

TIMBRE OF THE PLACE:
EMERGING AFFECTIVE ASSEMBLAGES
THROUGH THE ASSOCIATION OF PLACE AND MUSIC

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THROUGH THE ASSOCIATION OF PLACE AND MUSIC**

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ABSTRACT

TIMBRE OF THE PLACE: EMERGING AFFECTIVE ASSEMBLAGES THROUGH THE ASSOCIATION OF PLACE AND MUSIC

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The singular and deterministic approach of contemporary urban design practice conveys the risk of becoming a graphical and top-down domain. It often relies on a single sensory approach seeking visual perfectionism and aims at simplifying the complexity of place in urban design and producing its formal representations. Nevertheless, the efficiency of these efforts is quite ambiguous. This study explores the mediums to overcome a vicious circle, the dulled repetition and understanding, which is increasingly stuck in graphics and formal determinism.

In this context, the study intends to dissolve these boundaries through music from assemblage thinking perspective and thereby observe numerous relationalities of the complexity in place. It defends that music presents an alternative creative language that triggers affectivity and enhances the communication capacity of the design practice. As an intuitive interface, it enables to comprehend the essence of place experience where in many circumstances, verbal communication is not powerful enough. Respectively, it proposes the use of the Musical Design Elements (MDEs) and the integration of musical thinking in intersubjective and creative processes.

The findings show that people experience places in a much more complex manner and affectively than how it is presented in the literature. Moreover, music reflects the embodied experiences as it allows people to grasp the sensorial and affective relationalities of place. These relationalities play crucial roles in deciding what to design as they catalyze a mindset change and awareness about how people and place come together. This study illustrates that perception of ‘emotion’ and ‘place’ are closely interrelated in mind, and place is interpreted as affective assemblages of emergent and self-organizing relations. When the place is read this way, the problem of urban design also changes from what to design to how to stimulate the emergence of affective assemblages in place.

Keywords: Affective Assemblage, Affective Urbanism, Urban Design, Place Thinking, Music

ÖZ

YERİN TINISI: YER VE MÜZİK BİRLİĞİNİN ORTAYA ÇIKARDIĞI DUYGULANIMSAL BİR ARAYA GELİŞLER

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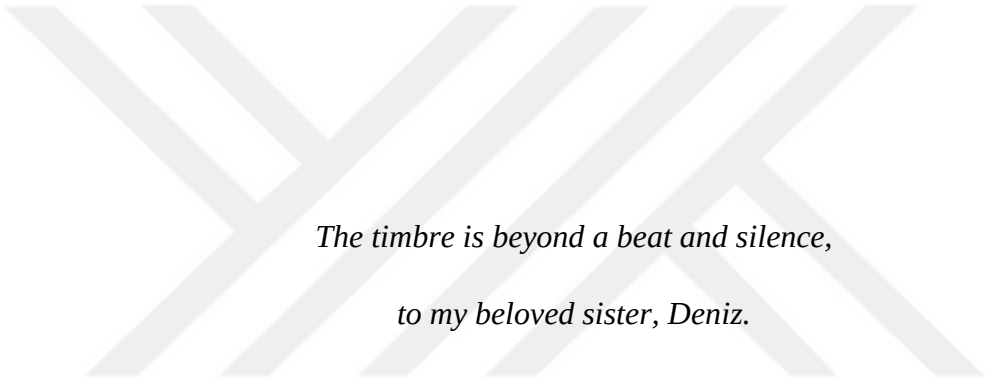
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Mevcut kentsel tasarım pratiğinin tekil ve deterministik yaklaşımları, grafik odaklı ve üstten inmeci bir alanda sıkışma riskleri taşımaktadır. Bu yaklaşımlar, genellikle görsel mükemmeliyetçiliği arayan tekil bir duyuşsal yaklaşıma dayanırken, çoğunlukla yerin karmaşıklığını biçimsel temsiller üzerinden sadeleştirmeyi amaçlar. Fakat, bu çabaların verimliliği oldukça belirsizdir. Çalışma, kentsel tasarımdaki grafik ve biçimsel determinizme giderek daha fazla sıkışan bu kısır döngüyü ve donuk tekrarı aşmanın yollarını araştırmaktadır.

Bu bağlamda, duygulanımsal bir araya gelişler çerçevesinde, müzik üzerinden yerde ortaya çıkan karmaşıklığı incemeleyi amaçlar. Müziğin, kişilerin duygulanımsal durumlarını tetikleyen ve tasarım pratiğinin iletişim kapasitesini arttıran alternatif bir yaratıcı dil sunduğunu savunur. Sezgisel bir arayüz olarak, sözlü iletişimin yeterince güçlü olmadığı ve oldukça kısmi kaldığı bir düzlemi aşmaya ve yer deneyiminin özünü kavramaya fırsatlar sunar. Bu çerçevede, müzikal tasarım elemanları (MTE) ve müzikal düşüncenin öznelerarası ve yaratıcı süreçlerle entegrasyonunu önermektedir.

Çalışmanın bulguları, insanların yeri literatürde sunulduğundan çok daha karmaşık ve duygulanımsal bir şekilde deneyimlediklerini göstermektedir. Ayrıca müzik, insanların yerin duyusal ve duygulanımsal ilişkilerini kavramasına izin verdiği gibi, bedenselleşen deneyimlerin yansıtılmasına da fırsatlar tanır. Bu ilişkisellikler, insanların ve yerin nasıl bir araya geldiği ve bir deneyime dönüştüğüne dair bir farkındalığı katalize ettiği için, tasarım sürecinde çok önemli bir rol oynayacaktır. Çalışma, duygu ve yer algısının zihinde birbiriyle yakından ilişkili olduğunu ve yer olgusunun kendi kendini organize eden duygulanımsal bir araya gelişler olduğunu göstermektedir. Yer kavramı bu çerçeveden okunduğunda, kentsel tasarım sorunu da neyin tasarlanacağından ziyade, yerdeki duygulanımsal düzeneklerin nasıl ele alınacağına doğru evirilmektedir.

Anahtar Kelimeler: Duygulanımsal Bir Araya Gelişler, Duygulanımsal Şehircilik, Kentsel Tasarım, Yer Odaklı Düşünme, Müzik



*The timbre is beyond a beat and silence,
to my beloved sister, Deniz.*

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CHAPTER 1

INTRODUCTION

'The limits of my language mean the limits of my world'

Ludwig Wittgenstein (2002 [1921], p. 68)

Wittgenstein describes the world's limits through language as he questions the relationalities of perception and the way of thinking about the outside world. According to him, it is necessary to remain silent on a subject that cannot be talked about since humans try to express thoughts with words or other mediums that are limited by the frame of their communication capacities. In this sense, it is possible to think that a person with the same words or mediums is like a sailboat continuously anchored in the same bay, despite the freedom and possibilities of a vast ocean, because the mind that is constantly stuck with similar stimulants becomes unable to avoid producing the replicas of the learned reflexes.

A similar case also exists in the domain of urban design. Today, the norms guided by the visual perception are trapped in a limited frame where designers have accepted the learned truths and wrongs. The experience of place has been fragmented into so many pieces that, in the end, we forget what to achieve in this field. Eventually, the design practice disengages from the dynamics of life and struggles to survive as a profession in its limited frame.

The current understanding and formal representations of design thinking (e.g., form) aim to comprehend and simplify the complexity of place. Nevertheless, the efficiency of these efforts is quite ambiguous. The present study focuses on the

affective relationalities of the place experiences without denying the existence of these physical components, yet without being limited to them. So, it aims to develop ideas to overcome a vicious circle, the dulled repetition and understanding that are increasingly stuck in graphic and formal determinism. In this context, it aims to eliminate these boundaries through *music* and *assemblage thinking*, which reveal numerous relationalities in urban design.

The conscious and unconscious assemblages of moments, events, affects, memories unveil the complex relationalities in places. Assemblage thinking approaches complexity by focusing on the relationalities between heterogeneous structures. The concept is based on the work of Deleuze and Guattari, *A Thousand Plateaus* (1987), and coined from the French word, *agencement* (arrangement), where it refers to becoming, togetherness, and preparation. In this regard, the study focuses on assemblage thinking to examine the sensorial and affective associations of place through musical thinking in two exploratory phases.

At this point, firstly, it should be stated very clearly that the study does not treat 'place' as 'a frozen music' (as some readers might assume). It does not describe music or place as an experience that is solidified within a form or limited to it. It does not aim to transform the physical features of place into musical forms or vice versa. On the contrary, it tries to make sense of the dynamic and affective structure of place through relationalities and to decipher the structure of place experience through musical thinking. This way, it focuses on the essence of dynamism that gives meaning to life, in which the affective and rational mind are explored together. Secondly, some readers may question why the study's title is '*timbre of the place*'. Why not tonality, or melody, or anything else? The study uses the notion of timbre as an indescribable musical emergence that gives the source a unique character. It allows to transcend the limits of the mathematical dimensions. Just like the sources vibrating at the same frequency sound differently, it constantly changes through the context where these vibrations happen. These qualities make timbre unique, different, and dynamic from all other musical elements. Therefore, the study uses this notion to construct its philosophical depth.

1.1 Statement of Problem and Research Aim

The contemporary comprehension of urban design ignores the *affective experience of place*. Today's practice pushes designers to take rationalized piecemeal steps and to efface the meanings of experiences. The present study aims to decipher the emerging essence of experience through linking together music and place, which are both sensed affectively. In order to examine this potential, it attempts to adopt place as an *affective assemblage and communicative interface* and explicate the ties between them. Accordingly, the framework is based on two main problems: (i) the limitations of the top-down/deterministic approach in urban design, and (ii) neglecting the relationalities of rationality and affectivity, and so the associations of music and place, which reveal new ways of place thinking in urban design.

The first problem is the top-down, singular, and deterministic approach of contemporary urban design practice, which reveals the risk of becoming *a graphical, top-down, and market-oriented domain*. It often relies on a single sensory approach, which is vision seeking visual perfectionism. The rapid technological developments (e.g., computer-aided design tools, graphical inputs etc.) and the adoption of a fast project mentality instrumentalize and detach the place from its dynamic meanings of life.

The study argues that *place experience is a multisensory and affective process*. The use of different senses enriches the perceptual assessment of place and changes the evaluation of its experience. In such an adoption, *place* becomes more than a fragmented spatial physicality, it becomes an *affective assemblage and multisensory-perceptual experience*. Here, the study suggests that urban design should take this aspect into account through another affective interface i.e., *music*, which ensures excellent opportunities to understand the affective relationalities.

The second problem involves the methodological deficiencies regarding relationalities of rationality and affectivity (e.g., music and place) in urban design. Since space/place contains an extensive range of relationalities, it is a natural

emergent complexity. Even if the urban design literature covers a wide range of *complexity studies* (Ayaroğlu, 2007; Batty, 2013; Boeing, 2018; Boelens & de Roo, 2016; De Landa, 2006; de Roo et al., 2012; Ewing & Handy, 2009; Nasar, 1994; Rapoport & Kantor, 1967; Salingaros, 2000), it generally evaluates the notion in terms of form and functionality. Nevertheless, if *socio-spatial components are inscribed as objects* in space, it inevitably rationalizes and conceals the meanings of place.

The study defends that music presents an alternative creative language that triggers affectivity to enhance the communication capacity of design practice. As an intuitive interface, it offers opportunities to understand the essence of place experience. While currently both *music* and *place* are examined as parts, but experienced as a unity, connecting them may reveal new paths for understanding the essence of this experience.

In this framework, music, as an *affective and communicative interface*, can help designers decipher the *co-generative complexity* and the *shared meanings* of place. The study evaluates insights of place and perception more profoundly since they present excellent opportunities to understand *affective assemblages*, which urban design literature has mostly ignored.

1.2 Research Questions

The study reveals how music and urban design can interact by engaging participants in an experience of observing, making sense to, agreeing with, and co-constructing the expression of the experienced place and music. To do that, music and urban design incite participants to self-reflect on their learned experience and to engage in constructing new understandings and creative experiences, based on the assumption that people engage with music and place similarly, and that the common ground for these two lies in human affective responses. Thus, in the context of discovering a broader perspective, the study explores *associations between place and music* by asking the *main research question*:

- How can music and place be associated with each other in urban design?

In order to respond to this question, the study intends to answer five following *sub-research questions through two experiential phases*.

Experiential Phase 1: From Place to Music

In many circumstances, verbal communication is not powerful enough to describe the experience of urban space. Moreover, *the comprehension of verbal reflections remains highly materialistic, partial and limited in urban design*. The study adopts place and music as emotional/affective interfaces and expects that *music's emotional conductance* and power of collective perception act as facilitators in deciphering the integrated spatial qualities and attached meanings. In this experiential phase, the study explores the common aspects of place and music over two contrasting urban sites (Middle East Technical University, Physics Lawn and Maidan Business Centre) through various differences.

- Sub-Research Question 1: Which spatial characteristics are associated with which musical elements?

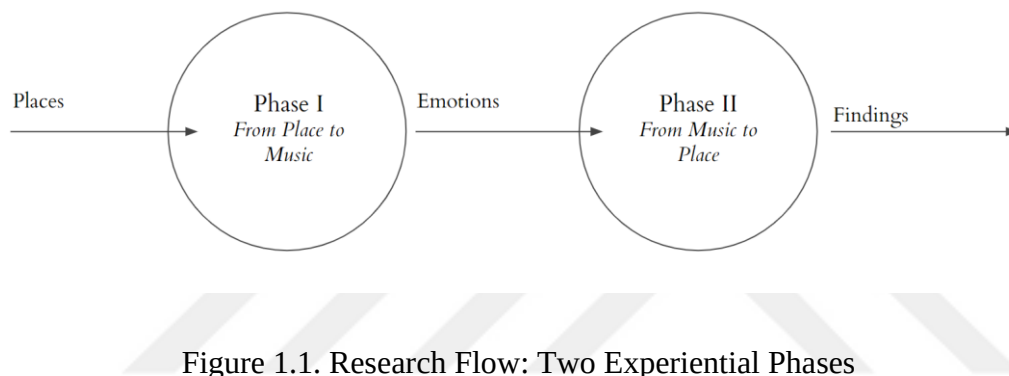
The Rationale: The study aims at deciphering the relationalities of place through music. Therefore, it is required to establish associations between them, to experience and evaluate their potentials.

- Sub-Research Question 2: How does music reveal the affective embodiment of the place?

The Rationale: Affective assemblages are embodied through certain mediums and interfaces. The study considers music and place to be interfaces of such assemblages. While they are felt much more clearly in music, they are not evaluated to the same extent since currently, place is examined in fragmented ways. Within the framework of this question, the study questions how affective embodiments of place can be revealed through music.

- Sub-Research Question 3: How does the intersubjective/collective interpretation of place through music contribute to the reconstruction of affective assemblages?

The Rationale: Despite numerous technical components, affective assemblages can be clearly felt in music. They embody and allow stimulating affective states by creating experiences between people. Within the framework of this question, the study questions what kind of new assemblages can be created by methodologically incorporating music in urban design processes.



Experiential Phase 2: From Music to Place

In the first phase, the study explores an association of spatial and musical elements. It analyzes the detailed interpretations of participants on music and place and tests the possibility for an applicable transition from place to music over the proposed MDEs (musical design elements). As a *significant inference* of the first phase, the responses show that *emotional/affective experiences* mainly led the individual and collective reflections. From this point of departure, the study constructs a second experiential phase. At this time, the point of departure is the *emotional/affective characteristics* rather than contrasting place qualities. Hence, the study conducts experiments taking the emotions of musical experiences as a departing point, and then expect to make a transition from affective reflections to spatial qualities.

- Sub-Research Question 4: Which musical characteristics are associated with which spatial elements?

The Rationale: The study follows an exploratory process throughout the research process. Therefore, the information produced in the first phase raises new questions and inquiries. Based on the findings of the first phase, most descriptive interpretations on place experiences emerge from emotional/affective appraisals. In this context, the question focuses on transitions from music to space to reveal new outcomes for urban design.

- Sub-Research Question 5: How do musicians evaluate musical design elements in terms of spatial characteristics?

The Rationale: As an example of urban design research, the study deals with music theory from the point of view of another field. The framework of this question aims to verify and diversify the associations established between place and music. To do that, it examines expert/professional musicians' interpretations of the proposed design elements (the MDEs) in detail.

1.3 The Relevance of the Study

The relevance of the study is related to the new perspectives and findings that it presents for the literature. In this study, the concept of place is examined in terms of affective assemblages through musical thinking. The theoretical, methodological, and practical contributions of the produced knowledge provides an opportunity to understand better the concepts such as place, experience and meaning in urban design and the relations between emotional and rational comprehensions in place-thinking.

Firstly, **the theoretical contribution** of the study arises due to the developments in neurology, which show the close associations of emotion and reason in decision-making processes. The discoveries in this field have been changing the definition of

human. All explorations, such as the communication between people through mirror neurons, the relationality of the conscious and unconscious mind, or the mind's self-deception during decision-making uncover a new field of research to better understand human and environment interrelations. As a part of the traditional understanding of urban design, consideration of space in a Euclidean framework will inevitably be affected by these discoveries.

Ultimately, it becomes clear that the sharp categorizations of instrumental rationality show serious shortcomings in capturing the dynamism of the human mind and, therefore, of life. The affective mechanisms force new pursuits in different fields of spatial thinking (e.g., non-representational theory). Although this study does not cover a neurological investigation, it contributes to this domain of knowledge by developing reflections through assemblage thinking. It investigates the details of affective urbanism and atmospheres to grasp potential outcomes in the complex structure of urban space and shows how the human mind affectively regenerates the shared meaning and affective perception in continuous dynamic processes.

Secondly, **the methodological contribution** of the study derives from the self-emerging experiential processes through musical thinking. The study was born from an intuition of a partnership between music and place. It felt this existence, which it could not describe at the beginning. The only way to decipher it was to investigate the relations through exploratory phases. The affective methodology was born out of the questioning process itself. The study collaborated with other disciplines (e.g., musicians) and benefited from affective learning and creativity to structure the methodological framework. In other words, instead of rigid control and determined rationalizations, it adopted a self-emerging methodology that was open to emergences and the impacts brought by them. This methodological understanding revealed the transdisciplinary progress of the research process, the richness of the intersubjective processes in an area that includes spatial and affective dynamics. The importance of intellectual gestalts is revealed when different perspectives came together. Due to the nature of this exploratory process, each emerging finding has designed the next step self-organizingly. After each new findings, the meanings and

content of the concepts were reevaluated and shaped the structural integrity. Although the associations of music and place have been examined in different studies, their sensorial, affective and intuitional associations have been examined through affective thinking.

Thirdly, **the practical relevance of the study** is related to the contributions to urban design practice. The affective structure of the framework enabled people to grasp the relationality of place much more quickly than the technical classifications of conventional place-thinking. The study proceeded by experiencing the place sensorily and affectively instead of discussing partial components in the theoretical and practical processes. In such situations, people found opportunities to free themselves from the limits of contemporary mediums (e.g., words) and to reinterpret their affective states and place experiences in a much broader spectrum through music. Hence, it contributed to a change of learned mindsets by embodying the experiences through musical and spatial experiences. Especially the notion of experience and the existing representational mediums (2d-visual-oriented place adoption) were questioned in the design practice. Furthermore, the method allowed participants (i.e., designers or users) to observe themselves as parts of self-organized affective assemblages, parts of a natural relationality, and achieve behavioural changes much more quickly in terms of awareness in the natural and built environment.

1.4 Research Structure

This study examines ontological positions and the definitions of urban design in an exploratory process by examining music and place together. Since the concept of place is one of the critical objectives of urban design, it questions how critical views approach the concept by classifying the contents of the definitions in detail. In this context, it discusses affective dynamics based on complexity not only through the form or visual perception but also from the human mind's position as the complexity itself. In order to decipher this affective relationality, it benefits from the

communicative capacity of music and the pursuit of clues to handling affective assemblages in urban design. In this context, the introduction chapter presents problem definitions, research questions, and social and scientific relevance.

Chapter 2 presents the theoretical framework under three sections:

- Section 2.1 investigates *the definitions of urban design and place* and reviews the current criticisms through several classifications in the literature. The first section focuses on how different paradigms deal with space/place and discusses their ontological and epistemological approaches. After classifying these positions, it questions the framework of urban design by reviewing the last fifty years of the literature. Different adoptions are presented in terms of *independent elements, dependent elements, compositional descriptions, and multidisciplinary perspectives*. Afterwards, it discusses three fundamental critiques of the contemporary design adoption. The critiques of Jane Jacobs, Christopher Alexander, and Norberg-Schulz give clues to focusing more on the concept of *place* in urban design. The common point of these game-changers is that they emphasize *complex relationalities of life* in place thinking and urban design. Ultimately, the main factors that make up the character of place emerge from these relationalities within the space. However, when the approaches to place are examined in the literature, it is mainly considered as a *physical composition, experiential phenomenon, and a matter of intersubjectively shared meanings*. Among these definitions, complexity and emergent systems play essential roles.
- Section 2.2 explores the dynamics of urban complexity. Firstly, it investigates the definition of complexity through *visual, functional, temporal, and multi-scale* dimensions. The section indicates that the role of the human mind as a complex subject in these dimensions is neglected. Thus, it investigates the role of human beings through *assemblage thinking* and *affective urbanism*. This adoption also leads the debate on people as contributors to *urban complexity*. Therefore, it reviews the concepts of *life, emotions, feelings, affects and moods* in terms of place thinking. In these contexts, the study addresses two significant frameworks

as *emotional gestalts* and *affective assemblages*, to examine how people can influence themselves and each other in urban design.

- Section 2.3 considers *music* as one of the most basic affective interfaces as an experiential assemblage. Thus, the study reserves the third section solely to music. Firstly, it investigates music philosophically under four subtitles: the human soul (based on *Plato*), nature (based on *Charles Darwin*), society (based on *Max Weber*), and the communication medium (based on *Ludwig Wittgenstein*). After examining these frameworks, it reviews the literature in which music and place are discussed together under the domains of *human geography, urbanism, and architecture*. The methodological approaches of the reviewed studies are discussed in terms of *affectivity, experience, meaning and relationality*. The last part of this section describes the *technical and affective qualities of music* for readers unfamiliar with music theory.

Chapter 3 presents the research methodology under four sections:

- Section 3.1 and 3.2 submit the research strategies and approaches through problem definitions, research questions, and rationales of descriptive, exploratory, and hermeneutic approaches.
- Section 3.3 presents the methodological content of the first experiential phase. This phase includes three-day experiments that are conducted with *forty participants* in two different selected sites, METU and Maidan BC. In this phase, the associations of music and place experience are examined through design and composition studies.
- Section 3.4 presents the methodological content of the second experiential phase in line with the findings of the first phase. In this second phase, experiments are carried out with *eight expert musicians*, which makes the investigation of a more condensed process possible. Starting out from emotions/affective stimulants rather than contrasting place qualities, and this investigation then transitions from the affective qualities of music to places. Participant profiles of these two phases,

the rationales for the variable and site selections, the experience and data collections, data types and data analysis are presented in detail in these sections.

Chapter 4 presents the findings and discussions for both experiential phases and the main research question under three sections:

- Section 4.1 submits the data obtained in the first experiential phase regarding the associations of music and place over the first three sub-research questions. It answers which variables reveal these associations, how music can embody the affective assemblages of the place, and how the intersubjectively created perception of place can be interpreted.
- Section 4.2 presents the details of the second experiential phase, the transition from music to place with a smaller professional group of musicians with additional research questions. As a verification and refining of the first phase, the correlations between music transitions to place are discussed in detail through musicians' reflections on the proposed musical elements (the MDEs).

Finally, Chapter 5 presents the discussion for the main research questions, the proposals of a framework for urban design theory and practice, the limitations, and considerations for further research.

CHAPTER 2

THEORETICAL FRAMEWORK

Music and place represent only two of the dozens of cultural interfaces. If the study can reveal their interrelations, it might have the opportunity to exceed the limits of formative urban design perspective. In this sense, we must remark that the study adopts music as a point of departure in urban design. Rather than structuring a simple analogy, it explicates the essence of affectivity and experience under the influence of music. It asserts that revealing the philosophical, historical, and technical associations might help designers to understand the potentials of *place* better.

In this aim, the study links together these three topics in the theoretical framework (Figure 2.1). The first section focuses on the concepts of *place* and *urban design* by examining various interpretations in the existing paradigms. It critically investigates the main criticisms in the last fifty years, interprets the critiques of Jacobs, Alexander, and Norberg-Schulz and focus on the concept of *place* and *complex relationalities* of space as they point out the assemblages of life.

The second section examines urban space as a complex organism and illustrates the main shortcomings in the literature as it designates that these studies mainly investigate the concept through visual, functional, temporal and multi-scale dimensions. Here, study defines people, the mind, as a contributor to this complexity. Thus, it analyzes the ambiguous nature of *place* in terms of assemblage thinking, affective urbanism, emotions, affects and experience.

The third section demonstrates the philosophy and historical comprehension of music and correlates it to the urban design framework. Instead of generating a technical relationship, in order to show its ontological resemblances, it aims to associate the subjects in various themes: philosophy, perception, experience, and communication, and review the literature on their potential associations.

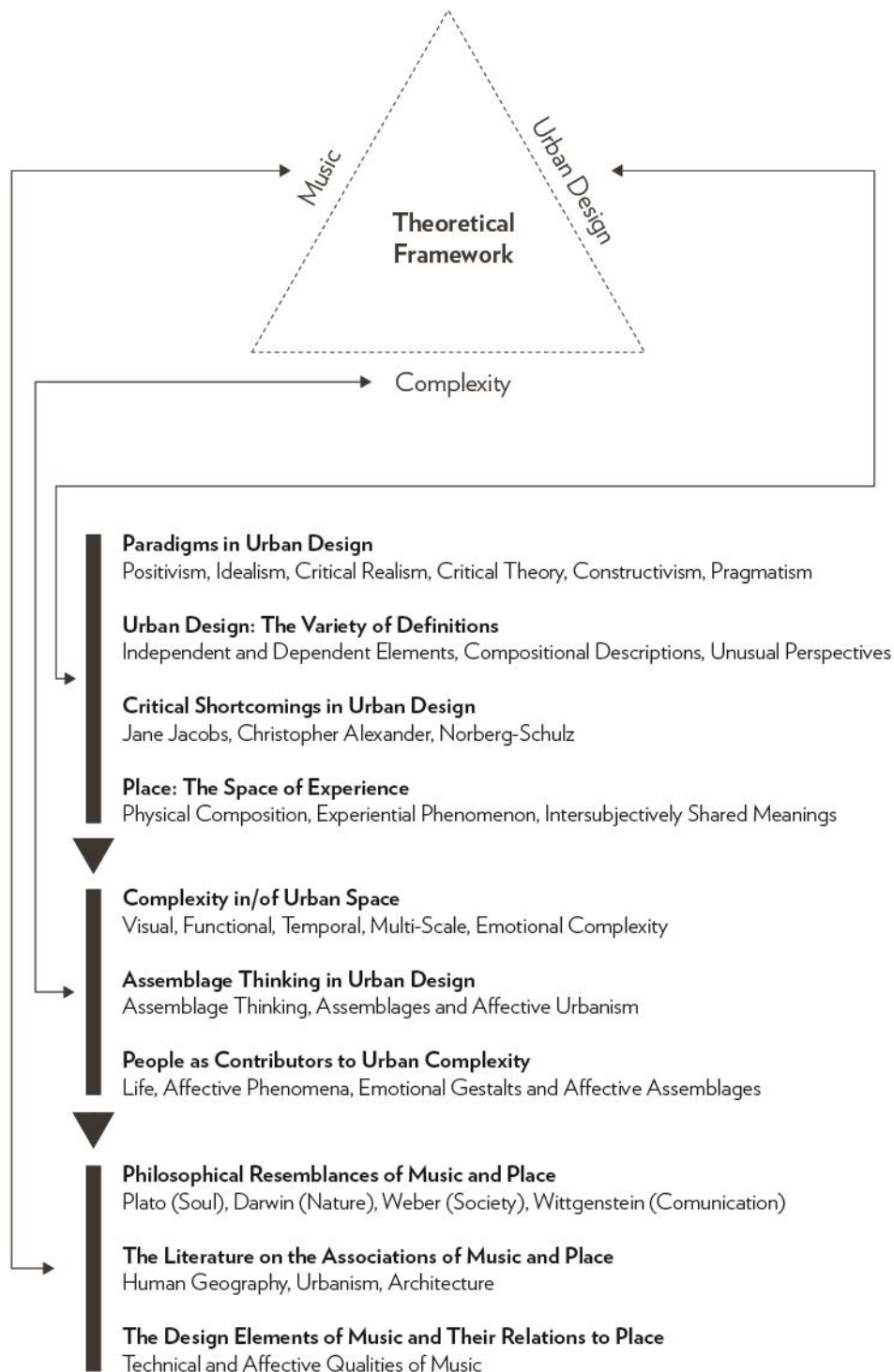


Figure 2.1. Conceptual Triangulation and Theoretical Framework

2.1 The Phenomenon of Place in Urban Design

This section presents the study's adoption of *urban design* and *place* and creates a general conceptual framework of the dissertation. For this purpose, firstly, it analyzes the fundamental paradigms in the frame of urban design and unveils the ways of thinking of *place* and *design* through different epistemological and ontological frameworks.

Secondly, it focuses on how *the concept of urban design* has diversified (or not) over the last sixty years in the literature. In this direction, it examines different scholars' adoptions and scrutinises how they grasp the action of design and the affected phenomenon, i.e., space and place.

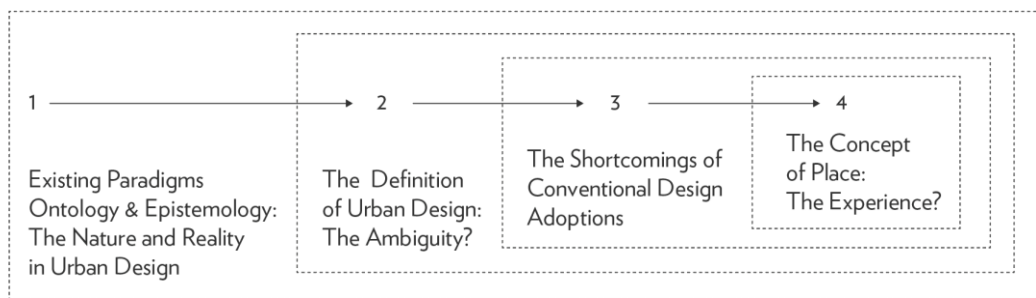


Figure 2.2. The Logic Flow of the First Part

Thirdly, it focuses on the concept of *place* in urban design literature. It is inevitable that *the concept of place* is an extensive philosophical field. However, the study is required to set a framework to understand its position in urban design. Therefore, it examines the dialectic relationship between *space and place*, and focuses on their roles in the urban *experience*.

Finally, the study investigates the pioneer studies dealing with the *shortcomings of urban design*, the critical minds of game changers like Jabos, Alexander, and Norberg-Shultz to designate the critical positions in the literature. Briefly, it follows a research logic starting from the ontological positions in design, following with the

the main shortcomings of orthodox adoptions, and finishing with definitions and debates on urban design and place (Figure 2.2).

2.1.1 Paradigms in Urban Design

This section focuses on how different paradigms interpret urban design and space intervention. In general, one can sort paradigms into two main categories in social sciences: *the positivist and phenomenological paradigms* (Creswell, 2009; Lenzholzer & Brown, 2016). In *positivist paradigms*, the researchers take an objective and value-free stance, the surrounding world is full of observable externalities, and the researcher seeks insights for cause-and-effect relations. Empiricism constitutes the basis and is mainly practiced *verifying the realities of the related case in natural sciences*.

On the other hand, *phenomenological paradigms* adopt a socially constructed world. The researchers are part of the particular phenomenon, and they eventually move/change within the social variables, meanings, values, moral codes, etc. The effort for comprehension constitutes a basis and is mainly used in *understanding the realities of the related case in social sciences*.

While these two stances naturally interpret an intervention to places differently, the study examines *six paradigms* (positivism, idealism, critical realism, critical theory, constructivism and pragmatism) in the context of four main domains: *ontology, epistemology, methodology, and axiology* (Table 2.1). By doing so, it reveals the relations between the *nature* of urban design episteme and its related *realities*.

Table 2.1 Paradigms, Ontologies, and Epistemologies
(adapted by Aliyu, Bello, Kasim, & Martin, 2014; Neuman, 2013; Wahyuni, 2012)

	Positivism (Empiricism)	Idealism	Critical Realism (Post- Positivism)	Critical Theory (Frankfurt School)	Constructivism (Interpretivism)	Pragmatism
Keyword	<i>verification</i>	<i>optimism</i>	<i>prediction</i>	<i>emancipation</i>	<i>comprehension</i>	<i>experience</i>
Ontology (The Nature of Reality)	Reality is external and free of human thoughts	Reality is a form of human thought	Reality is multi-layered	Reality is socially constructed and distorted	Reality is socially constructed	Reality is constantly interpreted
	Single reality	Multiple realities	Triple realities which can be finitely understood	Multiple realities are influenced by power relations	Multiple realities between individuals	Changing multiple realities
	Deductive	Deductive	Deductive and Inductive	Inductive	Inductive	Abductive
Epistemology (The Acceptable Knowledge)	Exist independently	Reality is subjective	Observation can provide credible data	Reality is co-constructed	Reality is intersubjective	Reality is subjective
	It can be measured with valid tools	Normative realities and truths	Tries to explain reality within a context	Multiple realities and truths	Reality needs to be interpreted	Observable phenomena and subjective meanings can provide meaningful answers
	Objective	Objective	Objective and Subjective	Modified Subjectivity	Intersubjectivity	Subjectivity

Table 2.1 continued

	Positivism (Empiricism)	Idealism	Critical Realism (Post- Positivism)	Critical Theory (Frankfurt School)	Constructivism (Interpretivism)	Pragmatism
Methodology (The Model of Data Process)	Sample Method: Experiential Research	Sample Method: Normative Methods	Sample Method: Falsification, Critical Multiplism	Sample Method: Interviews, focus groups	Sample Method: Hermeneutic / Dialectical	Sample Method: Action Research, Design- based research
	Proving reality through credible data	Reality through constructed ideals	Observing and predicting reality through cause-and- effect relations	Understanding reality through community/ collective thinking	Understanding reality through interaction	Acquiring knowledge through practical needs
	Quantitative	Quantitative and Qualitative	Quantitative and Qualitative	Quantitative and Qualitative	Qualitative	Quantitative and Qualitative
Axiology (Researchers Stance)	Value-free	Value- bound	Value-laden	Value-bound	Value-bound	Value- bound/laden
	The researcher is independent of the world	The researcher is a part of the world	The researcher is biased by the world	The researcher is a part of the world	The researcher is a part of the world	The researcher is both part and independent of the world

2.1.1.1 Positivism: The One and Only Reality

Positivism and realism share a phenomenological basis, and our capacity generates knowledge through systematic observation. An alternative strand to phenomenological thinking places greater weight on the mental processes that determine ‘observation’ and ‘understanding’. The knowledge generated (i.e. our interpretation) is less clear-cut or independent of social circumstances. (Payne & Payne, 2004, p. 172)

Henri de Saint-Simon coined the idea of *positivism* at the dawn of the industrial revolution. The scholar wanted to evaluate the societal changes revealed with the industrial revolution on a scientific basis. His student August Comte, a mathematician, systematized the thoughts with a series of works after the 1830s and coined the term *sociology*. Émile Durkheim reformulated them more analytically and defended the *objective stance* in sociology, just like in natural sciences.

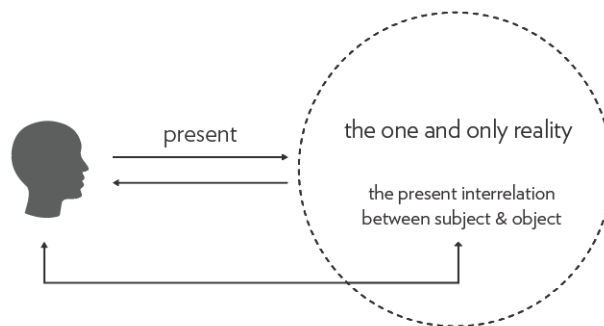


Figure 2.3. The One and Only Reality

Davoudi (2012) states that positivism generates knowledge through objective inquiries from *bottom-up experiences*, and these experiences reveal a natural matter of fact (Bryman, 2012). This infers an intrinsic meaning of *true reality* which “*can be directly observed by the senses*” (Masi & Blaikie, 1995, p. 203). The senses are independent of the actual existence, so the external reality is independent of human thought. One sees, smells, hears, and interprets nature and expresses what it is all about. Eventually, *the subject (the observer) and the object (the observed)* exist

independently. Its empiricism validates realities by experiments and verified data, and questions how people acquire *true reality*.

In positivism, the reality is like *a rock in a closed system*, durable and waiting to be explored by observations and experimentations (Figure 2.3). The positivist paradigm adopts *space as a euclidean matter of fact*, which is objective, concrete, measurable, and a physical component of urban composition (Davoudi, 2012). Eventually, it becomes like a container in which the designer re-creates and designs the arrangements, i.e., visual (formal) aesthetics and spatial functions. Lang interprets the philosophical position with its less visually striking and artistic inquiries:

Their designs are often much sought after but the architectural cognoscenti find that they lack artistic thought and are out of step with contemporary times. They nevertheless have done well in the marketplace even if their designs are less visually striking than those produced by the rationalists. (Lang, 2020, p. 21)

However, one can also say that the positivist attempts are interestingly *obsessed with visual manners* in urban design. This is the case in design schools that targeted the acceptance of one truth: schools in which the image of *perfectionism is sought*, which is stuck in a singular vision based on visual fetishism and quantification. In this type of adoption, *designers are detached* from actual (real) life conditions and so from the identity of the place. Even if there are various attempts to overcome these externalities (like the limited action capacity of participatory design methods), the formal and one-sided positivist approaches observe *space as an object* that remains inefficient in urban design and place-making processes.

2.1.1.2 Idealism: The Optimistic Futurism

Idealism stands in *opposition to conventional realism* and argues that ideals manipulate the forthcoming nature's realities (Figure 2.4). De Roo, Hillier & Van Wezemael (2012) assert that '*the ideal*' belongs to *human thought*, which is purely subjective based on *abstractions* and future *images*.

The paradigm plays a crucial role in *urban utopias* that were revealed in the early 20th century (ex. Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier). Most utopian planners and architects adopt idealism as the essential tool to ease the pain of rapid urbanization. Their claim of universality reveals the necessity for *an objective nature* and seeks common *universal* ground in the practice of spatial design.

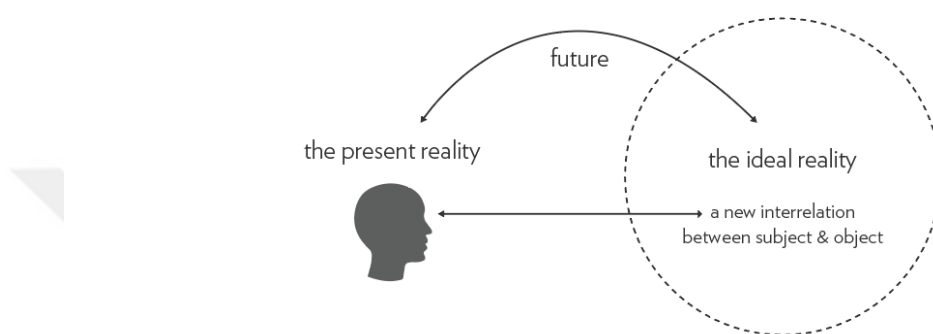


Figure 2.4. The Ideal Future

Idealism is the theoretical position that phenomena and events exist only in so far as they are perceived as ideas. The idealist believes that thoughts are prior to actions, and that the mental or cognitive world is more important than the material world. (Oxford Reference, 2020)

Even if modernist idealism provided a wide range of creative and futurist thinking opportunities, it has crucial flaws in practical reasoning in urban design. Firstly, if urban design claims to *construct an ideal future*, it should comprehend the related case's forthcoming individuals. To do that, it needs to identify the *subjects of the forthcoming nature*. Nevertheless, is it possible to achieve that universally, as in most utopias? As observed in different studies that intend to unfold the complexities of circumstances, this seems to be a fundamental problem of the idealist design view.

Gert de Roo defines idealism as “*not how the world ‘is’ but how it ‘could be’*.” (De Roo et al., 2012, p. 6). The realities in idealism seem to be *the desires of today and the regrets of yesterday*. If desires consist of nothing but a series of representations, human thoughts eventually remain within their temporal limits. Since *time* alters

continuously with the *emergent relations of realities and knowledge*, this creates a cage: a cage with the limits of our past. Eventually, cities face a cul-de-sac in the vast expanse of probabilities. Lang also draws attention to this limited frame:

Their bold forays into the future are much admired by many clients for design services and emulated by students in architectural schools. Many of their generic designs when applied in practice have, sadly, proven to be less than desirable habitats for people and other species, animate and inanimate. The programmes on which they are based on a limited scope of poorly understood variables. (Lang, 2020, p. 21)

Today's architectural schools adopt *idealism* in *urban design education* because it allows for an *independent thinking space* to share the alternative values of alternative aesthetic and moral codes. Besides, idealism teaches about design history. Educators task design students with different spatial contexts for a *forecasted future and an ideal universality*. However, an expected rupture reveals in-between students and cases since their knowledge of the place is too weak to comprehend the experiences in place and its forthcoming emergences. So, not very idealistically, we try to create a world which is *disconnected from both the past and the future*.

2.1.1.3 Critical Realism: The Constructed Reality

Critical realism is able to move beyond both reductionism and simple non- or anti-reductionism through ontological pluralism to a positive concept of the object of disability research as (what we will call) a necessarily laminated system, that is, a system that refers essentially to several different levels of reality. (Bhaskar & Danermark, 2006, p. 280)

Critical realism asserts that human perception is too *limited to comprehend the true reality* and separates *the real and the observable* worlds of knowledge. It questions the adoption of scientific and pure objective knowledge (Bhaskar, 2010). Since senses are limited, the *constructed reality* eventually remains in the deeper levels of knowledge (Figure 2.5). The position proposes three main domains (Fletcher, 2017; Murtagh et al., 2019):

- **The empirical level:** experienced events - observations.
- **The actual level:** occurring events – those humans are aware of or not.
- **The real level:** causal mechanisms - independent of human thought.

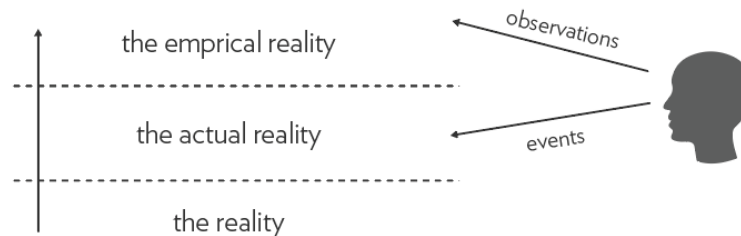


Figure 2.5. The Levels of Reality

Critical realism ensures a basis to comprehend the “*causal relationships between social conditions, urban spatial structures and the actions of agents*” (Næss, 2015, p. 1228). In this framework, the *variations of perceptions are the key mediums* to achieve knowledge. Critical realism tries to identify the cause and effect relations for subvisible explanations, adopting *society as an open system* in a *non-determinist nature* (Bhaskar & Lawson, 1998).

