From the Birth of the Soundscape Concept to the Sound Ambient in Disneyland-Paris

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Abstract Giovanni De Zorzi traces the historical and aesthetical background of 'soundscape', from the sound/noise opposition in physics to the reconsideration of 'noise' by the avant-gardes of the twentieth century arriving to the conceptions of Murray Schafer and Steven Feld, which gave birth to many nowadays disciplines. After this, Alessio Calandra deals with the possible influence of the soundscape of Disneyland Park, an amusement park in Disneyland Paris: he begins from some 'physical' places of the Park, such as *Main Street U.S.A.*, *Frontierland*, *Adventureland*, and arrives to the detailed analysis of their specific soundscape related to the sale of Disney-branded gadgets and products within the park.

Keywords Soundscape. Acoustemology. Anthropophony. Sound installation. Disneyland Park.

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This paper is a four-hand *sonata*: after a brief introduction by Giovanni De Zorzi who takes into exam the historical and aesthetical background of 'soundscape', Alessio Calandra will deal with the possible influence of the soundscape of Disneyland Park, an amusement park in Disneyland Paris, related to the sale of Disney-branded gadgets and products within the park.

I will begin with a fundamental theme in music and musicology as is the opposition sound/noise. According to the Physics definition, a regular wave produces a sound while an irregular wave produces a noise, an undetermined sound that cannot be analysed according to the usual parameters of frequency, pitch and timbre. Maybe the echo of this concept unconsciously reappears in nowadays colloquial expressions, which puzzles me, such as 'the noise' of sea or 'the noise' of rain.

Of course, the acoustic physics definition cannot resolve a question that is deeply intertwined with the aesthetic canons of a given culture and with the tastes of a single listener: in the same musical culture, for instance the Euro-American one, the sound of a violin can be a torture for a listener who perceives it as screechy, while a *thrash metal / noise punk* tune can be delightful for the fan and, vice versa, a torture for a listener who does not appreciate this genre. The issue becomes more acute when we deal with music from a culture that is geographically and culturally 'distant': early accounts of Western travellers hearing the music of other cultures abound in terms such as 'noise' and 'cacophony'.

During 20th century, western art music arrived, with its avantgardes, to a redefinition of the concept of 'music' that overcame the crucial opposition sound/noise: the first case was, as far as I know, the *intonarumori* (literally, 'noises tuning') machines invented by futurist musician and composer Luigi Russolo (1885-1947): each instrument consisted of a wooden parallelepiped with a cardboard or metal speaker at the front, the player pressed buttons and operated levers to set the machinery in motion and control its dynamics. Inside the *intonarumori* consisted of metal wheels, gears and metal strings that were put in movement by the rotation of a manual handle operated by the 'musician', who could control and modify the pitch of the notes operating a lever placed in the upper part of the instrument, varying the length of the strings. According to the noise produced, the instruments were classified into families (crackers, gurglers, rumblers, buzzers, bursters, hissers, crumplers and howlers)[1] but it seems worthy of note that each of these families were then sub-

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[1] In Italian: crepitatori, gorgogliatori, rombatori, ronzatori, scoppiatori, sibilatori, stropicciatori and ululatori.

divided in various registers as soprano, alto, tenor and bass, respecting, in a sense, the canonical differentiation in vocal registers that we find throughout the whole history of Euro-American Art Music.

The first public performance of an *intonarumori* took place on June 2nd 1913 at the Teatro Storchi in Modena where Russolo, with its young Futurists colleagues, played a *scoppiatore* (burster). The performance was a *succès de scandale* that, retrospectively, was a real innovative and groundbreaking episode in the European artistic avant-gardes. This was followed by concerts for *intonarumori* that Russolo gave in Milan, Genoa and London, at the Coliseum Theatre, in 1914. After the First World War, Russolo presented three concerts for *intonarumori* in Paris (1921) and then he composed an *accompagnamento intermittente* (intermittent accompaniment) for *intonarumori* in the Futurist Opera *Il tamburo di fuoco* (The Fire Drum) by Filippo Tommaso Marinetti (1876-1944), published in Milan by Sonzogno in 1922, over the more 'canonical' musical interludes (*intermezzi musicali*) scattered throughout the opera and composed by Futurist composer Francesco Balilla Pratella (1880-1955).

