34 openings of big sporting events in the United States.<sup>13</sup> 34  
 35 35  
 36 36  
 37 37

38 <sup>10</sup> Costas I. Karageorghis and Peter C. Terry, ‘The Psychological, Psychophysical, 38  
 39 and Ergogenic Effects of Music in Sport. A Review and Synthesis’, in Bateman and Bale, 39  
 40 *Sporting Sounds*, p. 15 (italics in original). 40

41 <sup>11</sup> *Ibid.*, p. 18. 41

42 <sup>12</sup> Karageorghis and Perry have identified three different ways music can be associated 42  
 with sport: asynchronously, synchronously and pre-task. 42

43 <sup>13</sup> Gary Blake, ‘Running Music – Rhythm and Beat’, in *Run2Rhythm* <<http://www.run2r.com/rhythm-n-beat.aspx>> (accessed 31 May 2012). 43  
 44 44

1 The complexity of musical language works on multiple levels. In this chapter, I 1  
 2 will consider the list of music's motivational qualities in sport identified by Costas 2  
 3 Karageorghis and Peter Terry: 3  
 4 4  
 5 Rhythm response relates to natural responses to the rhythmical and temporal 5  
 6 elements of music, especially tempo. Musicality refers to pitch-related (as 6  
 7 opposed to rhythm-related) elements of music such as melody and harmony. 7  
 8 Cultural impact draws upon the pervasiveness of music within society or a 8  
 9 particular sub-cultural group, whereby frequent exposure to music increases 9  
 10 its familiarity which has an important role in determining preference. Finally, 10  
 11 association pertains to the extra-musical associations that music may evoke.<sup>14</sup> 11  
 12 12  
 13 This is not very far from what Giannattasio states in relation to work chants. 13  
 14 However, unlike what used to take place in pre-sound-recording societies, in gyms 14  
 15 we mainly make use of reproduced music – that is, music composed for other 15  
 16 purposes and chosen or adapted for the occasion. 16  
 17 17  
 18 18  
 19 **Musicalization** 19  
 20 20  
 21 The pervasiveness of reproduced music in gyms falls within a broader phenomenon 21  
 22 that I would define as 'musicalization' of the soundscape.<sup>15</sup> According to studies 22  
 23 on the anthropology of sound as conceived by Steven Feld in his research in the 23  
 24 rainforest or in Europe, the sounds that characterize an environment (be they 24  
 25 natural such as birdsong or produced by humans such as bells) carry essential 25  
 26 value for affective relationships as well as relationships of cohabitation between 26  
 27 people and the space they inhabit. These relationships obviously end up involving 27  
 28 music as well.<sup>16</sup> 28  
 29 Various studies, including this book, deal with urban realities like the Italian 29  
 30 ones that I am discussing, where reproduced music is increasingly taking the place 30  
 31 of ambient sounds and becoming a constituent part of the soundscape.<sup>17</sup> Its status as 31  
 32 32  
 33 <sup>14</sup> Karageorghis and Terry, *Psychological, Psychophysical, and Ergogenic Effects of* 33  
 34 *Music in Sport*, p. 17. 34  
 35 <sup>15</sup> The term 'musicalization' is used above all in theatre and literature to define the 35  
 36 musical quality of texts and plays. Personally, I have already used it with regard to phone 36  
 37 ringtones, the evolution of which, both by producers and by users, has seen musical features 37  
 38 being given to the sound signal; see Serena Facci, 'Musicalizzazioni: le suonerie', *AAA TAC: 38*  
 39 *Acoustical, Art and Artifacts. Technology, Aesthetics, Communication*, 2 (2005): pp. 179–94. 39  
 40 <sup>16</sup> Steven Feld, *Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli 40*  
 41 *Expression* (Philadelphia, PA, 1990 [1982]); Giovanni Giuriati and Laura Tedeschini Lalli 41  
 42 (eds), *Spazi sonori della musica* (Palermo, 2010). 42  
 43 <sup>17</sup> Tia DeNora, *Music in Everyday Life* (Cambridge, 2000); Michael Bull and Les 43  
 44 Back (eds), *The Auditory Culture Reader* (Oxford, 2003); Michael Bull, *Sound Moves: 43*  
 44 *iPod Culture and Urban Experience* (London and New York, 2006). 44

1 aesthetic product certainly qualifies music as ‘pleasant’, its evocative abilities give 1  
 2 it a familiar character and its ancient history alongside men makes it reassuring 2  
 3 and human, beyond the differences between various genres. Music is thus a useful 3  
 4 system to humanize and render the sonic environment familiar, and deliver it not 4  
 5 only from the cacophony of machine noise, but also from the vacuum of silence. 5

6 The ‘musicalization’ of the sonic space means that a status similar to that of 6  
 7 events traditionally connected to music (dance, meditation, celebration) is also 7  
 8 attributed to activities carried out in the gym. In the words of step instructor 8  
 9 Valentina Ziliani: ‘Sometimes, near the entrance on the street there’s a speaker 9  
 10 blasting dance music at full volume, as if to say that inside there’s a party.’<sup>18</sup> As 10  
 11 we will see later, functional music for gymnastics is often an aesthetic choice and 11  
 12 experience. 12

13 Music has different roles. First, to use Merriam’s words again, it adds the 13  
 14 dimension of ‘aesthetic pleasure’ to physical activities through ‘musicalization’.<sup>19</sup> 14  
 15 Through a process similar to that of designing for the figurative arts, a bit of art is 15  
 16 added to events that started with a completely different aim. It is a phenomenon 16  
 17 similar to the one I studied in Burundi, where, in some situations, women use 17  
 18 sung (that is, musicalized) greeting formulas. They do it to give the encounter a 18  
 19 more solemn value, but also with the declared purpose of having fun and doing 19  
 20 something beautiful (*akahibongozo*).<sup>20</sup> 20

21 To be truly effective, this process of ‘musicalization’ requires certain 21  
 22 competences. Managers and instructors in sport centres must know how to choose 22  
 23 and apportion the music to offer. As far as I was able to observe, the best ones 23  
 24 achieve remarkable levels of sensitivity and creativity in evaluating and reusing 24  
 25 musical pieces. 25

26 26  
 27 27

## 28 Sport Centres 28

29 29

30 Since the 1980s, in Italy, being active has been one of the most widely shared 30  
 31 pleasures and duties. In cities, as well as in small towns, there are both large and 31  
 32 small sport centres where one can practise different activities, ranging from sports 32  
 33 like football and tennis, to swimming and other aquatic disciplines, to various 33  
 34 kinds of gymnastics. 34

35 The term ‘fitness’ is often used to refer to a set of gymnastic disciplines 35  
 36 that can be practised individually (such as muscle strengthening and slimming 36  
 37 37