The concept of space is more than the *realities of euclidean space* in critical realism. Even if they did not name themselves critical realists, one could observe the best samples of this adoption in the spatial philosophies of Norberg-Schulz, Kevin Lynch, and Henri Lefebvre. Especially the spatial triad (Lefebvre, 1991) has significant similarities with Bhaskar’s view of realities (Bhaskar & Lawson, 1998). In both approaches, space is a substance of abstract phenomena with obscurities. *The realities* continually change depending on the *perceived relations*. Thus, their conception represents what is perceived and within *the limitations of experience*.

2.1.1.4 Critical Theory: The Communicative Rationality

Critical theory aims to produce a particular form of knowledge that seeks to realize an emancipatory interest, specifically through a critique of consciousness and ideology. It separates itself from both functionalist/objective and interpretive/practical sciences through a critical epistemology that rejects the self-evident nature of reality and acknowledges the various ways in which reality is socially constructed and distorted. (A. N. Carr, 2005, p. 470)

In general terms, the theory critically examines modernism and its way of nature by focusing on the conditions created by the enlightenment (Foroughmand Araabi, 2018). It investigates cultures and society in terms of *power relations* and harshly criticizes the *totalitarianism* and *authoritarianism* of the political mediums and scientific perception.

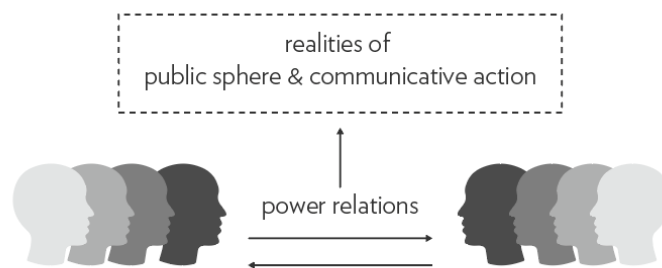


Figure 2.6. The Realities in Critical Theory

The Frankfurt School formed the primary arguments of this context, and pioneers such as Horkheimer and Adorno developed further perspectives. Horkheimer and Adorno (2002) defend that just like practical knowledge, theory is a reflection of altering realities which are *bound to an ideology that manipulates* particular interests. Rather than mirroring and objectifying the facts, critical theory tries to produce the *reality with critical attempts* (A. N. Carr, 2005; Geuss, 1981), and creates mediums “*between parts and whole, between appearance and essence, and between theory and practice*” (Kellner, 1990, p. 24). Next-generation representatives, such as *Gramsci* and *Habermas*, have developed the paradigm in different directions.

Significantly, Habermas's proposal of *communicative action* has provided an essential theoretical base in terms of understanding the power balances in urban design and planning.

Urban design can be named as both *critical and not critical* in terms of its nature. On the one hand, it is naturally limited to be critical since it is a *sub-product of the present market circumstances*, and a basic cause of a reification and commodification process (Foroughmand Araabi, 2018; Gunder, 2011; Lang, 2020). It generally *follows former models of realities, texts, and projects* that try to replicate past samples in a romantic manner (Marcus & Francis, 1998). Especially its socio-political dimensions are very *limited they are only interpreted within physical aspects* (Cuthbert, 2007; Gunder, 2011).

On the other hand, it is *a naturally critical stance* since it involves interventions in urban space. It deals with society's *important problems* and can affect sets of *values, ideas, and economic and political relations*. The opportunities presented by its impact factor make the domain an inevitable *political field* (Günay, 1999; Lang, 2020; McGlynn & Murrain, 1994). Habermasian communicative rationality in the last decades has shown how *participatory actions* could impact the efficiency of such planning and design processes (Healey, 1992, 2006; Madanipour et al., 2001).

2.1.1.5 Constructivism: The Construction of Social Reality

Constructionism (or social constructivism) holds the view that reality or truth is constructed or formed by the observer or researcher, however, in resistance to earlier (radical) constructivism, it opines that reality or truth is a combined construction. It gives more regards to the role of contact and communication in the course of constructing or forming reality. (Aliyu et al., 2014, p. 84)

Guba and Lincoln (1994, 2005) are often cited for their contributions to the episteme in the literature. The authors define constructivism as a matter of *understanding the reconstruction processes of knowledge through experiences* and investigating realities through *hermeneutic and dialectic* methods.

In its nature, constructivism refuses the total control of the real world. It aims to understand the *reconstruction of variables* rather than reaching an objective knowledge (Guba, 1990). The experiences continuously recreate the social world through *meanings*, and ideas do not occur individualistically but in an organized and complex way (Figure 2.7).

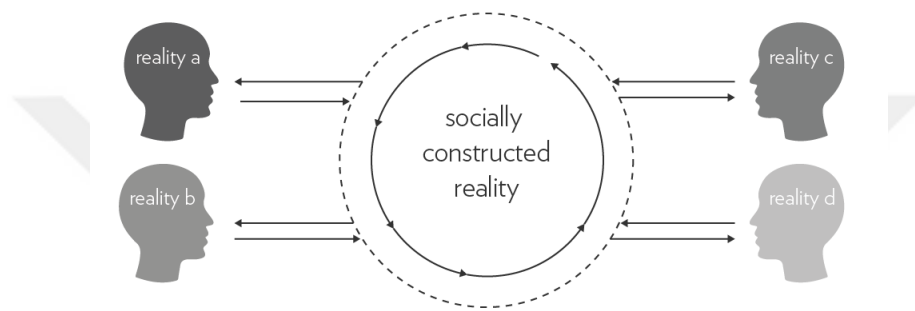


Figure 2.7. Realities in Constructivism

Urban design deals with the social and physical environment to *reconstruct and develop cities' varied experiences*. Due to the inevitably diversified nature of cultures in geographical contexts, social structures differ from place to place. These differences reveal new types of objective and subjective realities that need to be examined by the designers, in which they are also parts of them. Eventually, designers become *a part of the studied contexts/designs* in the constructivist position. Here, the crucial point is to contribute to the spatial composition by understanding the meanings of *cultural, moral, aesthetic, or ethical values* (Cortês et al., 2020).

2.1.1.6 Pragmatism: The Importance of the Process

The pragmatist paradigm argues that *knowledge is not a rational choice*, but the *outcome of the experiences*. Rather than having a passive rational mind, people acquire skills and knowledge due to these *experienced problems* (Hildebrand, 2018). Even if they try to rationalize and minimize the complexities of nature, action and reasoning are *not independent of emotions*. They stay at the core of *experiences* and play crucial roles in achieving knowledge, and this knowledge takes people to reality.

John Dewey is probably the most significant pioneer of the American pragmatist school, with his outstanding contributions to the episteme in the first half of the 20th century. Dewey emphasizes that *experience stands in the very heart of life*:

Like its congeners life and history, [experience] includes what men do and suffer, what they strive for, love, believe and endure, and also how men act and are acted upon, the ways in which they do and suffer, desire and enjoy, see, believe, imagine, in short, processes of experiencing. (Dewey, 1929, p. 8)

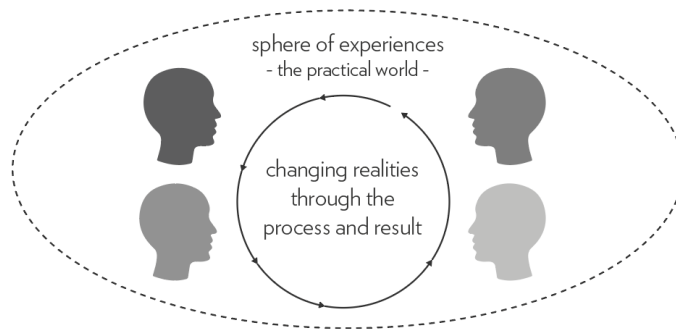


Figure 2.8. Realities in Pragmatism

In pragmatism, the success of theoretical inquiry must be evaluated in relation to its *applicability and benefits*. In other words, if an idea does not work in practice, then there is no meaning in pursuing it. The scientific attempts also focus on functional and practical problems that are defined by a starting point of an experience (C. Legg, 2020). Lang evaluates the paradigm in terms of urban design as follows:

Pragmatic urban designs are based on what is easiest to accomplish and simultaneously maximizes the profit returned to those investing in them. The argument is that the marketplace is the best arbiter of people's needs and that the results are, at least, satisficing solutions. They are good enough responses to the limited problems addressed. (Lang, 2020, p. 21)

This viewpoint is valid if one considers the practice-oriented approaches of today's *project fetishism*. Aggressive market circumstances create great handicaps for public interest and the intersubjective consensus of the communities, since public interest is usually vulnerable to capitalist market demands. However, pragmatism should also be evaluated in terms of its *adaptability*. Pragmatic urban design applications have the advantages of quick implementation and profit maximization *not because of the mindset of pragmatism*, but because *it adapts itself to the market conditions*.

Urban design cannot be intellectualized without moral values, local assets, and cultural codes. *Design subjects* are vital for problem contexts, and they are the *major actors of experiences, problems, and solutions*. If these primary subjects are taken out of the discussion, possible solutions inevitably remain limited (please see: Art as Experience by Dewey, 1934). The experiential emphasis of pragmatism can generate an inclusive approach for local communities and diversity.

On the other hand, there are still *critical reasons for caution in this position*. Firstly, pragmatism is *highly connected to empiricism*, which can exclude the meanings of social dynamics. Even if empiricism in pragmatism is not harsh as in Locke's or Hume's positivist understanding, a possible obsession with practice *can lead to prosaic materialism in design thinking*. Secondly, a practical and utilitarian point of view can reveal conflicts of interest in terms of public concerns in urban design. If one adopts urban design as a public policy (Günay, 1999), *an offensive beneficiary approach* might reveal additional nodes of serious problems.

2.1.1.7 The Dissertation's Ontological Position

The ontological and epistemological positions show a vast sea of possibilities for urban design. Every adoption creates new reference points for alternative thoughts. When the study evaluates paradigms to seek such an emancipatory approach in urban design, it positions itself between *constructivism and pragmatism*. It defends that this intersection presents new opportunities for interpreting urban design in a *problem-oriented and action-oriented way*.

Today, the nature of urban design is polarized, stuck between dualities, in a monochrome portrait. The present study rejects focusing only on white and black polarities in a world that offers an endless range of colours. If the goal is to present a new perspective in urban design, *we need to be a part of a bold but consistent rebellion* rather than a shy acceptance of materialism, and this is what this research is all about. It asserts that *one can criticize any scientific position, from any possible perspective, but very cautiously according to the debated context*. In this way, the study aims to create a new breathing space in design and place thinking.

2.1.2 Urban Design: The Variety of Definitions

The target of the study is to *associate place and music* in the context of urban design. However, firstly, it is crucial to *define what urban design is*, to understand the adoption of *place* and construct the approach of the study.

Even if it is not possible to gather them in one group, different definitions of the concepts of *urban (space/place)* and *design (action/intervention)* are explored in this section. An extensive range of relationalities makes it very hard to define urban design, and the systematic search for a common ground mainly ends with this type of an emphasis:

Many urban designers reflect a deep-seated anxiety when challenged to define urban design. They long for a short, clear definition but in reality, this

simply is not possible. No one or two-sentence definition is really adequate, nor is it likely to prove of lasting value. (Rowley, 1994)

Madanipour (1997) emphasises *the uncertain area of activity* and claims a need for a common understanding of the urban design field. The debates on its loose theoretical basis also point to a lack of definition in the episteme (Dovey & Pafka, 2016; Marshall, 2012; Sternberg, 2000) because they are generally shaped by the related *contingencies, factors, and variables* of different contexts. In this part, the study classifies four groups of approaches to ease the ambiguity of urban design definitions as far as possible:

1. Independent Elements: The Positivist Approaches
2. Dependent Elements: The Constructivist Approaches
3. Compositional Descriptions: Wholeness and Unity
4. Unusual Perspectives: Time-Space, Rhythm and Complexity

2.1.2.1 Independent Elements: Positivist Approaches

Urban design is associated with dozens of components, and most of the literature on the subject focuses on the effects of these components on human perception and the physical environment. Most of them have tried to develop an understanding of '*a good place*'. The literature in the first group examines *tangible and intangible elements independently*. Those who approach urban design through the independent qualities generally make evaluations under two main contexts: (i) people and (ii) form (e.g., Buchanan, 1988; Gibberd, 1953; Lynch, 1960; Madanipour et al., 2001; White, 2007).

People as Independent Elements

Gibberd (1953) argues that urban design is about designing a place that people would like. In this approach, the question of which *specific* or *generic* quality of the place would be pleasing to people naturally remains open-ended. The main aim is to catch the '*good*' or '*beautiful*' as a visual composition. The search for people's approval is more important than compositional and functional relations.

The perceptual components are widely analyzed in design contexts. For many years, scholars have attempted to find paths for a total image of the city. For instance, Lynch (1960) proposes the famous image elements (node, landmark, edge, path, and district) to attain this unity. The author positions people as the main subjects who attach meanings to images, and emphasizes that urban design is *the art of establishing relations between these meanings*. Even if his arguments are groundbreaking, the elements are described partially and as independent from the image unity, and he does not propose a clear method to combine them all.

Place-making approaches, which have come to the fore in urban design over time, focus on '*activities of place*' rather than functions coming from the land-use plans. For example, Buchanan (1988) argues that urban activities play influential roles in sensing the place. A concert, or a gathering in a square, provides a better understanding of the place than the physical environment. Here, the activities are not evaluated relationally but as direct and straightforward actions in place.

Numerous studies also evaluate urban design in terms of these individual cognitive elements. For instance, White (2007) states that the *atmosphere* that reveals space emerges from *emotions* affected by the action. The author argues that emotions such as trust, insecurity, fatigue, or peace effectively describe the related meanings. However, emotions within the individual and collective partnerships are not addressed in a relationalist framework, but as *singular emergences*. Despite making important points, this type of adoption neglects the manipulation of the contingent effects. In this respect, studies that examine human reactions independently do not emphasize the unity of emotion. Rather, they focus on the discrete impacts on the perception of places. However, people never experience singular emotions; instead, there are states of achieving an assemblage with the interaction of different feelings, emotions, affects and moods.

Form as an Independent Element

The *physical environment/form* has always been a core topic in urban design. If a city is perceived as a physical environment, and its design process is achieved by

drawing (as in contemporary design education), this is a natural consequence. Even if there is a general acceptance of combining social and physical environments, one can observe that numerous studies emphasize the form as an independent design element.

As an early example, Lynch and Rodwin (1958) designate urban design through *form and human goals*. The authors question how form could be adapted to experiences for the best possible intervention to urban space. Similarly, Gutheim (1963) describes the *visual aesthetic* value through *the proportion*, and the role of urban design in ensuring pleasure in cities. In another aspect, Peterson (1979) defines the discipline as a reflection of *physical conditions*. According to these viewpoints, urban design is defined as a technical field which produces its own space dominantly through physical components within the hierarchy of scales.

The spaces created by the form produce urban components such as streets, plots and blocks, where these components are intended to be coherent with the urban fabric. In this framework, Beckley (1979) makes a parallel definition, stating that designers are responsible for establishing relationships between external and internal spaces, and relating these two spheres of the city. According to Beckley's claim (1979), *all actions to space is a matter of design*. In this way, urban design is intervention in space, whether conscious or unconscious. The designed space is *self-consciously designed* by the designer, which means particular aims, strategies, and ideals. On the other hand, different actors like property owners, decision-makers, and the working-class also *unconsciously design* the city through their actions, which the author calls as *unconscious design*. Regardless of this consciousness level, the interpretation still adopts urban design as a physical phenomenon.

Carr (1992) states that the environmental *visual qualities* indicate public well-being. Eventually, physical forms lead individual *visual representations*. Similarly, Moughtin (1995) also argues that city *decorations* contribute to the quality of public spaces. These emphases indicate that the physical world creates a gestalt through the concepts of aesthetic images. The interactions turn into a system where the image is

created by the *cultural context* (Madanipour, 2004; Panerai et al., 2004). Nevertheless, focusing solely on visual aesthetics may cause *designers to cling to a singular vision*, and neglect interactions with the social world.

Studies such as *Compendium I & II* (English-Partnerships-Housing, 2000, 2007) or *Essentials of Urban Design* (Sheppard, 2015) prefer to describe urban design by completely dividing the context into physical sub-topics. These types of approaches are more of a guideline, where scholars attempt to rationalize the contexts, similar to a *tree hierarchy criticized by Alexander*. They describe incremental design steps based on different sample topics like housing, commercial centres, and transportation. One might say that such approaches adopt a *design process like an engineering branch* with more technical concerns.

This study asserts that due to these *fragmented approaches of form*, people experience the city through these interfaces. However, the experiences occur depending on the *dynamics of daily life and social spaces we experience*. A five-year-old child perceives a park differently than an eighty-year-old woman. A lonely man attributes a different meaning to a tree than does a teenager who experiences social relations in the same park. The fact is that form is an indispensable part of urban space. However, this does not mean that it is the core of the place and its experience. *The form is just there, as an inevitable medium and actor of experience*. However, it has no emotions or thoughts. In Fatih Akın's documentary on the music culture of Istanbul, *Crossing the Bridge*, a street musician describes this point powerfully:

The street can bring people in line with whatever the social class they are from. It has such a power. However, it also includes a very heavy corruption. You cannot talk about a memory of a street, or a memory of a stone... When Erkin Koray sings about the streets of Ankara and pavements... It is a very romantic thing. Yet, the ones who experience it do know it; the stone is only a stone. You understand its stoniness when you put your head on it. (Akın, 2005, secs. 52:30-54:30)

2.1.2.2 Dependent Elements: The Constructivist Approaches

Designers, regardless of their professions, *explore new relationships* between different components. For instance, mechanical designers develop new machines from gears, architects build structures from different materials, graphic designers create new images from different shapes, and fashion designers use fabrics to reflect their visions. *Components and ideas* reveal the designs, and particular sub-relations define their impacts. Probably, for this reason, the *organizational principles of gestalt theory*, which explores the interrelations between the whole and the parts, is a commonly used method in nearly all design branches.

Numerous studies define urban design as creating *relationships* (Brown, 1990; Cullen, 1964; Jacobs, 1961; Kasprisin, 2020; Lynch & Rodwin, 1958; Norberg-Schulz, 1984; Punter, 2002; Rapoport, 1977). However, the discipline occupies a unique area within other design fields, as it involves public decision-making processes, mostly on a public property, and through a countless and (probably unidentified) number of social and physical components.

Various studies investigate these *relationships between people and the built environment* in terms of socio-spatial elements and the harmony between them. While some of them *prioritize form*, some others attach *priority to the people*. This study examines both.

As an interrelation of People (primary) and Form (secondary)

Numerous studies aim to centre people as the primary subjects of urban design, by correlating them with the built environment. As a pioneer, Lynch's cooperation with environmental psychologists at MIT brings him closer to a more human-centred design comprehension. The daily life routines and sensory reflections are vital to the perception of environmental compositions in his studies. Here, the relations are the key factors of interactions. Despite their positivist approaches, Lynch and Rodwin (1958) take one of the first steps where they express urban design as a process of "*interrelations between forms and human objectives*" (p. 201). Punter (1991) also

emphasizes these relations by combining *meaning, experience and physical space*, and defines place as the core feature of the urban experience. The author prioritizes experience in the construction of place thinking, just like Carmona, Heath, Oc and Tiesdell explicate the concept of place and interrelate the built environment and social spaces:

First, urban design is for and about people. Second, it emphasises the value of place and the need for an explicit concern for issues of place making and responses to both local and global context. Third, it recognises that urban design operates in the 'real' world and that the field of opportunity for urban designers is typically constrained and bounded by forces (market and regulatory) that are beyond its control or influence. Fourth, it asserts the importance of design as a process. (Carmona et al., 2003, p. 3)

In the last decades, local communities, healthy cities, and the concept of emotion are often discussed in the literature. Montgomery's book *Happy City* (2013) is a great example of the *relation of people, emotions and urban design*. The study attempts to determine *what makes people happy* in cities and introduces striking examples from different parts of the world, like Bogota, New York, and Paris. Rather than focusing on ambiguous independent physical details, such inquiries make direct interrelations between people and form, based on specific emotions like happiness.

As an interrelation of Form (primary) and People (secondary)

On the other hand, numerous attempts also focus on the *relations between form and people* by prioritizing form. In these approaches, debates mainly focus on the combination of experience arising from the physical environment. The approaches are concerned with the *controlling mechanisms of design*. They try to construct a framework on the physical design and defend the design control. Of course, this does not mean that their assumptions are not related to the social environments; they are, but in an indirect way.

Cullen (1964) emphasizes the significance of the physical world in terms of experiences and perceptions, and introduces the concept of *townscape* as the *art of relationships* in the urban environment. According to him, pointless physical

environments turn into meaningful compositions through the creation of *serial visions, with the content and functions* in towns:

I wish to show that an argument parallel to the one put forward above holds good for buildings: bring people together and they ante a collective surplus of enjoyment; bring buildings together and collectively they can give visual pleasure which none can give separately. (Cullen, 1964, p. 9)

Similar to Cullen, Rapoport (1977) creates a relation between *time, space, and meanings*, and implies that physical elements create meaningful relations through symbols in the city:

Given that urban design is the organization of space, time, meaning and among elements and the underlying rules than with the elements are the same - houses, streets, gathering places, cult buildings, plants themselves. One can argue that the physical components of all cities and so on. It is the nature of the meaning and underlying principles of their organization and relationships, which differ, as well as the associated behaviours, and these need to be analysed so that generalizations and comparisons may be made. (Rapoport, 1977, p. 15)

Norberg-Schulz (1984) also approaches urban design through *spatial relationships*, and tries to understand the dimensions of unique *atmospheres of places (genius loci – the spirit of place)*. According to the author, existential meanings constitute an extensive basis of the architectural debates. However, similar to others, he also investigates the physical qualities of an experiential interrelation in the Nordic cities. Similarly, Montgomery (1998) interrelates place within different pillars such as *physical space, sensory experience, and activities*. The author suggests that physical environment creates a stimulus to activate a sense of place, rising through the physical environment:

We can now see that successful urban places must combine quality in three essential elements: physical space, the sensory experience and activity. Theorists such as Relph (1976), Canter (1977) and others (and most recently reinterpreted by Punter (1991)) show the components of a sense of place and the relationship (in abstract terms) between them. (J. Montgomery, 1998, p. 96)

Gehl (2013) introduces a parallel approach by emphasizing the importance of the *psychological effects of place* and argues that a successful design should be *lively, safe, sustainable and healthy* to connect people to their social environment. The author suggest that “*first we shape cities and then they shape us*” (Gehl, 2013, p. 9). This statement suggests a hierarchial relation between form and people. However, one can also defend the exact opposite: *First people shape themselves and then they shape the cities!* Lang (2020) creates a similar relation between people and form. According to him, a programme-based design connects the objectives of the built environment:

I have been a strong advocate for a programme-based design process with the programme being based on a broad understanding of the way different patterns of the built environment afford the behaviour patterns and aesthetic values of people at different stages of their lifecycles within different cultural and climatic settings. Designs are, I must recognize, mostly based on one or other generic design derived from a currently accepted design paradigm whose advocates strive for its hegemony in professional practice. These paradigms reflect different views of what constitutes a good built environment and good professional practice. (Lang, 2020, p. 20)

2.1.2.3 Compositional Descriptions: Wholeness and Unity

The nature of mental development ... is not the bringing together of separate elements, but the arousal and perfection of more and more complicated configurations in which both the phenomena of consciousness and the functions of the organism go hand in hand. (Koffka, 1946, p. 356)

The third group of studies is comprised of those that describe urban design holistically through *integrity, unity, wholeness*. Rather than focusing on components or solely the relationships between them, such studies focus on a new whole, which is clearly a very difficult outcome to describe rationally. In this case, it may sometimes not be possible to make technical classifications represented by the composition. Perhaps this is why concepts such as ‘*soul*’ and ‘*essence*’ are frequently quoted from metaphysical fields.

The articles that try to define urban design holistically can be examined under two main sub-categories. The first group is one which tries to perceive urban space *analytically/organizationally*. These studies try to define '*the whole*' created by the combination of '*different wholes*' through an organization. In this framework, the aim is to rationally describe new *formations between elements*.

The second group approaches holistic design through the concept of '*wholeness*', which in other words means '*completeness*'. In this adoption, studies focus on uniting concepts such as time, space, and emotions, rather than a systematic pursuit based on the organizational frameworks. Their purpose is to define the whole of new meanings created by semantic integrity.

As an Analytical/Organizational Unity

The fact that the whole is made up of parts, or parts into wholes, is reminiscent of the relationship between *the chicken and the egg*. The positions that try to explicate the whole analytically usually focus on the binary relations of space. Kevin Lynch is one of the first names that adopts a holistic view of urban design in an organizational perspective. Lynch (1960) determines urban images in the *pursuit of designing the whole*, and aims to reach this goal by focusing on the relations between parts and the perceptual elements by explaining how designers should handle a city in a unity.

Similarly, Alexander (1965) analytically examines the *concept of whole* as an *organizational structure*. As an architect with a *mathematical* education, he focuses on the infinite relationalities of place, and creates an *analogy of a tree* to show different interrelations between scales. He argues that urban space *cannot only be explained with the euclidian spaces* such as street, square or block, since even the slightest relation cause altering relationalities in the experience. In this framework, the deterministic hierarchical design must be refused, and the designer adopts the *whole* in terms of countless new emerging experiences. The idea sparked debates on complexity studies in urban design. The author emphasises this idea in his book *A New Theory of Urban Form*:

The whole grows piecemeal, bit by bit. Second, the whole is unpredictable. When it starts coming into being, it is not yet clear how it will continue, or where it will end, because only the interaction of the growth, with the wholes own laws, can suggest its continuation and its end. Third, the whole is coherent. It is truly whole, not fragmented, and its parts are also whole, related like the parts of a dream to one another, in surprising and complex ways. Fourth, the whole is full of feeling, always. This happens because the wholeness itself touches us, reaches the deepest levels in us, has the power to move us, to bring us to tears, to make us happy. (Alexander et al., 1987, p. 14)

Bacon (1974) also argued that the fabric of city reveals *an architectural spirit*, a whole. According to him, designers reflect the integrity of urban experience (e.g., Philadelphia) and so, of the city. The way to achieve this is through the continuity and *common language of architecture, experience, and texture*. The author pursues *a spirit* that emerges from the *combination of architectural components*. In this frame, he targets a design comprehension, consisting of an analytical combination of parts, while searching for "*the architectural energy*," in his own words.

Rapoport (1977) similarly approaches the city as a *physical and experiential unity*, as he admits that even if it cannot be designed as a whole, its organization can be designed:

I will stress the physical, experiential and design aspects of the material. While it is now accepted that one cannot design a whole city (although one can organize or structure it) it is arguably still possible to design areas within a city for specific groups of users. [...] sub-areas of the city can then be related to those various characteristics and various unifying concepts can link these apparently different groups and places providing structuring elements for the city as a whole. (Rapoport, 1977, p. 6)

As a Holistic Composition – Wholeness

On the other hand, there are studies that approach the whole in terms of an *emerging composition*. For example, Tuan (1977) argues that there is a relationship between parts that make up the whole: location, structure and function. However, in this adoption, the part should *never be seen as a small functional representation of the*

total, but the essence. The whole that emerges from the combination of parts does not necessarily have the meanings of the other parts:

Logically the whole is made up of parts, each with its characteristic location, structure, and function. The part may be essential to the functioning of the whole, but the part is not the whole in miniature and in essence. In mythical thought the part can symbolize the whole and have its full potency. (Tuan, 1977, p. 100)

This idea overlaps with Koffka's approach, as one of the pioneers in gestalt theory:

The nature of mental development ... is not the bringing together of separate elements, but the arousal and perfection of more and more complicated configurations in which both the phenomena of consciousness and the functions of the organism go hand in hand. (Koffka, 1946, p. 356)

Norberg-Schulz (1984) claims that it is *wrong to define a place by dividing it into pieces* in transforming space into a place. According to him, the place has a character, and it is not possible to clearly describe this character since its dynamics are revealed from complex structures. In fact, it can be said that his view coincides with Alexander's (1965) assumptions. There may be times when *words are insufficient to describe the whole* (as in Wittgenstein's Tractatus Logico). Norberg-Schulz (1984, p. 16) draws attention to this limitation and states that "*a character is so distinct that one word seems sufficient to grasp its essence*".

We extend this quote and suggest that verbal language might also not be enough to describe the essence of the place. Likewise, scholars such as Knack (1984) suggests that one can define urban design *not from what it is, but what it is not*. Is it architecture? No. Is it landscape architecture? No. Civil Engineering? No. According to this adoption, urban design is anything other than the related fields of such studies. Nevertheless, one should also admit that such views make urban design heavily dependent on other disciplines.

The ambiguity of the definition of urban design forces it into a vague framework within the impacts of the city's spontaneous structure. In *A New Theory of Urban*

Design (1987), Alexander states that urban design deals with a whole, structured by the spontaneous actions of people, and tries to control a type of a growth:

More exactly, we began to imagine a process of urban growth, or urban design, that would create wholeness in the city, almost spontaneously, from the actions of the members of the community... provided that every decision, at every instant, was guided by the centering process. (Alexander et al., 1987, p. 5)

2.1.2.4 Unusual Perspectives: Time-Space, Rhythm and Complexity

The fourth group involves studies indirectly related to urban design which can open new debates in design thinking. These are important to this study since evaluating different approaches might help eliminate ideas stuck within deterministic design thinking. Although they do not make any direct statements about urban design, this study tries to explicate their approaches in terms of a design framework as: (i) time and space, (ii) rhythm, and (iii) complexity.

Time and Space: The Temporality

Studies analysing urban space through time and space generally focus on *temporality*. One of the most critical sources written on this subject comes from Kevin Lynch (1972). In his book *What time is this place?* Lynch asserts that *space cannot be considered as a static matter*, but an occurring composition of events that affect the meaning and image in time. In this frame, the author focuses on the occurring events in urban areas and describes two kinds of signs in time and space relation: (i) *rhythmic repetitions* and (ii) *contrasting repetitions*:

We have two kinds of evidence of the passage of time. One is rhythmic repetition—the heartbeat, breathing, sleeping and waking, hunger, the cycles of sun and moon, the seasons, waves, tides, clocks. The other is progressive and irreversible change— growth and decay, not recurrence but alteration. Men have made magical attempts to see the second phenomenon as a cosmic variant of the first, to pretend that change is also cyclical, to imagine that progressive time is a series of eternal, contrasting repetitions, each arising from the other. (Lynch, 1972, p. 65)

Lynch (1972) evaluates *repetitions created by time and space*, regarding their similarities and contrasts. The primary concern is how a person intervenes in the city while perceiving the changes and examines different cases. His argument directly concerns the field of urban design, since it provides an opportunity for a completely dynamic understanding of place that adds the concept of *time* to design discussion.

Lynch states that besides the *physical qualities of space*, it should be designed following the activities that change temporally over time. According to him, capturing the whole lies in the *relationality* of these activities and their repetitions in the physical world:

To begin with an obvious issue, environmental design must at least take careful account of when things are likely to happen in order to size and locate the spatial facilities properly. Thus, there must be an accepted way of representing and quantifying activity sequences, so that a proposed environment can be seen and judged as a spatiotemporal whole. (Lynch, 1972, p. 73)

Time seems to be one of the *dominant determinants* of urban design. However, it has always lagged behind the physical factors, even if its dynamics shape places in practical life. Lynch's criticism is a very *progressive effort*, especially considering the wind of architecture during the 1970s. In this regard, urban design can be defined as the discipline *that orients the spatiotemporal whole through different activities*.

Rhythmanalysis: First Critical Correlation between Music and Space

The methodological gaps of *What time is this place?* are filled in Lefebvre's *Rhythmanalysis* (2004). In his latest work, published after his death, Lefebvre examines space through temporal changes and rhythms. According to him, since the city contains different rhythmicities, it can be listened to *just like a musical piece*. His analogies have similarities with Lynch's (1972) effort, but with more abstract and deep spatial interpretations. The assumptions do not directly deal with urban design, but they have helped designers to understand the recurrent relationships from abstract to concrete compositions in space and time:

Not without risks: the leap from particular to general is not without the danger of errors, of illusions, in a word, of ideology. The other procedure consists in starting with concepts, definite categories. Instead of going from concrete to abstract, one starts with full consciousness of the abstract in order to arrive at the concrete. (Lefebvre, 2004, p. 5)

According to Lefebvre, there are four major rhythms in urban space: (i) *polyrhythmia* - an interaction between different rhythms, e.g., in a body, (ii) *eurhythmia* - rhythms flowing through everyday life, e.g., in a city, (iii) *arrhythmia* - states of imbalance, e.g., in the case of functional errors, and (iv) *isorhythmia* – the synchronization of rhythms. The rhythms repeat and interact in a form of compositions. Eventually, the city becomes a composition of these interactions.

Even if different studies also underline the importance of sociology and the complexity of everyday life (Alexander, 1965; Dovey, 2012; Jacobs, 1961; Lynch, 1972; Salingaros, 2000), Lefebvre's viewpoint offers a unique perspective for urban design. Numerous efforts have also tried to combine the *method, as a composition of continually changing and repeating rhythms* (Adhitya, 2017; Antchak, 2018; Nash, 2018; Simpson, 2012). Considering Lefebvre's criticisms on static blueprint plans and the spatial trilogy (lived, perceived, conceived space), *rhythmanalysis* presents *significant clues on spatiotemporality*. In this framework, the urban designer turns into a rhythmanalyst who tries to *catch and harmonize the different rhythms of everyday life*.

Complexity: The Emerging Relationalities

As one of the pioneers in architecture, Venturi interprets the concept of *complexity and architecture* in *Complexity and Contradiction* (1992). The book has been considered one of the milestones of *postmodern architecture*, where Venturi structures a striking discourse as '*less is bore*' against the '*less is more*' discourse of the high modernist movement (Venturi, 1992, p. 17).

According to the modernist paradigm, the '*simple*' can reach more people, and so, more ideas. The *simplicity* or *calmness* of the composition is able to liberate the interpretation of design. However, Venturi blames *excessive simplicity* for being

tasteless under high modernism and argues that ambiguity should be embraced rather than avoided. Different studies show that complexity is a quality that is generally requested in the place experience (Kasprisin, 2020; Rapoport & Hawkes, 1970; Rapoport & Kantor, 1967).

One can say that, from Venturi's point of view, urban design would become a discipline where it aims to design an *ambiguous complexity* and does not seek any simplicity. Such a design adoption would target contrasting emotions created by the related environment. However, this comprehension of complexity *should be handled very carefully*. Unlike the architectural form that Venturi criticizes, urban design already covers a natural complex structure, comprised of time, publicity, people, climate, and culture. Eventually, the cases point to *much more than a picturesque composition* like in Venturi's samples (1992). After all, he also criticized himself about the scope of his study's title:

I now wish the title had been "Complexity and Contradiction in Architectural Form" (not just Architecture), as suggested by Donald Drew Egbert. In the early '60's, however, form was king in architectural thought, and most architectural theory focused without question on aspects of form. (Venturi, 1992, p. 14)

During the 1960s and 70s, studies that approached urban design over complexity mainly explored the *visual simplicity*, just like Venturi. Rapoport and Kantor (1967) argue that the traditional architectural and urban design conception obscured the meanings of extreme simplicity in the city:

The problem with much of contemporary architecture and urban design is that it has been simplified and cleaned up to such an extent that all it has to say is revealed at a glance. A range of meanings and possibilities has been eliminated. This loss leads to a loss of interest – there is nothing to divert or to hold one as a result of lowered rates of perceptual inputs. (Rapoport & Kantor, 1967, p. 211)

Venturi et al. (1972) state that the modernist urban approach neglected *symbolism and ornament* by completely rejecting the complexity with a similar visual impulse. In *Learning from Las Vegas*, the authors examine the concept of the city's allegedly

unplanned environment through *visual perception and architectural forms*. In the frame of urban design, one might say that their point of departure is the complexity of visual symbolism, where urban design is seen as an interface that brings them together.

On the other hand, not all scholars adopt complexity in terms of visual dynamics. Minett (1975) adopts it in terms of the *system* theory. The author examines Alexander's (1965) point of view, which criticizes the reductive hierarchical order design thinking, and claims that if a city cannot be viewed as a *tree*, it cannot be viewed as a system. In this case, something that is not a system *cannot be designed*, which creates a paradox. Minett concludes that a good urban design will produce spaces where people can construct their own lives and identities:

City Planning must provide the opportunity for people to enhance their own lives. Andrew Kopkind quoted Catherine Bauer as saying "the worst kind of dictatorship is the kind that gives people what they want, the kind in which you can't tell you're being controlled." As he comments, "if that is one of the possible futures it is too important to be left only to the planners." (Minett, 1975, p. 17)

After the 1990s, different guidelines started to *simplify the cities' complex structure*. Elsheshtawy (1997) emphasizes that guidelines which evaluate complexity through visuality failed in urban design. Different experiments on block facades have shown that people mainly prefer complex layouts on facades. However, this also depends on the *socio-cultural context* and how that particular complexity should be.

In social contexts, Dovey (2012) analyzes the informal spaces that emerged in India. According to his findings, the complex structure of space cannot be evaluated only within the framework of *sub-disciplines*, e.g., architecture, urban design, but should be considered as a *complex adaptive system* where possibilities come together. The best way to do this is to recognize the reality and relationality of *practical life*. In this framework, urban design can be defined as a field that *enables emergencies, new assemblage points* within the urban space.

Kasprisin (2020, p. 5), also draws attention to the “*inherent structural assemblages*” in complex systems. According to the author, urban design is a discipline that tries to provide human settlements; however, in addition to all other definitions (like aesthetics, form and function, and integrity), it should also embrace the contingencies:

Urban design is a process of establishing a structural order within human settlements; responding to dynamic emergent meanings and functions in a constant state of flux. The planning/design process is complex due to the myriad of ongoing (urban) organizational and structural relationships and contexts. (Kasprisin, 2020, p. i)

In the framework of complexity, urban design can be defined as responding to *contingent/self-organizing spatial problems* based on the trio of society, time, and space. There is an apparent lack of consistency and consensus on such a theoretical framework in the variety of definitions that we reviewed. We believe that this is due to the *ontological complex nature* of urban space. Numerous studies have criticized the dilemma of the discipline for years. In the next section, we explicate these structural problems in more depth by examining some of the pioneer ones.

2.1.3 Critical Shortcomings in Urban Design

Scientific knowledge develops on the idea of falsification and succession of knowledge in time. Emerging studies continuously draw attention to the critical shortcomings in urban design and propose new and alternative solutions to the problem areas of the related field. Some of these studies are game-changers that propose entirely new frameworks. In this respect, this study focuses on those pioneer studies by game-changing critical thinkers and examines their key approaches to place thinking in urban design comprehension, focusing on three pioneers: Jane Jacobs, Christopher Alexander, and Norberg-Schulz.

2.1.3.1 Jane Jacobs: The Absence of Real-Life Dynamics

The Life and Death of Great American Cities offers direct and harsh critiques to modernist urban planning and design. According to Jacobs (1961), the concept of design should be determined from the *bottom-up demands of citizens, not top-down regulations of orthodox thinking*. Life brings itself into existence in the neighbourhood life and street. Jacob's main criticism focuses on the methods of planning and design that actually drift away from real-life dynamics, which also gave birth to the *New Urbanism* movement:

Instead the practitioners and teachers of this discipline (if such it can be called) have ignored the study of success and failure in real life, have been incurious about the reasons for unexpected success, and are guided instead by principles derived from the behavior and appearance: of towns, suburbs, tuberculosis sanatoria, fairs, and imaginary dream cities - from anything but cities themselves. (Jacobs, 1961, p. 6)

Jacob's critiques mostly correspond to the period after the 1950s. In the post-war era, the USA began to implement a national urban renewal policy. There were large-scale urban projects all around the country, aiming to clean up slums and apply the practice of modernist urban planning. In this process, Jacobs opposes the marriage of rhetoric and practice in planning with her harsh and assertive words. She claims that decision-makers, urban planners, and commissions are destroying cities for the cycle economy and for other particular interests:

Planners, architects of city design, and those they have led along with them in their beliefs are not consciously disdainful of the importance of knowing how things work. On the contrary, they have gone to great pains to learn what the saints and sages of modern orthodox planning have said about how cities ought to work and what ought to be good for people and business in them. They take this with such devotion that when contradictory reality intrudes, threatening to shatter their dearly won learning, they must shrug reality aside. (Jacobs, 1961, p. 8)

According to her, planners (and urban designers) are completely lost in the masses of details they create, and missing the concept of *actual life* on the street where the real question should be "*What a city should be like*". Here, the professionals are

trying to manipulate the public space by taking an artistic seduction of design along with the so-called rationalities they made up for themselves:

I think that unsuccessful city areas are areas which lack this kind of intricate mutual support, and that the science of city planning and the art of city design, in real life for real cities, must become the science and art of catalysing and nourishing these close-grained working relationships. (Jacobs, 1961, p. 14)

According to her, urban designers are mainly obsessed with the design of blocks and superblocks. However, the main places where people have contact in the city are *streets, neighbourhood parks, small and short blocks with mixed-uses, and streets full of people*. She is actually pointing out the relationality of social life that is created organically, an assemblage of actions that take place mainly on the city's streets.

Jacobs's claims were mostly valid. In time, the planning profession realized that a spatial system without *life* cannot work as an inanimate and artificial picture. Even if her visions widened the perspective on urban planning and design, different studies such as Marshall (2012) showed that she also made spatial reductions based on her own experiences (e.g., mixed-use, short blocks, diversified physicality, high density). Most of her suggestions were tested and *falsified in various studies* (Grant, 2011; Harris, 2011; Sorkin, 2010; Weicher, 1973). Nevertheless, *The Life and Death of Great American Cities*, has become one of the pioneers that remind readers of the importance of organized complexities and relationalities in city life.

2.1.3.2 Christopher Alexander: The Shortcomings of Hierarchal Thinking

In *A City is Not a Tree*, Alexander (1965) praises Jacobs's critique of the modern city's deadness, and argues that cities created by urban designers are artificial and lack the life of their traditional fabric and identity:

It is more and more widely recognized today that there is some essential ingredient missing from artificial cities. When compared with ancient cities that have acquired the patina of life, our modern attempts to create cities artificially are, from a human point of view, entirely unsuccessful. (Alexander, 1965, p. 378)

What is interesting and beautiful in his discourse is hidden in the word he uses, i.e., *patina*. Patina is the layer, the green tone that a copper or metal gets by oxidizing over time. It gives the sculpture a different dimension apart from its own functionality, which is *time*. The patina emerges with the interaction of the metal, oxygen and time. Similarly, the patina of the city emerges through relationalities. According to Alexander, cities produced by modernism *lack patina, a time dimension, and spirit*. Everything that seems unrelated in the city (as his sample of relationships, - a traffic light and a newspaper) create a space of interaction. The constants of the place (in this case, a traffic light, sidewalk and newspaper stand) and variables (people, newspapers) might continuously form new relations within the place:

Of the many, many fixed concrete subsets of the city which are the receptacles for its systems and can therefore be thought of as significant physical units, we usually single out a few for special consideration. In fact, I claim that whatever picture of the city someone has is defined precisely by the subsets he sees as units. (Alexander, 1965, p. 380)

The most crucial critique Alexander brings to the field is directed towards the reductionist hierarchical adoption of design thinking. Modernist understanding tries to create a limited number of sub-branches descending from upper scales, just like systematic branches (Figure 2.9). However, the system's associations are much more than this limited frame, the semi-lattice diagram shows that how a simple twenty-unit system might almost have more than one million interrelations in space.