The *intonarumori* can be considered as the beginning of an history of attempts to overcome the old aesthetical sound-noise opposition; in this history stand out the experiments with music tapes made, between 1950s and 1960s, by Bruno Maderna (1920-1973), Luciano Berio (1925-2003), Luigi Nono (1924-1990), Karlheinz Stockhausen (1928-2007); similar experiments were made by George Martin (1926-2016) at the Abbey Road Studios for *The Beatles* records, beginning with "Tomorrow Never Knows" from the album *Revolver* (1966) onwards.

The use of machines takes us to the 'Generative Music' invented by Brian Eno (b. 1948), an ever-changing and self generating music created by a mechanical system; such a system gradually evolved, with technology, from his album *Discreet Music* (1975) until nowadays. Finally, we should consider the synthesisers and the DJ turntables as 'machines', so present in nowadays soundscapes: all these machines are 'in debt' with the *intonarumori* and its inventor Luigi Russolo.

Four years after the Futurist *soirée* at the Teatro Torchi in Modena, we note the ticking of typewriters, the bang of a revolver and the car horns in *Parade* (1917) by Erik Satie (1866-1925), with libretto by Jean Cocteau (1889-1963) and scenes by Pablo Picasso (1881-1973). A decade later, Edgar Varèse (1883-1965), in his *Amériques* (1926-1929), composed a vivid representation of New York City soundscape (but the term did not yet exist…) incorporating its howling police car sirens in the score. It seems curious that 'noises' were introduced here as sonic and iconic signs of a new cityscape and a new society. Be that as it may, the sirens returned in its successive *Ionisation* (1931), which is built on percussions, indefinite or relatively definite in musical pitch, on sirens and, interestingly, on an instrument called 'lion's roar' because the indefinite sound/noise that it produces resem-

bles to a 'roar': such an instrument is defined by ethnomusicologists as a 'friction drum' because it has a drum head and a cord or horse-hair passing through, producing an articulate and yet indefinite and powerful sound/noise.

This instrument leads us to the many non-Western music instruments reflecting a non-Western aesthetic that do not care about categories of Sound and Noise, as is the ancient *Bull Roarer* (or *Rhombus* or *Turndun*) that we find among the Aborigines of Australia as well as in many other cultures of the planet, which is at the same time a ritual musical instrument, the voice of the spirits, and a device used for communicating over great distances.

In western music avant-gardes history the masterwork *4´33˝* composed in 1952 by the genial John Cage (1912-1992) stands out as a turning point: the performer sits down at the piano, opens the piano lid, opens the scores and observes four minutes and thirty-three seconds of… silence in three movements (!). The work is a multi-faceted masterwork that, at the same time, is an ironical provocation in the Dadaist *esprit*; one of the first examples of 'performance-art' and a Buddhist *zen* meditation on emptiness. Besides all interpretations, the composition focuses on silence, a silence that does not exist in nature so that gradually in the concert-hall emerges a *soundscape* composed by the sounds of the audience (a listener yawning, coughing, rattling in his/her bag) and by the same environment of the performance (a car passing in the distance, a leaf falling from its tree, a cat meowing, a man calling someone in the street etc.).

4´33˝ subtly influenced the same Soundscape concept, which can be defined as the acoustic environment perceived by humans, in context. The term was originally coined in 1969 by Michael Southworth in his article "The Sonic Environment of Cities" devoted, again as above, to the urban soundscape. The term was then used and 'popularised' in many articles and books by the late Canadian composer Raymond Murray Schafer (1933-14 August 2021) who recently left us and to whom I dedicate these lines.

More than fifty years after its coining, the meaning of the term 'soundscape' depends nowadays on the discipline, spanning from urban design to ecology: in the particular perspective of this article, it is important to separate soundscape from the acoustic environment. The first can be defined as a sound, or a combination of sounds, that forms or arises *from* an immersive environment, while the second can be defined as the combination of all the acoustic resources, natural and artificial (a decisive point for the next pages), within a given area as *modified by* the environment.

Following this distinction, we have new disciplines as acoustic ecology (or even soundscape ecology) in which the term soundscape refers to:

1. natural acoustic environment, consisting of sounds from Nature (animals, trees, plants etc.). More specifically, the term 'biophony' designate the collective habitat expression, while the term 'geophony' is applied for the sounds of weather and other natural elements;
2. environmental sounds created by humans, defined also as 'anthropophony' as are controlled sound, music compositions, sound design or sounds of mechanical origin, all resulting from the use of industrial technology.