38 38

39 \_\_\_\_\_ 39  
 40 <sup>18</sup> Interview with Valentina, musicologist and step instructor at the Centro Sportivo 40  
 Toto Modo in Cremona, October 2006. 40

41 <sup>19</sup> Merriam, *The Anthropology of Music*, p. 223. 41

42 <sup>20</sup> Serena Facci, ‘Akazehe del Burundi. Saluti a incastro polifonico e cerimonialità 42  
 43 femminili’, in Maurizio Agamenzone (ed.), *Polifonie. Procedimenti, tassonomie e forme: 43  
 44 una riflessione ‘a più voci’* (Venice, 1996), pp. 123–61. 44

1 programmes involving specific machines) or in a group (aerobic disciplines such 1  
2 as step or holistic ones like Pilates, and so on). To best pursue the objective of 2  
3 fitness, larger sport centres are sometimes combined with beauty centres offering 3  
4 massages and other beauty treatments, as well as medical assistance. 4

5 In her socio-anthropological study of gyms in Italy, Roberta Sassatelli defines 5  
6 fitness as an obsession of our society, which is centred on caring for one's body in 6  
7 the medical and aesthetic sense.<sup>21</sup> Those who join a specialized centre generally do 7  
8 it to feel better and to take care of themselves, and go there alone. So, in contrast 8  
9 to what takes place on a tennis court or football pitch, in fitness centres people are 9  
10 in the company of strangers, and ephemeral and heterogeneous groups are formed 10  
11 to meet the requirements imposed by the various disciplines. 11

12 Those who work in these centres claim that music helps clients overcome the 12  
13 unease of finding themselves alone doing demanding work among strangers with 13  
14 whom they have to share even intimate spaces like the showers. As the manager of 14  
15 a sport centre in Rome has pointed out: 15

16  
17 Here people are all together, sometimes they socialize, but it's not easy. We need 17  
18 to make sure they're at ease. In the fitness suites where everybody does their 18  
19 own programme by themselves, we have the radio and sometimes the TV on, so 19  
20 those who want can watch it to kill time, but also so they don't have to look at 20  
21 others. Some clients though prefer bringing their iPod, so they can listen to their 21  
22 own music. (Stefania)<sup>22</sup> 22

23  
24 Filling our ears with music from an iPod while doing an individual programme 24  
25 in the fitness suite next to another client whom we do not know or even letting 25  
26 the music piped into the changing rooms envelope us are sufficient techniques to 26  
27 maintain our privacy. Through music we build a familiar space in a place we have 27  
28 to share with a mix of strangers, a fictitious environment of isolation – whatever 28  
29 the musical genre might be. This is why individual solutions that help a client 29  
30 feel at ease, such as listening to a favourite playlist (that is, iPods), are tolerated. 30  
31 Individual playlists are also used to measure the duration of an exercise (i.e. I ran 31  
32 on treadmill for five songs) in a more pleasant way than with a stopwatch. 32

33 Some centres play what is being broadcast by easy-listening and current chart 33  
34 hits radio stations in the reception area and in the changing rooms. Others choose 34  
35 the music on the basis of the time of day and type of clientele, as Valentina points 35  
36 out: 36

37  
38 In the morning it's Italian songs, because the clientele is mostly older women 38  
39 who love that kind of repertoire; at lunchtime, for clients who take advantage of 39

40  
41 <sup>21</sup> Roberta Sassatelli, *Anatomia della palestra: Cultura commerciale e disciplina del* 41  
42 *corpo* (Bologna, 2000). 42

43 <sup>22</sup> Interview with Stefania, manager of the Centro Sportivo Venice Gym in Rome, 43  
44 May 2006. 44

1	the break from work, it's more dynamic music like commercial dance; after 6	1
2	pm it's all a party with disco and techno music. (Valentina)	2
3		3
4		4
5	<b>Step – in Synch and in Tune</b>	5
6		6
7	Group disciplines require many people to share the same space. Music is	7
8	carefully chosen by the instructor who, among other things, aims to create –	8
9	however temporarily – forms of solidarity and identity, including gender identity.	9
10	Alessandra notes how '[i]n masculine disciplines such as Fitbox the music is	10
11	always very strong; they mostly use hip hop'. The disciplines that are traditionally	11
12	more intrinsically tied with music are the aerobic ones. In <i>Music in Everyday Life</i> ,	12
13	Tia DeNora devotes a significant part of her chapter on 'Music and the Body'	13
14	to aerobics. <sup>23</sup> She points out how every class is rigidly governed by musical	14
15	tempo, whose function is to produce a controlled acceleration of physical work	15
16	and therefore of cardiac rhythm, followed by an equally gradual and controlled	16
17	deceleration. Referring to research undertaken with Sophie Belcher, DeNora	17
18	reconstructs the three essential phases of a class (warm-up, core, cool-down),	18
19	identifying a precise grammar (aerobic grammar), shared and pursued both by	19
20	instructors and participants. Music is an integral part of this grammar. However,	20
21	it works on different levels, facilitating motor coordination, but also constructing	21
22	motivational emotional reactions:	22
23		23
24	On the one hand, music is a prosthetic technology of the body because it provides	24
25	a resource for configuring motivation and entrainment, enabling the body to do	25
26	what, without music, it could not do. On the other hand, the bodily movements	26
27	that music profiles may lead actors to identify, work-up and modulate emotional	27
28	and motivational states. <sup>24</sup>	28
29		29
30	My experience in Italy confirms much of DeNora's conclusion. Step, which	30
31	I have dealt with in particular, has reached very high levels of 'musicalization'.	31
32	For example, one of the varieties of this discipline, known as 'choreography',	32
33	consists of preparing in every class a sequence of exercises that are combined,	33
34	memorized and repeated by the group as if they were dancing. The instructor uses	34
35	combinations of steps and choral motifs borrowed directly from dance styles like	35
36	mambo, <i>chassé</i> and so on.	36
37	Instructor training, which takes place in specialized schools, therefore includes	37
38	a musical component:	38
39		39
40	In step, like in all aerobic disciplines, the session is based on prepared sequences	40
41	of routines. The first thing we instructors learn is to recognize the master	41
42		42
43	<sup>23</sup> DeNora, <i>Music in Everyday Life</i> , pp. 89–108.	43
44	<sup>24</sup> <i>Ibid.</i> , p. 107.	44