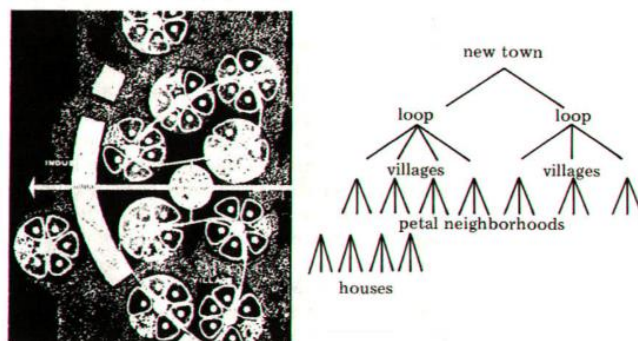


Figure 2.9. The Scheme of the Garden-City as a Tree (Alexander, 1965, p. 383)

Alexander's contribution significantly influenced complexity studies in urbanism. Although the concept of semi-lattice has received criticisms (Harary & Rockey, 1976; cited in Marshall, 2012) the view of spatial relationalism clearly shows how emergent events continuously define new relationships. On the other hand, this attitude might also lead designers to conclude that a city can never be designed (Marshall, 2012). At this point, one can believe that Alexander falls into his trap, since in his case, he shows why the limited visions of designers would not work in cities. Yet but his over-rationalized approach still adopts place only within the *tangible world of relations* (mostly in terms of mathematics). However, what if urban space is treated within a higher and collectivizing set of commonalities? Can affectivity/emotions provide this potential?

2.1.3.3 Norberg-Schulz: The Absence of Power and Spirit of the Place

Norberg-Schulz (1984) wrote one of the most important works that approach the place *phenomenologically*. According to him, the field of architecture, in pursuit of scientific theory, is detached from the place's *existential meanings*. Architects are more interested in a picturesque than in the meaning and existential dimensions. With this critique, he suggests focusing on the definition of place not only from tangible dimensions, *but also through feelings, emotions, and meanings*:

In the present book we have therefore chosen to approach the existential dimension in terms of place. The place represents architecture's share in truth. The place is the concrete manifestation of man's dwelling, and his identity depends on his belonging to places. (Norberg-Schulz, 1984, p. 6)

Genius Loci deals with the natural landscape, built environment, and the concept of place. The primary argument deals with the concept of 'place' which can *not be reduced to any partial quality or character* and is a unique qualitative unity rather than quantitative relations. In order to better reveal the semantic relations of the place, Norberg-Schulz uses poems and photographs to reflect this particular timbre,

the essence (Figure 2.10). The study builds the phenomenology of place through a relationalist position.



Figure 2.10. Identification, Nordic Winter (Norberg-Schulz, 1984, p. 20)

According to Norberg-Schulz (1984), understanding the place is not about grasping the meanings of that place, but about experiencing them. The current understanding of urban design is far from finding methods to construct new meanings. It does not even make enough effort to experience the related sites. However, the spirit of the place rises from its natural, human-made, and semantic integrity; and that meaning arises from the relationship of one to another, where unpredictable relationships reveal new meanings:

To arrive at an understanding of the genius loci, we have introduced the concepts of “meaning” and “structure”. The “meaning” of any object consists in its relationships to other objects, that is, it consists in what the object “gathers”. A thing is a thing by virtue of its gathering. “Structure”, instead, denotes the formal properties of a system of relationships. Structure and meaning are hence aspects of the same totality. (Norberg-Schulz, 1984, p. 166)

Norberg-Schulz attempts an in-depth phenomenological deciphering by criticizing a very fundamental point of rationalization in urban design. He believes that when

architecture is examined analytically, designers miss the existential basis of the environment. In other words, the relationships between the subject and his or her nature are lost. Thus, he questions a triangular interrelation between the place, the meaning and the subject, and embraces a phenomenological understanding of architecture in the context of *culture, meaning, identity and experience*.

In this regard, what designers encounter is a complex, continuously emergent set of spatial relations in design problems. Besides, this complexity does not only rise from the physical and sensory world, but a world of a social life that is constructed through an affective unity. For this reason, it is crucial to examine the relationalities of experience and place in more depth.

2.1.4 Place: The Space of Experience

In the last section, the study drew a frame for urban design definitions from different perspectives. However, the domain been shown to be just a discipline, a medium to reach livable places. So, it is also essential to define the concepts of 'space' and 'place' to understand what urban design is trying to achieve in the city.

The concept of *space* is one of the most significant pillars in urban design. On the other hand, *place* is its transformation into life, *a reflection of life*. In numerous studies, scholars emphasize the intertwined relations of these two important phenomena (Carmona et al., 2003; Günay, 1999; Lynch, 1972; Madanipour, 1997; Madanipour et al., 2001; Norberg-Schulz, 1984; Relph, 1976; Rowley, 1994; Tuan, 1977). Tuan (1977) defines their dialectical relationship in terms of *experience*:

In experience, the meaning of space often merges with that of place. "Space" is more abstract than "place." What begins as undifferentiated space becomes place as we get to know it better and endow it with value. Architects talk about the spatial qualities of place; they can equally well speak of the locational (place) qualities of space. The ideas "space" and "place" require each other for definition. From the security and stability of place we are aware of the openness, freedom, and threat of space, and vice versa. Furthermore, if we think of space as that which allows movement, then place is pause; each

pause in movement makes it possible for location to be transformed into place. (Tuan, 1977, p. 6)

The positivist paradigm defines space through *form and function* (Bacon, 1974; Carmona et al., 2003; Rapoport, 1977; Rowley, 1994). The recognition aims to describe it from an intermediate scale *between planning and architecture*. Designers, whose tools are just pen and paper, reflect their creativities spatially in a transition between these disciplines. The euclidian design is mostly criticised through striking inquiries such as Lefebvre's (1991); however, today's practice still insists on *staying in this comfort zone*, endeavouring to *control tools* and describe space generally with *euclidean dimensions*.

On the other hand, *place* emerges from *meanings* and their *relationalities*. The spatial *experience*, contains a unique '*timbre*'. Every internal and external factor changes the timbre of the place and maintains an emergent dynamic structure. Even if the space dies, the spirit of place continues to live (e.g., the Colossus of Rhodes, the Hanging Gardens of Babylon). *Memories and historical traces* last in time, just like a timbre. It defines the unique character of the place that we hear and perceive. We will deepen this conceptual integration later in the study.



Figure 2.11. Hanging Gardens of Babylon

This section aims to examine the *definitions of place* in the urban design literature, but not to fully clarify them all. It examines the literature critically, investigates its position in urban design, and hopes to *free ourselves from deterministic* and absolute definitions, seeking for an emancipatory episteme of *meaning and experience*. For this purpose, Norberg-Schulz's definition would be a good point of departure:

In general, a place is given as such a character or "atmosphere". A place is therefore a qualitative, "total" phenomenon, which we cannot reduce to any of its properties, such as spatial relationships, without losing its concrete nature out of sight. (Norberg-Schulz, 1984, p. 8)

Norberg-Schulz implies an indissoluble wholeness of *time* and *place*. Almost all of the emergent literature likewise describes urban design as a process. However, today's design practice mostly focuses only on a set of thoughts and intervention on space, and omits the possible continuum. This perspective creates a considerable gap between theory and practice. In this problematic case, this study examines the concept of place under three main groups: (i) *a physical composition*, (ii) *an experiential phenomenon*, and (iii) *an intersubjective-shared meaning*.

2.1.4.1 Place as a Physical Composition

People perceive places according to their *tangible and intangible qualities*. A place's feeling can be sensed differently due to different factors, such as *built fabric or architectural styles*. A significant part of the literature examines the balance of physical formations in place-making (Bacon, 1974; Carmona et al., 2003; Günay, 2007; Hall, 2014; Jacobs, 1961; Lynch, 1960; Lynch & Rodwin, 1958; Cliff Moughtin et al., 1999; Norberg-Schulz, 1984).

It is possible to come across relations of *place, meaning and physical elements* in the literature, especially after the 1960s. Perhaps the most famous study of this mindset is *Townscape* by Gordon Cullen (1964). The author describes the place as a *visual and physical continuity of experience* with a set of architectural series named "*serial vision*". The place and experience work together in the physical environment through

design style. The person who experiences develops an idea of '*I am outside IT, I am entering IT, I am in the middle of IT*' (Cullen, 1964, p. 29). The more a person perceives consciously, the more opportunity to gain experience of the place.

Norberg-Schulz (1984) describes place through the physical structure, aside from an abstraction of space. Space turns into a place *with forms, colours and materials*. The environment (whether natural or built) reveals a unique character through physical qualities. Even if the author focuses on the *spirit of the place*, he mostly focuses on analyzing the physicalities to define it. This might be to concretize the ideas in readers' minds, since *the content of place does exceed the limits of design thinking*, and one eventually needs to reduce it into a controllable composition. In this framework, Buchanan (1988) also asserts *place-making as the primary basis* of urban design and describes the concept of "*making*" as a matter of creating *physical formations*.

In this framework, the place becomes the composition of physical elements in a particular space. While most designers focus on various design aspects, counter-critiques state that the point of view belongs to an elitist position, and that *designers* should usually be evaluated as *outsiders* of place. The current mediums of design (mostly drawing) are mostly *inadequate to control the emergent forms and meaning*, because drawing only gives form, which is a very opaque tool considering the powerful experiences in place.

This problem can be exemplified with a sample from Italy, by Umberto Eco (2019). In southern Italy, the "Cassa del Mezzogiorno" initiative builds residential sites in small villages, as a part of a nation-wide housing strategy. The new houses naturally have more advanced facilities than old ones, and most of the villagers come across a toilet seat for the first time. Interestingly, villagers *attach a different 'function' to toilet bowls* since they are not used according to their *'forms'*. They *wash olives* by stretching nets on these toilet seats. Umberto Eco approaches the case from denotations and connotations of forms and functions. When you look at a *'toilet'*, if the first thing that comes to your mind is to wash your olives, and *if it works*, even

the meaning and function of a toilet can change. Likewise, a place also acts similarly depending on *denotation* and *connotations*.

Urban design inevitably defines the place in terms of physical qualities. If taken as a *medium to produce spatial compositions*, the effort to design physicality is a natural consequence for a common ground to act. However, when it is taken only based on physical features, *various shortcomings are revealed*. Thus, these qualities only represent some of the triggering elements, and place *cannot be evaluated just in terms of form, colour, or architectural decoration*. Meanings alter according to socio-cultural contexts, and thus, according to physical contents, just like in the Italy example. The interpretations of people, which can vary inter-subjectively, reveal the need for urban design adoption that focuses more on the collective perception. Here, emotions present a common ground and focus on the relationship of collectively shared meanings, besides physical elements.

2.1.4.2 Place as an Experiential Phenomenon

Experience is the occurrence of an event in space and time. If one considers the origin of the concept, it can be seen that it comes from the word '*experiri*', which means '*trying*'. Over time, it has become more associated with '*observation*' and has become widely used as *experiential*, and *experience* (OED, 2020).

During an activity, the subject interacts with the environment, and an *impression* is obtained from this *interaction*. Norberg-Schulz (1984) emphasizes that it would be wrong to make partial definitions for this interaction, but better to consider it as a semantic whole to grasp the essence. For this purpose, the author begins his book *Genius Loci* with discussions of Nordic winter evenings with poems (Norberg-Schulz, 1984). The *photographs and poems* draw attention to the importance of intense *meanings and experiences*. According to him, the unity of place is the physical world and the intersubjective-shared meanings that transcend it. Although this view might be interpreted as a romantic idealist approach, recent studies in

neuroscience also show the importance of *emotions and affects* in decision-making. The correlations based on affectivity can now find a response in a much more functional field (Edelman & Tononi, 2000; Haier, 2017; Myers, 2020).

In urban design, the concept of place is intertwined with the '*experience*'. When a person experiences a place, there is usually a reason, a particular purpose. Therefore, the person begins to sense the place by integrating the prior and later experiences. For instance, if you are a *tourist* visiting Trafalgar Square in London, your primary purpose is to observe the *historical place*, the *visual qualities*, and the architectural and unique details. You will most likely prioritize this type of experience. However, if you are a *resident* living in the same district, and you walk to the subway every day, probably you know the *smell of the coffee shop at the corner*. You know how rain smells in the mornings and are familiar with the feeling of the particular rush hour chaos. The *experiences* evolve according to their *unique* owners. A significant part of the literature examines place in terms of these experiences. In *Design of Cities*, Bacon names place as an *experiential continuity* and claims that architecture should achieve this target:

Architecture is the articulation of space so as to produce in the participator a definite space experience in relation to previous and anticipated space experiences. (Bacon, 1974, p. 21)

The articulation of *time* is another one of the crucial qualities that reveal identity. Relph (1976) interprets place beyond its physical environment and architecture. According to the author, places are revealed due to an *intersubjective experience* as much as the physical elements. Here, experiences are divided into two classifications: The first one is the '*direct experience*' between space and the person, which can be described as an instant, felt experience in place, like the sudden feeling of sun on one's face. On the other hand, the second one describes a reflection of a '*long-term experience*' that constitutes identity by accumulating meanings in space, e.g., as you might feel about your neighborhood. Tuan describes a similar semantic interaction as follows:

In experience, the meaning of space often merges with that of place. "Space" is more abstract than "place." What begins as undifferentiated space becomes place as we get to know it better and endow it with value. (Tuan, 1977, p. 6)

Hence, place emerges where space finds *meaning*. Rapoport (1977) advances this view in his work *Human Aspects of Urban Form*, and shows how physical elements, and the relationship between physical and socio-cultural experiences, form meanings. The findings suggest that experiences mainly occur through the *senses* (hearing, seeing, smelling, tasting, and touching). Punter (1991) also emphasizes their importance within three significant pillars of place: *physical space*, *sensory experience*, and *activities* (Figure 2.12).

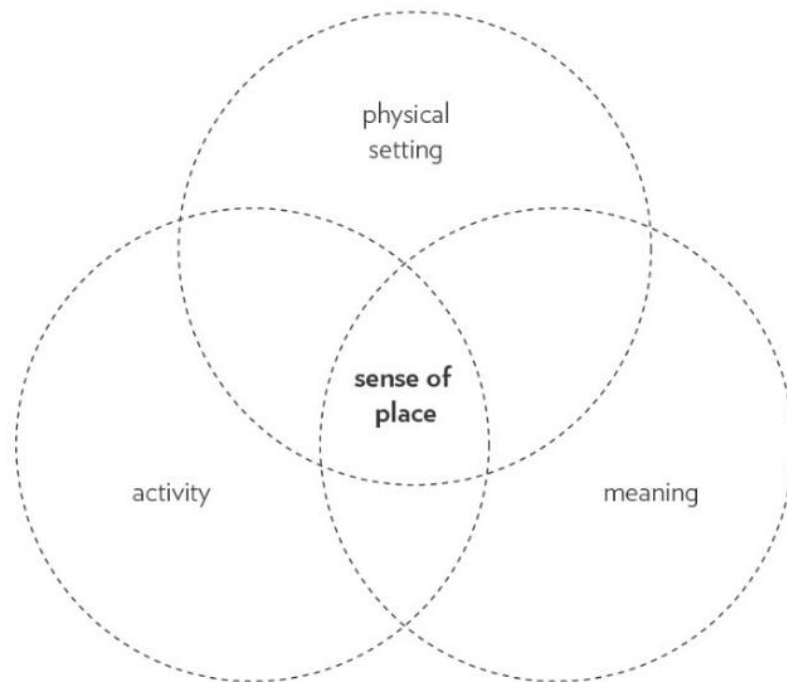


Figure 2.12. Sense of Place (Punter, 1991)

Senses describe the body's perception of environmental stimulus; nevertheless, the experience is a process of detection. In other words, it is a process of creating a whole from parts. Especially complexity studies, which have become widespread in recent years, confirm this point of view. Kasprisin (2020) claims that place is a result of 'emergent' experiences occurring around people. Such a viewpoint provides a more

challenging perspective than others, because if a person can react differently to the same physical object in different socio-cultural environments, then one could say that it is impossible to explain which physical or '*sensory compositions*' are determinants in the context of urban design. Thus, designers lose control over any physical or sensory elements in terms of '*perception*'.

From this perspective, we might need to understand '*emotions and affects*' in more depth to decipher the phenomenon of experience. If a person perceives his environment through the senses and emotions, her/his emotional integrity directly influences the perception of place experience. In this case, *two types of emotions* are revealed in the discussions:

- i. The first type comprises '*individual emotions*' (*internal*) and their effects on the perception place, which is eventually related to the field of psychology rather than urban design.
- ii. The second type comprises the *effects of place on emotions* (*external*), where they exist in an interaction with the surrounding environment. Here place turns into a natural interface of emotions.

In this framework, *place is not just a 'visual' or a 'sensory' composition, but a composition of affects/emotions* that one feels and perceives, and mostly a complex structure which is very challenging to explain. Jacobs's (1961) also implies this state as follows: "*Well, I must take a leap. All of the experience has taught me something. It may be unprovable, but I think I know what a good place is.*" (1961, p. 112)

2.1.4.3 Place as a Matter of Intersubjectively Shared Meanings

Numerous studies have argued that urban design is not a product but a process (Carmona et al., 2003; Cozzolino et al., 2020; Günay, 1999; Kasprisin, 2020; Madanipour, 1997). The reason is the continuous and emergent relations of variables in the related place. From this point of view, *place* emerges as a semantic consequence of *social and historical processes*. Within the complex network of

relations, the urban space emerges as a socio-spatial process, and the urban environment is a reflection and part of this process. Therefore, the definition of place addressed by urban design must be shaped accordingly.

This sociological spatiality constructs place through particular meanings and symbols. *Meaning* is derived from the word of *meninge* (OED, 2020) which implies 'sense, remembering'. Everyone can describe a place through different attributes, but it is necessary to find an average to decipher it. Therefore, it cannot be produced solely subjectively or objectively. As the concept of meaning indicates, people and time construct places intersubjectively.

In the literature, different studies define the quality of places over the concept of meaning. In *Image of the City* (1960), which is perhaps one of the first striking works of urban design literature, Lynch states that every person's perception is different, and people construct meaning through *time* and *experiences*. As a result, he defines *five image elements* (node, path, edge, district, and landmark) that determine the parts of whole image that emerge from different interpretations. An extensive search for *shared meanings* is examined in different cities such as Boston, Jersey City and Los Angeles, in terms of a consensus on image elements.

Comparably, Relph (1976) argues that place is about the *combination of experience and the intensity of meaning in the city*. Intensity is the key term in this approach. *Place* can transform a very intense experience with its historical and spatial qualities. An apparent example are mausoleums, for example the Anıtkabir (Ankara, Turkey), the Taj Mahal (Agra, India) or the pyramids in Egypt. In these places, people disconnect from the ordinary experience of daily life. They communicate with the subjects and tell of something else rather than just simple functionalities. As Relph (1976) suggests, this type of intensity reveals *the power of place*. It is not only a focus of an activity, but a focal point of *meanings* produced by *cultures*:

This means that places in the city, belonging to different groups, have meaning, they symbolize and indicate status and social identity — they are not a locus for manifest activity only. (Rapoport, 1977, p. 20)

Experience is indispensable for conveying these meanings: it provides an opportunity to reach them. As people attribute value to place, they begin to grasp meanings better through experiences. This reveals how important *the use of place* is in terms of the *identity continuum*.

Tuan (1977) gives an interesting examples of '*movements*' and '*stops*' within the experience. People '*move*' inside the space, and when they '*stop*' for a moment, it allows them to experience and make an observation. However, rather than making simple observations, it is crucial to *use* the place which allows them to *attribute a value to the experience*. Punter (1991) grouped those significations under several sub-headings: *the perception of society, cultural connections, readability and functions*. According to him, meaning is created through *physicality* and *usage*. Günay (1999) establishes a similar relationship in terms of *three significant actions*:

Place is described as a space inhabiting a *function* or an *activity*, or a setting which has *meaning* for those who live, observe or perceive it. (Günay, 1999, p. 33)

All in all, *place* can be defined as a process of meaning and experience accumulation, which is constructed through uses, observations, and senses: a complex intersubjective process. Although the reviewed studies mention most of these topics, we think that affectivity is not discussed well enough in this intersubjective process. Therefore, this study suggests firstly reviewing the concept of complexity and then the role/position of "*people*" in it. In this way, it aims to structure an alternative theoretical framework and explicate place as a matter of a relational assemblage in urban design.

2.2 Urban Space as a Complex Structure

In the cycle of infinite factors of *meaning and experience*, *place* becomes a confusion by itself. Trying to understand its past and present, or to describe its future, is like being faced with *a big knot*. If the dull and mechanical understanding of place is put aside, *trying* to untie this knot can be described as the design expertise itself. In this context, if urban design is expected to interpret and/or decide for the future, we must first discuss the major problems that designers face in general.

The first problem is the relativity of *time*. Generally, the unit, whose density changes relatively according to the facts it contains, is composed of a number. Projects are divided into short, medium, and long terms, and the *concept of time* is defined in terms of days, months or maybe years. However, *time*, as a flowing phenomenon, continually changes its density. We can exemplify this by thinking of how fast the world is changing today. It can easily be argued that it is nearly impossible to predict what the future will bring, just by looking at the changes that have taken place in the last thirty years. With the simplest example, humanity has produced 90% of the data produced only in the last two or three years (Hariri et al., 2019). From this point of view, *events, and emergences impact the density of time*.

In urban design, the primary pursuit is to build a more *livable* and *sustainable* environment, which can seem like normative targets of design policies in the last decades. However, as urban designers, we have to admit that we are *far behind in discussing the issue genuinely* compared to other social or natural sciences. We need to reinterpret urban design in terms of the disproportionate social evolution. Just as we were not able see today from the past, we must admit that we are also not capable of precisely predicting the contingencies of future. Simply, think about the year 2020. Today, we speak of a world where everybody communicates without leaving his or her living space. The reality of today (the emergence of the COVID-19 pandemic) was just an image of dystopia until a year ago. Similarly, the rapid emergences will continue to strike us for real, just as flashes of lightning paralyse herds of sheep. However, we often find it more *comfortable to control the*

predictable time intervals in design. Thus, we try to resolve this problematic relation to time by completely ignoring its complex nature in such chaos. For contemporary understanding, the speed, the picturesque, decoration, or visual presentation comes before the requirements of the potential future'.

The second problem is the comprehension of *space*. At this stage, we need to clear a conceptual misunderstanding. By considering the phenomena of space and space-time separately, we can make determinations that are more accurate. *Space* is the concept in which we assume *objects and events exist*. On the other hand, *space-time* describes a *relationality* in which the velocity is essential. In simpler terms, everything in space-time is *interconnected, related to each other*. For example, the faster an object is, the slower the time. The designed space is as connected to time, and it varies depending on the meanings and experiences. Therefore, each subject (e.g., designer, community, or case) *creates its own reality*. The emergences that interact with a design are hidden subjects that might completely change the impact of subjects on space. The pandemic, or the global migration waves after the 2010s, are clear examples of this case.

The third problem is *communication*. As communication increases, the ability to learn intensifies. People establish new relationships through social connections and intersubjective acceptances they acquire over the years. Today, social interactions have increased to such an extent that the world has turned into a huge neural network. Humanity needs interactions to produce and create *the new*, which is mostly the main concern in dealing with its own emerging problems. Most of what we put forward as solutions consist of problems created by human agency. For example, let us consider electric cars since they are one of the most popular designs of today. What is their significance for a tree? Is a COVID-19 vaccine of value for a monkey living in the Amazon jungle? We must understand that most of the solutions that we admire are just a matter of our experiences, not nature's or the universe's. Ultimately, we need to rethink our conceptualizations such as 'universal design', as organisms in a universe ranging from 200 million to 2 trillion galaxies.

The relationship of complexity and design occurs within a triple system: people's role through *time (history)*, *space (place)*, and *communication (interrelations)*. In this framework, *the first section* investigates the definitions of *complexity* in urban design and focuses on the literature that investigates the topic spatially. The second section examines *assemblage thinking* and the interactions that continually transform unities into more sophisticated contexts in space. Finally, the last section explores factors such as *emotional and affective experiences*, which orient the communication and the perception of spatial complexity.

2.2.1 Complexity in/of Urban Space

Chaos is “*the state of total confusion with no order*” (Cambridge Dictionary, 2020). On the other hand, *complexity* is “*the state of having many parts and being difficult to understand or find an answer to*” (Cambridge Dictionary, 2020). Complexity refers to a combination of *open systems* with multiple actors. A complex system *varies greatly or slightly*, depending on internal or external factors. The theoretical history of chaos goes a long way back, even if contemporary studies have strengthened its position in the last decades.

Henri Poincare discovered the deterministic chaos system when he was trying to resolve the solar system changes as a mathematician and physicist. Even if he did not formulate the theory, his findings on *relativistic transformations (the three-body problem)* planted the seeds of the field. He was one of the first scholars who used the concept of *chaos* in mathematics and showed that even simple systems could be excessively complex. After him, a meteorologist from MIT, *Edward Lorenz*, systematically developed these ideas in *weather forecasting research*. Like Poincare, Lorenz showed that even tiny changes in the equations might result in significant consequences and suggested that *three variables* were enough for an unpredictable environment. In this way, Lorenz modelled *the strange attractor*, which looks like a butterfly (Figure 2.13).

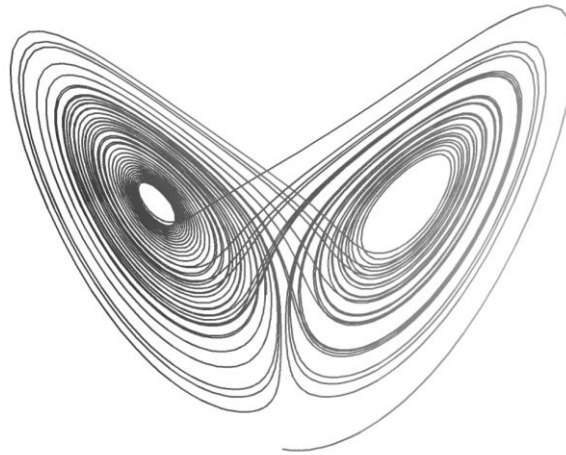


Figure 2.13. The Butterfly Diagram, Lorenz Strange Attractor

Lorenz's research on deterministic chaos was a pioneering step for various scientific fields. In urbanism, *Jane Jacobs* is one of the first scholars who called the city an *organized complexity*:

Why have cities not, long since, been identified, understood and treated as problems of organized complexity? If the people concerned with the life sciences were able to identify their difficult problems as problems of organized complexity, why have people professionally concerned with cities not identified the kind of problems they had? (Jacobs, 1961, p. 434)

Jacobs's focus directly points to a simple but *complex phenomenon: life*. However, since everything in *space* and *time* belongs to *life*, the scope is too wide to investigate in urban design. Because of this problem, investigating the definitions of complexity (from different disciplines) would present a more in-depth framework.

In this regard, Gersherson's (2008) book, *Complexity: 5 Questions*, is one of the most simple and effective inquiries to understand the concept. The author gathers the thoughts of influential scholars from different disciplines (like physics, mathematics, sociology, and politics) and explores the insights of *complexity* with five simple questions. Even though all the answers are worth discussing, in this section's scope, we are interested in the second one, which is on *the definition of complexity*.

Etymologically, complexity comes from the Latin plexus, which means interwoven. A complex system is one in which elements *interact* and *affect* each other so that it is difficult to separate the behavior of individual elements. (Gershenson, 2008, p. iii)

Gershenson starts the discussion by imagining a system that interconnects different elements. The interrelations of elements create new structures of upper or lower systems and influence each other in various ways. The uncontrolled relations direct changes. Eventually, they inevitably become open to emergent impacts. Most scholars from different disciplines agree on this case; however, the most striking consensus on complexity is the paradox and *the difficulty to define what it really is all about*:

Philip W. Anderson (Physics Department, Princeton University): I think it's a mistake to try to define complexity. I'm happy to define emergence, as the appearance as the scale is increased of properties unrelated to those of the substrate. (P. W. Anderson, 2008, p. 6)

W. Brian Arthur (Santa Fe Institute, USA): I do not think of complexity as having a definition. Seth Lloyd compiled 45 definitions of complexity. I see complexity not so much as something that we define, but more as a movement. (Arthur, 2008, pp. 9–10)

Paul Cilliers (Philosophy Department, University of Stellenbosch): There are a number of philosophical problems with the notion of definition. A definition describing something in terms of a set of more primitive concepts is already reductionist in nature. (Cilliers, 2008, p. 28)

Francis Heylighen (Cyberneticist, Vrije Universiteit Brussel): Arguably the most problematic aspect of complexity is its definition. Dozens if not hundreds of authors have proposed definitions, some vague and qualitative, some formal and quantitative, but none of them really satisfactory. (Heylighen, 2008, pp. 69–70)

Seth Lloyd (Mechanical Engineering & Physics, Massachusetts Institute of Technology): I still think that complexity resists all attempts to define it. I prefer a multifold definition: complexity arises out of a *combination* of the difficulty of describing or characterizing a system (measured, e.g., in bits). p 87 (Lloyd, 2008, p. 87)

In this challenging case, an exciting (yet stereotypical) point arises in urban design. If we cannot precisely define complexity, and if the city is an organised complexity, we cannot precisely know what we are dealing with. Despite this harsh reality, researchers examine the concept by evaluating it from certain angles. After all, as we said at the beginning of the chapter, complexity is not defined by the assumption of a complete disorder or indescribability, but by an order whose order is, in fact, incomprehensible. Anderson (2008, p. 6) explains it as “*the search for generalizable features in the behaviour of large or complex aggregates of simpler systems.*” In this framework, it is crucial to understand **four key concepts** that all disciplines commonly use:

- Self-organization,
- Emergence,
- Open systems,
- Indescribable relations (between the parts and the organization).

Self-organizational systems: They are “*structures (assemblages) and organizations (functional relationships)*” which are organized independently with internal dynamics (Kasprisin, 2020, p. 19). In other words, *assemblages* play active roles independent of the top-down externalities. Thus, if there are unlimited numbers of structures in space-time, top-down control is significantly lost. The concept of self-organization has been covered in many different fields, from physics to sociology (Cozzolino, 2020; de Roo et al., 2012; Heylighen, 1989; Portugali et al., 2012; Scott, 2008), and its most significant impact is to reveal new emergences.

Emergence: It is probably one of the most significant concepts in complexity studies. According to George Henry Lewes (1875), every result is a consequence or difference of the previous formation. Thus, in normal circumstances (linear processes), it is necessary to talk about homogeneous and commensurable systems:

It is otherwise with emergents, when, instead of adding measurable motion to measurable motion, or things of one kind to other individuals of their kind, there is a co-operation of things of unlike kinds. The emergent is unlike its

components insofar as these are incommensurable, and it cannot be reduced to their sum or their difference. (Lewes, 1875, p. 369)

On the other hand, in complex systems, there are always emergencies that are *heterogeneous and interrelate in different scales*. Eventually, the system no longer adapts a framework that controls itself (P. W. Anderson, 2008). Rather than a laboratory (just as we suggest in urban design, i.e., the city), an order in which the frame continually changes emerges where the boundaries are not completely clear. Each emergence affects the assemblage with different interconnections, and it reveals the requirement for a debate on open and closed systems.

Open systems: They are systems which eliminate the separation of external and internal effects. Since there is an artificial (so-called) frame in closed systems, unexpected effects (entropies) are adopted as *complications*. In open systems, on the other hand, the unexpected (external or internal) entropies represent *opportunities* (Kasprisin, 2020, p. 23). Allen (1997, p. 1) defines open systems as “*ones which exchange energy and matter with their surroundings.*” They are the basic structures that reveal complex structures (Haken, 2012). In open systems, those entropies appear nonlinearly and independent of scale, compared to linear and hierarchical relationships.

Indescribable relations between parts and whole: Ideas are required to attach meaning to a specific experience or action to describe a *phenomenon*. In such situations, the prior experience becomes dominant in the pursuit of relational descriptions and naturally reveals a reductive approach. On the other hand, complex systems do not necessarily show distinct or ordered relations. Yaneer Bar-Yam (2008, p. 17) states that “*complexity refers to the existence of system behaviors that cannot be described from the behavior of parts, and must be described through understanding their interdependence.*” In this context, the complex structure turns into a type of labyrinth that continuously rebuilds itself. Therefore, it is not the parts but the *logic of interrelations between components* that takes designers to the solutions.

The question is how urban design literature approaches this labyrinth. When we examine the literature, we observe that the basic adoption of almost all approaches is that the city is already a complex system. According to Batty and Marshall (2012), modernism has also tried to resolve this complexity, just like post-modern inquiries. For instance, one can also see *Le Corbusier's* emphasis on simplification and functional adoption as the start of this effort. However, the *modernist school* has failed and been criticized because of the gap between *actual life* and *reductive simplicity*.

Jane Jacobs (1961) is one of the most popular pioneers of these criticisms as she is cited in numerous studies (Boeing, 2018; Cozzolino, 2020; Ewing & Handy, 2009; Kasprisin, 2020; Manuel DeLanda, 1997; Portugali et al., 2012; Salingaros, 2000). According to her, the city is an *organized complexity* with inherent dynamism in daily life where the static perception of space is an illusion, and it frequently reveals new emergences. *A City is not a Tree* (Alexander, 1965) which was written a few years after *The Death and Life of American Cities*, also points to the mathematical side of complexity. The study shows how cross interactions within space create an emergent open system and how the city produces much more than the imagined and designed frame.

In the late 60s, various studies started to appear in architectural aesthetics and environmental psychology. Especially Venturi's *Complexity and Contradiction in Architecture* has had a significant impact on the postmodernist approaches. According to Venturi (1992), the pressure of modernist simplicity has killed the architectural form and aesthetics. When designs exclude the inherent details, this transforms buildings into *the thought image itself*. Venturi et al (1972) examined a similar problem in *Learning from Las Vegas: The Forgotten Symbolism of Architectural Form* (e.g. the famous duck example).

Most of the criticisms have reflected complexity as a desirable feature when it is balanced. Some subsequent studies emphasized the aesthetic and perceptual importance of environmental design (Kaplan et al., 1972; Lozano, 1974; Rapoport,

1990; Rapoport & Hawkes, 1970; Rapoport & Kantor, 1967). In the last decades, the studies have moved to a different dimension with the emergence of big data and new analysis tools (such as spacesyntax and algorithmic design with Grasshopper). In the focus of this shift, new *relational spatial models* (e.g. fractal geometry (Batty & Longley, 1994), space syntax (Bill Hillier, 2007)), methods in *participatory processes* (e.g. play the city (Portugali et al., 2012)), and debates of paradigm shifts (e.g., de Roo et al., 2012; Thrift, 2008) have been developed. At this point, a reminder should be added to the effect that this is not a complexity-based study. Instead, it attempts to understand the primary literature of the contemporary criticisms to resolve the position of place experience in such a chaos. In this context, it examines five classifications in the literature:

- Visual Complexity: Form and People
- Spatial and Functional Complexity: Rationality of Place
- Temporal Complexity: Time and Place
- Multi-Scale Complexity: Non-linear Connections
- Emotional Complexity: Wholeness of Experience

2.2.1.1 Visual Complexity: Form and People

An essential part of the literature on visual complexity has been on aesthetics, architectural detailing, and the balance of built and natural environment. In this category, the subject of aesthetic perception raises the question of how to interpret the parts of the city. Williams (1954) claims that visual complexity should be examined holistically since our perception varies depending on visual form and meanings. However, the meanings and so perceptions differ rapidly in the changing world. The author states that “*the complex social and cultural interrelationships which exist in the contemporary city cannot be expressed as simply as the spiritual and temporal hierarchy within a medieval town*” (Williams, 1954, p. 110).

In this framework, the duality of visual complexity and simplicity appears as the agony of modernism. Especially in architecture, debates on ornaments and

decorations have been prevalent (Rapoport & Kantor, 1967; Venturi, 1992). On the other hand, in urban design, the debates are stuck between the functional and aesthetics qualities of urban spaces. According to Rapoport and Kantor, the pursuit of simplicity and functionality has revealed the risk of erasing significant traces in urban space:

The problem with much of contemporary architecture and urban design is that it has been simplified and cleaned up to such an extent that all it has to say is revealed at a glance. A range of meanings and possibilities has been eliminated. This loss leads to a loss of interest - there is nothing to divert or to hold one as a result of lowered rates of perceptual inputs. (Rapoport & Kantor, 1967, p. 211)

The conflict of simplicity and ambiguity between natural and built environment has also been addressed in different complexity studies (Elsheshtawy, 1997; Ewing & Handy, 2009; Kaplan et al., 1972; Laverick, 1980; Lozano, 1974; Ulrich, 1979; Venturi et al., 1972). Kaplan and Kaplan (1972) reveal evidence of nature's simplicity compared to urban chaos and point out our similarities with it. Similarly, Lozano (1974) and Laverick (1980) emphasize the importance of and need for an equilibrium between simplicity and complexity in visual perception.

However, how visual complexity can be measured is still a significant question. Elsheshtawy (1997) suggests that one can use Gestalt principles to measure it. According to the author, with grouping principles, it is possible to analyze the gaps and frames of the complex visual orders. His study asserts this claim based on various experiments on facades and finds out that people mostly prefer complex orders. However, it should be kept in mind that Elsheshtawy's study examines the concepts only through the visual qualities (the object, not subject).

All in all, the literature seems to agree that too little or too much environmental stimulation can result in a prosaic or disturbing effect on visual perception. If we adopt Rapoport's (1990) definition, visual complexity is related to the number of variables (which can be perceived) that people are exposed to at a given time. In this case, whether something is complex or not is directly related to the perception

capacity. Thus, it must also be examined in the changing context of social qualities, as an intersubjective framework.

2.2.1.2 Spatial and Functional Complexity: Rationality of Place

The second classification can be framed as *spatial and functional complexity*, which mostly focuses on function, morphology, or land-use problems in urban design. Christopher Alexander (1965) is one of the most significant names in this category. In *A City is not a Tree*, he examines both the contemporary changing social formations and the complexity of spatial order through semilattice interrelations.

Alexander simply shows that the interrelations between the elements of city create an enormous structure in the city. Based on this pioneer study, Minnett argues that the city (whose systemic and functional relationships cannot be fully determined) reveals an interesting paradox:

...as we have seen designers derive their designs from the functioning of the system. Furthermore, I don't think you can design a system unrelated to its function. Thus the paradox: but only a paradox so long as the city is regarded as a system. (Minnett, 1975, p. 14)

If city is a complex structure, and if complex system cannot be defined, the question arises of how much it can be designed (e.g., morphology, land use, etc). Different studies in the literature have discussed the topic in various areas from neighbourhood units to urban diversity (Allen, 1997; Baynes, 2009; Ben-Hamouche, 2009; Boeing, 2018; Bourne, 1978; Cozzolino, 2020; Jencks, 1997; Mackinnon & Wearing, 1980; Sadler, 1998; Salvati & Carlucci, 2020). In this group of studies, designers generally rely on the *abstract ideas and models* to reduce the complexity of problems. Here, a continuing conflict arises between the practical (emergence) and theoretical (ideas) world of experience. The *static and dynamic* spheres of these phenomena collide.

Bourne (1978) examines this collision in terms of land use and mathematical models. According to the author, the development of dynamic land-use understanding (e.g., relational analysis, multiple core areas, variety of spatial features) should be

presented instead of static unitary plans. Different studies also support the generative approach in land-use planning (Ligmann-Zielinska et al., 2008). On the other hand, decision-making processes on form and function can also be posed in an urban design problems (Allen, 1997).

In particular, conflicts between actors are much in a liquid form (or even gas) state compared to the design itself. In this context, Mackinnon and Wearing (1980) highlight three important factors that complicate decision-making:

- (i) The number of elements,
- (ii) Connections between elements,
- (iii) The level of uncertainty.

Considering issues such as land use and morphology, differentiation of spatial uses, and actor groups, the number and connections increase exponentially today. Therefore, not only designing space but also the decision-making processes of design proposals are at least as complex as the space itself. In general, one can name two categories of complexity in urban space. The first one is relatively easier to comprehend and discuss because it is already reduced into simpler parts of the system. It overly simplifies the complexity of the city into zones of *living, working, circulating, recreating, and governing*. On the other hand, the second area is the “*complex interlinkages of a holistic system*” (1997, p. 26), which is similar to pandoras box with unlimited numbers of variables.

2.2.1.3 Temporal Complexity: Time and Place

If we approach complexity holistically, the categories that we examine in this section are not separable. In other words, a spatial complexity can also be temporal, or a visual complexity can also express a spatial disorder. However, one can say that examining these categories allows drawing a more straightforward framework in certain qualities (e.g., space and time). In this framework, we can describe the third classification as *temporal complexities* which consist of entropies formed in the

system within a particular time unit. The temporality of events eventually enhance the level of complexity. Population changes, traffic jams during peak hours, fluctuations in large retail markets, the incomprehensibility of temporary changes in a system can be called as temporal complexities (Boeing, 2018).

After the quantitative revolution in planning and design, there has been an emerging literature in the context of temporal complexity on system engineering, especially in transportation (e.g. Boelter & Branch, 1960). However, the approaches which claim to understand the whole through parts have remained insufficient to grasp the dynamism of urban emergences. In terms of temporal complexity, Hillier and Hanson's space syntax is one of the most effective initiatives that combines spatial analysis to transportation and accessibility (B. Hillier et al., 1976, 1987; B. Hillier & Hanson, 1984; Bill Hillier, 2007). Although the method has been used in different analyses, it mainly treats space as a network that interrelates human behaviour and the built environment. Hillier emphasizes this interrelationship as follows:

The built environment is, apart from society itself, the largest and most complex artefact that human beings make. Its complexity and its scale emerge together, because, like society, a built environment is not so much a thing as a process of spatio-temporal aggregation subject to continual change and carried out by innumerable agencies over a long period of time. (Bill Hillier, 2007, p. 68)

2.2.1.4 Multi-Scale Complexity: Non-linear Emergences

The conventional tools of urban design are pencil and paper (or pen tool and monitor). Those are the most well-known mediums to identify, solve and represent spatial problems. Urban designers have agreed on certain scales to make solutions easy to read and classify problems. However, the static comprehension of scale causes a limited frame.