Nowadays (2021) under the umbrella term 'soundscape' we find a mixed set of definitions referring to scientific disciplines and performing arts such as acoustemology, ambient music, antropophony, biomusic, ecoacustic, geophony, musique concrète, noise map, program music, sound art, sound installation(s), sound map, sound sculpture, soundscape ecology, space music, underwater acoustics.

All these disciplines were and are more or less influenced by the scientific researches made by Steven Feld (b. 1949), an American musician, ethnomusicologist, anthropologist and linguist who worked for many years with the Kaluli (Bosavi) people of Papua New Guinea. The first fruit of this research on the field was his monograph *Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli expression* (University of Pennsylvania Press, [1982] 1990). Together with the many books that followed *Sound and Senti*ment, we should remember his many carefully recorded works: *Music of the Kaluli* (Institute of Papua New Guinea Studies, 1981); *The Kaluli of Papua Nugini: Weeping and Song* (Bärenreiter Musicaphon, 1985); *Voices of the Rainforest* (Rykodisc 1991); *Rainforest Soundwalks: Ambiences of Bosavi, Papua New Guinea* (Earth Ear, 2001); *Bosavi: Rainforest Music from Papua New Guinea* (Smithsonian Folkways, 2001); *Bells and Winter Festivals of Greek Macedonia* (Smithsonian Folkways, 2002); *The Time of Bells*, vols 1-2, 2004; vol. 3 (with Nii Noi Nortey, 2005); vol. 4 (2006).

Concluding this short introduction, let me remember some days passed in Venice with Steven Feld recording the soundscape of the city: his deep immersion in the sounds that surrounded us showed me a real deep meditation state while listening, and made me discover a new dimension in which we often move too absent-mindedly and carelessly. With my gratitude for Steven Feld's teaching, I leave the floor to Alessio Calandra and to his experience in *Disneyland Paris*.

Giovanni De Zorzi

1 About *Disneyland Paris*

Disneyland Paris is an ensemble of two amusement parks, *Parc Disneyland* and *Parc Walt Disney Studios*, situated in an area 32 km east of Paris. It originally opened to the public under the name of "EURO Disney" on April 12, 1992, though the name was subsequently changed to the current one. The most iconic feature of *Disneyland*, which also serves as its symbol, is a castle based on the animated picture *Sleeping Beauty*. The *Sleeping Beauty Castle* is clearly visible only after entering from the main gates of the park, which are situated under a hotel that hides the gorgeous building to the outside world. The Castle is situated in the centre of the park, in an area called Central Plaza, and is visible from all the surrounding areas: *Main Street, U.S.A.*, *Frontierland*, *Adventureland*, *Fantasyland* and *Discoveryland*.

1.1 *Main Street, U.S.A.*

After entering the park, visitors walk across the first thematic area, which is dedicated to shopping, with stores, bar, stands and restaurants. The *Main Street* was inspired by Walt Disney's hometown and is supposed to recreate the main street of a stereotypical city in the U.S. during the beginning of the 1900s. When presenting it to the public, Walt Disney said:

> For those of us who remember the carefree time it recreates, Main Street will bring back happy memories. For younger visitors, it is an adventure in turning back the calendar to the days of their grandfather's youth. (Sussman, Hollander 2015, 51)

In order to effectively recreate the historical period, characterized by the introduction of electricity among other innovations, there are both electric and gas lighting systems in the *Main Street*. The former is placed along the building roofs and the shops' walls, while the latter lights the street that leads from the park gates to the *Central Plaza*.

1.2 *Frontierland*

A path across a wooden structure – called *Fort Comstock* – leads the visitors from the *Central Plaza* to *Frontierland*. This area is based on the cinematographic representation of the Far West. In the centre of *Frontierland* there is a huge artificial lake with an island made of red cement hills, which host one of the most spectacular roller coasters ever built in Europe.

1.3 *Adventureland*

Adventureland is the biggest and most heterogeneous thematic area; it contains worlds completely different from one another, with rides and buildings based on *Indiana Jones*, *Pirates of the Caribbean*, *Aladdin*, *Robinson Crusoe*, and *The Lion King*. The area is characterised by a thick vegetation – varying between autochthonous species and tropical plants – and a big artificial lake with a central island that is connected to the shore by numerous suspension bridges.