1	beat. Each routine consists of eight movements that correspond to eight beats	1
2	recognizable in the musical accompaniment. Between the eighth beat of a routine	2
3	and the first of the following (master beat) there's a signal (for example, a drum	3
4	roll or a cymbal) that indicates the beginning of the new cycle. (Valentina)	4
5		5
6	Music forces us to count. Keeping count is important for an instructor, who is	6
7	then sure that all the participants in the group are doing the necessary repetitions	7
8	of the movement. Experience has helped me to increase my musical sensibility.	8
9	In the end you're so in tune with the music that you no longer need to count	9
10	the beats. I listen to the piece and I know when and how to organize the steps.	10
11	(Tony)	11
12		12
13	The music used in step must have clearly demarcated sections:	13
14		14
15	1. regular and very evident beat and controlled variation of bpm;	15
16	2. no odd-numbered metric or formal structure;	16
17	3. varied musical genres (although pop and dance music are the most used),	17
18	but the pieces are reduced to samples and are always remixed;	18
19	4. <i>forte</i> or <i>fortissimo</i> dynamics.	19
20		20
21	<i>Controlled Beats</i>	21
22		22
23	We have seen how Karageorghis and Terry, in their list of musical features that	23
24	have 'motivational' effects on sport, distinguish between musicality, by which	24
25	they mean melody and harmony, and rhythm. <sup>25</sup> For a musician or a musicologist,	25
26	the splitting of rhythmic parameters from the concept of musicality may sound	26
27	strange, as temporal organization and rhythmic figures are integral parts of musical	27
28	language. But, for sports experts, rhythm is primarily a regulator of the human	28
29	body's motor patterns, starting from the basic ones like heartbeat, breathing and	29
30	steps.	30
31	So even if music works on various levels, tempo and rhythm remain a priority	31
32	in both step and other kinds of gymnastics. Tony is persuaded of the wealth of	32
33	stimuli that music brings to his choreography classes, which seem to cross into	33
34	dance, but have clearly distinct aims, especially with regard to the management	34
35	of tempo:	35
36		36
37	There is, however, a substantial difference between our classes and dance classes:	37
38	we can't stop. Music always goes on, because we can never lose the right timing	38
39	of breathing and cardiac rhythm. In dance classes teachers demonstrate the new	39
40	step. Then they turn off the music and everybody learns it. They can slow down	40
41	and stop, because the aim is to learn it well to then perform it again with the	41
42		42
43	<sup>25</sup> Karageorghis and Terry, <i>Psychological, Psychophysical, and Ergogenic Effects of</i>	43
44	<i>Music in Sport</i> , p. 17.	44

1 music. For us what counts is training. I gradually propose new steps, making 1  
 2 the figure more and more complex, but the participants learn them by constantly 2  
 3 continuing to move. (Tony) 3  
 4 4  
 5 It is principally the beat that synchronizes and regulates movements. Valentina 5  
 6 notes how '[e]ach session is based on four phases: warm up, aerobic, cool down 6  
 7 and relax. For each of these phases the bpm have to change. We start slower and 7  
 8 reach a maximum speed of 140 bpm in the aerobic phase. Then we begin to slow 8  
 9 down again.' According to Tony (whom I interviewed in 2011, a few years after 9  
 10 Valentina) exceeding 136 bpm can be dangerous. His 'interval training' and 'step 10  
 11 and tone' classes alternate step and strengthening exercises. As a general rule, 11  
 12 however, the phases described by Valentina and identified by DeNora and Belcher 12  
 13 are observed. 13  
 14 The ability to synchronize movements to sound stimuli is variously studied 14  
 15 and connected to the above-mentioned phenomenon of entrainment, which, in this 15  
 16 case, would guide all participants in a step class to move simultaneously, following 16  
 17 the music's tempo. The perception of musical tempo and our ability to move to 17  
 18 an external metre is due to neural circuits, located particularly in the cerebellum.<sup>26</sup> 18  
 19 Studies in biomusicology have examined this phenomenon in some animal species 19  
 20 and have traced evolutionary hypotheses that document how widespread this 20  
 21 ability is in *Homo sapiens*.<sup>27</sup> 21  
 22 Obviously, when the movement performed is externally imposed, instead of 22  
 23 being spontaneous, and the metric impulse is included in the music, synchronization 23  
 24 is not at all mechanical, but rather an aim to achieve.<sup>28</sup> DeNora and Belcher have 24  
 25 noted how, for example, 'bad music' (that is, music that did not produce the desired 25  
 26 effects on the participants) was stopped by the instructor to avoid compromising 26  
 27 27  
 28 28  
 29 <sup>26</sup> The cerebellum is one of the most ancient parts of the brain. Further studies are 29  
 30 demonstrating that there are connections between the various areas of the brain dedicated 30  
 31 to decoding musical parameters, which allows us to reconstruct the musical message in its 31  
 32 entirety. Moreover, these studies are examining the relations between musical perception 32  
 33 and emotional reactions. See Isabelle Peretz, 'La musica e il cervello', in Jean Jacques 33  
 34 Nattiez with Margaret Bent, Mario Baroni and Rossana Dalmonte (eds), *Enciclopedia della* 34  
 35 *musica: Il sapere musicale*, vol. 2 (Turin, 2002), pp. 260–64; Isabelle Peretz, 'Musical 35  
 36 Emotions: Brain Organization', in Patrik N. Juslin and John Sloboda (eds), *Handbook of* 36  
 37 *Music and Emotion: Theory, Research, Applications* (Oxford, 2010), pp. 104–26; Daniel J. 37  
 38 Levitin, *This is Your Brain on Music: The Science of a Human Obsession* (London, 2007). 38  
 39 <sup>27</sup> Bjorn H. Merker, Guy S. Madison and Patricia Eckerdal, 'On the Role and the 39  
 40 Origin of Isochrony in Human Rhythmic Entrainment', *Cortex – Elsevier*, 45 (2009): 40  
 41 pp. 4–17. 41  
 42 <sup>28</sup> As some ethnomusicological studies have shown, the very perception of the beat 42  
 43 is culturally conditioned, but even among individuals belonging to the same culture it can 43  
 44 happen that the beat is perceived differently within the same musical piece – for example, 44  
 45 by privileging the offbeat. See Clayton, Sager and Will, 'In Time with the Music'.