There is a very clear and hierarchical system in the traditional agreement of static scale. The upper scales represent the meta properties of subscales and keep their information like containers. The problem of complexity arises at this point where the

contingencies at lower orders distort the relationships between lower and upper scales. If we accept the city as a self-organizational and emergent structure, various entropies are revealed on different scales. Thus, the scale arises as another complexity variable:

However, another essential characteristic of emergence as it is understood in systems theory is its hierarchical or multi-level nature: an emergent whole at one level is merely a component of an emergent system at the next higher level. (Heylighen, 1989, p. 24)

Despite the dynamic variables, urban design's current understanding of scale presents a solid hierarchical order. Alexander (1965) criticizes this adoption and shows the city's complex relationality through semi-lattice models. The author describes overlaps created by interdependent sets of urban system. Classified elements do not act only within their own sets but also in interaction with others. Thus, countless interrelational sets emerge and make it almost impossible to reduce the city into one specific scale. In this respect, the conventional comprehension of scale remains like a *picturesque of the related scale*. However, unpredictable behaviours of unseen sub-parts always influence the composition, which makes it even more complex in a multi-level structure (Alexander et al., 1987).

Numerous studies develop such approaches based on the concepts of hierarchy and control (Bar-Yam, 2004; Batty & Longley, 1994; Giampietro, 1994; Habraken, 1987; Kuo et al., 2010). In terms of this study, the critical point is the resistance of emergent formations to hierarchic system classifications and the reductionist approaches. As Bar-Yam (2004) claims, if the sum of complexity within a system is related to the *number and interaction of variables*, the scale can no longer be seen as determined by the designer, but by the interactions of components between the different levels of the structures (assemblages).

2.2.1.5 Emotional Complexity: Affective Experience

Emotions are the *complex* conjunction of physiological arousal, perceptual mechanisms, and interpretive processes; thus, they are situated at the threshold where the noncultural is encoded in culture, where body, cognition, and culture converge and merge. (Illouz, 1997, p. 3)

This study proposes an alternative category of complexity as the emotional complexity. It is the state of uncertainty that arises from the number of affective interactions in urban space. During an experience, one usually feels not just one specific emotion, but a complex relationality created by the interactions in place. This makes it possible to feel anything singular in the experience, but a new embodied singularity in place. For instance, it would not be surprising to observe two people who feel totally opposite in the same place. Thus, place is not just a representation of life, but an interface of embodied affective interactions. It allows people to act, feel, and exist. This reality highlights a need for an equilibrium between the complex correlation of rational and emotional stimulations.

According to Grossman et al. (2015), emotional complexity can be defined in terms of two qualities: (i) *emotional differentiation* and (ii) *emotional interdependence*. Emotional differentiation is the complementary and/or contrary emotions (e.g., tranquility and sadness) which interrelate with each other and form *new forms of feelings, moods and affects*. On the other hand, emotional interdependence is the connection and emergence of various emotions that create new assemblages (e.g., the new combination of excitement and joy). Considering the infinite number of affective variables in the city, a complex emotional interface is revealed in place experience. Place attachment studies are examples of such investigations, where the literature tries to define the emotional bonds between people and places (Lewicka, 2011).

The relational interactions between human and non-human environments are subject to emotional complexity in urban design. Let us exemplify this case with a more straightforward example: You get out of work on a rainy spring afternoon and walk

back home from a busy avenue. While your mind is full of questions about the past, the day, or the future, you hear a melody from a bookstore. The smell of the street food from the corner shop mesmerizes you, and suddenly, you hear a disturbing car horn. All these stimulations put you into a continuous affective cycle since each one of them stimulates different emotions and feelings. Sometimes you feel all of them simultaneously, sometimes one of them is more dominant. At this point, the experience of place is shaped in such complex emotional associations.

However, the field of emotion presents a slippery ground. The most significant *limitation in emotional complexity is the expression of feelings*. Lindquist (2008) shows that complexity levels vary, mostly depending on people's descriptive abilities. A person's perception of complexity and ability to describe complexity determine whether the affective experience is genuinely complex or not. The limit of language regulates the limits of the interpretation (as Wittgenstein suggests). However, its input still reveals an exciting potential for place thinking as an affective interface.

Despite the potential world of affective interactions, we have to admit that little has been done in the urban design literature. However, focusing on the role of emotion in place-thinking offers more important opportunities to understand its complex structure than we think. As we have also observed in these studies, self-organising structures arise from the embodiments generated by reciprocal relationships. In this framework, *relations* represent the core components of complexity. The relationist thinking in the context of assemblage thinking will be analysed in the next section.

2.2.2 Assemblage Thinking in Urban Design

The complex structure of the city stems from its infinite relationalities. Studies examining urban space and place in terms of these relationalities consider the city a constantly changing interface where heterogeneous combinations come together (e.g., assemblage urbanism). Within this interface, not just the sum of parts but also

the interaction of relations between parts reveals the whole. Pioneered by thinkers such as Deleuze, Guattari, De Landa and Thrift, relational thinking has been discussed in planning and urban design since the beginning of the 2000s.

This section examines how these approaches handle the concept of place, and focuses on the discussion of treating the city as an affective interface that emerged in a non-representational world. The aim is to evaluate complexity from a different framework and associate possible ontological foundations in a correlation between space/place and affect/emotion.

2.2.2.1 Assemblage Thinking

Assemblage thinking focuses on the relationality between heterogeneous elements in compositions (B. Anderson, 2009; De Landa, 2006; Deleuze & Guattari, 1987; J. Hillier, 2011; S. Legg, 2011; McFarlane, 2011b; Van Wezemael, 2008). The concept is based on the work of Deleuze and Guattari, *A Thousand Plateaus* (1987), and coined from the French word, *agencement* (arrangement), where it refers to becoming, togetherness, preparations in compositions. Therefore, it has essential potential in forming the ontological basis of complexity studies:

A primary linkage between assemblage and complex adaptive systems is the work of Bateson (2000, orig. 1972), who was a major figure in early cybernetics and a key source for assemblage theory. The concept of the 'plateau' in *A Thousand Plateaus* is derived from Bateson's work where plateaus are levels of provisional stability established in particular cultural contexts. (Dovey, 2012, p. 354)

According to Deleuze and Guattari (1987), assemblages develop unconsciously. They are formed by a combination of different elements such as moments, events, affects, memories, and people - i.e., any tangible or intangible components of place. For instance, the authors exemplify the city as a "*mega-machine*" and state that three essential elements make up city assemblages in capitalism: "*rent, profit, and taxation*" (1987, p. 444). The interaction of this triad unveils an ontological plane

that underlies the urban relationality. In assemblage thinking, elements interact and form different new levels of assemblages in an embodied structure.

De Landa reinterprets the *description of assemblage* based on this conceptual basis. According to him, cities are assemblages of matter and energy made up of complex networks and organizations (2006, p. 94). Cities are spheres of this interaction, not only with the functional or physical elements, but also with the intangible relationalities (e.g., silhouette, aesthetics, public spaces, and politics). Ultimately, the complex wholes to which Deleuze, Guattari or De Landa point imply the heterogeneous structures of a symbiote. They consist of mutually occurring symbiotic (e.g., city-life) and semantic (e.g., shared-meaning) relationships. In this context, one can also mark some basic similarities between assemblages and gestalt thinking:

...the rhythmic repetition of architectural motifs — belfries and steeples, minarets, domes and spires, even smokestacks, water-towers and furnace cones — and the way these motifs play in counterpoint with the surrounding features of the landscape, may result in a whole that is more than a simple sum. Either way, skylines, however humble, greeted for centuries the eyes of incoming people at the different approaches to a city, constituting a kind of visual signature of its territorial identity. (De Landa, 2006, p. 105)

However, De Landa's assemblage is quite different from the gestalt theory in one area. It does not arise from homogeneous relations between parts and the whole, but from heterogeneous interrelations. Thus, the assemblage can not be described as a totality. Each one has a unique singularity and can act autonomously (Ball, 2018). So, the assemblage does not arise only from the sum of parts but from the external and internal interactions of urban elements. When we consider place in this context, comprehending *the processes* become much more important than achieving a coherent result.

Van Wezemaal (2008) is one of the first researchers to apply assemblage thinking in planning and governance. In his analysis of minor politics, the author argues that assemblage thinking makes important contributions to understanding the heterogeneity of complexity structures and problems in governance (2008, p. 166)

Assemblages work through embodied experiences (becomings) within the concepts of territorialization (homogenous relations of elements within defined borders) and, deterritorialization (heterogeneity of free interrelations) (see also Dovey, 2012; S. Legg, 2011). In this way, an ontological basis can be described for ambiguous and complex relations in urban governance.

Thrift's (2008) non-representational theory also aims to develop the idea of assemblage in the field of urban geography, based on Deleuze and Guattari (1987). The author defends a way of thinking that transcends constructivism and draws on the ontological approach based on seven principles: *i. daily-life routines*, *ii. relationality*, *iii. practicality*, *iv. assemblage*, *v. experiential*, *vi. affective*, *vii. innovative ethics*. In the context of urban design, the strong advantage of Thrift's approach is to illustrate the experiential and relational assemblage of urban experience on affectivity. It makes it easier to grasp the place experience by associating assemblage as an affective phenomenon. In other words, it makes it possible to describe a type of embodiment whose reflexive consciousness has difficulty in grasping the terms of the heterogeneous relations of experience:

According to non-representation theory, emotion is a complex thing, and this complex phenomenon is also called the relationality of emotions. In this relationality, the body, material elements, emotions, affects come to the fore, and their totality is underlined. (Uysal & Güngör, 2016, p. 88)

According to Thrift (2008), wholeness (which can be perceived affectively) cannot be reduced to a representation. If we consider that the sharp distinctions between mind and emotion have come to an end (see Damasio, 1994), it makes a lot of sense to focus on this quality in terms of experience, since one finds the opportunity to examine interactions that one cannot describe through representations, for which not enough space is found in urbanization (Buser, 2014, p. 228).

In this case, the question arises of how to scientifically transfer a phenomenon that cannot be reduced to representation: there is the risk of getting stuck in a romantic frame (Pile, 2010). Most of these risks have been overcome by neurological studies that show the intertwined relationships between decision making and emotions (e.g.,

Gupta et al., 2019; Öhman et al., 2001). Based on Thrift's emphasis on affect in urban space, phenomena such as emotion, feeling, and mood are examined in more detail in the next section (see Chapter 2.2.3.2). In this section, the focus is on assemblage and interpretations in the urbanization process.

Anderson and Holden (2008) adapt the assemblage to urbanism in a more concrete way. Their study examines how affects, emotions, and feelings create assemblages regarding non-representational theory. According to the authors, assemblages "*bring together elements from a milieu, context, or surrounding*" in heterogeneous environments (B. Anderson & Holden, 2008, p. 146). These affective interactions are embodied *through events* in the city. The affective and changeable environment reveals various atmospheres (B. Anderson, 2009). Hence, place experience is no longer just connected to emotions or affects, but to an assemblage of affective states in dynamic atmospheres. In other words, new *becomings* continuously embody new assemblages in-between interrelated experiences (B. Anderson, 2009, p. 78).

Dovey et al. (2009) discuss the impact of these becomings in terms of place identity. According to this study, "*assemblage is a conceptual framework that potentially connects both the 'feeling+form' and the 'social+physical' dimensions of place*" (p. 2611). The place is an embodied relations of assemblage and is reflected as a space of relationality of the place characteristics. McFarlane interprets this relationality as follows:

Assemblage, whether as an idea, an analytic, a descriptive lens or an orientation is increasingly used in social science research, generally to connote indeterminacy, emergence, becoming, processability, turbulence and the socio-materiality of phenomena. In short, it is an attempt to describe relationalities of composition relationalities of near/far and social/material. (McFarlane, 2011b, p. 206)

Urban planning and design aim to achieve commonalities in social-material complexity. In this respect, assemblage thinking also provides opportunities to understand those socio-material elements. For example, Dovey (2012) exemplifies the concept in terms of public spaces as follows:

The assemblage is at once material and representational and defies any reduction to essence, to textual analysis or to materiality. To take an example at the urban design scale, a *street is not a thing or a collection of things*. The buildings, houses, shops, signs, cops, shoppers, cars, hawkers, rules, sidewalks, goods, trolleys, etc. all come together to become the street, but it is the assembled connections among them that are crucial – the relations of buildings to sidewalk to roadway; the flows of traffic, people and goods; the interconnections of public to private space, and of the street to the city. (Dovey, 2012, p. 353)

Assemblages constantly change and therefore *resist the reductivist modes* of thinking. It stands out as a concept that focuses on *experience*, especially in place studies, where one can find essential clues through relationality within the experience. In the context of assemblage thinking, the efforts of Jacobs, Alexander, and Norberg-Schulz (see Chapter 2.1.3) to comprehend the urban experience become much more understandable. The city is an ever-changing relational assemblage, and the difference of assemblage thinking "*lies in attending to how entities that differ in nature and kind from one another intra-act through relations of exteriority*" (B. Anderson et al., 2012, p. 186).

2.2.2.2 Assemblages and Affective Urbanism

Affective urbanism (based on the ontology of assemblage thinking) tries to comprehend the city's socio-spatial and intersubjective structure (Dovey, 2012).

Interest in this field has been increasing in recent years, and it has started to attract attention also in the field of urbanization (Abusaada, 2020; Abusaada et al., 2020; B. Anderson, 2009; B. Anderson & Holden, 2008; Buser, 2014; Dovey & Ristic, 2017; Dovey & Wood, 2015; Gandy, 2017; McFarlane, 2011b; Paola Gregory, 2018; Robertson, 2018; Sendra, 2015; Viderman & Knierbein, 2020).

Assemblage and affective atmospheres are nested concepts. The best way to get out of a possible confusion would be to describe *assemblage* as a parenting phenomenon of heterogeneous relationalities, and *affective atmospheres* as their spheres in the city. While *affective atmosphere* is mostly used in human geography literature,

affective urbanism and *assemblage urbanism* have been mostly discussed in planning and urban design literature.

In these frameworks, cities (or places) are made up of extensive assemblages. The relationality is so expansive that the compositions and parts are inevitably complex. According to McFarlane (2011a), cities are affected by relations of spaces, actors and historical and potential paths. Physical properties and relationships between atmospheres, politics, and spatial rhythms embody urban objects that are heterogeneously and unevenly distributed in the city. By this way, assemblage thinking establishes new bridges between spatial planning and complexity studies (de Roo et al., 2012).

Thrift (2004, p. 57) criticizes human geography's insufficient consideration of emotion and affect in his study, *Intensities of Feelings*. According to him, even if the affective world, whose manipulative power has been feared since Plato, is one of the most significant determinants in cities, it is mainly neglected in urban geography. The author argues that the traditional interpretations of space adhered to Cartesian understanding and ignored the fields that it could not control: i.e., affects and emotions. Based on these arguments, Anderson and Holden (2008) develop the concept of affective urbanism:

We begin with a set of propositions that open toward an affective urbanism, one adequate to the complexity and indeterminacy of modern cities. Working with the Deleuzian–Spinozian line of thought on affect and the distinction between different modalities of the more than/less than rational, we take cities to be made up of multiple, differentiated affects, feelings, and emotions; that is, affects as impersonal movements that constitute what a body can do, feelings as interpersonal expressions of affects, emotions as personal qualifications of feelings. (B. Anderson & Holden, 2008, p. 145)

Affective urbanism also focuses on spatial relationalities based on the assemblage concept theorized by Deleuze and Guattari (and interpreted again by De Landa). Anderson and Holden (2008, p. 146) take the following question as a departing point in the development of the concept: "*Do affects, feelings, and emotions emerge from within a set of assemblages that intermix the biological, technical, social, and*

economic in cities?" Within this frame, they associate *the feeling of hope* with the events that will take place during the *EU Capital of Culture process in Liverpool*. Their findings show that the new wave of hope to become a cultural capital is able to transform a city, *just like urban infrastructure*. Events and different experiences create embodied assemblages, which can also be formed by affective structures in the process.

Anderson (2009) continues the relational search between emotions/affects and the city with the concept of *affective atmospheres*. The author suggests that interrelational *transpersonal* or *prepersonal* affective states create environments similar to atmospheres (Anderson, 2009, p. 78). His study questions the concepts of objectivity and subjectivity to clarify the ambiguous relations between emotion and affect. While he describes *emotion as an individual and subjective* feeling, he illustrates *affect as an impersonal, objective phenomenon*. Affect is also explained in terms of its interactive capacity unlike the psychology literature, and mainly through Deleuze and Guattari's interpretations (2009). The psychology literature defines emotions primarily through automatic responses, and affect through longer-term interactive responses of emotions and feelings in a complex way. Our study argues that both appear intersubjectively in the place experience. We will explain them in more detail in Chapter 2.2.3.2.

All in all, *affective atmospheres* are relational spheres which evolve in the middle of an experience. The experience becomes meaningful after an encounter or an interaction. Buser (2014) argues that examining those concepts in terms of assemblages provides remarkable opportunities to reconsider place experiences:

Exploring the relationships between people and built form is, of course, the natural territory of planners. Planners are quite comfortable thinking about and designing 'walkable environments', 'safescapes' and so on. In this context, a deeper understanding of the interrelationships between the conscious and the unconscious, human and non-human bodies and the dynamic emergence of collective affects can usefully inform how we interpret place experiences, how we analyse and critique space, how we think about place-making and the types of solutions planners put forward. (Buser, 2014, p. 239)

Kim Dovey and his colleagues (2012; 2009; 2014; 2017; 2015) focus on assemblage thinking in most of their latest studies. They examine urban assemblages in terms of different topics such as identity, informal urbanism, density, and public and private spaces. Every one of them approaches the relationality of urban elements from different angles. However, we want to highlight one of them, which strikingly shows how *assemblage thinking* works.

In this study (Dovey & Ristic, 2017), the authors decipher the relationality of ethnic group settlements, bombed areas, sniper positions and street names before and after the civil war in Sarajevo (Bosnia and Herzegovina). The findings illustrate how particular emotions/affects like fear divide a city based on conflicts and why Cartesian explanations are insufficient to comprehend place in urban design.

Numerous studies have begun to appear in assemblage and affective urbanism in recent years (Abusaada, 2020; Abusaada et al., 2020; Ernwein & Matthey, 2019; Sendra, 2015; Viderman & Knierbein, 2020). Almost all of them focus on urban problems through the effects of personal and impersonal affective experiences (e.g., perception of participation, urban events/activities, and public spaces as open systems). Thus, the concept of emotion has a vital position in the literature. Because of this reason, the exploration of this study continues with the explication of the concepts of experience, feeling, emotion, affect and mood in the next section.

2.2.3 People as Contributors to Urban Complexity

...the whole is full of feeling, always. This happens because the wholeness itself touches us, reaches the deepest levels in us, has the power to move us, to bring us to tears, to make us happy. (Alexander et al., 1987, p. 14)

According to Alexander et al. (1987) the emotional impact of the whole shows itself in the deeper levels of urban structure. In fact, it is interesting to observe this type of an approach from a researcher who is studying morphological formations in mathematical dimensions. However, the intuitive quality of wholeness enforces it. Rather than a problem to be solved, the whole is revealed like a labyrinth, a structure

in which the parts do not show themselves individually but make us feel the whole most of the time. Designers often generate meanings about this labyrinth by reference to themselves (which is often inaccurate) and try to embody meanings through functions and forms. However, it is not enough to interpret place solely in terms of these qualities, since it is impossible to reduce the concept of place into an euclidean quality. There are always numerous elements, structures or assemblages working with each other, and also embodied memories and collective affects just like the physical environment. In that case, rather than a linear hierarchy of meanings or representations, a heterogeneous structure (assemblage) that cannot be reduced into words is revealed. The meanings circulate in infinite ways, just as a dictionary introduces the definitions of words by using other words in it. A lack of representation emerges.

Eventually designers seek ways for designing prototypical spaces and producing the relationality of meanings in cities. Parametric design methods aim to apply such processes (J. Beirão et al., 2012; J. N. Beirão et al., 2011; Schneider et al., 2011; Steinø & Veirum, 2005). However, they also prioritize functional and spatial components rather than affective assemblages. Emotions in general, i.e., affective phenomena play crucial roles in allowing the comprehension of the feeling of place. This is probably the main reason why creative thinking approaches often consult alternative multidisciplinary fields to achieve alternative interpretations of experience.

Place is the stage of *life*. It is the space where it all relates, the interface that one faces in *inevitable relations*, an interface of lived and non-lived experiences in between past, present, and future. All these terms might sound romantic, but this is not the case, because the complex structures that the literature has been discussing for years arise from these interrelations. In order to better understand this assemblage, the following section examines experience in terms of three subsections: *life* (as experience), *affective dimensions* (emotions) and *their relationalities* (emotional gestalts and affective assemblages).

2.2.3.1 Life as an Assemblage of Experiences

We are not simply observers of this spectacle, but are ourselves a part of it, on the stage with the other participants. Most often, our perception of the city is not sustained, but rather partial, fragmentary, mixed with other concerns. Nearly every sense is in operation, and the image is the composite of them all. (Lynch, 1960, p. 2)

Lynch defines the image of city that we construct in our minds. There is no single image, as there can be no homogenous and rigid relations. Everyone has their own unique experience where they interpret and bend the image. Just like life, the city is structured of an assemblage of various meanings and experiences. Other pioneers also emphasize this point of view in terms urban life. Janne Jacobs (1961) illustrates the importance of “*actual life*”, Lefebvre (1991) shows the crucial role of “*lived space*” in the spatial triad, and Norberg Schulz (1984) remarks upon the existential spirit of the place with “*genius loci*.” All of them emphasize the relationalities of *life experience*, assemblages which give meaning to a certain existence.

As a dictionary definition, *life* is a reproduction, liveliness, movement, birth, death, a process (Merriam-Webster Dictionary, 2020), and relationships between these experiences. The concept of place surrounds and hosts this relationality, so that the hard-to-define quality of life resists reductionist definitions (e.g., as in urban design, place, complexity). Even in positive sciences, such as biology, we observe this resistance:

Some biologists and philosophers even reject the whole idea of there being a need for a definition, since life for them is an irreducible fact about the natural world. Others see life simply as that which biologists study. There have been three main philosophical approaches to the problem of defining life that remain relevant today: Aristotle's view of life as *animation*, a fundamental, irreducible property of nature; Descartes's view of life as *mechanism*; and Kant's view of life as *organization*, to which we need to add Darwin's concept of variation and evolution through natural selection. (B. Weber, 2018, p. 1)

If we combine these three approaches (animation, mechanism, and organization), life is revealed to be an irreducible working progress of biochemistry since it started

three and half billion years ago. These experiences that make life meaningful are classified in different time intervals in an infinite way. It can be a moment or an experience that lasts for years. Nevertheless, all of them consist of both these combinations.

In this frame, *experience* is acquired consciously and triggers the ability to learn (American Psychological Association, n.d.). As living beings learned how to survive in the evolutionary process, they also learned how to build settlements throughout history. Under these circumstances, personal and impersonal experiences become critical in urban design. Because an *affective, sensorial, and cognitive and behavioural* relationship is established *before, during and after* the place experience. Pine and Gilmore (1998) propose a simple model for experience as follows (Figure 2.14):

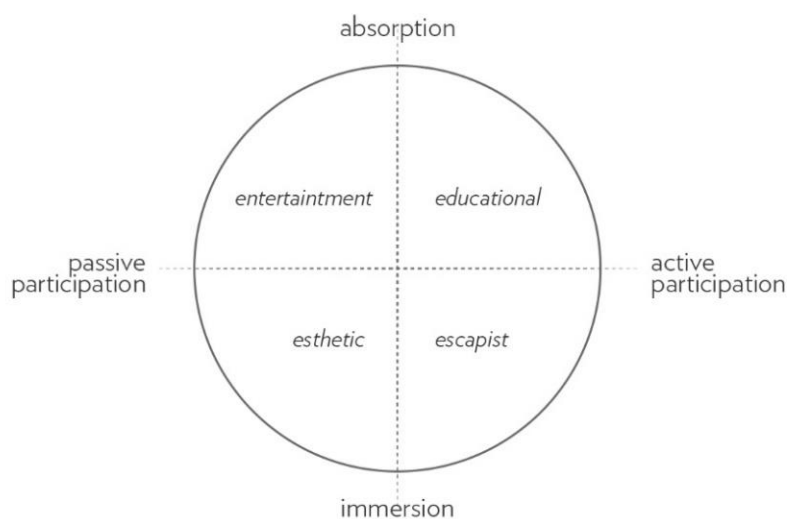


Figure 2.14. The Four Realms of Experience (Pine & Gilmore, 1998)

- *Entertainment*: a *passive mental experience* (e.g., listening to music, watching movies)
- *Esthetic*: a *passive physical experience* (e.g., sitting on the grass, sightseeing)
- *Educational*: an *active mental experience* (e.g., reading, studying)
- *Escapist*: an *active physical experience* (e.g., playing in the park, jogging)

The main determination of the character of experience is connected to the bipolar relations of *the physical or mental involvement levels*, and *active or passive involvement*. Pine and Gilmore (2011) propose that a good experience has an attractive nature of integrity (positive & negative impressions): recallability, which appeals to the five senses. It is often personal and closely related to memory. Although this classification is proposed for a commercial experience, it has very similar associations with the fundamental concerns of urban design, such as identity (character), unity (integrity), and memory (memorabilia). Accordingly, experience is about a relationship of time and space (beginning of life, cosmos), being a part of a process (evolution), a continuous moment (memory).

In this framework, it would be best to clarify the complicated relation between *the experience* and *place experience*. Experience represents a correlation between time and space, and no experience can be singular or disconnected from its surrounding cosmos. The *embodiment* is a process and a consequence of this relationality. Likewise, place experience is an embracing sphere, an assemblage, which also cannot be singular, and contains numerous psychological and physical dimensions simultaneously and heterogeneously at different levels (Figure 2.15).

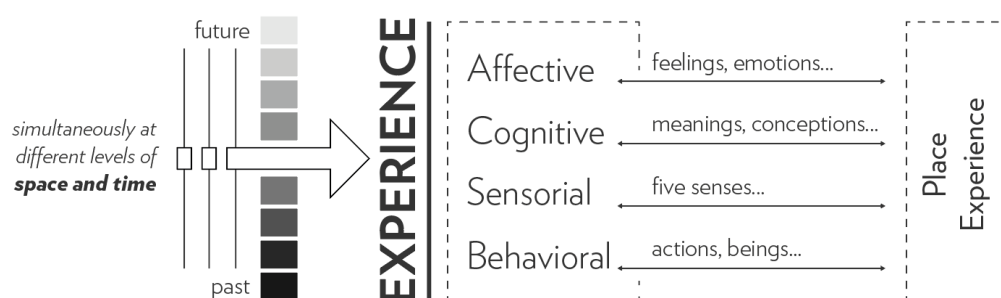


Figure 2.15. The Place Experience

Place experiences occur under various affective, cognitive, sensorial, and behavioural influences, manipulated by the communication capacities (Figure 2.15). After gaining an experience, one mainly reinterprets it through the representations of language. This manipulation skill plays a crucial role since the person that has an experience tries to rationalize and understand the insights of that experience. But still, it remains limited to the language itself, and the abstract world of shared meanings turns it into a more complex assemblage, because most of the time, people do not refer to precisely the same thoughts, but a variety of correlated concepts around those shared meanings.

Consequently, the place experience becomes a shared meaning-node where it is constantly crossed and embraced in heterogeneous assemblages. In this framework, affective phenomena play vital roles in reconsidering place as a complex psychological assemblage. Since they constitute indivisible relationalities, the study proposes that it is necessary to grasp the differences between them: emotions, feelings, affects, and moods.

2.2.3.2 Affective Phenomena: Emotions, Feelings, Core Affects and Moods

People experience and make sense of places under various influences of emotions, feelings, core affects and moods. In this part, the study recalls them as affective phenomena in general. They strongly direct the way of thinking and memory. Different studies have already shown that affective memory works much better than neutral memory (Greenberg et al., 2012; Kensinger, 2009). Therefore, while we cannot remember a meal we had yesterday, we can easily remember one from years ago that is bonded to exceptional emotions. This occurs because of the intertwined relations of emotion and memory regions in the brain.

The mind works in between the affective phenomena, memory, and rational classifications. In this context, considering place as an affective interface is a remarkable and emerging field in urban design (Deitz et al., 2018; Doughty et al.,

2016; Ernwein & Matthey, 2019; Li et al., 2016; Nielek et al., 2017; Özkan & Yilmaz, 2019; Pile, 2010; Zeile et al., 2015).

In the world of determinism, approaching urban problems based on emotions has long been dismissed as a romantic stance. Antonio Damasio's (Damasio, 1994) study overcomes this prejudice in *Descartes' Error: Emotion, Reason and the Human Brain*. As a neurologist, the scholar reveals that emotion is not just an autonomous response disconnected from the rational mind. Instead, it works with it, directs it, and enables to make faster decisions.

In the world of determinism, approaching urban problems based on emotions has long been dismissed as a romantic stance. Antonio Damasio's (1994) magnum opus, *Decartes' Error: Emotion, Reason and the Human Brain*, has overcome this prejudice with concrete evidences. As a neurologist, Damassio has revealed that emotion is not just an autonomous response disconnected from the rational mind. Instead, it works with and directs it, and enables to make faster decisions.

Damassio's (1994) study examines various patients with brain damage at emotion centres (e.g., the amygdala) and shows that damages cause considerable difficulties in simple and everyday decision-making (like deciding upon a dish for lunch or the time slot of appointments). Consequently, it proposes a new bridge between rational and emotional reactions, which has been mostly omitted in Western intellectual tradition. Burns (2000, p. 69) interprets the Cartesian approach to emotion based on a value-free stance of objectivity in urban design as follows:

Throughout Western social thought, emotions are seen to be the very antithesis of the detached scientific mind and its quest for "objectivity." The roots of this separation and the custom of repudiating the importance and integrity of emotional experience lie deep in the Western intellectual tradition that separates body from mind, nature from culture, reason from emotion, and public from private. Moreover, these dichotomies are not value-free.

When urban designers try to make decisions by excluding emotions, they find themselves in the middle of a dialectical fight that relies on rational justifications. They have are motivated to comprehend through a geometric order, by rationalizing

the space. They often argue that they act in a way that is free of emotions. They design the forms (as solutions) based on the functions (as problems) of the space like a machine, by legitimizing the different representations of a learned mindset through spatial analysis. In some cases, this geometric recognition is instrumentalized by reifying everything around it.

In such cases, rather than the life of place, the design turns into a technical product, a concrete object that is reduced into mechanical and fragmented parts, produced for people to use, consume, and reproduce again. Even if this seems like a consistent rational process, we must admit that it dominates most of the crucial aspects of place in design process, like memory, identity, and affective qualities. Comparatively, we believe that a different perspective might interpret place as an emergent affective assemblage, an interface where affects and thoughts constantly emerge reciprocally. In this way, it would be possible to exceed the limits of a static and geometric border which strangles creativity and take more innovative steps in urban design.

In the literature on urban design and environmental psychology, studies are mainly categorical in terms of affective appraisals (e.g., Burns, 2000; Hubbard, 1987; Nasar, 1994, 1997). They examine sub-concepts of design such as aesthetics by classifications of emotional correlations to comprehend the level of place complexity. However, the literature mainly focuses on affective phenomena in a fragmented way, in terms of a moment, a relation between *subjects (people)* and *objects (place components)* detached from the actual affective insights of an experience process.

In the conventional framework, just as designs are limited with forms, researchers are limited with words. This case once again recalls Wittgenstein's famous statement: "*The limits of my language mean the limits of my world*" (2002, p. 68). Neglecting the power of affective wholeness creates an unpredictable gap in understanding the phenomenon of place, and to define this gap, it is necessary to understand the concepts of emotion, feeling, affect and mood.

Emotion is a complex reaction pattern, involving experiential, behavioral, and physiological elements, by which an individual attempts to deal with a personally significant matter or event. The specific quality of the emotion (e.g., fear, shame) is determined by the specific significance of the event. (American Psychological Association, n.d.)

Emotions: They are the fastest drives among affective phenomena and are principally unconscious. They emerge as quick and automatic responses to experiences. They can have a positive or negative impact on decision-making processes. Sometimes they can save us from danger; and other times, it can be pretty dull to decide only based upon them. Whatever happens, they trigger an action. This action could be a muscle on the face or the speed of blood flow in veins (Damasio, 1994). They save time in the process of environmental interaction. Ekman (1992a, 1992b, 2003; 2011; 1975) describes the universality of emotions through common facial expressions in different cultures and classifies them as *fear, anger, joy, sadness, contempt, disgust, and surprise*. He explains the functional structure of emotions as follows:

The primary function of emotion is to mobilise the organism to deal quickly with important interpersonal encounters, prepared to do so in part, at least, by what types of activity have been adaptive in the past. (Ekman, 1992b, p. 171)

Feelings: They are subjective evaluations that are personally associated with a more cognitive skillset (American Psychological Association, n.d.). People manage their feelings by making personal inferences from the outside world that they are aware of. In this case, attributed meanings come to the fore and determine the intensity of feelings:

Feeling is a self-contained phenomenal experience. Feelings are subjective, evaluative, and independent of the sensations, thoughts, or images evoking them. The core characteristic that differentiates feelings from cognitive, sensory, or perceptual intrapsychic experiences is the link of affect to appraisal. (American Psychological Association, n.d.)

Affects: They are complex assemblages that cover emotional and feeling states. We respond to an event or environment with the interaction of different emotions and

feelings. While establishing this interaction, the affects have different levels of intensity. This complex entity created by the interactions reveals affects at wider ranges than emotions:

Affect is any experience of feeling or emotion, ranging from suffering to elation, from the simplest to the most complex sensations of feeling, and from the most normal to the most pathological emotional reactions. (American Psychological Association, n.d.)

Moods: They are continuing states which are connected to emotions, feeling and affects. Unlike the primary triad, they are responses that have the capacity to influence all affective states that people experience. They can last about a minute, an hour or a year, as in the case of depression. People might be in an emotional mood that they cannot precisely associate with a specific cause:

Mood is a disposition to respond emotionally in a particular way that may last for hours, days, or even weeks, perhaps at a low level and without the person knowing what prompted the state. Moods differ from emotions in lacking an object; for example, the emotion of anger can be aroused by an insult, but an angry mood may arise when one does not know what one is angry about or what elicited the anger. (American Psychological Association, n.d.)

In the frame of these definitions, let us exemplify their relations (Figure 2.16). When someone hears of a death of a relative, what this person feels is sudden emotions arising preconsciously and automatically (as in the case of crying) from experience. Afterwards these emotions are evaluated with the cognitive mind and constitute different feelings (e.g., negative thoughts). The feelings and emotions get in another form of relation and reveal affective states (e.g., sadness), which can afterwards orient moods in long-lasting and changing intervals (e.g., depression).

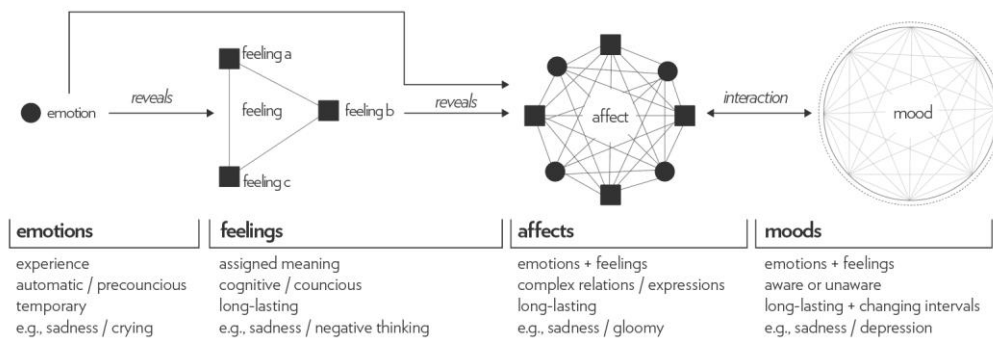


Figure 2.16. The Flow of Emotion, Feeling, Affect and Mood

Affective appraisals guide us in deciphering processes in which words are not sufficient to explain, in which we cannot divide the whole into parts but can still feel. It is possible to review different models in the psychology literature (Larsen & Diener, 1992; Russell & Pratt, 1980; Thayer, 1989; Watson & Tellegen, 1985), as most of them propose a bipolar axis on an analytical frame (Table 2.2). In most circumstances, the models define an active (+x) and passive (-x) axis, which is interrelated to the contentment (+y) and discontentment (-y).

Table 2.2 Alternative Models of Affect

Model by	x (+)	x (-)	y (+)	y (-)
Russell & Pratt, 1980	<i>Arousal</i>	<i>Sleep</i>	<i>Pleasure</i>	<i>Misery</i>
Watson & Tellegen, 1985	<i>Engagement</i>	<i>Disengagement</i>	<i>Pleasantness</i>	<i>Unpleasantness</i>
Thayer, 1989	<i>Energy</i>	<i>Tiredness</i>	<i>Calm</i>	<i>Tense</i>
Larsen & Diener, 1992	<i>High Activation</i>	<i>Low Activation</i>	<i>Pleasantness</i>	<i>Unpleasantness</i>

In this section, we highlight *Russell's Circular Model of Affect* as a base for most of the affective models (Figure 2.17) as cited in many emotion/affect-based studies. The model analytically describes the relationality of affects through different axes and regions of affective states. It identifies bipolar relations in two main spines: arousal-sleep and pleasant-unpleasant (Russell, 1979). Russell highlights the interactions between those variables through these main backbones as follows:

The representation of affective quality illustrated in Figure 2 [the model] has the advantage of offering a network of testable propositions in which all variables are interrelated. Thus, if the eight variables shown were exactly 45° apart and were measured without error, correlations among them should be perfectly accounted...(Russell, 1980, p. 313)

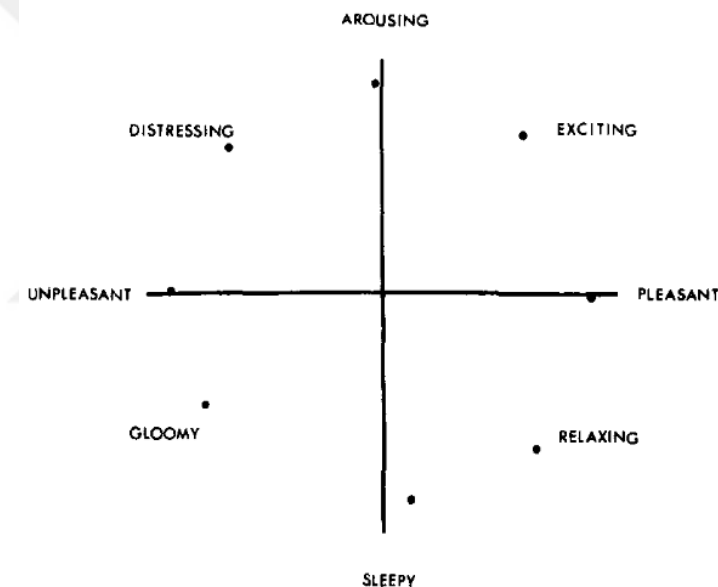


Figure 2.17. Circular Model of Affects (Russell & Pratt, 1980, p. 313)

Plutchik's Wheel of Emotion can be given as an alternative approach to emotions and affects (Plutchik, 1982). In this model, there is no defined axis, but the intensities of emotional states in detailed levels (Figure 2.18). At the first level, there are contrasts of joy-sadness, trust-disgust, fear-anger, and surprise-anticipation. From the first level outwards, the intensity of emotions decreases in three levels, (e.g., grief, sadness, and pensiveness). New zones of emotions arise with different interactions.

For example, the combination of joy and acceptance creates love; or sadness and surprise create disappointment. Plutchik designed alternative versions of this model in the following years (Plutchik & Conte, 1997), but basically, he adheres to bipolar interrelations similar to Russell's model.

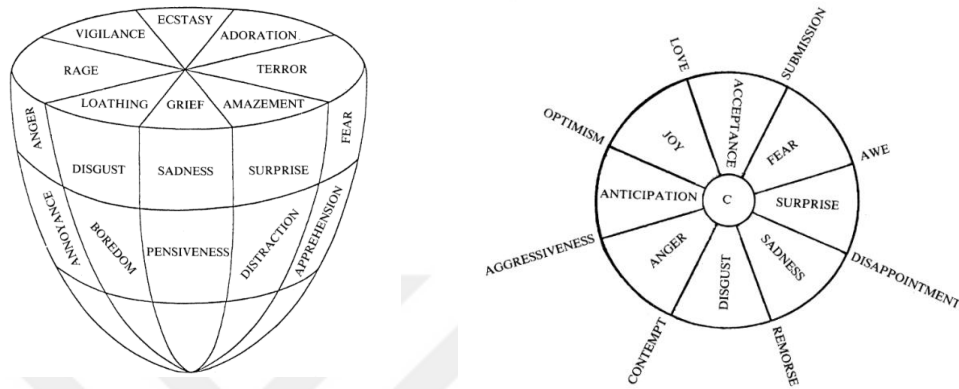


Figure 2.18. Plutchnik Multi-dimensional Model of Emotions
(Plutchik, 1982, p. 539)

Both models offer practical methods for examining affective phenomena in place experience. Considering the potentials of affects in experience and decision-making mechanisms, they are of great importance in urban design. Numerous studies have used them to examine perceptual and emotional evaluations (Abusaada, 2020; Abusaada et al., 2020; Li et al., 2016; Nasar, 1994; Pleasant et al., 2013; Sauter et al., 2010; Ulrich, 1979). However, most of them examine emotions in a fragmented and quantitative way (see Casakin et al., 2015; Lewicka, 2008; Scannell & Gifford, 2017; Yeh et al., 2012). Moreover, there are not enough inquiries regarding the affective assemblages in urban design literature. At this point, conceptualizing *emotional gestalts and affective assemblages* might help explicate the integrity between people and place more deeply.

2.2.3.3 Emotional Gestalts and Affective Assemblages

The difficulties in understanding concepts like *urban design*, *place*, *life* or *emotion* arise from their complex structures and operations through which they all engage in extensive assemblages. They refer to dynamic notions which hold and act together. The details of their structures and movements cannot be tracked continuously, and thus, they also become challenging to explain analytically.

In this context, this section discusses the notions of *emotional gestalt* and *affective assemblages* to explain this relationality. While *emotional gestalts* show assemblages in the personal mindset of affective interrelations, *affective assemblages* intend to explain *how people affect one another*. The study suggests that the integrity of these two concepts may reveal an exciting opportunity for grasping the experiential assemblages in place.

Emotional Gestalts

The fragmented approaches only partially explain the place experience. Focusing on one moment or one emotion is like trying to explain a tree by just looking at its leaf or a part of a tissue on its bark (Humphrey, 1924, p. 411). This kind of understanding eventually misses out on the whole framework. A similar case also occurs in listening to a musical melody. One becomes unable to hear the melody when attention is paid only to the notes (Wertheimer & Riezler, 1944, p. 78). We can also exemplify this case in place thinking. For instance, a person walking on the street can be distracted by a number of triggers. There can be no moment at which the person feels in a singular way, but a mixture of emotions associated to the past, present and the future. This gets constructed into a bundle of emotions where the experience emerges in the affective sphere.