1.4 *Fantasyland*

Passing through the *Sleeping Beauty Castle*, the visitors then reach *Fantasyland*, dedicated to Disney's tales and aminated classics. The castle's yard is dedicated to king Arthur and the carousel – as the name *Le Caroussel de Lancelot* suggests – to Lancelot. *Fantasyland* includes attractions dedicated to *Alice in Wonderland*, with a hedge maze leading to the *Queen of Hearts' Castle* and a ride with the spinning teacups of the *Mad Hatter*. Additionally, there are some *Dark Rides*[2] with carton cut-outs of the characters from *Snow White*, *Pinocchio* and *Peter Pan*. All Disneyland parks' *Fantasyland* areas include *"It's a Small World"*, an attraction created for the *New York World Fair* in 1964-65, which celebrates the children from all around the world by playing the homonymous song.

1.5 *Discoveryland*

A path surrounded by streams running through a Moon-like setting links the *Central Plaza* to *Discoveryland*. The buildings in this area are inspired by Jules Verne, George Meliés and Leonardo da Vinci, and recreate what past eras imagined the future would look like. *Discoveryland* is broadly dedicated to the *Star Wars* franchise and to *Toy Story*'s Space Ranger *Buzz Lightyear*.

2 Analysis of the Lands

Aside from being the only connection from the entrance gates to the centre of the park, the *Main Street* is a shopping area where visitors can buy gadgets and souvenirs and rent wheelchairs or strollers for

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[2] Rides and attractions on rails or water that run through buildings are generally called *Dark Rides*.

people with reduced mobility. There are also several bars and stands for quick meals or proper restaurants for a more relaxed lunch or dinner. Making the visitors walk through a commercial street in order to motivate them to buy gadgets or other services is a typical element of amusement parks.

J.B. Kaufman (b. 1955), a Cinema historian and author of numerous books about the Disney universe, argues that the *Main Street*'s architectural structure must be alluring and pleasant to the public, and this is the reason why

> the buildings of the *Main Street* appear to us as playhouses and encourage us to enter them, but their interior is always a concealed supermarket, where people buy obsessively under the impression that they're still playing a game. (Eco 1977, 54; transl. by the Author)

The idea of buying *while* playing is often an integrated part of rides and attractions, some of which directly lead to the stores that sell dedicated merchandising. Based on this, it is safe to assume that of the fundamental characteristics of the Disney Parks experience is the naturalisation of consumerism. Kaufman additionally argues that this is favoured by an architectural style that is more effective than a traditional one: the pavements are coated with a special, colourful layer that is more elastic than normal asphalt, allowing the visitors to walk for longer periods without straining their feet or getting tired. The *Main Street* has also been mapped out specifically to make its cleaning more efficient, meaning that the area is always particularly tidy despite the daily thousands of visitors that cross it.

2.1 *Main Street, U.S.A.*'s Soundscape

In the book for *Disneyland*'s 25th anniversary, a passage on the *Main Street* states:

> Ce sont les plus discrètes de toutes les musiques des parcs Disney. Pourtant, elles ont toutes leur importance. Les musiques d'ambiance de Disneyland Paris vous accompagnent discrètement à chaque instant de votre visite. (*Disneyland Paris de A à Z*, 2017, 223)

The adverb 'discreetly' is used loosely: music is always present everywhere and, especially in the *Main Street*, the visitors can have the impression that the background music is played at a higher volume than in other areas of the park. This is incorrect, as the average dec-

ibel level of 80 dBs[3] is consistent throughout the entirety of *Disneyland*. It is likely that the perceived loudness is caused by the rhythmic assortment of the songs, ranging from 70 to 120[4] BPMs, which is consistent with the setting in time and place recreated.

Unlike other areas, *Main Street* does not have mechanical rides or carousels playing music, but there are two attractions that convey the feeling of travelling back in time to the nineteenth century: the *Horse-Drawn Streetcars* and the *Main Street Vehicles*. The formers reproduce the clopping of horseshoes on the ground, while the latter are accompanied by the sound of an internal combustion engine and the horn of an old car, which is used as a warning for pedestrians that may inadvertently walk too close to the moving cars. Both attractions function as actual transportation means, taking the visitors from the park's gates to the Central Plaza.