1 the outcome of the class.<sup>29</sup> Hence, for instructors it is fundamental that the beat 1  
 2 is very clear: ‘Musics must be remixed. Bass must be heard clearly, to guide the 2  
 3 steps.’ (Tony). 3

4 That said, my impression after observing his classes is that the phenomenon 4  
 5 of entrainment in step is not exhausted by the synchronization of movements and 5  
 6 basic pulse – however important this may be. For example, the way Tony – like 6  
 7 others – communicates while teaching the exercises is essentially based on bodily 7  
 8 communication: the instructor proposes a figure and the participants have to repeat 8  
 9 it until they have learned it well. This teaching/learning mode, very widespread 9  
 10 in oral musical traditions, is based on partly spontaneous imitative processes that 10  
 11 fall within the field of proxemics and seem to descend from automatisms whereby 11  
 12 bodies interact among them.<sup>30</sup> 12

13 Dance patterns that are transmitted this way are needed to move the various 13  
 14 parts of the body in harmony and do not only respond to rhythmic musical stimuli, 14  
 15 but also to melodic, timbral and dynamic ones. To choose ‘good music’ for a step 15  
 16 session, instructors take into account the fact that music is a complex sound event, 16  
 17 in which pitches, melodies, timbres and harmonies are rhythmically organized in 17  
 18 time. 18

19 19

#### 20 *Square CDs* 20

21 21

22 Music must be prepared ad hoc. First of all, its duration must match that of the 22  
 23 class, if possible without pauses. Each instructor owns a set of CDs that have the 23  
 24 same duration as the class, follow tempo acceleration and deceleration, have a 24  
 25 powerful groove to guide movements and a formal structure following that of the 25  
 26 routine: 26

27 27

28 We call these ‘square discs’ because they are based on 4/4 bars and cycles 28  
 29 of 8 beats marked by the master beat. If you look on the internet it is full of 29  
 30 sites where DJs advertise their discs, good for every type of fitness discipline. 30  
 31 Sometimes they sell them to us at training courses. (Valentina) 31

32 32

33 There is indeed a broad range of materials sold through the Web, and those 33  
 34 working in the field note that there are commercial interests behind the whole world 34  
 35 of fitness and therefore also in the specific sector of dedicated musical production. 35  
 36 An example of this is the website Power Music that sells selections of hits divided 36  
 37 by decade (starting from the 1940s), artist (Sinatra, Beatles, Madonna and so on), 37  
 38 genre (dance, hip hop, classical, Broadway) and also specific typologies such as 38  
 39 Christian and Christmas.<sup>31</sup> 39

40 40

41 41

42 <sup>29</sup> DeNora, *Music in Everyday Life*, p. 96. 42

43 <sup>30</sup> Clayton, Sager and Will, ‘In Time with the Music’. 43

44 <sup>31</sup> <<http://uk.powermusic.com/>> (accessed 31 May 2012). 44

1 However, many instructors, including Valentina and Tony, prefer to organize 1  
 2 their own material, choosing musical pieces that they deem appropriate for the 2  
 3 participants in their classes and relying on friends who are DJs to remix them. 3  
 4 The division of the beats is binary, the bars are generally 4/4 and the form of the 4  
 5 pieces is organized on combinations of cycles of eight beats that can originate 5  
 6 combinations of 16 or 32 beats. Binary formulas (for example, a melody that is 6  
 7 repeated identically twice) are useful for exercises because motor patterns must be 7  
 8 repeated identically for the right and left side of the body: 8

9  
 10 The basic cycle that ends with a marker is eight beats, but my choreographies are 10  
 11 based on blocks of 32 beats. The steps are first orientated from right to left then 11  
 12 from left to right. Everything I do towards the right, I then have to do towards 12  
 13 the left. (Tony) 13  
 14 14

15 However, I do not think that it is purely functional reasons that guide the 15  
 16 compositional procedures of DJs, which are significantly conditioned by cultural 16  
 17 models. Four-four time signatures and melodic forms based on binary patterns 17  
 18 are very widespread in Western music. Let us consider the eight-bar themes in 18  
 19 the classical period, divided in phrases of four and strophes of two, or the 32-bar 19  
 20 structure of Tin Pan Alley songs. These also prevail in pop and dance music, which 20  
 21 are the most familiar genres for gym clients. 21

22  
 23 *Fortissimo Dynamics* 23

24  
 25 Music is loud because it has to 'be there'. (Alessandra) 25  
 26 26

27 This quote by Alessandra makes us think of a saturating and almost tangible 27  
 28 presence in the gym, due not only to high volume, but also to the use of a very wide 28  
 29 spectrum of frequencies. We can observe in Figure 8.1 the sonogram of a fragment 29  
 30 taken from a CD expressly created for a step session by DJ Marco Manara.<sup>32</sup> The 30  
 31 harmonics of the sounds of the groove reach beyond 20,000 Hz (the conventional 31  
 32 limit for human hearing). Images like this characterize electronic dance music and 32  
 33 are definitely unusual in non-remixed music. 33

34 I attended one of Tony's interval training classes. It is a class in which the 34  
 35 step routines are interspersed with rather demanding strengthening exercises (in 35  
 36 this case with weights). The atmosphere of the gym was vibrant with very high- 36  
 37 volume music, and Tony kept proposing exercises following the beat, but various 37  
 38 participants preferred to move more slowly, depending on their abilities, and 38  
 39 therefore fell out of synch with the tempo. The group that earlier looked compact, 39  
 40 as in line dancing, seemed to break up. At the end of the class, I asked some 40  
 41 participants who seemed among the most experienced whether music is necessary: 41

42  
 43  
 44 <sup>32</sup> Telephone interview with Marco Manara, guitarist, composer and DJ, May 2007. 44