Figure 2.19.
Graphical Gestalt

Do yuo fnid tihs
smilpe to raed?
Bceuase of the
phaonmneal pweor
of the hmuan mnid,
msot plepoe do.

Figure 2.20.
Linguistic Gestalt (Bolton, 2016)

Emotional gestalt might explain a wholeness of emotions that emerge as a result of place experience, sometimes, over non-existent affects (Figure 2.19) or completing the missing ones in the perceived one (Figure 2.20). It shows that the parts or the whole may act independently while forming an assemblage.

In urban design, formal gestalt principles are widely used in the design process. Just as this allows designers to design the wholeness of form, this study claims that it can also explain the affective experience in place and can shed light on the emergent affective relationalities. In this sense, the wholeness of an experience within the life perspective is not only relevant to the individual but also to others in reference to a spatial setting. When explained this way, partial analyses of what is perceived visually by human beings remain inadequate in explaining how the place is experienced.

The concept of *emotional gestalt* has recently become a widely examined topic in a variety of fields such as music and psychology (Berrios, 2019; Castelfranchi & Miceli, 2009; Thagard & Nerb, 2002; Town et al., 2020). The argument in these studies is in fact what gestalt theory states: that is the sum of experience is more/different than the sum of its parts. In reference to emotions, Berrios (2019) proposes that they are revealed as complex assemblages where they go beyond an irreducibly holistic relationship. He further argues that affective experiences might create new assemblages at different levels:

Mixed emotions (i.e., the co-activation of a pair of oppositely valenced emotions); meta-emotions (i.e., the activation of two emotions, where one emotion is used as an object to experiencing a secondary emotion); and awe (i.e., the co-activation of more than one emotion, generally opposite in valence) are genuine feelings that subvert the common tree-shaped representation of affect. In all these examples (as well as in most of the phenomena commented in the present conceptual analysis), the complex emotional experience, as a whole, is greater than the constituents, single emotions.

Similarly, in an examination of *experience* and *behaviour*, Castelfranchi and Miceli (2009) propose that emotional families are emergent structures that work together and act independently of the parts:

Although made up of atomic components (beliefs, desires, and pleasant or unpleasant affect), emotions appear as global and unitary experiences, as “gestalts” in the gestalt psychologists’ sense. Indeed, as already stressed by Köhler (1947), the concept of gestalt can be applied far beyond the limits of perceptual experience. Characteristic for perceptual gestalts is that they have emergent properties that their parts do not have (Wertheimer, 1924/1944). Analogously, we propose that emotional experiences are mental states with emergent properties that their components do not have (see also Green, 1992). (Castelfranchi & Miceli, 2009, p. 228)

Taking these discussions as a point of departure, the study states that *The Principles of Gestalt* by Koffka (1936) can guide emotional gestalts under five principles: (i) *similarity*, (ii) *pragnanz*, (iii) *proximity*, (iv) *continuity*, and (v) *closure*.

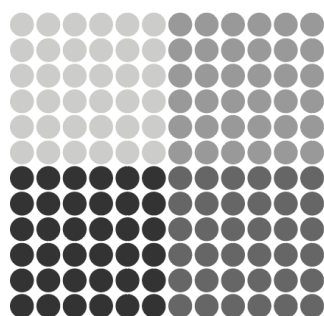


Figure 2.21. Gestalt:
Law of Similarity

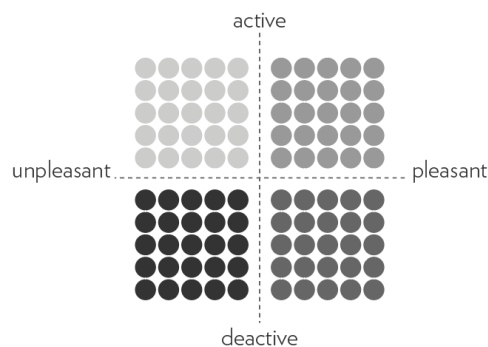


Figure 2.22. Law of Similarity
in Affective Phenomena

The first principle, *similarity*, argues that similar phenomena are perceived as a group or a whole. Figure 2.21 shows that circles of the same colours are perceived as one big square and as four other squares. Just as in the perception of these groupings, when similar emotions are experienced, they might be perceived as a whole, allowing the occurrence of similar holistic affective experiences in place (Figure 2.22).

For example, while surprise and distraction represent the same type of affective responses, joy and serenity are considered within another type. In a particular event, we can simultaneously feel alert, excited, and joyful. These emotions can appear to be similar, but they in fact slightly differ from one another. Here, the mind might trick us by simplifying a type of a complex process of this relationality. In our perception, the emotions also co-exist as a whole, representing just a memory of a gestalt specific to such event.

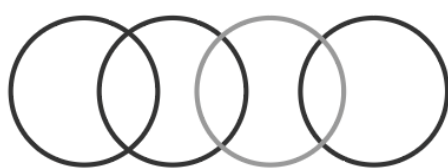


Figure 2.23. Gestalt:
Law of Pragnanz

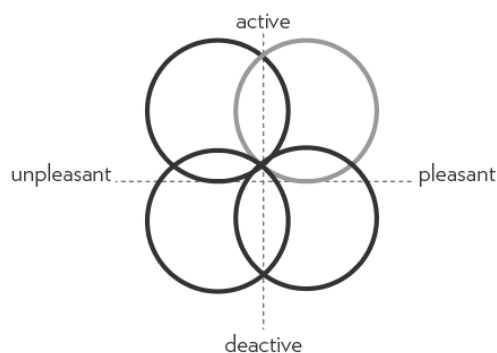


Figure 2.24. Law of Pragnanz
in Affective Phenomena

The second principle, *pragnanz*, is based on simplicity. It argues that people tend to perceive a grouping of forms that requires minimum energy. In this setting, even a complex structure might seem like a simple one, mostly with the influence of learned abilities. In other words, the attention a perception might be anchored to a type of a formation, which dominates other possibilities in great details. For instance, Figure 2.23 shows a grouping of intersected circles. In these forms, the eye selects the ones

that are easier to read: the circles, not the elliptical forms in between. This process of selecting what is more readable and making sense also may apply to the emotional experience.

Also in the place experience, we may tend to prioritize emotions that are easier to understand (Figure 2.24). Some predominantly felt emotions that reveal activeness-pleasantness might overshadow others, such as unpleasantness. However, the most dominating affective appraisals may remain with us. For example, a pedestrian on a crowded boulevard may be stimulated by a number of attractors such as scents from cafes, bird sounds, students walking around, traffic sounds, signboards, or other people. The attractive attractors may be momentarily pleasing to the person, but the affect of all other attributes may leave him/her with a dominating feeling of being rushed, defining the main experience of place.

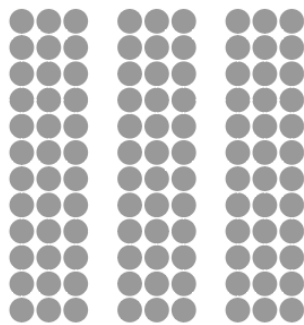


Figure 2.25. Gestalt:
Law of Proximity

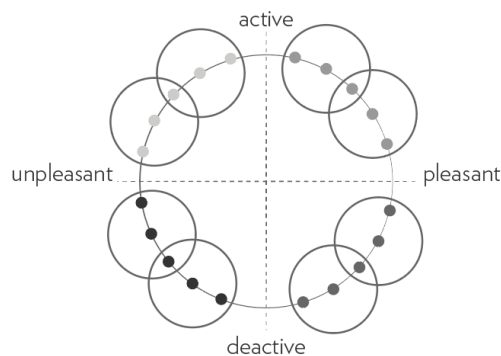


Figure 2.26. Law of Proximity
in Affective Phenomena

The third principle, proximity, argues that attributes positioned closer to each other complement the visual appearance of one another. Figure 2.25 shows groups of circles forming, in fact, groups of rectangles, which eventually create the form of a square. When the formal attributes are close enough, we tend to perceive them as what such a grouping creates. Regarding an affective phenomenon, closer affective responses also form their unique assemblages (Figure 2.26).

When something feels exciting and fun at the same time, it might convey an active-pleasant emotion as a whole. On the other hand, when it is unwanted and dull, we can name it as a downpulling-disliked. Different responses may construct their own emotional gestalts, being composed in fact by various interrelated emotions in them.

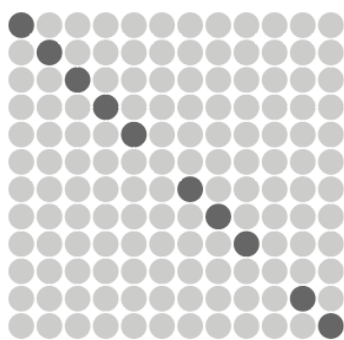


Figure 2.27. Gestalt: Law of Continuity

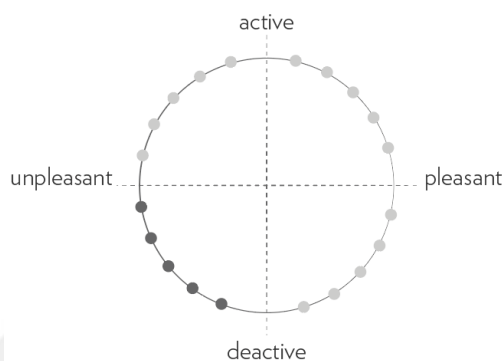


Figure 2.28. Law of Continuity in Affective Phenomena

The fourth principle, continuity, asserts that attributes aligned visually can be perceived more easily. Even if there is a gap in the flow, the eye sees the flow as a whole. The lack of an attribute on the continuum does not distort the gestalt of the form (Figure 2.27). In a similar fashion, if a person continuously remains in a specific state of emotion, thus creating an emotional continuum despite the presence of other emotions or the lack of initial emotion, the continuum of such emotion constitutes the base of the whole feeling (Figure 2.28).

For example, moods are well-known continuous states of emotions/affects which can last for days or months. A depressed person may experience negative emotions within the frame of a constantly felt low mood. When this mindset remains, even if the person encounters a positive experience, the mind might describe it negatively. The continuity of the emotion might fill in or replace the gaps in between.

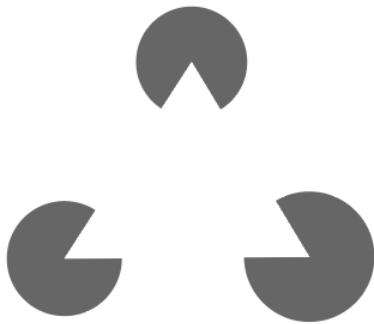


Figure 2.29. Gestalt:
Law of Closure

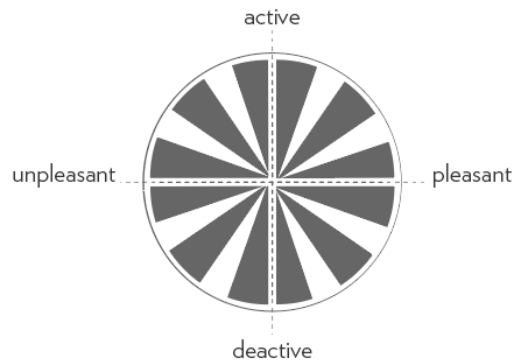


Figure 2.30. Law of Closure
in Affective Phenomena

The fifth principle, closure, is perhaps one of the most striking principles of the gestalt theory. When a person is exposed to a new experience, the mind immediately tries to make sense of it. It often does that in association with learned patterns and past experiences, although the new experience perhaps does not convey any particularities. For instance, as shown in Figure 2.29, a new triangle form is created from in fact nothing in reference to the known round forms. Consequently, we perceive the circles and triangle in between as a whole. When existing attributes provide visual clues, the mind automatically completes the rest. The same perceptual functioning may also be relevant when affective responses are given (Figure 2.30).

For example, in a natural setting, a person may feel calm and relaxed due to the symbolic meaning of nature. In that state of emotion in such a setting, something very alarming may happen, take over the initial emotion, and stay with the person for a while, but may disappear afterwards. Then, the state of initial emotion can return back to its track on a continuum. The continuity of emotions consisting of both repetitive and unexpected emotions may reveal an affective experience of assemblages.

Affective Assemblages

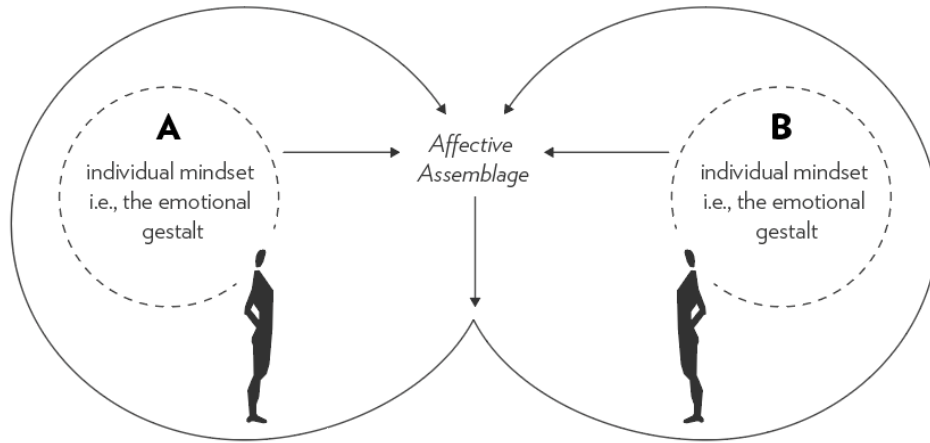


Figure 2.31. The Affective Assemblage

While emotional gestalts occur as *personal psychological states* and gestalt principles guide the structure of assemblage in place experience, *affective assemblages* help explain how self-organizing affective nodes come about through interpersonal relationality. They are intensive bundles of perceptions, emotions, settings, and all other parts coming together, simultaneously composing emotional gestalts, and behaving interrelationally, while in turn revealing affective responses. In *Politics of Affect*, Massumi interprets the affective assemblages through Deleuze and Guattari's definitions as follows:

In affect, we are never alone. That is because affects in Spinoza's definition are basically ways of connecting, to others and to other situations. They are our angle of participation in processes larger than ourselves. With intensified affect comes a stronger sense of embeddedness in a larger field of life – a heightened sense of belonging, with other people and to other places. (Massumi, 2015, p. 4)

At such nodes of life, affective assemblages operate as an interface between people and the outside world, which binds together the two sides of interaction. They allow

the comprehension of a type of interface between living and non-living settings and carry individual emotional gestalts to a higher level of interaction (Figure 2.31). Thus, they no longer describe precise emotions and feelings, but are “*relational and transpersonal rather than solely in the interior individual subject*” (Morley et al., 2020, p. 3).

Affective assemblages are networks where people negotiate emotional responses (Mulcahy, 2012; Severinsson et al., 2015). Every intersubjective agreement creates a new node that continuously emerges from the dynamic relation of embodiments (Morley et al., 2020). This, in a way, opposes the reduction of this phenomenon into individual emotional preferences (Thrift, 2008, p. 116) and highlights becomings and intersubjectively constructing nodes of affects in society.

Deleuze and Guattari (1987, p. 25) explain assemblages with a simple example: “*an arrangement in its multiplicity necessarily works at once on semiotic, material and social flows*”. Hence, they are a type of “*encounter and connection*” (Pham et al., 2021, p. 3). This attains affective assemblages more than the sum of personal emotions, feelings, moods, and emotional gestalts. The subjects become both a consequence and part of an irregular and heterogenous relationality that constitutes a base for the self-organizing structure of social complexity. Saxena (2018) also highlights this as follows:

...affective assemblages embodying varied social-cultural-material connections and molar/molecular tides afford an insight into how bodies/subjectivities are experienced and negotiated vis-à-vis social and natural environments creating the substrate that delineate actors’ capacities and limits. (Saxena, 2018, p. 102)

All in all, this study proposes that *place experience* arises from *affective assemblages* that show irreducible dynamic structures by *affecting* people’s interpretations and judgements. Thus, the study evaluates emotions and assemblage thinking together and examines gestalt not only in terms of form but also in terms of affective interactions in the place experience. By this way, it hopes to overcome the main frames of the orthodox Cartesian comprehension in urban design.

In urban design, ambiguity and certainty may come from the world outside of our conception of reality, ideal mental images, etc. Learned qualities restrict the mind, so that we cannot think of the possibility of another reality. We avoid associating with the metaphysical (de Roo et al., 2012). We do not call it anything, but we sense that human decisions are not derived only from the seen objects, but also from the unseen, and from the interaction of the subject-object interactions. They are generally brought from the past, individually or collectively, and from today's constructed experience and knowledge. We need to recognize that whatever is interpreted or foreseen often remains within the built structure of received, perceived, conceived, and experienced knowledge and all accompanied interpretations and experiences.

The mind is automatically reconstructed once it is related to something. Therefore, the engagement in a relationship may result in an undeniable change. This can appear as an emergence or in pursuit of a defined logic. Thus, representations of these *reconstructs* are derived from a succession of situations, actions taken, and the resulting consequences. At the interpersonal level, once there is an interaction, an assemblage (e.g., with people, thoughts, other thoughts, concepts, events, the environment), the mind initiates a process of *reconstruction*, which is often difficult to stop. In urban design, there is a systematic reconstruction process of concepts towards formulating a future image, which creates a new assemblage point every time.

We do not only make associations in the process of imagining a future. Our association capacities also support our understanding of the *unity* not only in the imagining process. The creativity mechanism relies on our associating capabilities, but creativity may come out when the boundaries of what is seen as 'real' are crossed, in other words, when we think 'outside of the box' in *one* way or another (e.g., content-wise, in the presentation, design, etc.). Moreover, creativity emerges not only in imagining but also in understanding. Associating the structures also inhibits creativity in it; we superimpose meanings on it so that the 'real' is distorted, reinterpreted, and reconstructed. This superimposing remains within the limitations

of the mind's perceptual capacities, but imagination can also stay within the same limits.

The problem is that the structure and its components arrest our attention. We internalize it so much that we program our knowledge framework within these boundaries. This can apply both individually and in intersubjective matters. As long as we are in the process of understanding reality either through analytical eyes or through intersubjective discussion, we may often choose to remain within the boundaries of what is given/imposed or what we receive as concepts and places. We may find ourselves in situations where we continue to experience, use, set and defend concepts or places without questioning them, yet believing that they are *right or wrong, good, or bad*. This hypothetic relationship of individuals or groups with places and the concept of places starts breaking down when we force ourselves to sense more and translate the meaning that we deduce through our senses into a new interpretation that represents itself as a composition: one that emerges through a creative process that reduces the possibility of distraction from *right or wrong* ideas (an emergent creative process in the understanding phase).

In this framework, we assert that music presents an enormous advantage in explicating affective assemblages, creative thinking, and the dynamics of compositional relationalities in urban design, because we argue that it represents a type of a sphere, an interface that we not only perceive but also continuously reconstruct within the experience. This reconstruction process happens because of music's affective power, and its ways of steering rationality, in the mutual relation of body and soul. Hence, we investigate the concept of music in detail regarding design and assemblage thinking in the next section.

2.3 Timbre of the Place: Associating Music and Place

Nothing remains the same in the sum of the elements and yet I recognize the identical melody; I may not even know, under certain circumstances, that the elements before me are different. For example, transpose a melody from C major to C# major and most people would not realize that the thing as a sum of elements has completely changed. What is the reason for this? (Wertheimer & Riezler, 1944, p. 86)

The study showed that the concept of place is examined through fragmented approaches in terms of *experience* and *meaning* in the urban design literature. However, the semantic and experiential relations reveal an entirely complex structure, as reflected in numerous writings (Alexander, 1965; Gershenson, 2008; Lindquist & Feldman-Barrett, 2008; Rapoport & Hawkes, 1970; Rapoport & Kantor, 1967). The critical point it observed was that an essential part of the literature, in particular, define *complexity* dominantly through *form or visuality*. On the contrary, it asserts that it is not sufficient to understand the place experience only from a formal perspective and argue to apply the assemblage thinking (affective atmospheres) to understand place experience better.

In this context, the study asserts that *music* offers significant clues in understanding the *experience* as a point of departure. It senses an intuitional partnership in the perception of music and place, where affective and communicative interfaces convey adequate integrity. It proposes '*place*' as an interface of emotions, an affective assemblage, in reaching the sets of urban life. For this purpose, it examines this interrelation through music with the historical, technical, and perceptual dimensions.

Consequently, the first subsection explicates the comprehension of the phenomenon from Ancient Greek philosophy to 20th-century modernist thinkers and tries to understand the evolution of music comprehension. The second subsection investigates the key literature that examines music and place together from different perspectives. Finally, the third subsection analyzes technical and affective elements of music and questions their impacts on human perception.

2.3.1 Philosophical Resemblances of Music and Place

The etymological roots of *music* originate from the Greek words *mousiké* and *tekhné*. *Mousiké* represents nine Greek Goddesses, *the Muses*, the daughters of Zeus (*the father of Gods*) and Mnemosyne (*the Goddess of memory*). Each Muse individually represents a creative practice such as poetry, tragedy, singing, and dance. On the other hand, *tekhné* means *artisanship* and refers to powerful *abilities to remember*. Thus, the etymological roots of music are connected to *the arts of the Muses*. In mythology, the Muses tell stories and sing songs about the *creation of the universe* (Akan, 2012), and music is the common medium of all creative arts, a medium to understand the universe and its relationality, i.e., harmony.

The relationship of *music, memory and affectivity* is beyond *the concept of time* as well as within it. Undoubtedly, music has been used for thousands of years to convey particular affectivities such as in war songs, stories, historical events, conquests, and national anthems. Ancient civilizations have constructed their unique ways of conveying messages with music, with cultures such as China, Egypt, and Ancient Greece evaluating it in metaphysical and physical contexts, e.g., political and religious concerns. Almost all leading philosophers developed ideas on music:

- **Pythagoras (580-500 BCE)** illustrates music as a *mathematical content* and *harmony of elements*: every object has its *unique sound* in the environment.
- **Confucius (551-478 BCE)** defines music as *expressing emotions* and *harmony between the earth and the sky*.
- **Socrates (470-399 BCE)** believes that *good music can help people to become better*, as it helps them understand the concept of *beauty*.
- **Plato (BC 428-348 BCE)** points out the spiritual features of music and argues that it is more than entertainment; it is a bridge, *a harmony between the soul and body, a type of a medium between melody, rhythm, and words*.

- **Aristotle (384–322 BCE)** outlines that music *mimics emotions* and *revives* past experiences.
- **Niccolo Machiavelli (1469–1527)** points out the importance of music *to motivate* armies, which was an old but not institutionalized idea until his era.
- **René Descartes (1596–1650)** highlights the *ability of music to evoke feelings and emotions*.
- **Gottfried Wilhelm Leibniz (1646-1716)** interprets music as an *unconscious arithmetical exercise* of the mind.
- **Immanuel Kant (1724-1804)** draws attention to *aesthetic values* and defines music as the *harmony between tones and timing*.
- **Arthur Schopenhauer (1788-1860)** highlights the *easy and inexpressible nature of music* and states that music reproduces emotions disconnected from reality itself.
- **Charles Darwin (1809-1882)** illustrates music as a matter of *natural evolution and sexual selection* by focusing on how and why it evokes emotions in the opposite sex.
- **Søren Kierkegaard (1813–55)** proposes music as an *art of sensuous (libidinal) mediums*.
- **Karl Marx (1818–83)** defines music as an *ideological element* that has historical qualities.
- **Max Weber (1864-1920)** describes music as a *cultural action of bureaucratized western culture* and examines its qualities regarding expectations, affects, beliefs and traditions.
- **Ludwig Wittgenstein (1889-1951)** defines the semantic structure of music just like languages and defends that it is not just an order of sound but also *a way of communication*.
- **Theodor Adorno (1903-1969)** examines music as a tool *for understanding history and society*.
- **Jean-Paul Sartre (1905–80)** highlights the *affectivity of music in everyday life*.

Table 2.3 The Understanding of Music of Different Philosophers

The Comprehension of Music	The Philosophers from Antiquity to Today
<i>Arithmetical</i>	Pythagoras, Leibniz
<i>Emotional / Affective</i>	Confucius, Aristotle, Machiavelli, Descartes, Kant, Schopenhauer, Darwin, Kierkegaard, Sartre
<i>Spiritual</i>	Socrates, Plato
<i>Cultural / Historical</i>	Marx, Weber, Adorno
<i>Communicative</i>	Wittgenstein

All these reflections state particular dimensions of a mathematical embodiment, a reflection of a spiritual composition, a medium of affectivity, a tool to examine history and people as human beings. The study asserts that nearly all of these can also be applicable for *place thinking*, since it is also a product of society and history. Likewise, it proposes evaluating place as a medium, *an interface* that reflects (allows the emergence of) the affectivity of human nature. In this frame, it proposes investigating music in more depth under four subtitles: the soul (based on Plato), nature (based on Darwin), society (based on Weber), and communication (based on Wittgenstein).

2.3.1.1 Plato: The Soul and Body

Where there is no word, it is difficult to understand what rhythm or harmony means in music. Applying to a series of acrobatics to give sounds alone shows a lack of music culture without dance and poetry. (Devirgen & Esin, 2016, p. 525)

Plato speaks at length of the role of music in the ideal state system. It is not just entertainment, but a phenomenon that *makes people better, calmer, and more serene*. He views music as capable of directing people's *ethos*, enabling them to reach to the *good person's idea*. Thus, in ancient Greece, it is accepted as a part of daily life and

closely related to art branches such as poetry, dance, tragedy, theatre in all respects, a medium for all cultural activities.

The flow and harmony within music surrounds the soul and attains the '*beautiful*' and '*good*' (Sabahattin & Cambaz, 1980). However, its misuse, or overuse, represents potential threats because of the metaphorical discourses in politics. According to Plato, music and poetry can easily be used as a tool *for manipulating the human soul*, regulating the affective state to change people's mindsets; yet still, both have a type of duality, a phenomenon that can also spiritually heal society. We know that this has also practical reflections since many people tried to use music to treat the mind in ancient Greece.



Figure 2.32. The Platonic Academy of Athens (Raphael, 1511)

Plato describes *beauty* through *aesthetics*. The word comes from the Greek word of *aisthesis*, which refers to *sensation*, *perception*, and *pure thought* (Akan, 2012). *Aesthetics* represents a reciprocal transformation process between people and their nature/world. Aesthetic music creates a bridge between *the mind and soul*. According to Pelosi (2010, p. 196), Plato identifies two critical musical characteristics:

- The ability to represent precise contents and to impress them on the psyche.
- The close interconnection between words, harmony, rhythm, and dance.

From this point of view, the musical experience strengthens an association, a type of relationality which *reveals an inexpressible relationship which exceeds the rational understanding*:

What happens when one lives a musical experience shows how Plato conceives entities and mechanisms involved in the reception of music: soul and body, intellect, emotions, passions and perceptions. (Pelosi, 2010, p. 6)

In Platonian thinking, music is not an instrument or a tool by itself. The critical point in this approach is the perception of music which exceeds flesh and bone, the combination of *essence and meaning*. Through emotions, they form various states in the surrounding nature, *or in the music that surrounds nature*. Although music determines positions of policy integrations in the ideal state, it is more critical for this study to recognize the relationships *between body and soul*, and how they give meaning to the experience.

Here, the intention is not to make a direct analogy from music to urban place. However, when ancient Greek cities are examined, it can be easily seen that the main public places are the spiritual focus. The philosophical comprehension of the era directs all social subjects in certain parallels. In this respect, just as Plato defines the bonds that music creates, the Greek cities embody bonds between the society and Gods, between people and places with cultural activities, temples, and other spiritual artefacts such as sculptures and ponds.

2.3.1.2 Charles Darwin: Arousing Affectivity

The capacity and love for singing or music, though not a sexual character in man, must not here be passed over. Although the sounds emitted by animals of all kinds serve many purposes, a strong case can be made out, that the vocal organs were primarily used and perfected in relation to the propagation of the species. (Darwin, 1981, p. 330)

After the Enlightenment, rationalist thinking and the concept of the superiority of man over nature was on the rise. Metaphysics was regarded as a myth in the naturalist world. Darwin puts forward the groundbreaking theory of evolution and natural selection in this era and describes how living beings evolve in a cycle of competition, survival, and reproductive instincts. According to him, not the strongest, but the most adaptable being survives in nature. He also examines music within this *rational framework*. As a geographer and biologist, Darwin addresses music within this framework of natural selection. In *The Expression of the Emotions in Man and Animals*, music is described in terms of *communication*:

Music has a wonderful power, of recalling in a vague and indefinite manner, those strong emotions which were felt during long-past ages, when, as is probable, our early progenitors courted each other by the aid of vocal tones. (Darwin, 2009, p. 229)

Darwin (1881) states that living beings, including the first humans, convey feelings like love, tenderness and interest through music. In time, the musical capabilities and functions drastically changed due to the physical conditions and evolution of the body. Since humans need to communicate in different environments and centuries, it led them to construct *various kinds of mediums*, and eventually, music also evolved.

In this context, Darwin examines *birds* in detail, and investigates how they use voices as tools to flirt with the opposite sex, to ensure the survival of their genes in the *evolutionary process*. A bird which wants to impress others and stand out as a unique competitor manages sounds to show its *sexual power and uniqueness*. Vocal authenticity is one of the most significant abilities in this process. Birds present music together with sounds, colours, exaggerated movements, and feathers in their bodies. Interestingly, the affectivity of these songs matches the description of Plato:

I conclude that musical notes and rhythm were first acquired by the male or female progenitors of mankind for the sake of charming the opposite sex. Thus, musical tones became firmly associated with some of the strongest passions an animal is capable of feeling, and are consequently used

instinctively, or through association, when strong emotions are expressed in speech. (Darwin, 1981, p. 335)

Darwin's examinations of evolution show that music has always been a crucial *medium of communication to trigger* affectivity in animals (Kivy, 1959). For instance, the last known surviving male 'Kauai O'o' bird (Figure 2.33), which was recorded in the North American jungle for the last time (Pratt, 1976), shows *an incredible survival instinct combined with music* (cf. the Kauai O'o Last in Sykes et al., 2000). However, the evolutionary process of music is of course not just related to sexual selection, and still very difficult to explain. Many researchers define music as one of humankind's most mysterious abilities (Perlovsky, 2017). Yet today, we can easily state that humans are still trying to attract each other with millions of songs from hundreds of cultures, and 140 years after Darwin, it is still possible to adopt it as a medium to transform *cultural, biological, and historical legacy*.



Figure 2.33. Kauai O'o' -*Moho braccatus* (Sykes et al., 2000)

The social and intellectual dynamics created by the Enlightenment encompass all fields of philosophy with rational thinking. The decrease in the influence of religious institutions and the emergence of technological innovations in science and art have

increased the confidence of human mind. With the industrial revolution, societies have begun to experience the superiority over nature. The modern city (as a core of the capital) emerged as a mechanically constructed human consequence. Instead of being a sub-part of nature, human settlements have evolved as cooperation nodes that dominate the natural environment. This reality has also revealed the functionalist face of the modern city, where they have started to mimic the same nature to survive and adapt to the capitalist world.

2.3.1.3 Max Weber: Rational Foundations of Society

The focal point and main message of Weber's analysis is to call attention to the sharp contrast between modern (Western) and pre-modern music, that is, between rationalized and far-less-rationalized types of composing music. (Feher, 1987, p. 149)

In *Rational and Social Foundations of Music*, Weber (1958) examines music as an *institutional action* produced by the western society by comparing it to Eastern culture (Segady, 1993). Contrary to the mystical understanding of the pre-modern period, he proposes a rational examination of music in the context of *historical accumulation and sociological transformations* (Botstein, 2010).

The industrial revolution and the emergence of nation-states systematized society after the 18th century. The new bureaucracy and the institutional structure of the church *formalized music* just like many other things (Turley, 2001). In this era, rational methods dominated the spiritual ground of music, and scientific research methods were applied in music (Yıldırım & Koç, 2003). The institutions of the modern West initiated standardization processes in musical notation, melody, tonation, and even in instrument production (Güven & Ergur, 2014). In this regard, Weber explicates musical documentations developed by priests and how they facilitate the transmission of knowledge through the archives of the Roman Catholic Church. He emphasizes that archives and standardization developments are of great importance in terms of the *historical transfer and formalization of music*.

Weber investigates music even in *relation to natural factors* such as climate. For instance, he analyses piano styles and listening habits in different parts of Europe and reveals differences between Southern and Northern Europe. He argues that the differences are inevitable because of the cold climate of *Nordic countries* which made the piano a part of the home in everyday life. On the other hand, the humid weather of the *south's tropical climate* caused severe problems in wooden structures. Eventually, even an indirect factor such as climate can influence the role of the piano everyday life, until the manufacturers started using steel frames in the southern parts of Europe (Turley, 2001).

Weber (1978) also examines music in the socio-economic context, and analyses the impacts of the production of musical instruments, in *Economy and Society*. The findings show that the standardization process of musical tone and strict rules in instruments caused the culture to spread more quickly throughout Europe. He constructs his central stance on the causality and rationality of musical practice. Even if he mostly neglects the affective and creative dimensions of music (Normann, 1959), his findings clearly outline the process of industrial revolution and the effects of nation-states on cultural production and rationalization. Weber's studies show that the early modernist era was the beginning of an instrumentalization process for music.



Figure 2.34. Musicians of the Old School (Burney, 1820)

Weber's approach to music is a pure positivist way of understanding the dynamics of this so-called metaphysics phenomenon and its effect on society. His approach constitutes the milestone of modernist rationality. Since the beginning of the 19th century, this process has also accelerated the evolution of public space and transformed it into a means allowing the interactions of capital. This, made it possible for the state to manipulate social behaviours like an engineer. The relationship between the modernism project and the modern urban space became intertwined. Instrumental rationality considers space as a Euclidean structure and a medium that can shape society. Ultimately, Weber makes a crucial examination in this systematization through cause-and-effect relationships and organizational structures. Like in his inquiries on music, he also paves the way for a bureaucratic standardization of control tools.

2.3.1.4 Ludwig Wittgenstein: The Affective Communication

Wittgenstein grew up very close to music and reinforced this relationship by playing various instruments starting from his middle ages. According to Scruton (2004), after Farabi, he was probably the most educated philosopher when it came to music. He was trying to understand music to better express the way of communication between people (2019). As can be seen in his book, *Culture and Value*, he was also interested in architecture, and stated that “*the spirit of this civilization makes itself manifest in the industry, architecture and music of our time*” (Wittgenstein, 1980, p. 6).

Wittgenstein questions how people manage to communicate of their ideas to others. According to him, communication emerges in mind through visions, and even if we do not understand each other purely, we create a shared meaning in between minds. And that sharedness is constructed upon shared experiences of individuals.

In this framework, music also creates a similar bridge. However, it is a more subjective state to interpret in music than in the case of a face or an object. For instance, it is easy to confirm the basic meaning of an apple with another person.

However, it is not so easy to achieve an abstract shared meaning in music. These uncertain boundaries of images make music unique and sensational among other arts:

Some people think music a primitive art because it has only a few notes and rhythms. But it is only simple on the surface; its substance on the other hand, which makes it possible to interpret this manifest content, has all the infinite complexity that's suggested in the external forms of other arts and that music conceals. There is a sense in which it is the most sophisticated art of all. (Wittgenstein, 1980, p. 9)

When we listen to music attentively, we find ourselves in the melody and rhythm. Most of the time, thinking about music is an unconscious way of thinking. The involuntary accompaniment is internal. Of course, we think of music without accompaniment, but *"in that case the notes are much ghostlier, more blurred and less pronounced"* (Wittgenstein, 1980, p. 28).

This raises the issue of how we understand music as a fundamental philosophical question. A person who listens to music has not just one experience, but a series of experiences. However, the expressions of experiences are limited to verbal reflections. In other words, while a person listens to music, the way through which feelings are evoked can only be expressed within the limitations of the verbal or body language. Bowie (2007, p. 42) states that *"Wittgenstein invokes music as a means of showing something that cannot be said"*. Accordingly, Wittgenstein (2009) suggests that it is possible to express messages by music that cannot be verbally communicated. When considered this way, emotions, affects, and expressions constitute types of mediums or interfaces to construct a shared understanding. In fact, Wittgenstein's main point on music is not about esthetics, but about what is said and how it is understood (Scruton, 2004, p. 33). For him, music is a means of understanding an indescribable intuition:

If music has meaning, then that meaning must be understood by the one who understands the music. Hence the concept of musical understanding displaces that of musical meaning: we have no idea what musical meaning might be, until we have some grasp of the distinction between the one who hears with understanding and the one who merely hears. (Scruton 2009, p.34)

Similar to music, the complexity of place arises from the fact that its affective qualities are very difficult to describe. Hence, they cannot be transformed into another medium. The feeling of a good place transcends the formal boundaries of language. Thus, the experience is embodied as an intuition, a feeling, and a timbre, reflecting the story, the physical and perceptual character of the environment. It is the affective essence of experience, which becomes much more determinant than any other technical component. Music perhaps offers much more than a formal framework as a means of communication. It conveys messages and emotions from one to another. This undefinedness, the bigger sense of meaning, is also felt in the place experience. It contains such complex and collective meanings that it becomes almost meaningless to reduce it to a specific representation.

2.3.2 The Literature on the Associations of Music and Place

This study specifically aims at investigating the associations between music and place. However, few studies establish this connection in urban design, so we examine cultural geography, urbanism, and architecture in the context of concepts such as *experience*, *meaning*, and *assemblage thinking*.

The review shows that studies in cultural geography adopt music as a medium to understand societies and cultures in terms of socio-political and economic contexts and argues its association through cultural dimensions. In this context, the relationships are mainly between culture and geography. On the other hand, urbanism literature focuses on the notion of rhythm in spatial contexts and refers to Lefebvre's conceptualization of rhythmanalysis. In this context, the relationship is mainly structured on temporality, energy, and time in terms of the production of space in the city. The third domain, architecture, elaborates the use of musical principles in architectural design in terms of the stylistic, rhythmic, and experiential aspects of the physical environment. Here, the relationship between music and place is created by adhering to the form and visual perception.

2.3.2.1 Human Geography: Cultural Geography of Music

Regardless of the field, music is an essential part of the private and public domain. It should be considered not only as a device of culture, but as an inseparable part of *experience* and *place*. For this reason, it is essential to decipher the culturally evolving relationalities (e.g., political, economic, and cultural aspects). Ultimately, it presents significant "*sources of images and symbolism*" (Byklum, 1994, p. 274), which provides important clues for understanding society and geographies.

As an upper scale, geography examines the relationship between music and place in terms of cultural, economic, and social dimensions. Studies started to emerge in the 70s and accelerated in the mid-90s (Leyshon et al., 1998). The existing literature mostly approaches music and place from the framework of cultural geography (Byklum, 1994; Gillet, 2011; Homan, 2014; Hudson, 2006; Kloosterman, 2000; Kong, 1995; Krims, 2007; Lashua et al., 2014; Leyshon et al., 1995; Magowan & Wrazen, 2013; Sennett, 2017; van Klyton, 2015; R. A. Young, 2016). In these studies, the most prevalent concepts that constitute various sub-headings are symbolic meanings, cultural communication, politics, music industry, and identity construction (Kong, 1995).

The way cultures deal with geography is as important as the potential of geography to transform cultures. In the relationship between music and place, it is possible to examine cultural occurrences nearly in any everyday experience. For example, Byklum (1994) analyzes the *imaginary and symbolic* reflections of geography through *song lyrics* and shows that how *geographical perception* is interpreted through the words of 'river' and 'mountain' in dozens of song lyrics. The study's findings reveal the ways in which music is used as a communication interface to convey geographical perception and cultural information.

Cultural geography also deals with various historical periods to examine the alternative reflections of music in different periods. In this regard, popular culture is one of the most discussed topics in the late 20th century, as it enables us to evaluate

globalization and cultural contexts in various cases. Kong (1995) argues that the conflict between *elite and popular culture*, which is frequently encountered in geography, needs to be resolved so that geographers can benefit from the extensive possibilities of music, as it offers valuable opportunities to understand concepts such as *experience* and *everyday life*:

Music is also a medium through which people convey their environmental experiences both the everyday and the extraordinary. For example, many everyday taken-for-granted environmental experiences discussed theoretically and empirically via notions such as 'sense of place', 'space' and 'place' (see Tuan, 1974a; 1974b; Relph, 1976) can be enriched through analyses of musical expressions. (Kong, 1995, p. 184)

There are two crucial variables regarding the relationship between place and music in cultural geography: scale and time. The first variable, *scale*, determines the context in which we examine music and place according to the ambivalent structures of scopes, such as '*national vs. international*' and '*universal vs. local*'. For example, the examination of popular music and an ethnomusicological study of a local culture require different approaches. Since scale affects the established forms of relationships, it also determines the basic framework of the examination.

The second variable is *time*. Time orients the character of historical period in which music and place are dealt with. For example, when examining criticisms of music and popular culture published in the early 20th century, it is of great importance to take into account the modernist period and the processes of Fordist capitalism. Leyshon et al. (1995) present these ambivalent relationships in detail and show that although the meaning of music is similar in different periods, the sociopolitical structure and technological capabilities radically influence how it is interpreted. Concerning this, music also offers opportunities for understanding historical insights:

Music has always been implicated in the social and political world. Its power to affect, disturb, rouse and subdue has been used to great effect by monarchies, armies and governments throughout history. In the twentieth century alone, art music has served imperialism, nationalism and totalitarianism through the state's appropriation of such composers as Wagner

in Germany, Shostakovich in the Soviet Union and Elgar in Britain. (Leyshon et al., 1995, p. 426)

The rise of nations, modernism, technology, and the music industry correspond to the same periods after the 18th century. Hence, music has undergone a significant change, evolving with daily life practices, politics, and the economy as essential elements of cultural life. In particular, under the conditions of capitalism that pushed it to industrialization, music experienced a severe commoditization and thus a type of meaning loss. Concerning this, Adorno (1976) argues that capitalism has condemned music to a system that uniformizes and drives society towards a type of acceptance rather than towards liberating and questioning the contemporary dynamics (Leyshon et al., 1995).

Considering that the global music industry has made 21.6 billion dollars only in 2020 (IFPI, 2021), Adorno's claims seem right. When examined in terms of urbanization, one also observes that the image of music is instrumentalized as a tool in the branding of cities (please see Kong, 1995; Krims, 2007; Leyshon et al., 1998; Young, 2016). Ultimately, music presents an extensive medium for understanding the images and symbolism of different localities and geographies more profoundly. At this point, it is revealed to be both a *result and a product of the experience* (Kong, 1995):

Just as it is a medium for conveying myriad experiences, music is also the outcome of environmental experience. Musicians write their music as a consequence of their experiences. Music can thus be said to possess a duality of structure: as both the medium and the outcome of experience, it serves to produce and reproduce social systems. (Kong, 1995, p. 184)

2.3.2.2 Urbanism: The Rhythm of the City

Urbanism mainly examines music and place through Lefebvre's philosophy of rhythmanalysis. Lefebvre points out that space is constantly produced in the cycles of daily life, and as an amateur musician, he aims to understand the contributions of musical elements to comprehend space better (Lefebvre, 2004). In this sense, rhythm offers significant opportunities to describe these relations as an underestimated

philosophical concept in the literature. It emerges with a combination of movement, place, time, and energy (Lefebvre, 2004, p. 15). In that case, any experience that repeats itself in any renewed order recreates music and echoes in the city. The city represents the space to those echoes which vary according to the frame that researcher is seeking for, e.g., the change of sunlight, the rhythms of the pedestrian movement, or the gender spaces.