If the whole area were to be analysed according to Bernie Krause's category system (Krause 2012), it would be described as "lacking any geophonic or biophonic sounds" – with the exceptions of the occasional *Horse-Drawn Streetcars* passing – in favour of anthropophonic sounds. The music genre is consistent through all shops, though each one plays a specific playlist with a slightly lower volume than the *Main Street* itself.[5]

3 The Relationship Between Architecture and Soundscape

The architecture of the *Main Street*, along with the musical choices, encourages the phenomenon of 'impulse buying': the visitors are drawn to the unplanned buying of goods that are certainly not part of their prime necessities. These impulsive purchases are among the main forms of economic profit for amusement parks.

There have been numerous studies on the relationship between architecture and soundscape, starting from McClelland (1951) and Berlyne (1971; 1972). The *optimal arousal theory* was formulated based on their findings: a small addition to the environment, such as the introduction of background music or a faint scent, can enhance the sensorial experience of the clients in a shop. The combination of these two elements has the effect of creating a positive 'relationship' between the visitor, the store, and its services – ultimately increasing the likelihood of impulse buying.

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3 Average value measured between December 19 and 22, 2018, in different times of the day.

4 See fn. 3.

5 See fn. 3.

The *optimal arousal theory* is also supported by Anna S. Mattila and Jochen Wirtz (2001) in *Journal of Social,* who highlight how any incongruence between soundscape and architecture results in the environment feeling heterogeneous, with an overall lower quality of the buying experience of the clients. The two authors propose that:

> When the arousal qualities of two ambient cues match (that is, high (low) arousal scent and high (low) arousal music), this stimulus congruency should lead to an enhanced perception of the Servicescape. Conversely, incongruence between the ambient factors (that is, high (low) arousal scent and low (high) arousal music) should have an adverse impact on consumer perceptions of the environment, including approach and impulse buying behaviours and satisfaction. Consequently, we propose the following:
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> H 1: Matching arousing dimensions of scent and music (i.e. high/high or low/low arousal conditions) will lead to enhanced a) pleasure, b) approach, c) perceived positivity of the store environment, d) impulse buying and e) satisfaction, compared to mismatch conditions (i.e. high/low or low/high). (2001, 278)

An alternative theory on the ambiance's incongruence argues that, when faced with stimuli that are slightly different from their expectations, people tend to look for additional information on a specific product, effectively spending more time on the buying process and avoiding an impulsive purchase (McKinney 1996).

4   From the Central Plaza to *Discoveryland*

The transition from *Main Street, U.S.A.* to the *Central Plaza* to the futuristic area of *Discoveryland* is anything but consistent from a sonic point of view. Although the areas are not separated by physical doors or gates, the background music for *Discoveryland* can be heard as soon as visitors leave the *Central Plaza*. Additionally, there are several waterfalls, which are able to overpower the different music and create a strong geophony. These natural sounds are intrinsically and culturally relevant to visitors, since they confer an artistical and aesthetically pleasing feeling to the place, even though an amusement park can be considered a 'non-place'.

It is important to note how geophonic sounds directly affect people's ability to form a connection with nature. The US federal National Park Service, which takes care of national parks, monuments, and other protected sites, underlines the importance of uncontaminated soundscapes:

The Service will restore to the natural condition wherever possible those park soundscapes that have become degraded by unnatural sounds (noise) and will protect natural soundscapes from unacceptable impacts.

Using appropriate management planning, superintendents will identify what levels and types of unnatural sound constitute acceptable impacts on park natural soundscapes.

The frequencies, magnitudes, and durations of acceptable levels of unnatural sound will vary throughout a park, being generally greater in developed areas. In and adjacent to parks, the Service will monitor human activities that generate noise that adversely affects park soundscapes, including noise caused by mechanical or electronic devices.

The Service will take action to prevent or minimize all noise that through frequency, magnitude, or duration adversely affects the natural soundscape or other park resources or values, or that exceeds levels that have been identified through monitoring as being acceptable to or appropriate for visitor uses at the sites being monitored.[6]

Although *Disneyland* is clearly not a natural site, Walt Disney and his brother, Roy Disney (1893-1971) mostly anticipated these norms from the inauguration of the first park, treating it as an actual 'place'. Both brothers were very much aware of the how human senses are engaged by natural sounds, which provide information about the elements in the surrounding environment: a decent amount of information about a situation is conveyed through sounds. Because of this, a natural environment is the richest phonic soundscape that human beings can possibly experience.