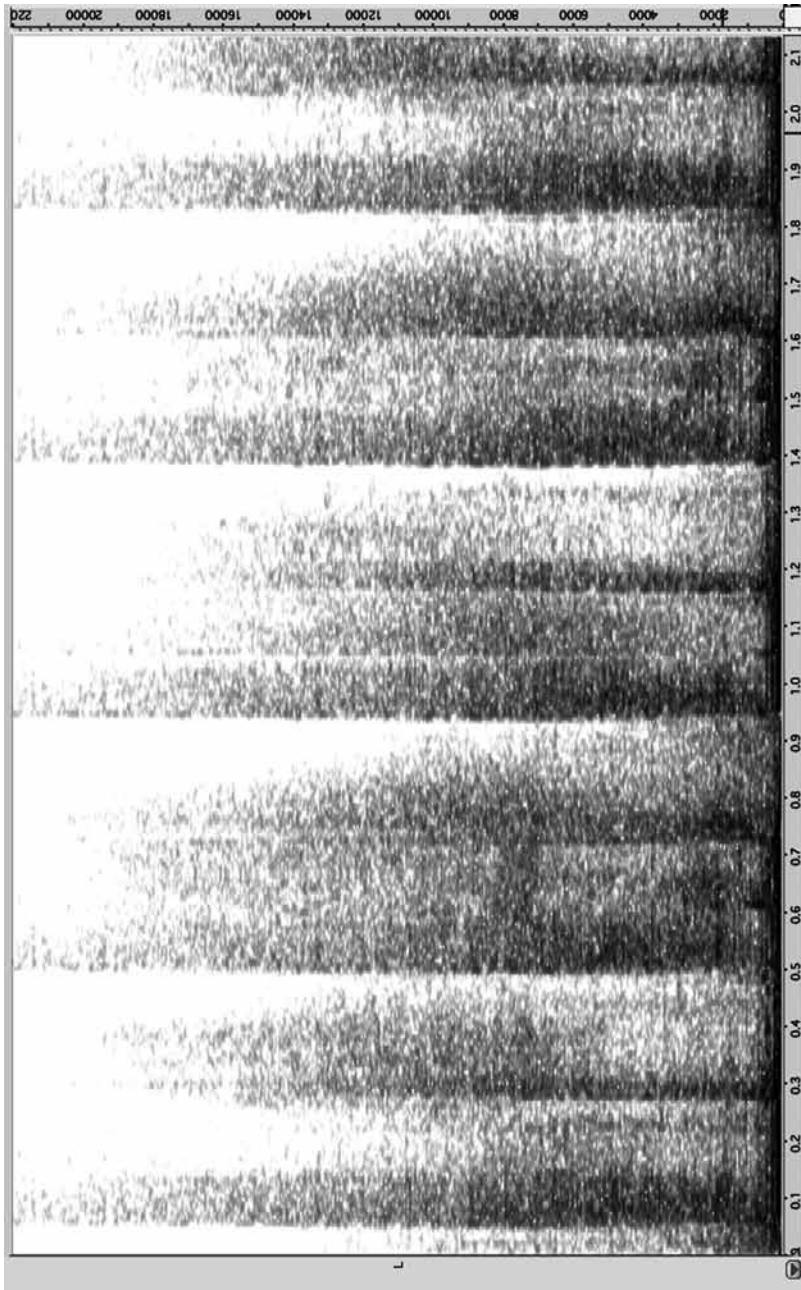


Figure 8.1 Marco Manara, *World Step 54'*, sonogram of a 3.5" excerpt of the initial sample.

1 'Music is essential in step. Without music we couldn't do anything.' I asked 1  
 2 whether this was also true during exercises with weights, when not everybody 2  
 3 managed to stay in synch, and a participant in the interval training class said: 3  
 4 'With weights everybody needs to find their own tempo, not everybody manages 4  
 5 to follow that of the song. But music is still important, because it gives energy.'<sup>33</sup> 5  
 6 So music gives energy even when it does not command a synchronized response. 6  
 7 Exercises with weights would seem to escape the norms of step and, instead, fall 7  
 8 within one of the cases of asynchronous use that Karageorghis and Terry talk 8  
 9 about. The research presented in their article principally deals with tempo speed, 9  
 10 and they have shown how a slow tempo (below 100 bpm) reduces the quality of 10  
 11 the performance, whereas a fast tempo or – better still – an acceleration offers a 11  
 12 better performance, even without synchronization.<sup>34</sup> 12

13 These studies do not address the role of dynamics. I spoke to Björn Merker 13  
 14 about the evolutionary reconstruction of entrainment. My question was: 'Why is 14  
 15 music, especially if very loud, perceived as useful to gather the necessary energy 15  
 16 for demanding movements, even in an asynchronous situation?' According to the 16  
 17 Swedish scientist, the answer lies in the level of excitement that is reached – for 17  
 18 example, in collective party situations when many people find themselves in a loud 18  
 19 and lively situation. Some phenomena observed among primates, like 'carnival 19  
 20 display'<sup>35</sup> in chimpanzees, offer evidence of this among animals.<sup>36</sup> It is not difficult 20  
 21 to find examples, both in our personal experiences and in the anthropological 21  
 22 literature, of frenzy during parties or rituals, in music-saturated environments that 22  
 23 help us stay active and awake for hours, even during night-time, without feeling 23  
 24 tired. As an example, Merker mentioned rave parties. But we can also think of 24  
 25 how children become hyperkinetic during school parties with music. We may have 25  
 26 inherited a propensity for emotional excitement accompanied by loud vocalization 26  
 27 and vigorous physical movement in a group setting from the common ancestor we 27  
 28 share with chimpanzees, along the lines of what occurs today in the chaotic and 28  
 29 unsynchronized chimpanzee carnival display. To this general background humans 29  
 30 have, of course, added synchrony of both voices and movement to a common beat, 30

31  
 32 <sup>33</sup> Interview with Sara, participant in the interval training course at Centro Sportivo 32  
 33 Forum in Rome, January 2012. 33

34 <sup>34</sup> Karageorghis and Terry, *Psychological, Psychophysical, and Ergogenic Effects of* 34  
 35 *Music in Sport*, p. 27. 35

36 <sup>35</sup> 'On irregular occasions, typically when a foraging subgroup discovers a ripe fruit 36  
 37 tree or when two subgroups of the same territory meet after a period of separation, the 37  
 38 animals launch an excited bout of loud calling, stomping, bursts of running, slapping of 38  
 39 tree buttresses, and other means of chaotic noise-making. There are no indications that any 39  
 40 kind of inter-individual co-ordination, let alone rhythmic synchrony, forms part of these 40  
 41 chimpanzee group displays.' See Merker, Madison and Eckerdal, 'On the Role and the 41  
 42 Origin of Isochrony', p. 6.

42 <sup>36</sup> See Merker, Madison and Eckerdal, 'On the Role and the Origin of Isochrony'. 42  
 43 The discussion with Björn Merker occurred in Venice during the 17th Seminar in 43  
 44 Ethnomusicology, January 2012. 44

1 but apparently, even in us, social and physical excitement can take place without 1  
 2 it. Francesco Giannattasio, who has researched the difference between real time 2  
 3 and musical time in possession rituals in Somalia and Nepal,<sup>37</sup> has commented that 3  
 4 formal or even just rhythmic cyclical patterns of music push us to keep going upon 4  
 5 hearing them. In other words, music ‘pulls’ us into its dimension where everything 5  
 6 could proceed *ad infinitum* even if we cannot follow its tempo rigorously. To 6  
 7 conclude, we can say that even when we are not in synch, we tune in with music 7  
 8 and with others. 8

9 A fitness class is obviously not a party, and the physical work is often 9  
 10 burdensome and boring, but sport centres offer a place of well-being where people 10  
 11 can allow themselves a pleasant break from everyday stress, as if they were in a 11  
 12 play situation or on holiday. Valentina, Tony and his instructor, Gil Lopes,<sup>38</sup> have 12  
 13 clearly said that many elements of an aerobics class are reminiscent of the euphoria 13  
 14 of a party, a club or entertainment activities in holiday resorts. In particular, Gil 14  
 15 used this comparison to define aerobics conventions. These are events that take 15  
 16 place annually in various parts of the world. Instructors meet for a few days to 16  
 17 update and exchange experiences. Many motivated participants join very crowded 17  
 18 classes attended by hundreds of people in a full immersion of aerobics, which is 18  
 19 lived as a holiday. This is also one of the many aspects of ‘musicalization’. I would 19  
 20 add that the use of music is not aimed at entertaining or putting on shows, but 20  
 21 at improving the exercises. However, sometimes sport centres do put on aerobic 21  
 22 choreography shows. 22