Lefebvre exemplifies how to perceive rhythms through the sample of a rhythmanalyst. According to him, a rhythmanalyst is a person who listens to the city and analyzes the changes and interactions by capturing them. Everything moves for the rhythmanalyst: *"He listens - and first to his body; he learns rhythm from it, in order consequently to appreciate external rhythms. His body serves him as a metronome"* (Lefebvre, 2004, p. 19). The rhythmanalyst is concerned with the collision of time and energy, and the patterns created by those collisions. In particular, he/she aims to describe the reproduction processes of space created by the movement through temporalities. That is why Lefebvre emphasises that *"chaos has not rhythm"* (Lefebvre, 2004, p. 27). Rhythm is a combination of place, energy, and time and a type of order, a pattern. He proposes four main classifications to better convey those patterns: polyrhythmia; isorhythmia; eurythmia; and arrhythmia (Lefebvre, 2004, pp. 67–68).

Polyrhythmia is the combination of various rhythms, for example, buses passing through a square, pedestrians, and angles of the light, movements of people, or the change of sunlight... Although all of the rhythms are different and not even aware of each other, they create a harmonious flow through healthy rhythmic orders.

Isorhythmia represents rare rhythms that completely overlap. Lefebvre exemplifies them through music. For example, while a symphony orchestra plays a piece, different instruments create a perfect assemblage by falling into the same rhythm. This 'high order' is called isorhythmia (Lefebvre, 2004, p. 67). In urban experience, this can sometimes be observed in the movements when two or more rhythms collide and synchronize with each other. For example, sometimes a group of demonstrators

will fall into the rhythm of the people walking on the same street, and the crowd can suddenly become much bigger. The encounter and equivalence that those two temporal rhythms might create are isorhythmias.

Eurythmia describes how different rhythms come together and function in harmony. In other words, it is *life* itself. Urban life captures harmonies like those created by numerous organs in our bodies. An order is formed in which subjects are associated with one another, and new and larger assemblages arise from those relationalities. Of course, this does not always describe a homogeneous system. On the contrary, it represents healthy rhythms generated by heterogeneous but co-adaptable rhythms. Unlike polyrhythmia, eurythmia has a purpose, awareness, consciousness: "...*eurhythmias abound: every time there is an organism, organization, life*" (Lefebvre, 2004, p. 67).

Arrhythmia is the inconsistency and irregularity between rhythms. As in medical literature (e.g., heart arrhythmias) it also refers to a biological disorder. Lefebvre defines the concept as a disturbance to the present. It disrupts the existing order through overlapping rhythms in the current flow. For example, the COVID-19 pandemic has deeply affected the rhythms of modern society, and so the public sphere globally. The impacts of the pandemic can be exemplified as a clear example of arrhythmia.

Ultimately, rhythmanalysis represents a method to understand life, contingencies, and patterns of urban experience. A rhythmanalyst is a person who can grasp those dynamic, temporal, and permanent dimensions of experience and benefit from his/her feelings and emotions. This adoption often leads us to the patterns of everyday life through time-space-energy correlations.

In the literature, it is possible to come across different studies on the *production of space* revealed by these relations (Adam, 2018; Horton, 2005; Nash, 2018; Schwanen et al., 2012; Simpson, 2012; Smith & Hetherington, 2013; Tomesen, 2015), the *complexity* of temporality (Koch & Sand, 2010), or *various spatial*

inequalities (Brighenti & Kärrholm, 2018; Christie, 2013; Egbatan & Ak, 2019; O'Connor, 2018; Schwanen et al., 2012).

When examined in detail, studies on *spatio-temporality* and *movement* are more closely interrelated with urban design (Adhitya, 2017; Chen, 2013; Cronin, 2006; Drevon et al., 2020; Edensor, 2010; Edensor & Holloway, 2008; Middleton, 2009; Mulíček et al., 2015; Paiva, 2016; Prior, 2011; Revol, 2019; Rochow, 2017; Sgibnev, 2015; Smrcina, 2020; Wunderlich, 2013). The common point of these studies is that they do not define experience and rhythm only as an order but as a type of an energy that comes together through specific cycles and assemblages.

Among these considerations, we think two studies are particularly significant for the scope of this study. The first one is Paiva's (2016) research, in which the author associates rhythm and affective relationships in the city. It is remarkable since it deals with rhythm not only as a temporal medium, but also as an affective assemblage. The second study is Adhitya's (2017) *Musical Cities*, which aims to combine urban design, rhythm and musical elements methodologically and tries to propose a concrete methodology in urban design.

Paiva (2016) questions how people and upper scale planning decisions are related in daily life. According to the author, urban rhythms emerge as affective relationships, oriented by rhythms. The individual and social encounters reveal these rhythms, transform places into dynamic compositions, and form the experience perception. Different rhythms come together and generate a type of polyrhythmic ensemble (Crang, 2001):

Understanding places as rhythmic compositions means understanding that places are not static, but more like an event. They are “constellations of processes rather than a thing” (Massey, 2005, p. 141). For this reason, it becomes vital to form a “geography of what happens” (Thrift, 2008, p. 2) amid contemporary places.

In the polyrhythmic city, people experience rhythms starting from their bodies (Lefebvre, 2004), feelings, and senses; they deduce meanings, and most importantly,

embody the affective experience. Affect emerges as a spatial element within this experience:

Thrift (2008) and Mitchell (2010) have highlighted that affective contagion occurs through spaces. Affect itself is spatial because it occurs in a field of emergence of experience. For Massumi (2002), experience emerges necessarily in a space–time continuum, as it also did for Husserl and Heidegger. This field of experience is also a field of potential, as space-time actively interacts with subjects and it is never a neutral stage. Within this field, bodies are subject to affective transmission (Blackman, 2012; Brennan, 2004), which can be mainly nonconscious (Clough, 2007). (Paiva, 2016, p. 348)

In this regard, Paiva (2016) adopts *place* as an interface, a type of an atmosphere, and defines spaces by affective encounters. According to the author, the movements create cycles, leading affective assemblages, and atmospheres to influence movements in the urban structure, and so rhythmanalysis offers opportunities to understand them:

This takes us to the concept of atmosphere. It is through their atmospheres that places become a force that affect those who dwell them (Stewart, 2011), and yet atmospheres are only partially material (Lehtovuori & Koskela, 2013). Place atmospheres stem from the congregation of their lived experiences, comprising both actual and virtual elements, and so rhythms are also part of a place's atmosphere (Lehtovuori & Koskela, 2013).

Adhitya's (2017) study also combines music and place through rhythmanalysis. It combines experiencing and listening to the city by reformulating Lefebvre's rhythms in five categories:

- Environmental Rhythms,
- Activity Rhythms,
- Mobility Rhythms,
- Body Rhythms,
- Urban Design Rhythms.

Environmental rhythms refer to natural cycles, e.g., rhythms of the sun, wind, precipitation, and seasonal movements. Most of them are arranged due to environmental cycles. *Activity rhythms* are commercial or recreational movements, e.g., leisure activities, cafes, gastronomy, playgrounds. They are the most condensed public nodes that present community engagements. *Mobility rhythms* are the transportation modes between functions, e.g., the rhythms of bicycles, pedestrians, and cars. Basically, they act as the veins in human body, as they transport the blood that organs need. *Body rhythms* are the anatomical orders that enable individual biological life, e.g., breathing, heartbeats, metabolism. *Urban design rhythms* are various physical structures, from streetlights to trees, green spaces to railroads, that physically orient the experience in the city.

All of these categories work together in the urban structure. However, Adithya does not explain how rhythms should be listened to or be examined in detail, yet categorizes the action of listening in two ways. The first way is the type of listening to grasp the unity, to make sense of experiences. In this process, the subject establishes symbolic and cultural relations between what she/he hears, so this refers to a phenomenological listening. The second type is the concept of soundscape, which remains as a more technical field. A soundscape refers to a plane of sounds, like an abstract landscape, a hidden and intangible topography. People also experience this topography and interrelate it through various meanings (e.g., car horns and urban chaos):

‘Soundscape’ is a landscape of sound or sonic environment that focuses on the way a sound is perceived and understood by individuals and social groups. With the special and temporal qualities of sound, the concept presents a more inclusive and holistic way of knowing a place. (Kato, 2009, p. 80)

Adhitya tries to apply an abstract discourse in concrete case studies. The author analyzes *Iain Grandage's Left Edge*, recorded by the West Australian Symphony Orchestra, conducted by Peter Moore, and translates its musical elements and instruments into spatial components (Figure 2.35). In other words, the study directly

correlates particular urban components (green areas, walkways, etc.) and musical instruments. In this proposal, brass instruments (green) are concrete structures, violins (pink) are walking paths, and strings (orange) are waterfront areas. But the associations between them are quite ambiguous. In this case, what we observe is also a deterministic trap which tries to transform the musical timbres into environmental features.

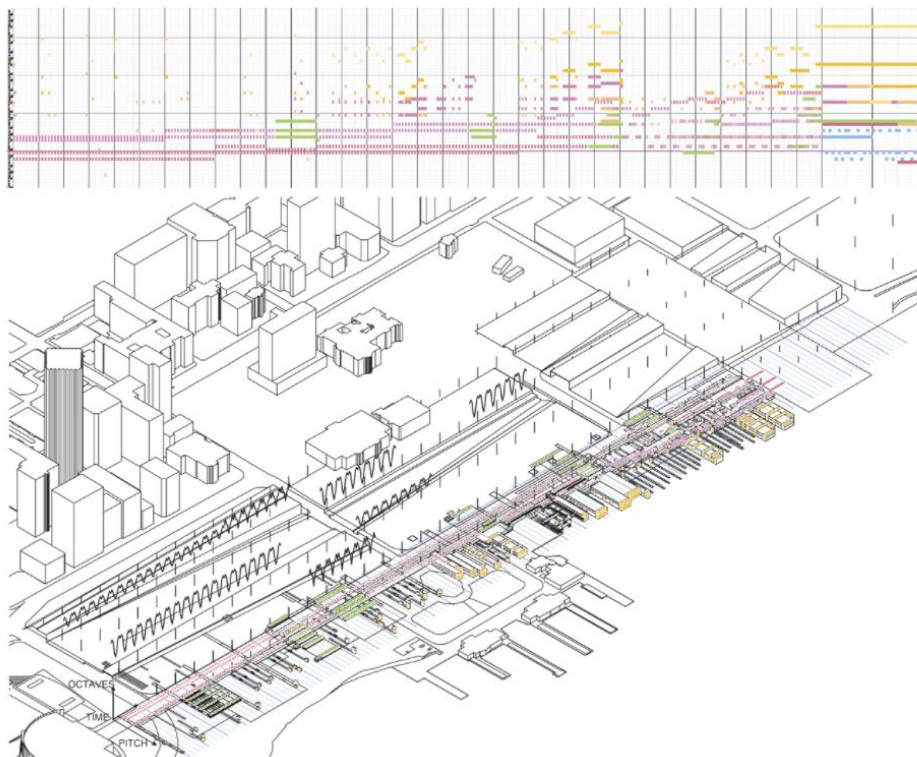


Figure 2.35. Application of Music to Place (Adhitya, 2017, p. 70)

Whatever the way of listening is, one of the most critical effects of urban rhythms is their ability to bring people together. Rather than the musical style, it is the affective assemblages that structure the experience. Those assemblages create an undeniable atmosphere, thanks to the mirror neurons, numerous environmental stimulations, and emotional and sensual perceptions. We generally do not consciously understand precisely what that is. However, we know that music, with its unifying power, gives us the opportunity to be liberated from overly rationalized everyday life. In this

context, Adhitya's work does not explicitly examine the dimensions of affectivity, but still highlights that relationship in a significant way:

Music is a powerful art form for a number of reasons: it can speak to our bodies and coordinate movement; it can help restore arrhythmia to a state of eurhythmia; it can optimise our performance and increase efficiency; it connects people across society, bringing them together; and it has the power to stimulate our minds and manipulate our emotions. (Adhitya, 2017, p. 39)

All in all, the present literature on urbanization combines music and place mostly in terms of urban rhythms. However, it should be noted that the literature's treatment often reveals an instrumentalization process, a type of meaning loss for music. The particular interest has arisen from the quantifiable structure of rhythm but has resulted in the neglect of the core motivations in music, i.e., the affectivity.

In most of these studies, the affective impact of music has been completely omitted. Thus, the contexts remain only limited to a few parameters in music, like temporality. This study claims that Lefebvre's approach to music is much more extensive than the singular structure of temporality. After all, the concept of temporality had previously been discussed by different scholars (Lynch, 1972; Tarde, 1903 as cited in Gümüş & Yılmaz, 2020). In an alternative way, the study interprets Lefebvre's contribution as a type of assemblage between time-place-energy and the embodiments of spatial reproduction. This perspective allows us to focus on different levels of urban embodiments and adopt music as an intuitive part of urban life.

2.3.2.3 Architecture: The Form and Experience

Architecture is the domain in which the relationship between music and space is examined the most. Numerous studies since Vitruvius have focused on different interactions between these two phenomena. The number of studies is so high that it is also necessary to consider the risk that the analogy has turned into a cliché (Önen, 2016). Especially famous aphorisms of Friedrich Wilhelm Joseph von Schelling and Johann Wolfgang von Goethe are referenced in most of these studies:

Architecture, as the music of the plastic arts, thus necessarily follows arithmetical relationships. Since it is music in space, however, in a sense, **solidified music**, these relationships are simultaneously geometric relationships. (Schelling, 1989, p. 164)

Ich habe unter meinen Papieren ein Blatt gefunden sagte Goethe heute [schreibt Eckermann], wo ich die Baukunst eine erstarrte Musik nenne. Und wirklich, es hat etwas: die Stimmung, die von der Baukunst ausgeht, kommt dem Effekt der Music. [I found a sheet of paper among my papers, said Goethe today [writes Eckermann], where **I call architecture frozen music**. And really, it has something: the mood that emanates from the architecture comes from the effect of the music.] (Eckermann, 1836, p. 88)

While Schelling expresses a type of solidification in a geometrical sense, Goethe evaluates the case mainly through affectivity. He states that the experience in architecture takes emotions as a departing point, just like in music. Interestingly, the literature has often quoted '*frozen music*', which refers to a more concrete/tangible stance. Looking at his last sentence, it is possible to say that Goethe creates relationships between architecture and music in an affective framework.

Actually, the association between architecture and music goes back to antiquity, much earlier than Schelling and Goethe. The intellectual relationship started in the ancient period, as both domains were considered to be branches of art due to their emotional affects. Since Vitruvius, it has been widely stated that they have similarities in stimulating the human mind (Sterken, 2007).

Vitruvius defends that an architect must understand music in order to learn the mathematics of nature. He explains the role of music in the 'Public Buildings' section of *De Architectura*, over relations that are mainly related to form and the relations between public spaces over intervals. According to Walden (2020), Vitruvius references a significant part of his concepts from the works of Pythagoras (geometry) and Aristoxenus (music), and tries to benefit from the epistemes of mathematics and music together. For instance, he uses terms such as eurhythmia, symmetria, and diathesis from Aristoxenus's *Elementa Rhythmica*. Ultimately, these are the first

steps of the association between these fields. He defines the profession of architecture as follows:

To be educated, he must be an experienced draftsman, well versed in geometry, familiar with history, a diligent student of philosophy, know music, have some acquaintance with medicine, understand the rulings of legal experts, and have a clear grasp of astronomy and the ways of Heaven. (Vitruvius, 2007, p. 22 as cited by Walden, 2020, p. 142)

The architectural literature has primarily examined the associations of music and place in terms of *experience* and *form*. In order to grasp the experiential link, it is necessary to understand the relationship of architecture with other art domains (Waterhouse, 1921). According to Waterhouse, the analogies established by architecture are as subtle as music, poetry, painting, and literature. Although the emphasis of architecture is not as straightforward as theirs, it works hand in hand with music (Waterhouse, 1921, p. 329). Ultimately, both try to reach the same concept of '*beautiful*' and generally try to achieve this through affective and mathematical dimensions, like form, proportion, and rhythm.

The relationship of music and architecture reveals the Dionysian artistic experience. According to Winters (2011), this association allows us to perceive ourselves as a part of the emotional experience. For instance, music involves us in an affective spiral; and rather than simply hearing a sound pattern, we exist in the experience with our bodies, where the movements and emotions are embodied together. In this regard, weddings are also clear examples, where the young or old sing and dance together (Winters, 2011). A similar situation is also the case at funerals, where people sing laments to commemorate the decedent in Eastern culture. Humans become a part of an affective atmosphere through music. According to Winters, a similar Kantian experience is also found in architecture:

We can see that the architecture acts like frozen music upon our living dance. When we live in buildings, move around in them and comport our-selves in them—according to the rhythms delineated in their composition; according to the way the light falls here and is filtered there, according to the detail (or lack of it) that frames our ways of being in the building—our occupation engages the design. (Winters, 2011, p. 67)



Figure 2.36. Philips Pavilion, Brussels, 1958 (Xenakis, n.d.)

The most famous example of this adoption is the Philips Pavilion, a notable example of the avant-garde movement, built at the Brussels Expo in 1958 (Figure 2.36). It was designed under the supervision of Le Corbusier by Iannis Xenakis, a musician and civil engineer. In its conceptual design, the technical and mathematical aspects of music were used to a great extent to embody the musical experience:

What is important here, is that form is inspired by mathematics and notation, not determined by acoustical calculations. However, the hyperbolic surfaces, combined with the electroacoustic spatiality of the *Poème Electronique* gave rise to surreal acoustic and sensory experience for visitors. In addition, the form contributes to the experience because it alters the visitors' perception of what they are experiencing. (Beesen, 2016, p. 46)

In this regard, the form is just a contributor, where the music is experienced internally, not externally (Beesen, 2016). According to Beesen (2016), this vital point helps us understand the fundamental links between architecture and musical experience. For instance, an exemplary case can be observed in the Berlin

Philharmonie Concert Hall (Figure 2.37), where the seating arrangement envelops the stage like ivy, ultimately "*the result is a more intimate experience, a fluid exchange across audience and musicians*" (Beesen, 2016, p. 39). Such architectural details provide the means for experiencing the place sensually, emotionally, and more intimately. In this way, it is possible to observe the liquid state of architecture in different buildings designed with musical focus (e.g., Texas Stretto House, Sainte-Marie de la Tourette, Undulating Glass, and Berlin Philharmonie).

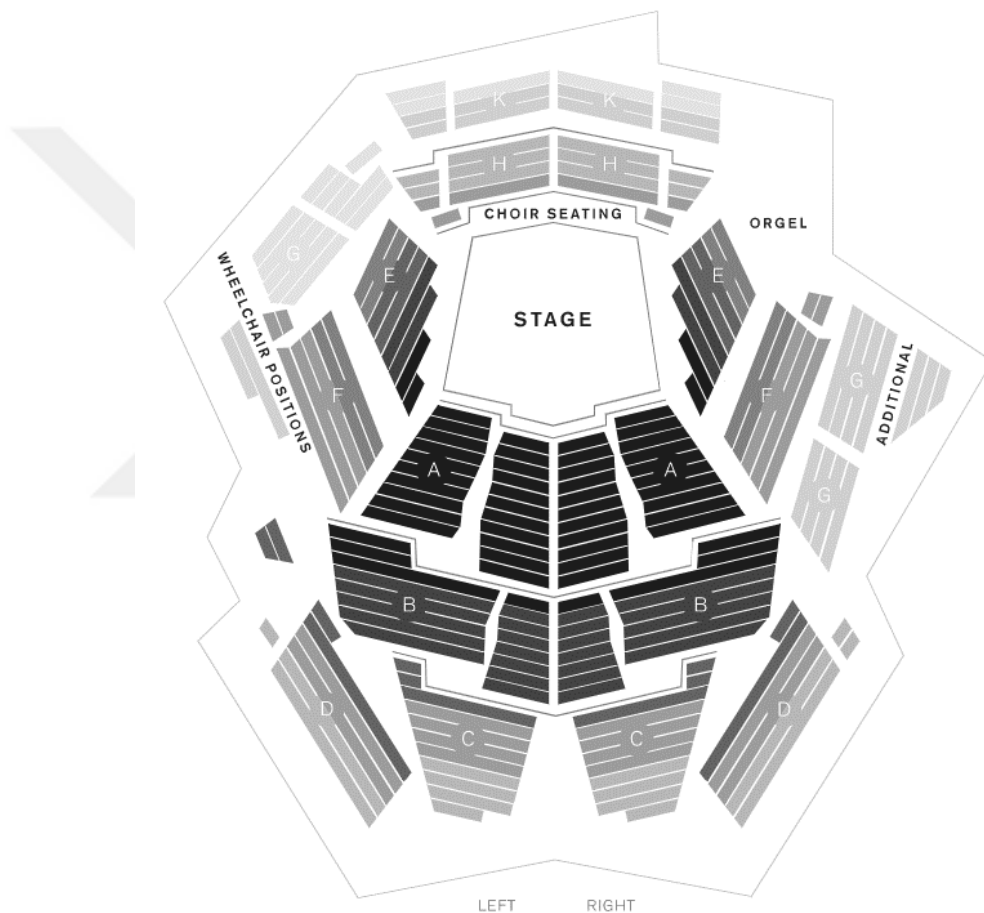


Figure 2.37. Berlin Philharmonie Floor Plan (Berlin-Philharmonie, n.d.)

The liquid architecture can be called the dynamic, responsive character of the place. This type of an adoption can easily be sampled through the virtual spaces. Silva (2005) pursues the concept in her study *Liquid Architecture*. According to the author, music directs experience in terms of form and the changing patterns of the

surrounding environment. In other words, as in music, the liquid space enables arrangements to change simultaneously, and this dynamic structure resembles the fluid and variable structure of architecture through music. Refik Anadol, famous for his visual compositions with AI-based algorithms, also presents a similar type of a pursuit between architecture and graphic arts (Anadol, 2020).

Table 2.4 Parallel Streams in Music and Architecture
(Young et al., 1993, p. 41, redeveloped by the author)

Architecture		Music	
<i>Dates*</i>	<i>Style</i>	<i>Style</i>	<i>Dates*</i>
1600-1750	Baroque	Baroque	1600-1750
1700-1800	Rococo	Rococo	1740-1760
1750-1900	Neoclassical	Classical	1750-1820
1830-1870	Romanesque & Gothic Revival	Romantic	1820-1900
1890-1910	Art Nouveau	Impressionism	1885-1920
1900-1920	Expressionism	Expressionism	1908-1920
1910-1935	Art Deco	Jazz & Ragtime Influence	1915-
1920-	Modern	Neo-classicism	1920-

** The dates represent **approximate** time intervals for styles.*

Architecture and music trigger emotions through similar affects. According to Young et al. (1993), this association shows parallels in different historical periods (Table 2.4). One can also argue that they have triggered each other in different affective interactions due to the changing circumstances of different periods. However, this might not mean that there is a conscious association, but they are presentations of the affectivity which is shaped through the impacts of the related

historical period. Still, Bessone and Miro (2007) show that both of these domains can influence each other:

As a general result, spaces of high level of experience were generated emphasizing the enriching interaction of perceptions and knowledge between the composers of electro-acoustic music while composing and the architects designing in the digital media: common creative processes have also been detected starting from captures of the real space and its manipulation in the digital space. (Bessone & Miró, 2007, p. 553)

In this regard, Kılıçaslan and Tezgel (2012) reveal similarities between architecture and music in the Baroque period. The authors show how ornamentation and exaggeration in music and architecture emerges similarly, that designers emphasize these qualities by using technical qualities such as harmony and proportion in both domains.

Similarly, Önen examines the relationship in terms of form in an extensive historical range, from Vitruvius to van der Rohe. The author proposes that form should be perceived as “*the conceptual essence of an object*” and “*a priori form or the contribution of the mind to the perception object*” rather than a simple ‘*shape*’ (Önen, 2016, p. 217):

What would the benefits of defining form in the praising of its abstractness, pushing it back towards its antique life, to the realms of the ideal be? The emancipated architectural form from a single nature through its abstractness manifests its timelessness, its transcendental and non-temporal qualities, in addition to the notion of traceability. Furthermore, it could be seen as a proposal to rethink on the blurred borders of idea/non-material and matter.

Önen’s (2016) phenomenological interpretation of form is a rare case in the literature. The form is generally handled through visual details, as a tangible quality of architecture (Bandur, 2001; Bechhoefer & Appleby, 1996; Cleridou & Furnham, 2014; Felix & Elsamahy, 2016; Kilicaslan & Tezgel, 2012; Silva, 2005; Slyk, 2010; G. Young et al., 1993).

In this regard, musical principles are mostly used as connective factors. For example, Bandur (2001) proposes three elements to direct affects in music and architecture:

meter, dynamics, and synchronization. According to the author, *the meter* provides an establishment of relationships between solid-void structures and directs the perception of hierarchical experience. Subjects perceive compositions more clearly with the effects of measure. *The dynamics* aids in the comprehension of the tonal changes, transitions between pitches, and the number of movements in place. This device basically controls the flow in the experience. *The synchronization* helps people match and balance experiential variables on one perceivable plane and constitutes a consistent base for the experience. With these three parameters, the study tries to associate musical elements with architectural form.

Like Bandur's (2001) classification, Felix and Elsamahy (2016) also establish relationships between architectural form and music through *rhythm, melody, harmony, and form*. According to the authors, *the rhythm* is the repetition of form, while *the meter* determines the spaces between them. Three different patterns are presented, namely *metrical rhythm, polyrhythm and free rhythm*. Metrical rhythms are singular and rigid patterns, polyrhythms are multiple similar patterns, and free rhythms are the repetitive, nondefined patterns of the form. Melody covers almost all qualities (pitch, scale, timbre, intervals) and is presented as the backbone of architecture. The study describes melody based on the musical tone and associates physical elements such as window, door, and roof (Felix & Elsamahy, 2016, p. 4). However, it does not precisely explain how they create unity in the composition as a melody but proposes harmony as the coherence between physical details. Thus, we understand that the harmony between the physicality creates the melody of physical elements. Monophonic (single melody), heterophonic (two or more voices but same melody), polyphonic (three or more melodies), and homophonic (same voices, same melodies) classes present different frames of harmony, as in the structure. The last quality, form, is defined as a design structure that describes relations between spatial and musical components. This study is also a clear example of formal approaches to music in architecture. Similar to this one, the current literature approaches music by instrumentalizing musical elements to guide architectural form, yet their efforts remain within the limits of visual perception.

In the literature, while Schelling's '*solidified music*' and Goethe's '*frozen music*' analogies find answers in the physical form, the affective embodiments do not receive much attention. The physical and visual qualities of architecture are considered the primary purpose, not a part of that moment or experience. Of course, form is an indispensable part of the structure. However, if one assumes that the experience of place is much deeper than the picturesque, it is clear that the current studies do not sufficiently elaborate on the affective power of music. Primarily, one should remember that excessively mathematizing the affective unities, e.g., music and space, as a part of a Euclidean understanding, reveals certain losses in the essence of meaning.

When we look at the present literature on the association of music and place, it can be seen that the relationship between music and place in human geography is examined mainly in meta-theoretical frameworks, with political, cultural and economic concerns. In urbanism, the topic is examined under the influence of Lefebvre, i.e., rhythmanalysis. Finally, in architecture, the connection of music and place is researched in terms of transferring musical qualities for the orientation of form and visual perception. To internalize and better understand the relationships of music with place thinking, its technical and affective design qualities are discussed in the next section.

2.3.3 The Design Elements of Music and Their Relations to Place

The mind perceives music as *a sound order* (Yıldırım & Koç, 2003). The source (e.g., *a voice, an instrument*) vibrates the air molecules, which eventually reaches the eardrums, the receptors transmit the data to the neurological system, and one *makes sense of the sound composition*. However, *what we hear is not music*, but an order of sounds, a perception created by the mind, which we name music. The relations between sounds determine the musical quality, which mostly overlaps with numerous principles in other visual arts.

The idea of relating music to spatial design is not new. Different studies attempted to associate music with architecture and urban design (Adhitya, 2017; Antchak, 2018; Belgiojoso, 2014; Felix & Elsamahy, 2016; Önen, 2016; Parthenios et al., 2016; Slyk, 2010; Wold et al., 1996). Most of these studies are influenced by the *resemblances of musical and visual perception*:

Visual form is closely allied to aural form, for the same principles of design are used in both. Unity of organization has no direct counterpart in music, but sense of unity is suggested by the clarity of melody and harmonic texture, by the consistence of rhythm and by the repetition of a theme or idea. (Wold et al., 1996, p. 36)

However, it is not sufficient to examine the case only through visual perception in the relation of music and place. We believe music is an analogue of place regarding its capabilities to create relations, connections, and assemblages in affective spheres. Johann Wolfgang von Goethe said that “*music is liquid architecture; architecture is frozen music*”. On the other hand, we adopt urban design as a plasma state, a heterogeneous energy assemblage, as the node of affects, memories, the experience of collective mind. Thus, the study continues its investigation with the technical and perceptual dimensions of music to clarify these interrelations.

2.3.3.1 Technical Qualities of Music: The Rational Frame

Music is an assemblage of *sound and silence* in an orderly manner. The technical elements (such as tonality, rhythm, melody, and tempo) represent a *rationalization process*, a compositional unity. The details of these elements show differences due to changing cultural contexts. For example, Middle Eastern quartertones do not exist in Western music. In this regard, it is important to note that this subsection focuses on the classical Western music theory to provide a fundamental frame for spatial designers.

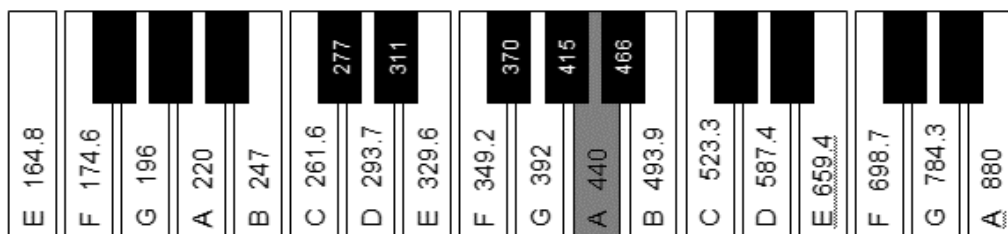


Figure 2.38. The frequencies (Hz) of notes in Piano

Mathematics is the scientific core of rationality, and it is also a tool to examine the technical elements in music. Although Western culture began to use a notation system after the 9th Century, *Pythagoras*, as a mathematician, had already defined the harmonic intervals through mathematical *ratios* in the 5th Century BC (Ferguson, 2008). Mathematics constantly affected musical comprehension throughout history, and many composers have used models such as *the golden ratio* to achieve better *compositions* (Garland & Kahn, 1995; Reginald, 1987). Many have also tried to reflect certain feelings, emotions, and stories with harmonious and aesthetic compositions revealed by the relationality of musical notes.

Notes are the building stones of musical composition. The Western system depends on a simple classification, in which *every scale has seven basic and five semi-notes*. Within these scales, every note is defined with a measure named Hertz (Hz), i.e., the vibration in seconds. For instance, when someone hits a guitar string, the vibration per second determines a particular note, e.g., do, re, mi (Table 2.5).

Table 2.5 Basic Scale Sample in Western Music

<i>Hertz (cycles per second)</i>	Solfeige Syllable	Latin Alphabet Syllable
261.6 <i>hz</i>	do	C
277 <i>hz</i>	do diesis / re bemol	C#/Db
293.7 <i>hz</i>	re	D
311 <i>hz</i>	re diesis / mi bemol	D#/Eb
329.6 <i>hz</i>	mi	E
349.2 <i>hz</i>	fa	F
370 <i>hz</i>	fa diesis / sol bemol	F#/Gb
392 <i>hz</i>	sol	G
415 <i>hz</i>	sol diesis / la bemol	G#/Ab
440 <i>hz</i>	la	A
466 <i>hz</i>	la diesis / ti bemol	A#/Bb
493.9 <i>hz</i>	ti	B
523.2 <i>hz</i>	do	C

Music is a physical phenomenon that can strongly influence humans. It is mesmerizing that when we hear a melody, we immediately feel its affective reflections. For instance, imagine the soundtrack of the famous film *Jaws*. It starts silently, deeply, and suddenly makes a dynamic change, increasing the pulse of the beat, and hits the audience with the emotion of fear. Despite the main motif only involving two notes, do and re, John Williams perfectly illustrates a shark approaching through the dark waters. But how can only two notes be that effective? Because it is not about the notes or the number of the notes. The impact lies beneath the affectivity formed by the rush, pitches, beats, and the relationality of various musical elements.

Interestingly, there are infinite numbers of compositions within only 88 notes (the number of notes on the keyboard of a classical piano). The worst and the best songs are composed by using these same numbers, formed in different combinations. The

sum of this relationality ensures the complex structure (assemblage) of music through musical elements. Nine of them are examined here:

1. Timbre (*the quality*)
2. Tonality (*the key*)
3. Rhythm (*the pattern*)
4. Pulse/Beat (*the density*)
5. Tempo (*the pace*)
6. Dynamics (*the movement*)
7. Structure (*the organization*)
8. Harmony (*the accord*)
9. Melody (*the tune*)

Timbre is the unique tone/sound of the instrument (Levitin, 2006). It is the character of the source which differs due to the changing structure and material. A 440 Hz A (*la*) note sounds different from a trumpet and a guitar because of their changing materials (i.e., brass and wood) and the way that they push the air molecules to our auditory system. The timbre changes due to the environment, and every environmental input impacts the character as it works with the source—for instance, an instrument might sound different in a concert hall and in a rehearsal room.

Tonality is the key and overall sound of the composition. In simple terms, there are different scales (e.g., major, minor, chromatic) that define the structure of arrangements between pitches and chords. For instance, if a composition starts with a *C major*, the key (C major) becomes the reference tone of the composition. Despite exceptions, the general rule of thumb is that the major (e.g., happy), minor (e.g., sad), and chromatic scales (e.g., horror) reflect certain kind of affective moods.

Rhythm is the regular or irregular repetitions of the sound patterns. It determines a duration where silence and sounds work together in a composition. The order is mainly related to repetition and pattern, where specific rhythms designate the beat lengths. There are symmetric and asymmetric rhythms regarding the style that composition is based on, e.g., 4/4, 6/8, 9/8.

Pulse/Beat is the density of the rhythm. For instance, when one counts in a 4/4 rhythm, it sounds like 1-2-3-4, 1-2-3-4... In this sequence, 1 constitutes the main beat. So, it defines a regular distance in the rhythm. To clarify any possible confusion, the heartbeat can be given as an example. When we listen to the heart, the sounds of the pumps are the *heartbeats*. However, the distance between the beats determines the rhythm.

Tempo is the pulse or speed in a specific unit of time and is defined as the BMP, i.e., beat per minute. Tempo is a fundamental determinant of the flow and shows the speed of musical piece. In Western music, there are many different tempo categories, but they can be classified under basic categories including Adagio (66-79 bpm), Andante (76-108 bpm), Moderato (108-120 bpm), and Presto (168-200 bpm) (Liu et al., 2018). For instance, if a performer plays a piece in Adagio, he/she plays 66-79 beats per minute. If the piece is played at Presto, the tempo increases to 168-200.

Dynamics is the loudness or silence of the partitions. As it can be understood from the concept, it refers to a variety of sounds in the flow. For instance, a partition can start with a soft sound (i.e., piano) and then make a loud (i.e., forte) transition that would change the mood of the composition. Hence, it is a vital element for making affective transitions in the musical flow.

Structure is the arrangement of musical partitions in a piece. All the partitions have different musical functions. For instance, in a regular pop piece, what one might hear is a structure such as (i) intro, (ii) verse, (iii) pre-chorus, (iv) chorus, (v) bridge, (vi) verse, (vii) pre-chorus. While the intro prepares the listener, the verse reflects the story, and the chorus presents the main theme repetitively. Therefore, in most cases, the listener will remember the intros and chorus more easily. The structure is the crucial attribute of musical style that is created between the piece and the listener.

Harmony is one of the major musical elements. It refers to the relationship of two or more elements in a piece. Mainly, *compositions are simultaneously performed by numerous notes, instruments, and vocals*. The accord between elements presents the harmony of the piece. We can exemplify this through chords. For instance, when a

performer plays a three-note chord (e.g., C major), he or she plays multiple root notes such as C major, F major, G major, which work perfectly together. Another good example can be choir music, where different tones of vocals sing together in *harmony*.

Melody is the central theme of the piece. A piece consists of different pitches and rhythms where the melody is the sum of these two musical elements. For instance, when we sing the Happy Birthday song, the emphasis and duration of different notes constitute the melody. Often, people remember a melody better than any other musical feature. All the musical elements ensure the rational analysis of music. Many of them are so intertwined that it is possible to confuse them with each other in most cases. Despite this confusion, they also ease the design of music in a logical way in reference to different styles and contexts.

This thesis asserts that in the conventional comprehension of urban design, the physical components (morphology elements, e. g., streets, blocks, buildings) dominantly work like musical notes. However, the affective communication and all experiential components that enhance this communication in space, the parts coming together and their interaction with users are often disregarded, and designers focus only on designing the main structural frame of the spatial organizations. Just like composing different partitions in a piece, they try to create harmonious parts of the city. Even if the discipline uses similar terminologies, e.g., pattern, rhythm, and dynamics, design practice is often limited to form and visual perception.

At this point, this study proposes an alternative way of looking at place by exploring shared grounds between musicality and physicality of place and by using not only the physicality but also the musicality of place as an affective unity. It argues that the sequence of experiences creates the composition. In this context, affective phenomena form the tonality, and durations reflect the rhythm of the place. The duration patterns and the experiential densities construct the melody. However, most importantly, every place has its unique experiential assemblage due to its changing dynamics.

This study calls this unique quality as the *timbre of the place*. We argue that just as a melody would sound completely different with instruments of different timbres, different experiential assemblages reflect completely different characteristics even if they have similar physical formations. This is a situation in which the perceptual integrity of the place exceeds the physical formation, leading to an affective experience that eventually guides the ways of designing the place. The following section examines the affective qualities of music.

2.3.3.2 Affective Qualities of Music: The Psychological Frame

Rationalized frameworks often appear to consist of only parts to which they are reduced. Conversely, the assemblage of parts implies a much broader frame than the formation of our rationalization. The musical composition always presents more than the sum of its technical elements, like notes, tempo, rhythm, and pattern. We also know this since we know listeners generally do not focus on the technical details during the experience but mainly focus on the affectivity of moments, and let themselves be engaged in those moments, observing the experience from an inside position.

The body and brain tend to save energy by quickly understanding what they really want to get and often exclude the extra information (Han, 2010). The mind tends to access the essence of primary meanings and feelings of the experience, and music makes both possible by quickly accessing people through emotions. In this respect, it plays a catalyzing role of creating affective atmospheres through its inclusive communicative features.

Let us exemplify that inclusive communication process. Imagine the Live Aid concert at Wembley in 1985, where 70.000 people came to listen to the most famous musicians in the world (Scarza & Shapiro, 1985). Nearly all of the songs were sung by thousands of people, regardless of whether they were good or bad at music. Also, it would be an absurd idea to think they were doing any musical analyses during the

performances. Probably no one cared about the tempo of Bohemian Rhapsody or analyzed the rhythmic structure of U2 songs. Instead, the audience shared a collective experience of an affective atmosphere. The perceptual and experiential integrity of those moments was so dense that everyone became the subjects of that specific experience. The stage performance affected thousands of people, their engagement into that affect was prompt and complete, the interaction between music and the people grew in seconds, spontaneously creating a much bigger affect. This occurred because of the affective quality and the inclusive communication features of music's affective assemblages.

In this context, it is crucial to understand the functional perception of music, in other words, the perceptual classifications that bind technical elements together and reflect the human experience. Cutietta (1993) states that *'music seems to be classified by predetermined categories even if it means overlooking some actual musical properties inherent in the music'* (1993, p. 50). People perceive and react to music through these perceptual responses:

Although the musical elements were originally devised for the purpose of creative activities such as making and composing music, breaking music into elements for study mandated a process that was analytic, logical, and highly dependent upon verbal labels. In contrast, the actual processing of music is largely holistic, intuitive, and nonverbal. (Cutietta, 1993, p. 48)

Cutietta (1993) defends that music is enormously reduced to technical elements, the elements which are extracted from a type of an unity. The author exemplifies the case in musical education processes as follows: *"...for example, students would designate a piece of music with a slow-moving beat as fast if the melodic rhythm was fast."* (Cutietta, 1993, pp. 48–49). Simply, he highlights that the mechanic comprehension of music leads to misguided perception in the experience. The rigid rationalization limits our perception to a few classifications. The author continuously reminds the reader that these elements are all derived from the analysis of music, not vice versa. In this framework, he proposes five perceptual classifications to understand music perception: (i) motion, (ii) energy, (iii) flow, (iv) fabric, and (v)

colour. While the first three define *the movement*, the *fabric* and *colour* make the perception of the *characteristics* in music possible.

Motion defines a piece as “*still or driving*” (Cutietta, 1993, p. 52). People tend to move and act together with the music according to its changes. This is the perceptual feature that makes us run, move our arms, or lay down and relax. Cutietta (1993) exemplifies movements, e.g., *still motion* with 'Debussy's *Prelude to the Afternoon of a Faun*', in which the piece gently and smoothly walks in between melodies. When you listen to the piece, you probably stay still and dive into thoughts. On the other hand, *a driving motion* activates the listener just like in 'Moby's *Flower*'. As in this example, the piece starts with clapping sounds, as it invites the listener to the performance, and continues with dynamic rhythms that stimulate our movements.

Energy defines whether a piece is “*weak or strong*” (Cutietta, 1993, p. 52). For instance, Beethoven's *Fifth Symphony* has striking energy beginning with the violin partitions. When we first hear the fortes, we directly feel the energy, like something hitting a wall, a type of an energy which is discharged. For example, when the instruments and dynamics are solid and energetic in classical music, listeners often imagine a conductor with sharp movements. Those sharp movements represent the strong energy that enables listeners to feel the power of melody transitions with pitches and dynamics in the music.

Flow allows listeners to detect whether a song is “*confined or free*” (Cutietta, 1993, p. 52). In some compositions, structures are very predictable. This allows for the creation of a coherent relation to listener anticipations. For example, the uninterrupted drumbeats of Ravel's *Bolero* keep the listeners in a limited flow. On the other hand, some pieces continuously surprise listeners with sharp changes. For instance, Fazıl Say's *Paganini Variations* presents a simple example, in which the piece makes it nearly impossible to understand what to expect.