When analysed through this perspective, Raymond Murray Schafer's works acquire new relevance (Schafer 1977). Schafer argued that urban soundscapes convey very little acoustic information and increase a sense of separation between nature and mankind: the sounds in a natural environment are not something people instinctively avoid, e.g. intense honking of car traffic, but rather something that is desired and appreciated.

5 *Discoveryland*'s Soundscape

Discoveryland is the area with the highest concentration of rides and attractions, most of which are of modern construction. Because of this, a lot of people visit them, often resulting in unpleasant crowds

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6 https://www.nps.gov/orgs/1548/upload/ManagementPolicies2006.pdf.

forming during peak moments of the day. Such crowding negatively impacts the decisional process of visitors, who are given the feeling of a less pleasant experience and a lack of control, resulting in a reduction of the overall time spent in the stores and, consequently, of the purchases (Hui, Bateson 1991).

In general, crowds outside of a store around the world are considered out of the management's control, but in the perspective of *Disneyland Paris* big crowds are an issue that affects all the rides and additional services offered by the park. Crowding generates unsatisfaction in the visitors and must be avoided as best as possible. An attempt to compensate for these situations, giving the visitors the impression of a less busy area, consists of external stimuli that shift the attention from the issue and generates positive feelings through colours that transfer the attention and encourage purchases (Singh 2006). In fact, colours have been found to influence more than half of the unconscious expectations of a potential buyer in a new or unfamiliar shopping context. Different colours can stimulate a variety of emotions and feelings that cannot be consciously controlled. The perception of crowding partially depends on the complexity of the internal and external design and can be tweaked through the variation of colour of the room and building (Bauma, Glenn 1976).

Colours can generally be divided into two categories: warm colours, which include red, orange, yellow, and cold colours, which include green, blue, purple. White is generally considered a neutral colour. Warm colours are emotionally stimulating and distractive, whereas cold colours – especially blue – convey a feeling of tranquillity, calm and pleasantness. It is notable that red has an influence not only on the psychological level, but also on the physiological one, and has been observed to directly influence blood pressure, respiratory frequency, and skin conductance.

The colours that dominate the exterior of a building are an important factor in the visitors' response. Belizzi, Crowley and Hasty (1983) conducted an experiment on the response to the exterior design of shops by observing how the perception of crowding changed for two stores, whose outside was respectively painted in orange and blue. Additionally, they studied the effects on the perceived quality of product and service based on the different colours for the same setup in the storefront windows. While the level of crowding was consistent outside of the two stores, the blue store window led to a reduced perception of it. Additionally, the calming feeling caused by the colour blue gave the clients the impression of a higher quality of the service and goods. Overall, people belonging to the test sample that interacted with the blue themed store were more motivated and positively influenced in their shopping intentions (Bellizzi, Crowley, Hasty 1993).

Considering these factors, the prevalence of cold colours (blues and greens) in the buildings and neon light-shaped LEDs in *Dis-*

coveryland does not come as a surprise. The deliberateness of this chromatic choice becomes especially apparent when comparing *Discoveryland* to the corresponding areas in other Disney amusement parks – called *Tomorrowland*s – that are strongly based on the colour white.

Colours are not the only factor that plays a role in altering the perception of a crowd, masking it as a more pleasant experience. As seen in previous paragraphs, the close interaction between the architectural choices and the soundscape generates some additional stimuli. These can vary depending on the parameters of value, intensity and complexity.

1. Value depends on the ability of the client to discern between different colour hues, differentiate a happy song from a sad song, and overall *evaluate* the usefulness of the various environmental information.
2. The intensity of a stimulus can be controlled through the choice of colours and possibly the addition of a scent in the environment; from a musical point of view the effect is achieved through the choice of tempo and volume (Fei-Fei, Wu, Yen 2009).
3. Complexity takes into consideration *how* visitors elaborate a stimulus (e.g. the likelihood of clients remembering a song, correctly interpreting a colour scheme or combination).

Studying these three elements can help with creating a general atmosphere in a store, since any incongruity between these factors can interfere with the visitors elaborating the information. These studies help with the interaction of different elements in an environment, as proven by the classical study by Grewal (b. 1966), who associated classical music to the purchase of jewellery "because it 'fits' the context of luxury goods" (Dhruv, Levy, Voss 2003).