23 23

24 24

### 25 **Tastes, Contexts and Associations** 25

26 26

27 Among the motivational values of music in sport, Karageorghis and Terry also 27  
 28 include ‘cultural impact’ (that is, sport enthusiasts conforming to specific cultural 28  
 29 models of behaviour and musical experience).<sup>39</sup> First, music has an effect on 29  
 30 socialization. Synchronized motion is an expedient used in many contexts to 30  
 31 create cohesion within a group and, if necessary, make enemies fear that group. 31  
 32 Tia DeNora, in fact, looks at the comparison between synchrony in aerobics and 32  
 33 among soldiers.<sup>40</sup> 33

34 Formalized choreographies in step use a formation that Curt Sachs was first 34  
 35 to define ‘frontal’ in his *Eine Weltgeschichte des Tanzes* to differentiate it from 35  
 36 36

37 37

38 <sup>37</sup> Giannattasio, *Il concetto di musica*, pp. 231–63. The discussion with Francesco 38  
 39 Giannattasio occurred in Rome during his lectures in Ethnomusicology at Università La 39  
 40 Sapienza, April 2012.

41 <sup>38</sup> Interview with Gil, competitive aerobics instructor, multiple international 40  
 41 champion, January 2012.

42 <sup>39</sup> Karageorghis and Terry, *Psychological, Psychophysical, and Ergogenic Effects of* 42  
 43 *Music in Sport*, p. 17.

44 <sup>40</sup> DeNora, *Music in Everyday Life*, pp. 196–7. 44

1 a circular formation. Frontal line choreographies, unlike circular ones, generally 1  
 2 have representational aims: one dances in front of, and for, someone. Participants 2  
 3 in an aerobics group, whether they like it or not, project images of their bodies 3  
 4 in motion and offer seductive messages.<sup>41</sup> Among the dances that use frontal 4  
 5 formations Sachs mentions those very widespread courtship dances in which 5  
 6 groups of men and women arrange themselves specularly in front of one another. 6  
 7 In aerobics, the specular relationship is between the group and the instructor 7  
 8 who performs the exercises, sometimes even on a stage in order to be visible by 8  
 9 everybody. This formation recalls that of a show in which an artist performs in 9  
 10 front of a participating audience. The instructor's charisma and the complicity 10  
 11 established between them and the members of the group can produce affective 11  
 12 reactions, esteem, trust and admiration. Both Tony and Gil have said that a good 12  
 13 instructor must be able to galvanize the group, also by creating pleasant social 13  
 14 moments outside the classes. According to Gil, '[m]usic puts us in communication 14  
 15 with the others: we're all doing the same thing and we feel like a group. There isn't 15  
 16 competitiveness like in sport.' This relationship also involves the instructor being 16  
 17 sensitive to, and having respect for, the musical tastes of the participants: 17

18  
 19 The genre most commonly used is American dance music, but you can use 19  
 20 everything, as long as it's remixed. Generally I choose the pieces based on their 20  
 21 current popularity, the type of mood they can transmit, but also based on the ages 21  
 22 and tastes of the participants. You always need to mediate with other people's 22  
 23 tastes and try not to displease anybody, even if it's not easy. (Tony) 23  
 24 24

25 Again, to make the class pleasant, instructors often change compilations in order 25  
 26 not to bore participants: 26

27  
 28 For the end of the class sometimes I ask my friend the DJ to prepare a section 28  
 29 that's called 'show'. I choose a song that I know the group particularly likes 29  
 30 (perhaps because it's the hit of the moment) and use the whole piece. For the 30  
 31 group it's a surprise: being able to perform the exercises to a song they like, 31  
 32 when they know the choreography well, gives them a lot of satisfaction. (Tony) 32  
 33 33

34 The last motivational quality that Karageorghis and Terry identify is the ability to 34  
 35 create emotional and symbolic associations. 35

36 Valentina introduced me to the CD mentioned in Figure 8.1, entitled *World* 36  
 37 *Step 54*'. The author of the remix, Marco Manara, used samples of musics and 37  
 38 chants from various parts of the world, suitably edited and remixed on a base of 38  
 39 electronic loops. The overall duration is 54 minutes, like a step class. It goes from 39  
 40 Latin American examples, to North Africa, India, Australia, Spain, the United 40  
 41 States and Ireland. 41

42  
 43  
 44 <sup>41</sup> Curt Sachs, *Eine Weltgeschichte des Tanzes* (Berlin, 1933). 44



1 Musical genres are interchangeable, but it depends on the choreography you 1  
 2 want to do. For the Irish step we use Irish music and movements with props. 2  
 3 With Latin music we use 'Latino' steps with pelvic movements. Indian music: 3  
 4 we do more movements with our hands. With *World Step 54* it's like going 4  
 5 around the world in step. (Valentina) 5  
 6 6

7 Although they respect the rigid organization of bpm and eight-beat cycles, 7  
 8 the compositional criteria are those typical of electronic dance music: the cycles 8  
 9 are concatenated, alternating denser and more rarefied parts, and the passages 9  
 10 from one sample to the other happen with groove sections featuring variants from 10  
 11 one to the next. Moreover, samples are dismembered in sections of four, two 11  
 12 or even one single beat and solicit a more refined level of perception than just 12  
 13 surrendering to the groove.<sup>42</sup> These expedients make the obsessive repetitiveness 13  
 14 of the beat less boring and stimulate the creation of new choreographed motifs, as 14  
 15 Valentina said. In Table 8.1 we can see a brief analysis of how the sample of what 15  
 16 looks like an African-Caribbean piece, based on the alternation between a female 16  
 17 chorus (section A, C, E) and a soloist (sections B, D, F-G), is dealt with. Each line 17  
 18 corresponds to an eight-beat cycle. Each cell corresponds to one beat. 18  
 19 19  
 20 20

21 Table 8.1 Marco Manara, *World Step 54*, segmentation analysis of the first 21  
 22 sample. 22  
 23 23

Samples: dialogue between a women's choir (A, C, E) and a male soloist (sections B, D, F, G) in an African-Caribbean song								
...	Groove							
1	A		A		A		A	
2	A	B	A	B'	A	B	A	B
3	A	B	A	B'	A	B	A	B
4	Groove							
5	G				G			
6	G		G		G		G	
7	C	D	C	D	C	D	C	D
8	C	D	C	D	C	D	C	D
9	E		F		E		F	
10	E		F		E		F	