Fabric is the “*thin or thick*” feeling (Cutietta, 1993, p. 52). Cutietta (1993, p. 51) defines it as follows: “...*fabric is affected by various parameters such as register, rhythmic density, pitch distances, and number or type of instruments or voices*

performing”. A thick feeling is the dense interrelation between musical partitions, with instruments and technical inquiries. On the other hand, thin fabric are the light and more naked manners that give the listener feelings of relief. For instance, while Haydn’s *Piano Sonata (Partita) No. 13* constitutes a thin structure, Fazıl Say’s *Paganini Variations* has a thick fabric with dense relationality between technical elements.

Colour is defined as the “*dark or bright*” manner of music and is probably the most ambiguous category among perceptual classifications (Cutietta, 1993, p. 52). Most often, the literature describes it as the timbre of music. However, the timbre is not only enough to describe it, since it is mostly a reflection of a physical character, the instrument’s material. Cutietta, alternatively, defines *colour* as a combined timbre of various instruments (e.g., strings and drums), that gives a particular feeling, a dominant affective feature of the piece.

Cutietta’s perceptual classifications enable us to observe the relationality of musical elements more clearly, as perception is a matter of the rational mind and tries to categorize everything it confronts. However, we should also admit that he makes a similar rational reduction to the one he criticizes, like the technical qualities of music.

All in all, the technical elements of music represent only one side of the coin. On the other side, the perceptual aspect of music represents a structure that resists being reduced into parts. In this regard, the study proposes that music represents an interface that deciphers self-organized relations varying according to the subject. It allows, in a way, the construction of complex affective assemblages that embed enduring memories.

Film scores show this case more explicitly. Movies represent short and dense experiences defined in a limited time. In this limited time, they must attract attention and be able to tell a story effectively. Here, the *music* establishes an exceptional affective bond between the audience and the story. It promotes the perception of the experience, revealing specific sets of emotions in different scenes. Quincy Jones interprets the communicative power inherent in music as follows:

Film music can make an exciting scene more exciting. We call it "emotion lotion" because we can make you feel anything we want you to feel. It is being able to communicate on a level that they cannot tell in pictures. Great film music can elevate. (A Film Music Documentary, 2016, 00:02:39-00:01:54)

The concept that Jones defines as "*emotion lotion*" describes a temporary but immersive relationality, a relationality that is observed primarily in the musical themes, e.g., motifs. Nearly all classic movies are famous for their motifs. They are the short themes that are continuously repeated in different styles (e.g., fast, slow, within different tonalities). *The Good, Bad and Ugly*, *The Lord of the Rings*, *James Bond*... In all those movies, the motifs reinforce the progression and atmosphere of the story through an emotion, supported by the music, and help us grasp the affective experience more quickly. As we become more familiar with the theme patterns, we comprehend the emotional transitions much more effortlessly.

Composers can transform musical elements into emotional compositions. The reflections stem not only from the musical arrangements but also from the integrity of nature and humans. For example, we can easily observe this in Bernard Herrmann's score for the well-known movie *Psycho*. In the movie's most famous scene (i.e., the murder in the bathroom), the female character suddenly starts screaming when she sees the killer. Meanwhile, a disturbing violin theme starts to play. The sounds of the scream and violins are heard in tones so close that the integrity strongly affects the audience. Ultimately, we feel emotions such as fear, stress, or discomfort in a nested, and relational way. This relationality constitutes a crucial quality of the theme. Interestingly, if we only watch the *Psycho* scene, or only listen to the motif, we do not have the same feeling (Schrader, 2017).

The strong association between music and emotion is related to the multifaceted nature of music. Many different areas of the brain interact in the musical experience. The neurological and psychological conditions created by this interaction help us live the experience more densely. As a multifaceted phenomenon, it is also similar in the place experience. The connections established to tangible or intangible

dimensions of place cause us to attach (or sometimes detach) and significantly affect our psychological states (Chu et al., 2004; Clark et al., 2007; Cooper et al., 2010; Guite et al., 2006).

When composers make musical choices in the composition process, they mainly benefit from the power of emotions. This process can be considered a product of self-organizing relationalities that are produced by heuristic reactions. The control is not purely in the consciousness but also in the depths of the mind. Of course, composers inevitably make rational decisions at the end of the process (e.g., speed, tempo, etc.), and this allows them to embody a mental and intuitional process. However, when it comes to the relationality between parts, intuitions and emotions step in and capture the speed of the mind much faster. Sui-lan Tan highlights the importance of affective relationalities as follows:

There is something about what the film composer brings in by their intuition. That unique ecology, that unique combination is what makes film music so powerful, so mysterious, and probably uncaptureable to us as scientists. (Schrader, 2017, secs. 01:28:49-01:29:05),

Music is a phenomenon that is experienced externally (bodily) and internally (mentally). The interaction of this embodiment arises from the relationships between countless neurons firing in different regions of the brain. In this regard, humans have the power to perceive pieces played by hundreds of instruments, countless songs, along with their rhythm and tempo, in great detail. According to Levitin (2006, p. 7), this is such a complicated process that even many computers cannot achieve it:

We have the cognitive capacity to detect wrong notes, to find music we enjoy, to remember hundreds of melodies, and to tap our feet in time with the music—an activity that involves a process of meter extraction so complicated that most computers cannot do it.

In the complex process of the musical experience, different parts of the brain (i.e., neuronal networks) come into play. For example, most of the rational thoughts about a song are processed in *the frontal lobe*. *The temporal lobe* processes the sounds we hear, *the broca area* helps us sing the lyrics, *Wernicke's area* makes us able to read

the notes, *the cerebellum* coordinates our body movements, *the nucleus accumbens* releases dopamine as a reward, *the amygdala* allows us to feel emotions, and *the hippocampus* allows us to remember a memory related to the song. In all these activations, listening to music arises from various assemblages, relationalities of all these physical and mental stimuluses, and a communicative interface in and between the bodies.

At the World Science Festival in 2009, Bobby McFerrin showed how the brain interoperates these relationalities in the musical experience with a simple demonstration, a particular notation performance with the audience (McFerrin, 2009). During his performance, McFerrin stopped singing after a certain point and invited people to complete the melody with no sound but only with his body movements. Hundreds of people created an organic, self-organized chorus which interestingly sang perfectly. The performance is simple but an impressive example of how people intuitively know what to sound at specific points. Undoubtedly, the situation has strong relations to the brain's working mechanisms, as it has been subject to a large body of research (Abrams et al., 2013; Bhatara et al., 2011; Levitin, 2000, 2006; Paulson et al., 2013; Thaut et al., 2014). Somehow, humans react to music collectively, and most of the time, within the effects of perceptions and emotions, they help create affective assemblages and atmospheres.

Indeed, this study does not review the extensive literature on neurology and emotions (e.g., neuropsychology and neurophysiology) because this relationship deserves a detailed exploration and discussion within the context of music and urban design. Nevertheless, we should also state that numerous studies on music and neurology are significant to understand the complex structure of the human mind. . In particular, today, we know that cultural experiences alter the plasticity of the brain (Bharucha et al., 2006; Tang et al., 2006), that mirror neurons reveal the empathy and learning abilities of living species (Gallese & Goldman, 1998; Iacoboni, 2008; Rizzolatti & Craighero, 2004), and that there are close neural relations between music experience, emotion, and memory (Peck et al., 2016; Snyder & Snyder, 2000). We believe that all these studies reveal new clues on the relationality of humans and the environment.

New experiences stimulate the mind to behave differently. New ways of perception, conceptualization and affective response can change the ways of thinking. We assert that disciplines like urban design cannot stay away from this episteme.

Consequently, the perceptual and affective quality of music can neither be explained with a few musical classifications nor with a type of a mysticism, but with the complex structure of the human mind. Music stimulates many parts of the brain that are triggered by specific cultural and physiological interactions, so that sometimes even the regions that do not work properly might be reactivated (e.g., stimulating memory points in dementia patients).

The power of emotions/affect is vital in this relationality. According to Oliver Sacks, music offers the opportunity to understand and, most importantly, explain the emotional world of humans: *"Music is inseparable from emotion. So, it is not just a physiological stimulus. If it works at all, it will call the whole person the many different parts of their brain, and the memories and emotions which go with it."* (Rossato-Bennett, 2014, secs. 00:06:38-00:06:56). In agreement with Sacks, this study aims to develop this approach in urban design in order to decipher the affective atmosphere of the place through music.

2.4 Inferences

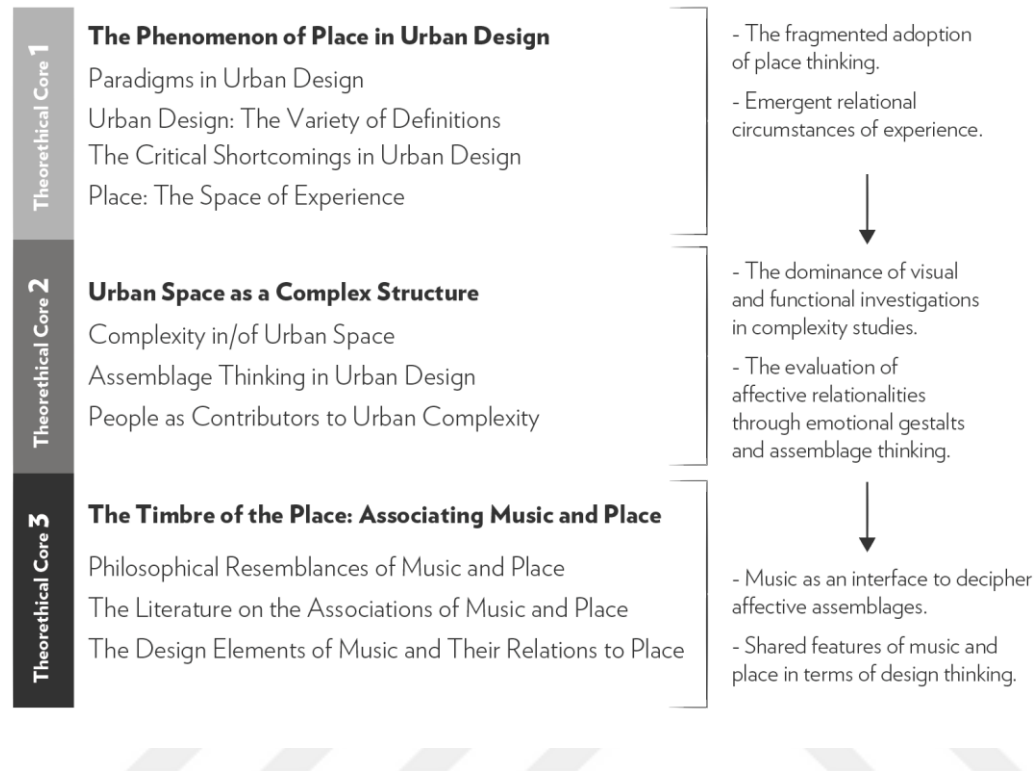


Figure 2.39. Theoretical Flow

The study followed a flow from the ontological positions of urban design to the music's potential for interpreting it in the theoretical framework. Herein, there are three significant outcomes. Firstly, place is one of the most significant concepts to comprehend the role of urban design in the intellectual world. However, its comprehension is overly rationalized and mechanized because of the reductionist thinking that tries to lower the complexity of its relationalism. Secondly, the application of complexity in urban design is another problem since the concept of complexity resists the reductionist thinking of the representative world. In this ambiguous area, the study proposes investigating the potentials of assemblage thinking and emotional gestalts, which allow researchers to consider the position of the human mind in place thinking. However, there is still a lack of a medium to decipher the relational perspectives in place thinking. In this context, thirdly, the

study examines the philosophical, technical and affective basis of music and reviews the literature that investigates place and music together to examine its potential affective impacts in urban design.

Although the review of the existing theoretical discussions offers a wide range of perspectives in place thinking, the study observes a repetitive application of design solutions that often favour similar formal qualities. Thus, it challenges these perspectives to reveal how they can change the design practice while recognizing that the formal aspect is a salient component of urban design.

In this regard, the study particularly focuses on existing perspectives which see form in association with other components in different ways and degrees. It applies an experiential methodology that evolves by engaging the appropriate tools and inventing new ones as needed regarding emergent conditions. It relies on the assumption that music and place reflect similar compositions, which people grasp in similar ways. The compositions of places are perceived, sensed, and observed, but the contemporary fragmented identification of parts is inadequate to explain their impacts. Thus, the study explores their connections to understand what is happening in the place experience when the creative experiences of composing music and urban design are integrated. To do that, it advances the research in the following steps:

- Individual sensorial experience through:
 - an analytical approach that intends to understand individual sensorial experiences through a number of shared determinants in music and urban design.
- Intersubjective creative experience through:
 - a dialogical approach that intends to extract place-specific shared musicality meaning regarding place characteristics,
 - a co-creative approach that intends to co-express what is conceived about the place that would change through individual sensorial awareness, and

to allow new channels of perceiving, conceiving, and experiencing, resulting in shared emotions that help the assemblage of place experience,

- Intersubjective Co-Deciphering Place-Experience Association through music:
 - In-depth descriptive collective discussions will allow not only the emergence of shared particularities, but also the revelation of what we may call, individual advanced forth-seen views:
 - a. place experience is constructed through emotions,
 - b. an emotionally deriving creative experience such as music confirms this,
 - c. the significance of emotions is often highlighted but it withstands both partial analysis and discussions by which we do not detect its practical integration to design.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter describes the research methodology which includes the research strategy, problem definitions, research approaches and the two complementary experiential phases with their detailed rationales, data collection and analysis methods.

3.1 Research Strategy

The study is based on exploratory research that aims at revealing the *interplays between music and urban design*. It also conveys an action component that allowed intersubjective processes, thus constructing new knowledge through its conduct. The fieldwork is facilitated so that it methodologically evolves about the emergences through its conduct. Within this scope, this section presents this process and details problem definitions and statements, with the primary rationales of associations between music and urban design. The last two parts explain two sequential experiential phases illustrating participant profiles, variables, data collection and analysis methods and techniques:

- Problem Definitions and Statements
- Research Questions
- Research Approaches
- Exploratory Experiential Phase I
- Exploratory Experiential Phase II

3.1.1 Problem Definitions and Statements

The contemporary comprehension of urban design ignores the *affective experience of place*. The practice pushes designers to take rationalized piecemeal steps and to efface the meanings of experiences. At this point, the study aims to decipher the emerging essence of place experience through binding music and place together, both sensed affectively. In order to examine this potential, it asserts to adopt place as an *affective and communicative interface* and explicate the ties between place and music. Accordingly, the methodology of this study is based on two main problems: (i) the limitations of the top-down/deterministic approach in urban design, and (ii) the neglect of the associations of music and place, which reveal new ways of thinking on the relationality of affectivity and rationality in urban design.

Problem 1: The Top-Down/Deterministic Approaches of Urban Design Practice

Urban design faces the risk of becoming a *graphical, top-down, and market-oriented domain*. It often relies on a single sensory approach, which is vision, seeking visual perfectionism. The rapid technological developments (e.g., computer-aided design tools, graphical inputs etc.) and the adoption of fast project mentality instrumentalize and detach the place from its actual life and meanings.

This study argues that place *experience is a multisensory and affective process*. The use of different senses enriches the perceptual assessment of place and changes the evaluation of its experience. The place becomes more than a fragmented spatial physicality but becomes an *affective assemblage and multisensory-perceptual experience*. Here, the study suggests that urban design should take this aspect into account through another affective interface: *music, which ensures excellent opportunities* to understand the affective relationalities of the place.

Problem 2: Neglected Relationalities between Affectivity and Rationality, Music and Place Experience in Urban Design

Since space/place contains an extensive range of relationalities it is a natural emergent complexity. Even though urban design literature covers a wide range of *complexity studies* (Ayaroğlu, 2007; Batty, 2013; Boeing, 2018; Boelens & de Roo, 2016; De Landa, 2006; de Roo et al., 2012; Ewing & Handy, 2009; Nasar, 1994; Rapoport & Kantor, 1967; Salingaros, 2000), it generally points out that human experiences occur continuously as the meanings are co-generated in alternative experiences. If *socio-spatial components are inscribed as objects*, this inevitably rationalizes and conceals the meanings of life.

Herein, music presents an alternative creative language that triggers affectivity to enhance the communication capacity of design practice. As an intuitive interface, it hinders opportunities to understand the essence and meaning of the experience. While in the current comprehension, both music and place are examined of parts, but experienced as a unity, associating them together reveal new paths for understanding the essence of the experience.

In this framework, this study claims that music, as an *affective and communicative interface*, can help designers decipher the *co-generative complexity* and the *shared meanings* of the place experience. It evaluates insights of place and perception more profoundly since it presents excellent opportunities to understand affective assemblages, which the literature mostly ignores. In this context, the study focuses on the significance of affectivity in terms of place experience and examines the sensory and semantic associations between music and place.

In the scope of these problem definitions, the study makes an exploration with two-phased experiential research (Figure 3.1).

The first phase investigates possible transitions *from place to music* through musical and place experiences. This phase is designed to apply a range of methods and techniques, allowing the generation of knowledge both individually and collectively.

They include participant observation, group work and performances, and in-depth interviewing. *Participant observations* took place in two different places in Ankara: MAIDAN Business Center, and Middle East Technical University, *with forty participants trained in spatial design, and with music students*. This was followed by group work and performances enabling participants to draw shared meanings about their observations and to create a shared understanding both in musical and spatial terms. To reveal insights about participants' insights about their experiences, in-depth interviewing was used. Shared outcomes were constructed during the intersubjective process of the inquiry. Moreover, creative mapping, graphics and filming were also used to synthesize and transmit the outcomes back to the participants. Finally, the individual responses of participants were analyzed by the use of *Content Analysis*.

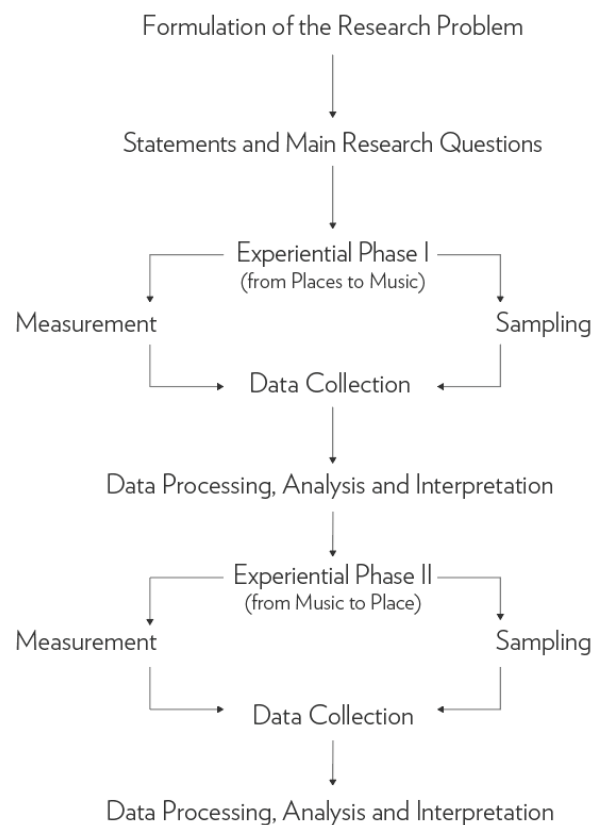


Figure 3.1. Research Strategy Flow

The second phase is designed based on the findings in the first phase. Thus, the study *departs from participants' emotional/affective states* and reflections between musical and spatial qualities. It starts with two contrasting *musical experiences* and continues with their interpretations of spatial qualities. The core experiment includes *eight participants, all of them either semi-professional or professional musicians*. In contrast to the first experiment, the point of origin is the affective state of mind and the associations of musical and spatial experiences.

In both phases, we adopt the nature of urban design as creating *affective interfaces* and define music as a point of emotional/affective departure that *connects people to each other*. This framework explores alternative relationships and argues that the proper transcriptions can help designers *grasp the insights of experience and meaning in the place experience, and so in urban design*.

3.1.2 Research Questions

Blaikie (2000) indicates three main types of questions in social sciences: (i) '*what*', (ii) '*why*', and (iii) '*how*'. '*What*' questions generate descriptive answers to explorations. Their primary purpose is to understand the characteristics of description, explanation, or change. '*Why*' questions point out the reasons for the existence and relationships between the social events. They intend to reveal associations between subjects and objects of the related inquiry. '*How*' questions try to find ways of intervention in practice. This type of question is asked to make a difference or change in the related study area.

This study reveals how music and urban design can interplay by engaging participants in an experience of observing, making sense of, agreeing and co-constructing the expression of the experienced place and music. To do that, it invites participants to self-reflect on their learned experience and to engage in constructing new understanding and creative experience, based on the assumption that people engage with music and place in similar ways, and that the common ground for binding these two together lies in human affective responses. Thus, in the context of

discovering a broader perspective in urban design, the study explores *associations between place and music* by asking the following **main research question**:

- MRQ: How can music and place be associated with each other in urban design?

In order to respond to this question, the study intends to answer the following five **sub-research questions** in two complementary experiential phases:

Experiential Phase II: From Place to Music

- SRQ1: Which spatial characteristics are associated with which musical elements?
- SRQ2: How does music reveal the affective embodiment of the place?
- SRQ3: How does the intersubjective/collective interpretation of place through music contribute to the reconstruction of affective assemblages?

Experiential Phase II: From Music to Place

- SRQ4: Which musical characteristics are associated with which spatial elements?
- SRQ5: How do musicians evaluate musical design elements in terms of spatial characteristics?

3.2 Research Approaches

The study explores the association of place and music in the framework of urban design. It investigates the experience of place and music by adopting descriptive, exploratory, and hermeneutic approaches. The descriptive method ensures systematic explanations in the related domains. The exploratory method makes it possible to structure a creative research process in such an undetermined scope, and hermeneutic methods allow the study to explore the verbal and non-verbal communication mediums between music and place.

3.2.1 Descriptive Research

A descriptive study presents a picture of types of people or of social activities and focuses on “how” and “who” questions. Exploring new issues or explaining why something happens is less of a concern than describing how things are. A great deal of social research is descriptive. (Neuman, 2013, p. 39)

The descriptive study leads to a systematic explanation of the related research. The interpretations can be very flexible, and the idea is to provide reliable, quantifiable, and classifiable data. The outputs generally originate from three main methods: *surveys, observations, and case studies*. The survey provides data on frequencies and interrelations between different variables. It is a fast and applicable method of research if the questions are incisive and straightforward. However, the generalization of the results might vary due to the sample sizes.

The observations deliver significant inputs about the environmental and psychological qualities of the related study site. In descriptive research, this type of inquiry allows the researcher to comprehend the surrounding *environment's experience and gather reliable data about the place*. The case studies present detailed knowledge of specific subjects, such as groups of people, the urban environment's spatial quality, etc. This methodology generally focuses on “what” questions and aims to describe the related subject outcomes.

This study uses *surveys, in-depth interviews, and cognitive mapping to extract spatial and musical interpretations* of the experiential phases (R. M. Downs & Stea, 1973; Roger M. Downs & Stea, 2011; Farthing, 2016; Grekow, 2018; Lynch, 1960). It applies the *content analysis* technique to analyse the gathered data. The descriptive approach makes it possible to understand participant interpretations and to comprehend the shared physical and perceptual qualities between place and music.

3.2.2 Exploratory Research

Researchers explore when they have little or no scientific knowledge about the group, process, activity, or situation they want to examine but nevertheless have reason to believe it contains elements worth discovering. To explore effectively a given phenomenon, they must approach it with two special orientations: flexibility in looking for data and open-mindedness about where to find them. (Stebbins, 2011, p. 5)

Exploratory research deals with problems that have not been yet identified. In other words, there is a blurry glimpse of a solution to the situation. It mainly deals with creative and *unexpected outcomes*. When we consider the main subjects of the research (music and urban design), it acts with this kind of instinct and defends that we are also the subjects of knowledge that we tend to explore. Thus, it *creates its own paths in the research process*, and as Neuman (2013) states, the first stages of research allow us to build the following steps.

Because of the gap related to the topic in the literature, the research inquiry inevitably leads to an exploratory approach. The study generates new knowledge of a proposed interrelation between urban design and music. Although there are various studies on this relation, a few unite the two concepts in terms of their affective capacity. Even though urban design seems to be a technical discipline, it is also a subject of a human-oriented, collective, cultural medium, and music provides new ways of understanding these qualities. As the study explores these new paths of knowledge, it develops further steps obtained by its experiential phases. *Each step shapes the following one*, and as it gains experience, and allows the same adaptability and flexibility in a new field of knowledge.

3.2.3 Hermeneutic Research

It [hermeneutic research] emphasizes conducting a very close, detailed reading of text to acquire a profound, deep understanding. Text can mean a conversation, written words, or pictures [....] When studying the text, the researcher/reader tries to absorb or get inside the viewpoint the text presents

as a whole and then to develop an understanding of how each of the parts relates to the whole. In other words, true meaning is rarely obvious on the surface. (Neuman, 2013, p. 103)

Neuman's description emphasises that the hermeneutic method is closer to the conventional methods of interpretivism. Although it mainly aims to decipher the texts of theology and philosophy, it also *explores verbal and non-verbal communication mediums*. The meanings lie in the reflections of subjects and the contexts. Bryman (2012) claims that its vital point is to generate knowledge from "*the point of social and historical context of production*" (2012, p. 561). Various other attempts similarly explicate the meanings of place experience in urban design. Especially Norberg-Schulz's *Genius Loci* (1984) was a pioneer hermeneutic investigation for the urban design literature.

In this study, there are several calls the need for this approach. The hermeneutic approach approves questions in two types: '*false*' or '*true*'. A 'false question' is one whose answer is known before it is asked. On the other hand, a *true question is full of uncertainties and obscurities*. For this very reason, the answers to 'true' questions show that "*things might be different than originally thought*" (Bingham, 2010, p. 66). This freedom ensures the possibility for creativity in the research. Secondly, it is directly related to communication mediums, *the language*, since it tries to decipher the associational relations between meanings. The study also examines musical principles *to interpret places as affective mediums* and adopt both phenomena as communicative interfaces to examine meanings. Thirdly, these meanings form the core of the study. According to Armstrong (2003, p. 64), "*meanings associated with place are often layered and complex, requiring skill in their interpretation*". The study aims to reveal the hidden meanings by deciphering the communicative qualities of music and place. Their interpretations are the '*basic texts*' and we try to explore their in-depth meanings.

3.3 Experiential Phase I: From Place to Music

In many circumstances, verbal communication is not powerful enough to describe the experience of urban space. Moreover, *the comprehension of verbal reflections remains highly materialistic, partial and limited in urban design* (just like in Wittgenstein (2009) philosophy). As we suggested previously, the study adopts place and music as emotional/affective interfaces. We expect that *music's emotional conductance* and power of collective perception act as facilitators in deciphering the integrated spatial qualities and attached meanings.

In the first experiential phase, the study explores the common aspects of place and music over two contrasting urban sites through various differences. In this framework, the section is structured as:

- Participant Profiles
- The Rationales for the Variable Selection
- The Rationales for the Site Selection
- The Flow of Experience and Data Collection
- Data Types and Forms
- Data Analysis Techniques

3.3.1 Participant Profiles

The basis of the study is comprised of two subjects: music and place. Both fields have their own technical dynamics, and the participant profiles are selected to decipher them in the experiential process. At this point, *we consider two different possibilities*.

Firstly, we can select participants who have no technical knowledge of musical and spatial formations. In such a case, the perceptual reflections might be at the forefront, and intuitional attitudes would lead the participant responses. As an advantage, the promising results could indicate that the proposed method could be applied to larger

population groups in the future, since most people do not have technical knowledge in music or urban design. On the other hand, as a crucial disadvantage, experimenting with such a group can lead to shallow individual interpretations of place/music and distort the research focus.

Secondly, we can select participants who have technical knowledge of music and spatial design. In this case, they can respond to the core topics both technically and perceptually. As an advantage, their expertise would make up for each other's insufficiencies and amplify the interactions. On the other hand, as a disadvantage, overly technical qualities might cause mechanical responses that exclude the meanings of places and music.

When we consider the study's exploratory and hermeneutic approaches, we defend that a group that is skilled in music and design can provide more reliable and interpretable data (Table 3.1). The experiential phase conducts '*convenience sampling*' considering the study's exploratory journey, the limited time, and the requirement of consistent data (Berg, 2001; Neuman, 2013).

Additionally, we think there should be facilitators to better explain the technical and conceptual partnerships of music and design to participants. For this purpose, we include *six facilitators (two professional musicians, two urban designers, and two art teachers)* who take roles in different sessions.

Table 3.1 Participant Profiles in Experiential Phase I

Participant Skill Set	Number (N)	Place Familiarity
Trained in Music	20	Maidan BC
Trained in Spatial Design	20	METU Physics Lawn

We conduct the first experiential phase with forty design and music students (n=40).

The members of the first group (n=20) have theoretical and practical knowledge of music and play at least one musical instrument: cello, piano, flute, guitar, percussion,

and saxophone. Moreover, they are experienced in reading musical notes and thus in musical terminology. We assume that they can make the composition process, where the groups will try to make associations between places and music, easier. Besides, *they are very familiar with Maidan BC and unfamiliar with the METU Campus*, which gives us an essential contrast regarding the place experience.

The members of the second group (n=20) are skilled in basic design principles, technical drawing, and spatial design. In addition, they are trained in reading, mapping the perceptual qualities of place, and can evaluate spatial experiences and accelerate the design practice. Unlike the first group, they are familiar with the METU Physics Lawn and unfamiliar with Maidan BC.

3.3.2 The Rationales for the Variable Selection

A variable is an interactive factor that affects the results of research. Various variables create interactions in urban design. For instance, relationships between spatial qualities and perceptual attributes provide significant outcomes in environmental psychology. Such cases inevitably examine connections between *environmental and psychological variables* and reveal alternative research fields in urban design. Different factors influence the dynamics of cases. If a variable does not change due to any external factor, it is called a constant. Bryman (2012) states that constants are not given much attention in social sciences because of their tentative contributions to answering the research questions.

In scientific research, variables orient the process of experience and reveal hints on answers to the research questions. They emerge *before or within the experience*, especially from the relationships between the essential research process components. In general, *independent variables* are not affected by others and are the ones that affect the dependent variable that the research is trying to explain (Bryman, 2012; Singleton & Straits, 2005).

Independent variables are generally the *environmental, functional, or aesthetic quality* of a place in urban design, such as sociability, access, and comfort. Most of the studies examine how these qualities affect the dependent variables such as mental health and walkability. Indeed, the relationship between independent and dependent variables is a type of cause-and-effect relationship. *The independent variable* is generally the cause, and the dependent variable is generally the effect (Bryman, 2012). Eventually, one can say that the independent variables are the ones that orient the dependent variables. For example, Singleton & Straits (2005, p. 48) state that:

Independent variables are also called predictor variables because their values or categories may be used to predict the values or categories of dependent variables.

Generally, they are manipulated to understand how dependent variables react to the research scope. In this phase, *the controlled variables are the contrasting spatial qualities of places*. We examine the multi-sensory (visual, auditory, tactile) variables and how they affect spatial preferences. Therefore, if we call the independent variables as (x), and dependent variables as (y): (x) Contrasting spatial qualities, METU vs Maidan BC; (y) Place experience/interpretations of the participants.

Independent Variables Set 1: Spatial Dimensions

The study tries to grasp the place experience by examining the multi-sensory perceptions. In this context, it benefits from the affective capacity of music that offers common principles with urban design. We assume that music gives hints on the affective assemblage of *place experience and shows that the experience is more than the sum of its parts*. Nevertheless, even if we seek this integrity, we still have to interpret the place partially. Methodologically, the point of departure is deterministic, partial and causal relational. The assumption is that the spatial experience in a built environment, mainly concrete and accommodating a single-use, can be different from an experience in a built environment inspired by and integrated with a natural environment accommodating various uses. The transition of spatial qualities to musical compositions can show this difference. Thus, in order to conduct

site observations, independent variables are defined on the basis of the spatial attributes introduced by ‘*Project for Public Spaces Network*’ (PPS, 2019), which provide a wide range of qualities of public space . These qualities are grouped in *four main sub-categories* (Figure 3.2):

1. Access & Linkages,
2. Uses & Activities,
3. Comfort & Image
4. Sociability

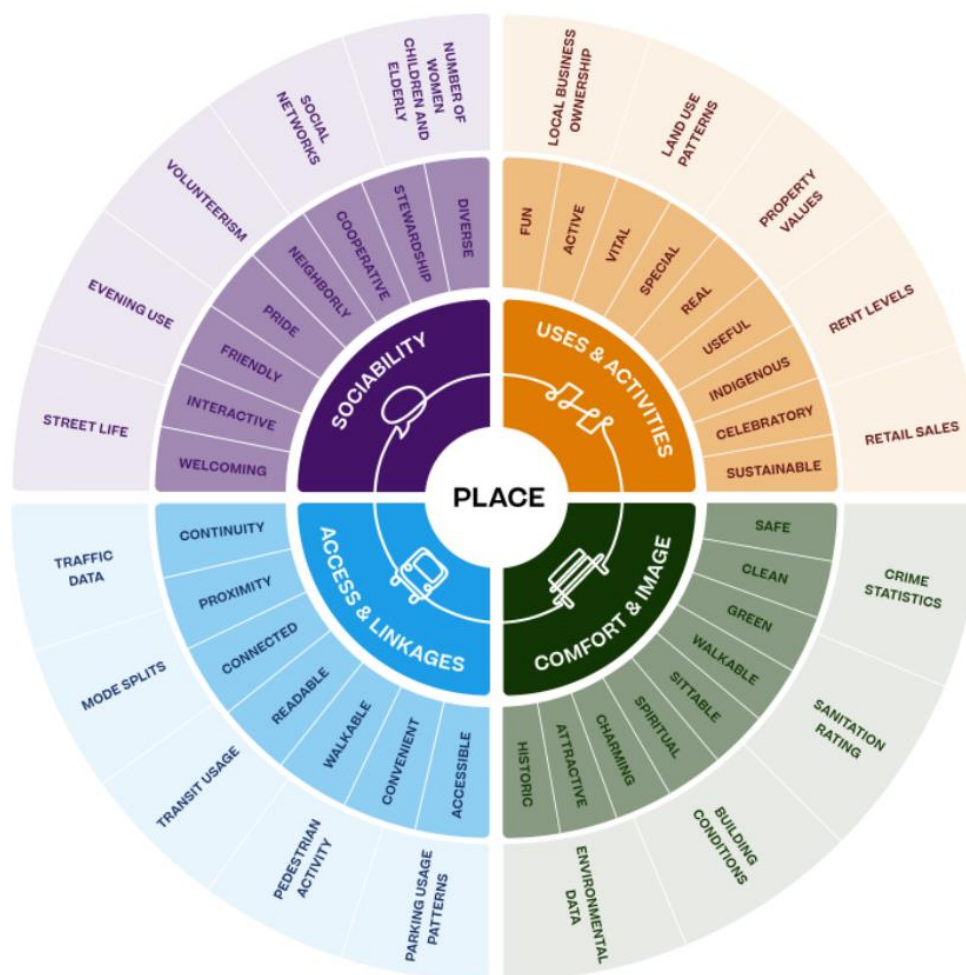


Figure 3.2. Qualities of Public Space (PPS, 2019)

IV1. Access and Linkages

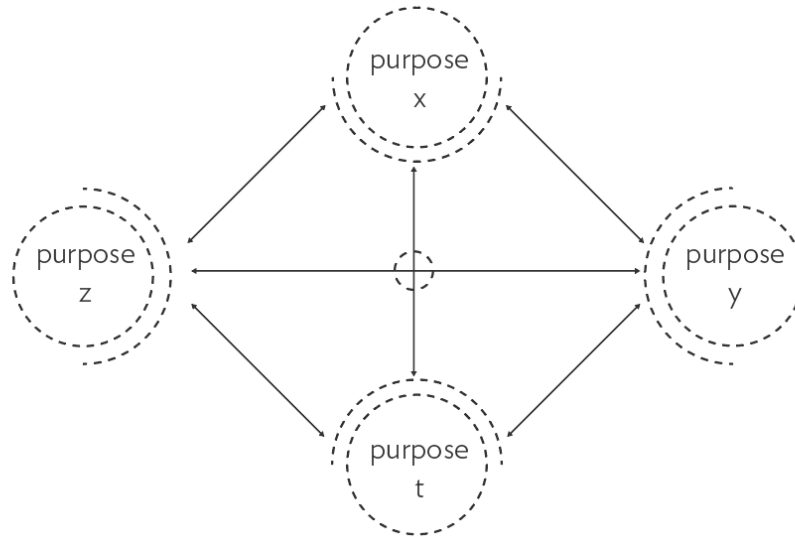


Figure 3.3. Access and Linkages, Interrelations in Place

Access & linkage represent one of the four main factors to determine the sites. There are two significant actions in urban space: (i) *the actual action* (working, enjoying, shopping, etc.) and (ii) *the mobility* (walking, cycling, driving, etc.) to achieve that action. People interact within space through the relationalities of senses and experiences, which makes the density of this interaction significant (Figure 3.3). Thus, one of the most crucial qualities is procuring sufficient access and linkage in the place. Places where people feel free to walk and move are adopted as better samples of public spaces than the intervening physical spaces. The connections create interactions between subjects and provide a physical and visual synopsis.

In this experiential phase, the natural environment of *METU Campus* provides *freedom* and *high accessibility* of connecting various functions. On the other hand, *Maidan* represents a *rigid orientation* with easy readability and high proximity. We assert that the variety of physical and functional linkages presents contrasting qualities in participant observations.

IV2. The Image and Comfort

When people experience a place, the mind generally refers to an image. It brings up memories of interpretations of experiences and reveals different levels of affects/emotions. These responses reformulate the image again. This cycle triggers a reconstruction process that most people experience in urban spaces also with the effects of comfort, which is another crucial topic for public places. The freedom of choice and its applicability in urban thresholds (such as traffic, buildings, and narrow pavements) are significant. *Sittable, wide, green places* generally present powerful images and *ensure comfort* in user experience.

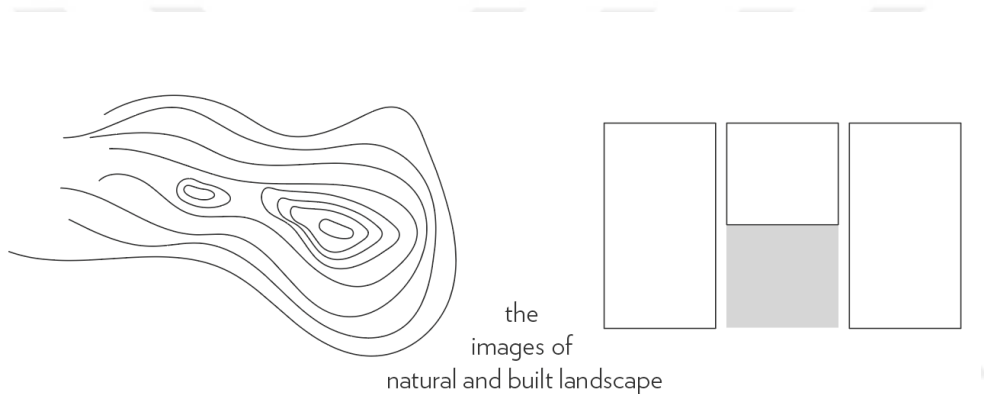


Figure 3.4. Image and Comfort

Image and comfort are independent variables in terms of dominant image contrast between METU and Maidan (Figure 3.4). *The green and grey palettes* of the environments, the differences between soft and hard landscapes, and the opposing images present simple contrasts for participants, giving significant clues on the main site characteristics.

IV3. Uses and Activities

Every function (green space, commercial and residential areas) has its own perceptual and physical characteristics in its context. Urban design interrelates these characteristics to procure new spaces of interactions. An effective urban design proposal seeks to ensure functional and aesthetic socio-spatial harmony in the urban

context. In contemporary understanding, *vital and active pedestrian usages* are critical for achieving good public spaces. People go to these places for particular purposes, and *the experiences become reasons to go there again*. This is a crucial point for effective place vitality. There should be a purpose for the experience, within the diversity of activities, built and natural environment, and social life.

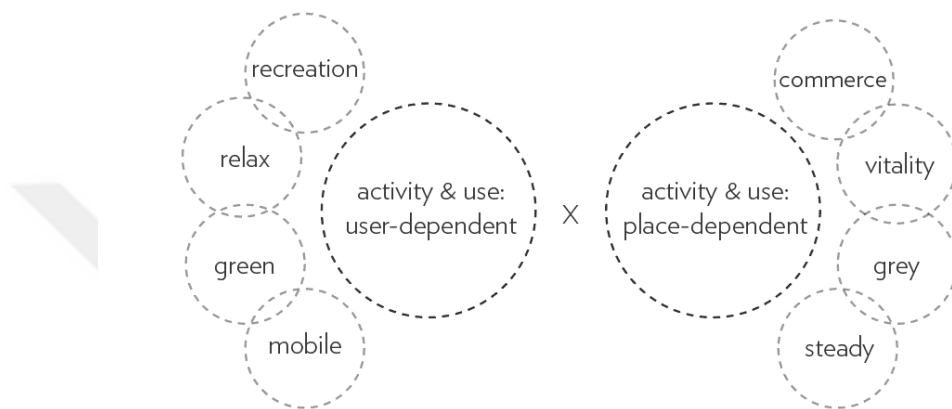


Figure 3.5. Uses and Activities

In this context, METU and Maidan are two contrasting sites. Both are highly dense activity nodes according to the changing hours of the day. Even if they both have the purpose of people coming together, *the functionalities are different*. While METU is a green gathering space for primarily *social activities*, Maidan is a leisure hub, the primary function of which is *commercial*. Overall, their contrasting uses orient the main spatial image and experience (Figure 3.5).

IV4. Sociability

Urban space is an interface of interactions both for living and non-living subjects. Sociability is the interaction and relation between people, who need to create bonds in these circles. The circles *constitute new affective/emotional spheres* and thus, attachments to places. Because of this reason, place attachment studies have always been very significant in environmental psychology and urban design. In the context of sociability, public space should be a convenient place to meet with friends, to see

people we are familiar with, to interact with different cultures and ethnic groups, to talk with them, to play with them, *to feel that we are a part of a community*. In order to achieve this, the place is required to be community friendly, diverse, and socially interactive.

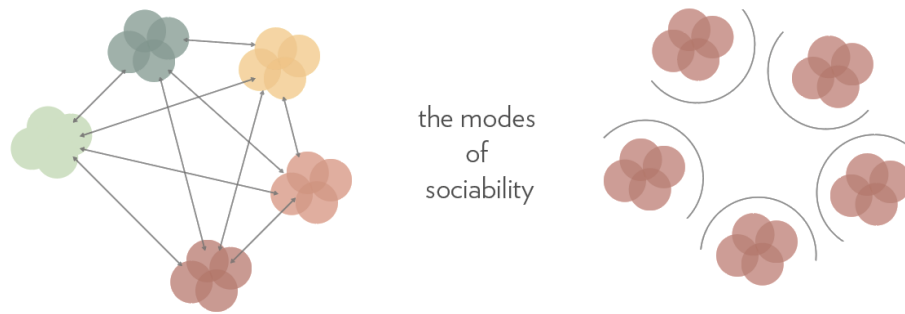


Figure 3.6. Sociability

METU and *Maidan* represent two contrasting contexts of sociability. *METU* is a diverse place full of university students and academics, a recreational area that hosts diversified groups sprawled on the grass landscape. It is mostly used for *student meetings*, *club activities*, and similar gatherings during the semesters. On the other hand, *Maidan* is a commercial hub with *a variety of restaurants and cafes* (Figure 3.6). The place is designed as a square, dominantly with a hard landscape, which is used for activities like concerts, school gatherings, and gastronomy. Because of the current prices, generally upper-income groups visit the facility.