In the case of *Discoveryland*, David Tolley mixed classical Victorian themes with more modern compositions, adding in electronic sounds that create a strong congruence with the surrounding area. This is achieved because in the general mental imagery, electronic music is associated to cold colours and is well paired with the flickering lights present in the area.

6 The Music in the *Sleeping Beauty Castle*

The *Fantasyland Castle Medley* was specifically produced in 1997. It includes *A Dream Is a Wish Your Heart Makes* (Cinderella), *When You Wish Upon a Star* (Pinocchio), *Once Upon a Dream* (Sleeping Beauty) along with classical ballet pieces by the Russian composer Pyotr Ilyich Tchaikovsky. The background music is heavily present and ful-

ly coherent with the architectural style of the Disney world. The creator of the medley unknowingly included a high variability of tempo, with songs switching between binary and ternary pace and ranging between 40-85 BPMs. This combination results in a pleasantly tranquil and relaxing environment, with an additional observed effect on the pace of the visitors: SPM (steps per minute) and BPMs are positively related, resulting in a faster walking pace when a song with higher BPMs is playing in the area.

7   *Fantasyland*'s Soundscape

One of *Fantasyland*'s strongest features is the sensorial stimulation that involves sight, smell, touch, and hearing. The most stimulated sense in the area is certainly sight, thanks to the heterogeneous architectural style. The visitors are visually overstimulated by the abundance of decorations, colours and finishes typical of the composite nature of *Fantasyland*.

Scents and fragrances in *Fantasyland* are few and mainly associated to sweets. In general, it is challenging to find a corpus of studies on the relationship between human behaviour and environmental olfactive stimuli. An experiment that can be considered relevant to the topic was conducted on the connection between the smell of the freshly baked panel and the increase in its sales. The scarce documentation is likely due to the fact that the reception of smell is highly depending on external factors, such as meteorological conditions and atmospheric pressure: a change in rain or wind direction can easily distort the perception of scents.

Touch might feel like a secondary sense, but the whole area was designed to be 'touched'. Visitors are encouraged to actively engage with the attractions; in fact, *Fantasyland* has the highest concentration of rides that require physical interaction with decorations (e.g. the Sword in the Stone), gadgets in the stores and even with the building themselves (e.g. wooden bridges, house bricks, trees etc.). No objects are packaged or put into protective glass cases.

From a sonic point of view, the area's soundscape is particularly rich: there is a variety of background music playing through speakers positioned around the walking paths and on garden decorations. However, *Fantasyland* still has some peaceful spots inside the stores that are less intense and were planned for human interaction. In these areas, the environment is filled by 'white noises', sounds coming from the service areas or from the working machinery of the rides.

Walt Disney intended to create something that would be equally fitting for children *and* their families, uniting them through an attempt to bring back childhood memories in the adults. The involvement of adult visitors into the Disney experience has played a crucial

role in the commercial success of Disney parks (Bryan 1995), and it would be safe to say that this attempt has been a success: only about 25% of overall visitors in *Disneyland* are children (Findlay 1940).

Animated movies use a language that is often pedagogical and filled with metaphors, but this does not happen in *Disneyland* – at least on a visual level – since the whole area is easily interpretable. This 'interpretive simplicity' is obtained through alteration of the dimensional scale of the buildings and a manipulation of visual perspective. The latter is important for an improved natural landscape: right angles are tighter, intersections and building sides are rounder. These modifications lead to a reduced perception of sharpness and rigidity, making the buildings less imposing and, consequently, resulting in a more comfortable experience of the visitors (Koenig 1994).

Walt Disney loved the process of miniaturisation that characterised many of objects of his childhood and was also a collector of small-scale reproduced objects. Applying the same principles of miniatures to *Disneyland*, Disney intended to appeal to the regressive instincts of adults. The same effect of 'infantilisation' is achieved in the parks through the technique of forced scalar perspective, in which:
- first floors in houses are about 90% (9/10) or the real model.
- second floors are 80% (7/8).
- third floors are 70% (5/8) (Bryman 1995).

This process is applied to the entire amusement park, but it is particularly noticeable in the *Main Street* and in *Fantasyland*, where everything – not just the buildings, but also trees, rivers, and trains – is 'shrunk'. This results is an environment that looks normal at a first glance, but still achieves a child-appealing result, with an effective 'infantilisation' of the visitor. This mix of elements (adult-like and child-like, realistic and fantastic) is reinforced by the pleasant feeling that adult visitors experience while discovering the thematic areas that make up every Disneyland park.