40 <sup>42</sup> Philip Tagg, in 'From Refrain to Rave. The Decline of Figure and the Rise of 40  
 41 Ground', *Popular Music*, 13/2 (1994), pp. 209–22, offered a first contribution on the 41  
 42 relationship between form in electronic dance music and the psychological responses of 42  
 43 listeners. See also Mark J. Butler, *Unlocking the Groove. Rhythm, Meter, and Musical 43  
 44 Design in Electronic Dance Music* (Bloomington, IN), 2006. 44

1	11	E	F	E	G	1				
2	12	Groove					2			
3	13	A	A	A	A	3				
4	14	A	B	A	B'	A	B	A	B	4
5	15	A	B	A	B'	A	B	A	B	5
6	16	G	G	G	G	6				
7	17	G	G	G	G	7				
8	18	E	F	E	F	8				
9	19	E	F	E	F	9				
10	20	E	F	E	G	10				
11	21	E	F	E	G	11				
12	22	E	F	E	G	12				
13	22	E	F	E	G	13				
14	22	E	F	E	G	14				
15	...	Groove, change					15			

16  
17  
18 The musical evocation of faraway places and the gymnastic stylization of the 'trip' 18  
19 around the world contrast with the somewhat claustrophobic environment of a 19  
20 gym. 20

21 Representing another place is almost institutional in spinning, which, as 21  
22 Valentina told me, 'is a whole other thing' with respect to aerobics. A spinning 22  
23 instructor must guide the group of spin-bike users through an alternation of fast, 23  
24 dynamic pedalling with an aerobic function and harder, slower pedalling, useful 24  
25 for muscle strengthening, by imagining an itinerary now on a plain, now up a hill. 25  
26 'The instructor talks to us, she tells us what we're doing, where we are, if on the 26  
27 mountains or by a river. The class becomes more fun this way', said a participant 27  
28 in a spinning class.<sup>43</sup> According to Alessandra: 28

29  
30 There isn't a speed curve, like in step, but rather alternate phases. For the plain 30  
31 we use specially prepared musics [remixed ad hoc], for the climb I choose 31  
32 them, slower, but also different according to the group or the situation I want to 32  
33 construct. (Alessandra) 33  
34 34

35 Alessandra, too, takes the type of participants into account when choosing the 35  
36 pieces to add to her compilation: 36

37  
38 I choose the music according to the participants' tastes: for groups of over-45s I 38  
39 use Italian songs that can be sung along to. Once we used that song by Petrolini 39  
40 40

41  
42  
43 <sup>43</sup> Interview with Cristina, member of the Centro Sportivo Venice Gym in Rome, May 43  
44 2007. 44

1 that Manfredi covered, ‘Tanto pe’ canta’ ... We were playing about. It was a bit 1  
 2 like going for an outing. (Alessandra)<sup>44</sup> 2  
 3 3  
 4 Spinning websites offer compilations and CDs of the duration of a class with 4  
 5 so-called ‘pedallable’ musics. These are chosen from electronic repertoires with 5  
 6 New Age references built around the imitation of natural sounds, with sounds that 6  
 7 create the idea of open space and not too fast rhythmic parts, but at a tempo that, 7  
 8 in this case, it is pertinent to define as *andante*.<sup>45</sup> For instructors, these websites 8  
 9 offer tracklists appropriate for each phase of the class (warm-up, climb, sprints, 9  
 10 cool-down). On the Spinning Music website each of these lists is preceded by a 10  
 11 brief description of the musical features. For example: 11  
 12 12  
 13 The key to a good climbing song is the beat: it’s got to have a beat suitable for 13  
 14 matching your cadence. Once you find it, the music will push you to keep going 14  
 15 even when your legs are telling you to dial it back. These are my favourites.<sup>46</sup> 15  
 16 16  
 17 Or: 17  
 18 18  
 19 There’s no mistaking a good sprinting tune: whether it’s seated or standing, 19  
 20 it’s got a beat that pushes you toward your own best race day pace. Many of 20  
 21 these songs naturally move into a sprinting pace for each chorus, with the verses 21  
 22 allowing for recovery in between sprints. Go!<sup>47</sup> 22  
 23 23  
 24 Therefore, in spinning, the speed and energy of the pieces must be carefully 24  
 25 dosed. Moreover, music offers infinite nuances in this sense, and the sensitivity of 25  
 26 instructors is particularly important. 26  
 27 27  
 28 28  
 29 **The Other Face of Music: Holistic Disciplines** 29  
 30 30  
 31 Step and spinning share the need to organize a group. Other disciplines, like Pilates, 31  
 32 stretching, yoga, gentle and postural gymnastics, require a strong individualization 32  
 33 of physical work. 33  
 34 34  
 35 35  
 36 36  
 37 <sup>44</sup> ‘Tanto pe’ canta’, Italian song with Roman dialect influences composed by Ettore 37  
 38 Petrolini and Natale Alberto Simeoni in 1932. It was recorded by Petrolini himself a few 38  
 39 years later. The famous Italian actor, Nino Manfredi, covered it during a TV show in 1970, 39  
 40 which made it very popular. 40  
 41 <sup>45</sup> Translator’s note: While in English the Italian term ‘*andante*’ is just a musical term, 41  
 42 in Italian it is also the present participle of the verb *andare* (broadly meaning ‘to go’, often 42  
 43 by various means of transportation including bikes) – hence its pertinence in this case. 43  
 44 <sup>46</sup> <<http://spinningmusic.wordpress.com/climbs/>> (accessed 31 May 2012). 44  
 45 <sup>47</sup> <<http://spinningmusic.wordpress.com/sprints/>> (accessed 31 May 2012). 44

1 The fruition of music is more individual. Music must favour isolation and 1  
 2 concentration. As Alessandra puts it, '[m]usic must be background, like soft 2  
 3 lighting, create an atmosphere'. The idea of 'background' can be confused with the 3  
 4 idea of sonic wallpaper, of discreet and continuous presence, totally contrasting 4  
 5 with the hammering presence of aerobics music. Valentina notes how '[n]on- 5  
 6 pulsating musics are used in yoga'. But the use of the term 'background' must not 6  
 7 lead us to think that the role of music is only ambient. Physiotherapist and gentle 7  
 8 gymnastics instructor Monica Carcano clearly states that in her discipline music 8  
 9 is a tool, not a background. For this reason, with participants/patients who start 9  
 10 their training it would be better not to use it, as it may distract them from self- 10  
 11 perception. In particular, rhythmical musics that impose their tempo, instead of 11  
 12 allowing the patient complete freedom of movement, are not recommended. Past 12  
 13 the initial stage there are several arguments in favour of using music: 13

14  
 15 It adds auditory stimulation to other stimuli; it facilitates harmonization between 15  
 16 bodily rhythms and motor coordination; it helps to memorize brief motor 16  
 17 sequences without perceptive errors; it can stimulate the neurovegetative system 17  
 18 by varying the tempo from slow to fast; it helps to automate postural correction 18  
 19 by facilitating the attention and harmonization of the whole body. (Monica)<sup>48</sup> 19

20  
 21 Monica has introduced new, important reasons. In particular, help in 21  
 22 'memorizing' and 'automating' motor sequences. The support of musical coding 22  
 23 to the memorization of verbal formulae is known to all those who study orality. 23  
 24 Studies on ethnochoreology have also revealed a strict correlation between 24  
 25 musical and motor memory. Indeed, in oral tradition contexts, quite often there is 25  
 26 no sharp difference between dancers and instrumentalists in the first stages of their 26  
 27 learning processes. They all experiment with both dancing and playing the music 27  
 28 they dance to (sometimes going through singing) to better understand, memorize 28  
 29 and internalize the whole complex of musical language in dance.<sup>49</sup> 29

30 Another reason introduced by Monica is 'harmonization'. In music, harmony 30  
 31 is one of the binding elements that allows for the coordination of single parts into 31  
 32 a whole. In holistic disciplines, the principal aim is precisely to work on the whole 32  
 33 body thanks to the simultaneous perception of the various parts of themselves that 33  
 34 participants/patients have. 34

35 Another instructor of holistic disciplines, Lucia Avarone, told me that the 35  
 36 concentration on listening that music demands is the best vehicle to work up to 36  
 37 listening to one's own body, breathing, heartbeat and blood flow. Lucia used the 37  
 38 term 'echo' to define the response of the body to musical stimuli. We could call 38  
 39 39

40  
 41 <sup>48</sup> Interview with Monica, physiotherapist and instructor of gentle and postural 40  
 42 gymnastics, February 2012. 41

43 <sup>49</sup> See Sherry B. Shapiro (ed.), *Dance in a World of Change: Reflections on* 42  
 44 *Globalization and Cultural Difference* (Champaign, IL, 2008) and Susan Miyao Asai, *Nōmai* 43  
 44 *Dance Drama: A Surviving Spirit of Medieval Japan* (Westport, CT, 1999). 44

1 it ‘resonance’. But this time it is not a hectic resonance, powerful, able to move 1  
 2 groups of hundreds of people, as in aerobics. Here, the relationship with sounds is 2  
 3 essentially intimate. Fitness centre users are not all the same: depending on age, 3  
 4 disposition and physical characteristics, they look for different answers to their 4  
 5 need for well-being. Choosing music can be very individual, as Alessandra notes: 5  
 6 ‘We use new age music or something else. For example, I like Ludovico Einaudi 6  
 7 a lot. ... Classical music ... no. You know, often people don’t like it. And we need 7  
 8 to put people at ease.’ And yet a participant in a Pilates class declared that she 8  
 9 uses Bach to achieve maximum concentration during exercises, isolating herself 9  
 10 from all potential distractions – be they external, like noises, or internal, like other 10  
 11 thoughts. Even more than in step, music must be part of the participant’s listening 11  
 12 habits 12

13 Let us also note how musical communication has different effects on 13  
 14 concentration levels. Both in aerobic and holistic disciplines it is used to isolate 14  
 15 from the outside by creating a special reality in which what counts is fitness. 15  
 16 However, in the former it helps to divert attention from the intensity of physical 16  
 17 work, while in the latter, less intense but requiring high motor control, it helps 17  
 18 concentration on movements. 18

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## 21 **Conclusion** 21

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23 In this chapter, I have looked at how music is used in fitness centres in Italy to 23  
 24 best direct physical work, and make it easier and more pleasant. The qualities 24  
 25 of music at work in this process are several. Some have a direct effect on the 25  
 26 efficiency of the movements (rhythm control, lateralization, reduction of muscular 26  
 27 tension, increase of concentration on the movements themselves), others on the 27  
 28 quality of the experience (improvement of socialization and of the relationship 28  
 29 with the instructor and the other participants in the group, construction of pleasant 29  
 30 moments, evocation of pleasant emotions and symbolic contexts). 30

31 ‘Being in synch’, ‘being in tune’ and ‘resonance’ are keywords that explain 31  
 32 the kind of relationship that instructors intend to establish between participants 32  
 33 and the music that saturates the sonic environment of gyms. The phenomenon of 33  
 34 entrainment seems, in all cases, significant in understanding the neurophysiological 34  
 35 prerequisites that regulate the broad range of reactions our bodies have to music. 35

36 I also proposed another keyword that seemed interesting from the perspective of 36  
 37 musical anthropology: ‘musicalization’ – that is, disguising the real aim (physical 37  
 38 work) with motivations belonging more to music as an autonomous activity (the 38  
 39 pleasure of listening, dancing and partying). Valentina says that ‘[i]n fact, for many 39  
 40 coming to the gym is tiring and repeating the exercises is boring. Music helps 40  
 41 to overcome all this.’ Her statement leaves us to imagine that instructors intend 41  
 42 music to have a predominantly functional role, and that we indeed find ourselves 42  
 43 in front of an almost exemplary case of applied music. But then Tony says that: 43

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1 In sport it's different. In competitive activities there's a goal that unites all the 1  
 2 participants and the audience: winning. In the gym the aim, that is fitness, is much 2  
 3 less immediate and not very galvanizing. So we need to construct a situation that 3  
 4 gives the activity cohesion and strength. Music is essential in doing this. (Tony) 4  
 5 5  
 6 Here, he describes the need to replace one horizon of motivation with another, a 6  
 7 fictitious one. The instructor, through the various strategies that I have analysed, 7  
 8 puts up a sort of representation, crossing into the territory of performing arts (from 8  
 9 dance to theatre). Even more intriguing is Alessandra's statement – 'You know, in 9  
 10 the end silence worries' – which touches upon deep psychological territory for the 10  
 11 reasons behind music's ubiquity. 11  
 12 Finally, I have also highlighted aesthetic motivations: music makes physical 12  
 13 work more pleasant and fun. This would perhaps require greater care in dedicated 13  
 14 musical production. For musicians like Marco Manara, composing for fitness 14  
 15 is seen as frustrating. Instructors like Gil, who have shown good musical 15  
 16 competence and knowledge of repertoires, say that they have to come to terms 16  
 17 with the participants' tastes. In short, as often happens in Italy, the issue of musical 17  
 18 education and cultural politics also emerges in sports centres. 18  
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