The combination of all these visual, auditory, tactile and olfactory stimuli positively influences the attitude of visitors towards the stores, amplifying the relationship between the internal designs and the merchandise.

According to a study by Steven M. Smith from the Texas A&M University, music plays an important role in memory and memorisation (Finke, Ward, Smith 1992). These findings confirmed previous research conducted by Weinberger in 1995, which demonstrated that playing the same background music during the studying process for an exam and the exam itself enhances the cognitive processes that are involved in recollection. On the other hand, playing different songs would minimise the ability to remember learned concepts (Weinberger 1995).

The fact that music has the ability to create links to memories through pre-rational processing is employed in *Fantasyland* for com-

mercial reasons: the aim is to communicate with the visitors at an emotional level and take advantage of their childhood memories. In order for music to become an effective communicative tool for purchases, it must absolutely interact with all physical senses, including touch, sight and smell. These are, coincidentally, the same senses children use when exploring the world.

Sensory stimuli play a critical role in memories and emotions linked to human experiences. This has been exploited by marketing companies through the concept of *sensory branding*, a sensory 'label' that is attached to products or to the products' brand. This strategy stimulates and improves imaginative and perceptive skills by creating emotional links between the buyer and the franchise. Sensorial stimuli can motivate the purchase-related behaviours of consumers, sparking their interest and allowing emotional responses to take over their rational thought processes (Weinberger 1995):

> We accept the bird sounds coming out of the loudspeakers in Disney parks, and we may even buy a video of birds hopping about and chirping for our indoor cats. Perhaps we do so because these are components that fulfil the perfect illusion that we pay to become part of. Even though the sounds and smells may be artificial they are part of the real illusion. Authenticity within a sensory branding context can be pinned to four individual and very subjective factors. These four 'R's' will help you identify the authenticity of your sensory approach. They offer a starting point and serve as your authenticity guide. Real + Relevant + Ritual + Recital. (Lindstrom 2005, 115-16)

When the sensory experience is well orchestrated it can become extremely effective, and this is exactly what happens in *Fantasyland*: thanks to the alluring *ambiance*, visitors are willing to repeatedly visit the park in order to go through the same experiences again and again. An internal narration of previous experiences – built through the animated films by Disney itself – guides the stay of the visitors inside the park, creating a connection between previous and current emotions. "The experience of enjoying a great story is a powerful one that pulls in all of our senses and immerses us so that we feel as if we are actually living the story" (Healey 2008, 28).

This stimulation had a direct effect on consumerism and buying behaviour and cannot be only examined at a purely abstract level. It is not by chance that most of Disney's classic is concentrated in *Fantasyland*: the impact on visitors is enhanced by the personal history they have with the Disney brand and its products (Healey 2008). A generalised and collective *Sensory Branding* leads to such a sense of satisfaction that it consolidates the relationship between visitor/customer and the Disney franchise, characters, films, and all the mental associations to the name of the brand itself (Hellman 2009).

8 Concluding Remarks

The elements present in the thematic areas have a precise role and have been carefully disposed with the intention of creating a well-perceived impact. Massara and Pelloso (2006) have introduced the concept of *macro*, *meso* and *micro* environment in retail. *Macro* environment refers to all the variable elements outside of a store; *meso* environment comprises those relative to the internal design of the building. Finally, *micro* environment refers to the elements with which clients come directly in contact, such as shelves and tabletops.

Disneyland has all three environments: *macro* includes the thematic areas, *meso* the variations in the lands (e.g. the pirate area in *Adventureland*, the 'Italy area' in *Fantasyland*) and *micro* refers to the hotel, the stores, and the rides.

This structure has a strong impact on the memories related to the visitors' experience, from *meso*-environmental elements (e.g. the floor and ceiling paint or finish) to *micro* environment elements (e.g. the product packaging, the shelves etc.). The overall judgement of these factors will be associated with the brand in the visitors' mind.

The sensorial experience will be mainly focused on the internal parts of the *meso* and *micro* environment, meaning what will be remembered (i.e. if the area was tidy, cared after, if the lighting was adequate etc.). The success of Disneyland strongly resides in the care for all these small details and the overall soundscape, always contextualised in order to create a more pleasurable buying experience for visitors.

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