Independent Variables Set 2: Musical Elements

In this study, the most crucial point is to construct common parameters between musical and spatial compositions. Since the study suggests an association between participant experiences, it is important to develop a type of interface, an inevitable formation of communication in between music and urban design. In this framework, we propose *six design parameters to measure the affectivity in place experience*:

- Tonality
- Tempo
- Rhythm
- Dynamics
- Intervals
- Beats

DV1. Tonality: The Mood (e.g., uplifting-major, and inert-minor)

Tonality, in music, principle of organizing musical compositions around a central note, the tonic. Generally, any Western or non-Western music periodically returning to a central, or focal, tone exhibits tonality. Sometimes called major–minor tonality, this system uses the notes of the major and minor scales (which are diatonic scales—i.e., comprise five whole tones and two semitones) plus optional auxiliary, or chromatic, notes as the raw material with which to build melodies and chords. (Britannica, 2014)

Different studies show prospering results that major tones awaken a happy (or uplifting) mood while and minor tones induce sad (or inert) tempers (Halpern et al., 2008; Hevner, 1935; Hunter et al., 2008; Parncutt, 2012; Rigg, 1964). Of course, this is a general agreement in music psychology. One can easily state that songs in major tones can also refer to sad or inert moods or vice versa. For instance, Hevner (1935) shows that Antonin Dvorak’s Largo (in major tones) provokes sad moods, and Edward Grieg’s Anitra’s Dance (in minor tones) evokes uplifting moods. However, these are exceptional compositions in terms of experience. People generally feel more comfortable and positive in major, and more sorrowful in minor tones.

A similar tonality also exists in spatial compositions. Every place has its dominant mood, just like in music. Yet, of course, different from music, this tonality differs from people to people. While instruments reveal the tones in music, *the general experiences reveal the tonality of place*. The meanings and past experiences are strongly connected to the context of place.

In this context, it is no surprise that most of the designers are in pursuit of creating happy places. We believe that even if we live in a *world obsessed with happiness and wellness*, no mood should be superior to another. For instance, the experience of

sadness in cemeteries is as important and valuable as the signification of joy of an urban square. *The important thing is the context and the related affective atmosphere of the place.* In this framework, we adopt the principle of tonality to decipher the simple mood of the place.

DV2. Tempo: The Pace (e.g., slow-adagio or fast-allegro)

The pace of the fundamental beat is called tempo (Italian: “time”). The expressions slow tempo and quick tempo suggest the existence of a tempo that is neither slow nor fast but rather “moderate.” A moderate tempo is assumed to be that of a natural walking pace (76 to 80 paces per minute) or of a heartbeat (72 per minute). (Peter Crossley-Holland, 2017)

The *tempo* is the *speed of motion* in the musical flow (e.g., notes, chords). It is one of the most essential principles that define the identity of a place, and also gives hints about the particular experience. People, vehicles, bicycles, animals, even money and ideas relocate themselves in urban space. *The speed of this relocation determines the tempo.* The modern city has such a high tempo that opposing models have inevitably emerged in planning approaches (e.g., slow city). Nevertheless, we still cannot blame the characteristics of tempo on cities. It is not a surprise that a metropolis is fast, and rural areas are slow. However, it is a matter of context, and *constituting a balance is an urban design problem.*

DV3. Rhythm: Symmetry (e.g., symmetrical-4/4 or assymetrical-9/8)

Unlike a painting or a piece of sculpture, which are compositions in space, a musical work is a composition dependent upon time. Rhythm is music’s pattern in time. Whatever other elements a given piece of music may have (e.g., patterns in pitch or timbre), rhythm is the one indispensable element of all music. [.....] Plato’s observation that rhythm is “an order of movement” provides a convenient analytical starting point. (Britannica, 2014)

Rhythm is the pattern of movement in music and can be classified in two basic categories: equal and unequal rhythms. Western music *generally uses equal rhythms* such as 4/4 and 3/4, unequal (aksak) rhythms such as 5/8, 9/8, 11/8, belong to the Balkans and particularly to Turkey (Fracile, 2003; Toussaint, 2020). There is a clear symmetrical difference between these categories.

Lefebvre is one of the pioneer philosophers who discussed rhythm in urban studies, and examines the patterns of social spaces and their ways of affecting daily life in *Rhythmanalysis* (1991). The author asserts that there is always a rhythm if there is a relation between place, time, and energy. Various types of rhythm such as polyrhythmia (casual), eurhythmia (interaction), arrhythmia (conflict) and isorhythmia (repetition) reveal the repetition of their collisions.

In this study, we examine rhythms in terms of a type of symmetry and repetition. Every interaction inevitably reveals a *rhythm of movement* in place, and all patterns of physical or social movements present *symmetrical and asymmetrical qualities*. This assigns a unique character to place. For instance, while repressive (e.g., monumental) places are very symmetric so as to orient movements, irregular patterns of historic centres represent asymmetrical relations in terms activity encounters.

DV4. Dynamics: The Surprise (e.g., surprise or monotony)

Dynamic markings have to do with how loudly or softly a piece of music is played. Like tempo, dynamic markings are used by composers to communicate how they want a piece of music to “feel” to an audience, whether it is quiet, loud, aggressive, or sad. (Philhofer et al., 2007, p. 69)

Dynamic refers to a changing difference in music. It can break the perception of experience in a stable flow or start a new partition in the composition. It generates a *significance*, a *difference* in the pattern. Interestingly, urban space also has different dynamics to make these perceptual breaks with townscape and image elements (Cullen, 1964; Lynch, 1960). The important thing is to locate them at the *right spots and interaction nodes of the spatial system*, just like in music. While too much of the usage of dynamics can be exhausting, its absence might also lead to a monotonous character.

DV5. Intervals: The Distance (e.g., close or distant)

Octave, in music, an interval whose higher note has a sound-wave frequency of vibration twice that of its lower note. Thus the international standard pitch A above middle C vibrates at 440 hertz (cycles per second); the octave above

this A vibrates at 880 hertz, while the octave below it vibrates at 220 hertz. (Britannica, 2017)

Interval is the distance between notes and defines the logic of modern musical system. An octave might include seven notes: do-re-mi-fa-sol-la-si-do (or c-d-e-f-g-a-b-c). The distances determine *the melody of music and relationships* between notes. Similarly, in urban space, compositional integrity is connected to the distances between people, activities, and physical elements. This attribute creates the level of publicity or privacy of the social space, and the distances constitute the level of relations between them.

DV6. The Beat Density: The Density (e.g., dense or sparse)

The unit division of musical time is called a beat. Just as one is aware of the body's steady pulse, or heartbeat, so in composing, performing, or listening to music one is aware of a periodic succession of beats. (Peter Crossley-Holland, 2017)

The beat is a *specific repetition* in a particular time sequence. The more a movement repeats, the higher the beat is. It is a dynamic change, and an essential feature for the rhythm. Different from tempo, it describes *the intensity of the rhythm through a vocal or instrument (e.g., the dense mandolin beats in Godfather theme)*. Urban space has also various beat densities. For example, pedestrian traffic shows changing rhythms. When these movements become more intense than typical, the beat eventually increases within the rhythm. In other words, the number of actions per unit time increases, and so *the beat density*. This adds a crucial vitality to place since it creates interactions between particular functions, and at different periods of the day. However, too much of it also turns the place into an exhausting place.

Dependent Variables: Musical Compositions

The dependent variables of the research are the musical compositions that the participant groups design. In each group (n=4), ten participants (five design students and five music students) discuss the spatial features of the site experiences and compose the songs of the sites. In this way, the study expects to acquire the affective

assemblages of the places through presented music. It assumes that the affective reflections through creative processes will reveal different interpretations. Thus, after implementing the composition process, it explores the processes that allow for different individual experiences and the emergence of collective affective experiences.

3.3.3 The Rationales for the Site Selection



Figure 3.7. METU Physics Lawn as a Built-Natural Landscape



Figure 3.8. Maidan Business Centre as a Built Environment

The study chooses two sites that contrast in terms of the aforementioned formal and functional spatial compositions (Figure 3.7 and Figure 3.8). One of them represents a nature-dense built environment, *Middle East Technical University*, and the other one is a densely built environment, *MAIDAN Business Centre* (Table 3.2). A reminder is necessary here to the effect that we try to make a transition from place to music over the spatial differences and unveil the associations between music and place. We aim to obtain affective deciphering through fundamental experiential differences. For this reason, *evident contrasts of places* are essential for participants to identify the differences and their connections to music.

Table 3.2 Characteristics of the Sample Sites

Site Location	Environmental Attributes	Accessibility & Linkages	Uses & Activities	Comfort & Image	Sociability
METU Campus	Natural Landscape	High, Free Orientation	Nature, University	Leisure, Soft, Landscape	Mixed, Diverse
MAIDAN	Built Environment	Low, Rigid Orientation	Gastronomy, Commercial Complex	Business, Hard Landscape	Small Groups

In terms of nature-dense built environment, we select a site that provides a type of an interrelation between any natural elements including humans, animals, soil, sky, plantations, sun, wind, etc. Although we admit that no place is a hundred percent natural in urban habitat, some provide these features. At this point, we select *Middle East Technical University (METU)* where people can experience interactions with various natural attributes.

On the other hand, we adopt built environment as a human-made, artificial place dominated by hard landscapes. In this type of a place, interrelations are defined by the functions, and experiences are manipulated according to them. Within this scope, we select *MAIDAN Business Center (Maidan)*, a commercial hub, since it is directly designed to create a relationship between pedestrians and commercial uses, and represents such qualities with intensive commercial activities in a uniform physical environment.

3.3.4 The Process of Inquiry Experience and Data Collection

In this part, the flow of experience, the data collection methods and analyses are explained for each step. The study benefits from several methods for generating shared knowledge such as *site observations, surveys, group works, music composing, map-making, drawing, collage making, and in-depth interviews*. In total, it conducts

a seven-step experiential process to associate music and place, which is relatively abstract and harder to comprehend for participants. Since we attached great importance to the active role of participants, this structured program allowed them to internalize the abstract concepts of both domains more efficiently. The steps are:

- Step 1. Associating Musical and Spatial Design Principles
- Step 2. Briefing Participants about the Research
- Step 3. Experiencing the Places
- Step 4. Collective Agreement on the Places
- Step 5. Composing the Songs of Places According to Place Attributes
- Step 6. Designing the Ideal Places
- Step 7. Individual/Participant Reviews of the Experiment Process

Step 1. Associating the Musical and Spatial Design Principles

Purpose: Determining commonalities between the design principles.

In the first step, possible relations between music and urban design are discussed with *six experts from the disciplines of urban design and music*. Even if we did not intend to base the discussions on design principles, we could say that the theory created a shared understanding between design comprehensions. In two sessions of debates and discussions in reference to experts' knowledge and experience in design and music composition and of the theory in both disciplines, the group agreed on six design parameters applied from both fields. This study entitles them as Musical Design Elements: MDEs, as explained in detail in a previous section (see Chapter 3.3.2).

Step 2. Briefing Participants about the Research

Purpose: Enhancing the spatial perception and social interaction of participants.

In the second step, we gathered participants and facilitators at the METU Faculty of Architecture. Before starting the theoretical briefing, the facilitators *encouraged participants to observe their surrounding environment, and stimulated them to use*

all their senses in this observation. The participants were asked to examine their presence and become more familiar with the social space they were experiencing. This method attempted to stimulate their attention to spatial qualities and to other participants, and to enhance their state of mind for the following observations. Afterwards, a short briefing about the rationale of the research was given. Then, participants were given *detailed instructions on MDEs* in reference to their implications both in music and urban design. Two musicians described the musical aspect of the attributes one by one, accompanied by a guitar and a piano. The description of the spatial aspect was illustrated through visual materials. In this step, we also handed out the survey sheets (Appendix A) and explained how participants could use them to evaluate the sites regarding spatial qualities in the place experiences.

Step 3. Experiencing the Places

Data Collection Method: Participant Observations

Purpose: Collecting Perceptual Data through Sensorial Experiences.

Participant observation is a widely used method to examine relationships between the observer and the place in spatial studies. The technique has two essential features. First, it ensures that participants actually experience the place, and it is vital to sense the slightest difference (such as sound, wind, sun, or smell). In this way, they can obtain relevant data on perceptual qualities.

On the other hand, we have to admit that although the place experiences are real, they do not fully reflect the dynamics of everyday life. Most people move unconsciously in urban space, and it is tough to come across such awareness as in these observations. However, what we seek is not a full awareness, but the clues on the place's essence. Therefore, we aim to gather the tiny details of the place, interpret them with musical principles, sum up everything in the group and compose the music of the places by translating the spatial qualities into musical elements. We expect

this whole will reveal the place's essence, metaphorically, as we call the timbre of place.

In this framework, participants observed and experienced the METU Physics Lawn (the outdoors of the Department) and Maidan for thirty minutes. They collected data of each design parameters (MDEs) on Likert scale ratings (Appendix A) in six classifications. In this way, the study also gathered quantitative data on the perception of contrasting places

Step 4. Collective Agreement on the Places

Data Collection Method: Focus Groups

Purpose: Reaching a Consensus on Spatial Qualities

In the fourth step, we asked participants to decide the common spatial qualities of both sites. Here, the aim was to refine the perceptual attributes of MDEs on Likert ratings. The number of participants was forty, so we divided them into four groups of ten participants. Every group included *five designers and five musicians*, which improved each participant's perspectives. The groups separately discussed the sites for two hours. Every parameter revealed a new discussion topic in the comprehension of music and place. This allowed them to interpret the place from each other's perspectives. A moderator from among the participants also led the discussions and supported the group with sketch notes and drawings. The significant advantage of the step was to get opinions that extend beyond the limits of structured visual questionnaires and to collect data on the collective agreement in a shorter time.

Step 5. Composing the Songs of Places According to Place Qualities

Data Collection Method: Group Work

Purpose: Composing the Songs of the Places

In the fifth step, the groups tried to compose the songs of the experienced sites. Four groups (n=10 for each group) were separated into different rooms with *various musical instruments*. They agreed on the musical elements in the frame of their

discussions in Step 4. Both designers and musicians determined the musical flow and composition and tried to translate the spatial components into musical forms. The participants who had experience with musical instruments helped the process, also with the support of music teachers. After two hours of brainstorming and practice, each group performed their compositions. In this way, the study gathered visual and audial data on *the musical interpretations of places*.

Step 6. Designing the Ideal Places

Data Collection Method: Music Performances

Purpose: Translating the Spatial Qualities into Musical Compositions

In the sixth step, the study applied an opposite experiential flow, from music to place. The research team provided the participants with various materials (paper, coloured pens, clay, photographs, etc.) and asked them to design their ‘ideal’ places, taking the workshop experiences as a departing point.

In this step, just like in Step 2, the facilitators gave a briefing on shared spatial design qualities as constructed by the participants in previous sessions, and on the interrelation of physical components with individual preferences of place experience. The same groups continued to work together for three hours. To enhance the exchange and dialogue between musicians and designers, they were asked to form mixed groups for particular tasks within each group. Groups created collages, clay sculptures, and sketch plans with all the given materials and presented how and why they decided on each spatial quality. The step provided data on participants’ interpretations of spatial preferences and how they conducted the decision-making process.

Step 7. Individual/Participant Reviews of the Experiment Process

Data Collection Method: In-depth Interviews

Purpose: Collecting Data on Individual Interpretations of the Experience

In-depth interviews are used to obtain data on personal interpretations of the experiment phase. The method gives a chance to explain the insights of the interrelationships between independent and dependent variables. At this point, the researcher's neutral position carries great importance, preventing manipulation in the answers. There are two main categories in in-depth interviews: *structured and unstructured* (Berg, 2001). While structured interviews focus on planned and specified questions, unstructured interviews are relatively more open to spontaneity. Bryman (2012) defines semi-structured interviews as follows:

It typically refers to a context in which the interviewer has a series of questions that are in the general form of an interview schedule but is able to vary the sequence of questions. The questions are frequently somewhat more general in their frame of reference from that typically found in a structured interview schedule. (Bryman, 2012, p. 212)

In this study, we were able to conduct *twenty-nine (n=29) in-depth interviews* to gather data about the experiment. Each interview took about one hour. Since it was a process of exploration, participants' considerations were crucial to understanding the possible relations of music and place. Therefore, we structured the questions according to three essential sub-topics (see Appendix B):

- (i) Individual experience of the places/compositions
- (ii) Interpretations of MDEs in between music and place,
- (iii) The evaluation of the collective learning process.

3.3.5 Data Types and Forms

There are three major stages of attaining information in the research process (Blaikie, 2000). The first one is to decide the '*context*', which is based on the related paradigm. The paradigm forms the way of the scientific approach. The second step consists of *core elements* that define conceptual theories, data sources, and collection methods. In this stage, the theoretical framework and the scope of the problem definition become clearer. And finally, the third stage presents the '*data collection*' of

qualitative or/and quantitative forms (Blaikie, 2000, p. 183). In this section, we explain the primary and secondary data types and their qualitative and quantitative forms.

Data Types

Primary data present new information, in the related research field which answers specific research questions. The study obtains this type of data by analyzing spatial observations and their translations into musical compositions. *In addition, questionnaires, participant observations, musical transcriptions, and in-depth interviews* ensure possible answers to our research questions.

Secondary data is “*raw data that are already been collected by someone else*” (Blaikie, 2000, p. 183). It allows research to save time in terms of secondary research concerns. The study adopts various design principles that have already been generated in music and urban design studies. In the framework of secondary data, we reinterpret them to a new interface and collect the primary data.

Data Forms

The fundamental forms can be divided into qualitative and quantitative data (Figure 3.9). While qualitative research focuses on verbal data, quantitative analysis aims to make inferences from numerical sets. While the framework of qualitative data has a subjective characteristic, quantitative data shows objective inquiries. However, *although the categories appear to be opposites, they are naturally and inevitably interdependent*. After all, every verbal information has a mathematical interpretation, and every numerical data has a verbal basis.

Since the study has a basis for an experiential framework, *it adopts a mixed-method approach including qualitative, quantitative and action methods*. It derives primary qualitative data from site expedition, observations, and in-depth interviews, and gathers numerical data from Likert ratings for MDEs. Also, actionable data is generated through participatory group works, musical compositions, performances and design. To analyze descriptive data, the study applied content analysis. Basic

statistics are calculated to evaluate the ratings. Data produced through participation is co-generated, synthesized and re-constructed through the process of intersubjective agreement. The outcomes are presented in text, creative mapping and graphics.

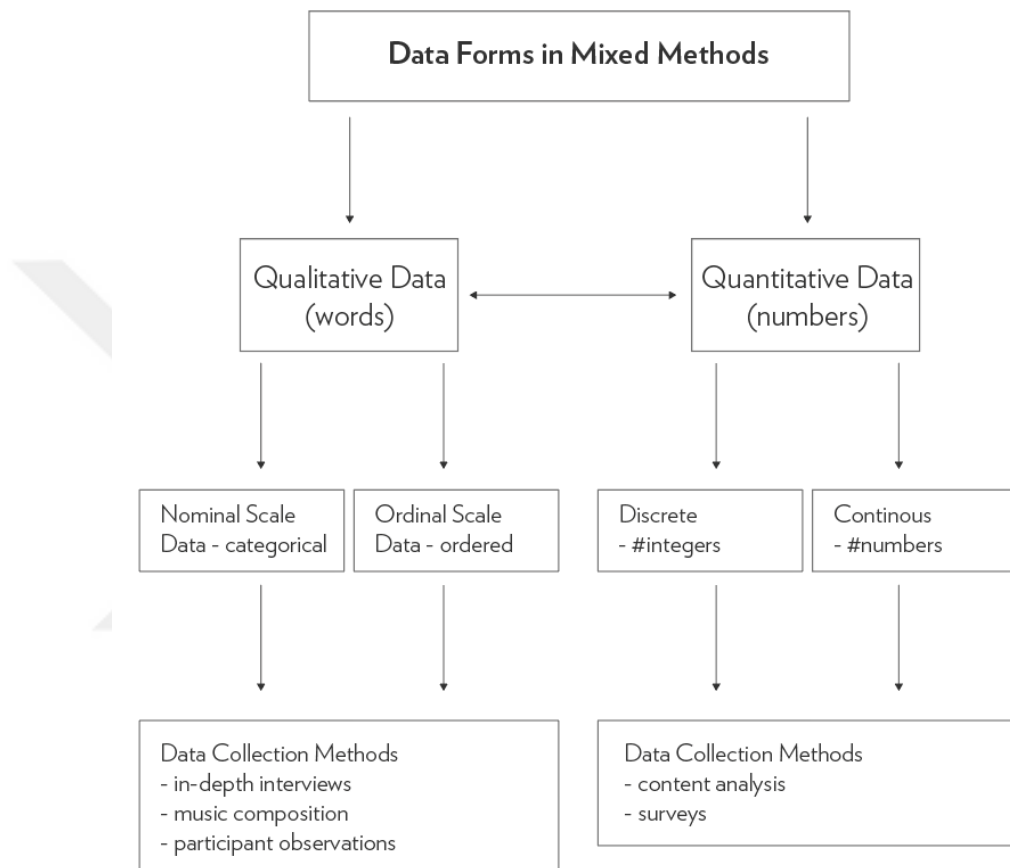


Figure 3.9. Data Contents in Mixed-Methods

3.3.6 Data Analysis Techniques

The study's primary purpose is to adapt place as a *multi-sensory and affective interface* and to re-evaluate place experience in urban design. For this reason, it collects data from spatial and musical compositions through participant observations.

In this context, we decipher in-depth interviews and musical composition processes and try to reach the assemblages through parts, with inductive content analysis (Elo & Kyngäs, 2008). Participants' perceptual responses and *subjective interpretations of places* are examined through the content analysis of the related transcriptions.

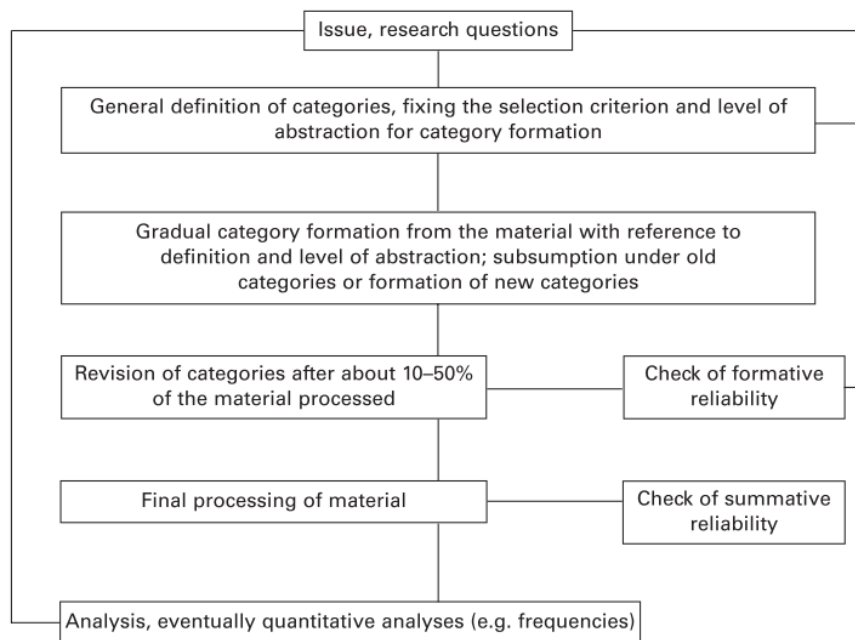


Figure 3.10. Procedures in Content Analysis (Mayring, 2004, p. 268)

According to Fossey et al. (2002), there are three necessary steps in content analysis: (i) the identification and data coding, (ii) the extraction of themes from codes, and (iii) the establishment of meaningful relationships over the themes. Mayring (2004) re-evaluates these steps in four stages: (i) simplifying the collected data, (ii) regrouping them in relevant categories, (iii) in-depth examination (iv) analysing the relationships between categories. All the data steps (Figure 3.10) build paths to the analyses of the related research questions. The content analysis *helps us to better comprehend the 'place experience'* through in-depth interviews and musical compositions (Fossey et al., 2002; Mayring, 2004; Neuendorf & Kumar, 2015). The

frequency matrices enable the synthesis of data obtained through the collection process.

3.3.7 Phase I Methods: Summary

The first experiential phase seeks ways to explore the insights of a transition *from place to music*. In this section, we summarize the research flow in the frame of all six sub-sections.

In the first section, the participant profiles and the rationales are described. The basis of the study is comprised of two subjects: music and urban design. Both fields have their own technical and perceptual/affective dynamics, and the participant profiles are selected to decipher them in the experiential process. We select participants who have specialized knowledge of music and spatial formations. In this case, we expect them to respond to the topics both technically and perceptually. As an advantage, their expertise makes up for each other's technical insufficiencies and amplifies the perceptual interactions.

In the second section, the study defines the independent and dependent variables. The spatial attributes constitute the independent variables since we manipulate them to orient and propose the MDEs. We redefine independent variables based on spatial qualities as essential tools for site selections: (i) access & linkages, (ii) uses & activities, (iii) comfort & image, and (iv) sociability. On the other hand, we structure dependent variables on MDEs, which connect the musical and spatial parameters: (i) tonality, (ii) tempo, (iii) rhythm, (iv) dynamics, (v) intervals, and (vi) beats.

In the third section, the study clarifies the rationale of choosing two places contrasting in formal and functional spatial qualities. Since we aim to obtain emotional deciphering through fundamental perceptual differences, evident spatial contrasts are essential for participants to identify the differences and their connections to music quickly. So, we select two sites, one of them represents a

natural landscape (Middle East Technical University), and the other is a densely built environment (MAIDAN Business Centre).

In the fourth section, the study illustrates the exploratory experience of the first phase and its simultaneous data collection flow. We conduct a seven-step experiment since creating a correlation between music and place seems relatively abstract and hard to comprehend for participants. This structured program allows us to internalize the knowledge and the abstract concepts of music and urban design more efficiently. We attached great importance to the active role of participants at every step of the experiment. The steps are:

- Step 1. Associating Musical and Spatial Design Principles
- Step 2. Briefing the Participants
- Step 3. Experiencing the Places
- Step 4. Collective Agreement on the Places
- Step 5. Composing the Songs of Places According to Place Attributes
- Step 6. Designing Ideal Places/Collages/Sculptures
- Step 7. Individual Evaluations of the Research

In the fifth and sixth sections, the study defines data types, forms, and analysis techniques. We obtain the primary data from the analysis of spatial observations and their translations into musical compositions. Questionnaires, participant observations, musical transcriptions, and in-depth interviews ensure possible answers to the research questions with qualitative and quantitative forms. The secondary data comes from various design studies that have already been done in music and urban design. The study benefits from particular resources to construct variables between place and music, i.e., MDEs. All in all, it collects data from spatial observations and deciphers them with the content analyses of in-depth interviews and musical compositions. This way, it tries to regenerate knowledge on the concept of the proposed concept, the timbre of the place (see Table 3.3).

Table 3.3 Research Structure in Experiential Phase I

Experiential Phase I: From Place to Music					
Sub-Research Questions	Research Approach	Variables	Data Form	Data Collection	Data Analysis
Which spatial characteristics are associated with which musical elements?	Descriptive Research	Parameters from Music Theory and Urban Design	Verbal Data	Focus Group	Subjective Descriptions
How does music reveal the affective embodiment of the place?	Hermeneutic Research	- Spatial Variables - MDEs: Musical Design Elements	- Verbal Ratings - Non-Verbal Data	- Group Works - In-depth Interviews - Cognitive Mapping	- Descriptive Statistics - Subjective Descriptions - Content Analysis - Frequency Mentions
How does the intersubjective/collective interpretation of place through music contribute to the reconstruction of affective assemblages?	Exploratory Research	- Spatial Variables - MDEs: Musical Design Elements	- Numeric Data: Likert Scale, Rating - Verbal Ratings - Non-Verbal Data - Visual Data	- Participant Observations - Questionnaires - Group Works - Music Composing - Recording / Presentations	- Descriptive Statistics - Subjective Descriptions - Content Analysis

3.4 Experiential Phase II: From Music to Place

In the first phase, the study explored an association of spatial and musical elements. It analyzed the detailed interpretations of participants on music and place, and tested the possibility for an applicable transition from place to music over the MDEs. In the scope of research's target, *the methods have succeeded and failed at the same time*. Even if participants successfully translated the spatial characteristics into musical compositions, the reverse interpretations on spatial design remained ambiguous at particular points. As a *significant inference* of the first phase, the responses show that '*emotional/affective experiences*' mainly led the individual and collective reflections.

From this point of departure, the study constructs a second experiential phase. At this time, the point of departure are the '*emotional/affective characteristics*' rather than contrasting place qualities. Hence, we conduct experiments taking the emotions of musical experiences as a departing point, and then expect to make a transition from affective reflections to spatial qualities. The second phase is structured as follows:

- Participant Profiles
- The Rationales for the Variable Selection
- The Rationales for the Musical Piece Selection
- The Flow of Experience and Data Collection
- Data Types and Forms
- Data Analysis Techniques

3.4.1 Participant Profiles

Snowballing is sometimes the best way to locate subjects with certain attributes or characteristics necessary in a study. Snowball samples are particularly popular among researchers interested in studying various classes of deviance, sensitive topics, or difficult to reach populations. (Berg, 2001, p. 33)

The experiential phase conducts *snowball sampling* to reach expert musicians. Its primary goal is to improve the exploratory approach *through hermeneutic inquiries* and to gather more profound interpretations with the data collection. We identified music knowledge as a required skill and claim that a smaller group that is expertly skilled in music (and spatial design) can provide more in-depth and interpretable data for the study. Briefly, we conduct experiments with eight participants: *four professional musicians* and *four semi-professional musicians* (Table 3.4).

The professional *musicians among the participants are virtuosos* who have received technical music training and mastered playing several musical instruments. They have high expertise in music theory and are able to read musical qualities. At this stage, we aim to examine their interpretations of the technical aspects of music and their relationships to the generated spaces in their minds. The participants who are semi-professional musicians also have advanced skills in spatial design. They are professionals in architecture and urban planning who play at least one instrument expertly and have advanced skills in reading musical qualities. We aim to explicate their technical/spatial interpretations of the generated spaces and their relations to music.

Table 3.4 Participant Profiles in Experiential Phase II

Skill Set	Number (N)	Musical Proficiency
Trained in Music	4	Professional Musician
Trained in Spatial Design and Music	4	Semi-Professional Musician

3.4.2 The Rationales for Variable Selections

The second experiential phase is based on the contrasting musical pieces that allow the examination of the triggered emotions and the places they elicit in minds. In other

words, we have the opportunity to comprehend *which musical quality stimulates which emotional/affective response*, and more importantly, what kind of spatial images these emotions/affects elicit. Therefore, in this section, the independent variables are the *affective/emotional dimensions (x)*, and the dependent variables are *the spatial qualities (y)*.

Independent Variables: Affective Dimensions

In the second phase, the study explicates emotional/affective responses and their connections to spatial images. It is crucial to collect them systematically since they constitute the images and orient the findings in the relations between music and urban design. In this purpose, the study references *Russell's circular model of affect* (1980) for the main affective determinants in music perception (Figure 3.11).

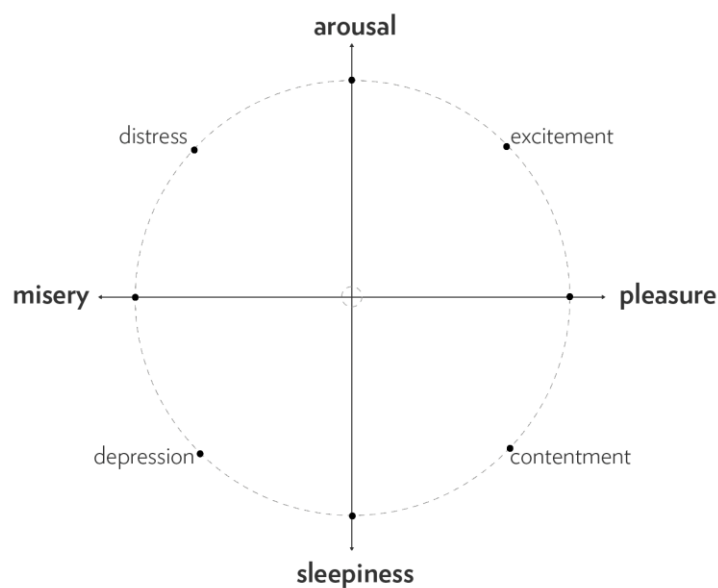


Figure 3.11. The Circumplex Model of Affect (Russell, 1980)

The model is *frequently used to measure music perception* and analyse the effects of musical attributes in various studies (Coutinho & Cangelosi, 2009; Eerola & Vuoskoski, 2013; Evans & Schubert, 2008; Kawakami et al., 2013; Taruffi et al.,

2017; Zhang et al., 2019). Eerola and Vuoskoski (2013) show that among 251 studies on 'music and emotion', it is the most frequently used dimensional model:

The dimensional model for emotions is the other commonly used emotion model in psychology, and the most famous example of this is the circumplex model (Russell, 1980). This model represents emotions as a mixture of two core dimensions, valence and arousal, which are two continua that are orthogonally situated in the affective space. This model has received support in large-scale studies of self-reported emotions. (Eerola & Vuoskoski, 2013, p. 310)

Russell (1980) proposes that an interrelation of affects can be redefined in a spatial model, and with various self-reporting experiments through twenty-eight emotions, his findings propose a circular model of affect: pleasure (0°), excitement (45°), arousal (90°), distress (135°), displeasure (180°), depression (225°), sleepiness (270°), and relaxation (315°) (p. 1161) (Figure 3.11).

According to the model, there are clear distinctions in terms of affective responses. One can easily assume that a person would not feel happy and sad at the same time at a funeral. But on the other hand, there are also ambiguous feelings, cases in which people perceive different emotions/affects at the same time (Hunter et al., 2008). For instance, a peaceful (positive affect) piece can also be depressing (negative affect) with its minor tonality and slow tempo.

Because of a possible similar ambiguity in data collection, the study aims to comprehend the state of emotions/affects with in-depth interviews and focus group discussions. The model used ensure eight basic affects that can be adopted as follows (Cambridge Dictionary, 2020; Merriam-Webster Dictionary, 2020; "Oxford Dictionary," 2020):

Arousal: activated, strong feelings, awakened.

Sleepiness: deactivation, calm, tiredness.

Pleasure: happiness, enjoyment, satisfaction, gratification.

Misery: unhappiness, discomfort, pain, sorrow.

Distress: worry, annoyance, discomfort.

Contentment: peace, happiness, satisfaction.

Excitement: thrill, enthusiasm, passion.

Depression: gloom, melancholy, dejection.

Dependent Variables: Spatial Dimensions

The dependent variables are the **spatial interpretations** of participants. After the musical experiences, we examine how their affective responses, and the interpretations of meanings and places change according to the musical stimulations.

3.4.3 The Rationales for the Music Selection

Similarly with the first phase, the second phase also aims to obtain interpretations of spatial qualities through *the contrasting compositions*. However, this time, it takes not the formal/morphological concerns, but the *affective/emotional qualities of music perceptions as a departing point*. The musical preferences are collected through various consultation meetings with musicians and urban designers. A group of musicians and designers discussed the *contrasts of affects in Russell's model*, and determined the basis factors to be '*arousal and deactivation*'.

In this context, *two instrumental pieces* were selected between six alternatives. We focused only on instrumental songs, to eliminate the influence of lyrics as was shown in different studies (e.g., Jamdar et al., 2015; Zhang et al., 2019).

The first piece, Franz Joseph Haydn's *Piano Sonata Partita No.13 in G Major, Hob. XVI:6: III. Adagio*, performed by Jean-Efflam Bavouzet has a monolithic flow with *slow metronome and symmetrical rhythms*. As an adagio, it has calmer, predictable, soft melodies with minor tones, so we evaluate it to be located around the 'deactivation/sleepiness' zone in Russell's model.

The second piece, Paganini's *Variations for Piano Solo*, performed and composed by Fazıl Say, represents a surprising and moving composition with *syncopated rhythms, high metronomes, and abundant nuances*. The dynamics are so sharp that

it can even disturb the listener at certain points with its unpredictability and contrasts. We evaluate it to be located around the ‘arousal/activation’ zone in Russell’s model.

Table 3.5 Selected Musical Pieces/Compositons

Piece no.	Alias	Composer	Title	Performer	Length
1	Adagio	Franz Joseph Haydn	Piano Sonata Partita No.13 in G Major, Hob. XVI:6: III. Adagio	Jean-Efflam Bavouzet	282 seconds
2	Presto	Fazıl Say	Paganini Variations for Piano Solo	Fazıl Say	236 seconds

3.4.4 The Process of Inquiry Experience and Data Collection

The study collects data with several methods such as focus groups, music listening, self-reporting and in-depth interviews. We categorize the experiment in five steps to explicate the correlations between music and place. The steps are:

- Step 1. Conducting Debates on Music Selection
- Step 2. Comprehending the Affect/Emotion of Pieces/Music
- Step 3. Comprehending the Place of Pieces/Music
- Step 4. Collective Evaluations of the Pieces
- Step 5. Individual Evaluations

Step 1. Conducting Debates on Music Selection

Data Collection Method: Focus Group

Purpose: Choosing Contrasting Musical Pieces

The study determines the contrasting musical qualities regarding *Russell’s circumplex model of affect* (1980). The model ensures the jurisdiction of individuals and is frequently referenced in the field of environmental psychology. There are two main axes of affects: pleasant - unpleasant (x axis) and arousing-sleepy (y axis). The

model (Figure 3.11) proposes ‘affects’ as derivatives of the two axes. Based on this argument, within a focus group, *the study chooses two musical pieces using the contrasting “arousing/activating-sleepy/deactivating” axis* and constitutes a fundamental contrast in terms of emotions in the musical experience.

Step 2. Comprehending the Affect/Emotion of Pieces

Data Collection Methods: Music Experience/Subjective Descriptions/Note Taking

Purpose: Stimulating and Analysing Emotions through Music

In the second step, participants listen to these pieces: (i) Franz Joseph Haydn - *Piano Sonata Partita No.13 in G Major, Hob. XVI:6: III. Adagio*, performed by Jean-Efflam Bavouzet; (ii) Paganini *Variations for Piano Solo*, performed and composed by Fazıl Say.

We expect that the subconscious and conscious mind create ideas/emergences through this musical experience. We ask participants to transform *any stimulated emotion or feelings into writing or drawings* during the musical experience. The study aims to gather any data regardless of integrity or partial preference. The target is to collect the emotional/affective stimulations that are revealed from the compositions. There is a five-minute period of sitting silently between the two music experiences, which provides a break without speaking or listening to any other content, to maintain the attention and lower the effects of possible distractions.

Step 3. Comprehending the Place of Pieces

Data Collection Methods: Music Experience/Subjective Descriptions/Note-Taking

Purpose: Making a Transition from Music to Place

In the third step, participants listen to the same pieces once more. However, this time, we ask them to write or draw any emerging *spatial quality or images*. Since we adopt space as an emotional interface, just like music, we expect to analyse the *similarities and distinctions between the imagined places*. By this way, we aim to examine the spatial and perceptual consistencies between responses.

Step 4. Collective Evaluations of the Pieces/Places

Data Collection Methods: Focus Group

Purpose: Testing the Consistency of MDEs and Spatial Preferences

The first phase of the study showed that *every emotional combination creates new assemblage points that exceed verbal communication limits*. Thus, we expect something different compared to the individual reflections. The focus group discussion allows us to comprehend these assemblage points in the context of the compositions. Until this step, we collected a number of affective/emotional responses on the pieces/places. In this step, we ask participants to brainstorm on the sample pieces and the related spatial imaginations, which also enables us to observe different individual and shared responses to musical and spatial qualities.

Step 5. Individual/Participant Reviews of the Experiment Process

Data Collection Method: In-depth Interviews

Purpose: Gathering Interpretation on each Piece and the Experience

In the fifth step, the study gathers interpretations from each participant with one-on-one in-depth interviews. The conversations allow for the comprehension of the creative experiences and in-depth meanings of each participants' interpretations, which are ascribed to music pieces and imagined places throughout the experience.

3.4.5 Data Types and Forms

The experiential phase collects similar data types as they were explained in Chapter 3.3.5.

3.4.6 Data Analysis Techniques

Similar to the first one, the second phase also uses focus groups and content analysis *to better comprehend the interpretations of musical and spatial preferences through*

in-depth interviews and focus groups (Fossey et al., 2002; Mayring, 2004; Neuendorf & Kumar, 2015). This time, rather than frequency matrices, it investigates participants' responses more descriptively.

3.4.7 Phase II Methods: Summary

The second experiential phase seeks ways to explore the insights of a transition *from music to place*. In this section, we summarize the research flow in the framework of all four sub-sections.

In the first section, the rationales of *participant profiles* are described. The phase conducts *snowball sampling* to reach expert musicians and spatial designers. The experiment is conducted with *eight participants* who have advanced knowledge of music. The study assumes that a smaller group that is expertly skilled in music and spatial design can provide more in-depth responses.

In the second part, the independent and dependent *variables* are defined. The independent variables are the affects referencing *Russell's circular model*, which also orient the selection of musical compositions. The dependent variables are spatial qualities which are manipulated with the musical stimulations.

In the third part, the study clarifies the *rationale of choosing two contrasting musical pieces* in affective compositions. The first piece is *Franz Joseph Haydn - Piano Sonata Partita No.13 in G Major, Hob. XVI:6: III. Adagio*, performed by *Jean-Efflam Bavouzet* which has a monolithic flow with the *slow metronome and symmetrical rhythms*. The second piece is *Paganini Variations for Piano Solo*, performed by *Fazıl Say*, representing a surprising and moving composition with *syncopated rhythms, high metronomes, and distinct nuances*. In this way, we aim to make interpretations of spatial qualities through contrasting compositions.

In the fourth section, the research experience and data collection flow are illustrated. The section conducts a five-step experiment with a program that allows

the interpretation of the *interrelations between affects/emotions, musical attributes and spatial expressions*. The data collection steps are:

- Step 1. Associating Affective/Emotional and Music Qualities
- Step 2. Comprehending the Affect/Emotion of Pieces/Music
- Step 3. Comprehending the Place of Pieces/Music
- Step 4. Collective Evaluations of the Pieces
- Step 5. Individual Evaluations

In the last parts, this section defines data types, forms, and analysis techniques, where it achieves primary data with the analysis of musical experiences and their translations into spatial compositions. Focus groups, musical transcriptions, and in-depth interviews ensure possible answers to the research questions within qualitative and quantitative forms (Table 3.6)

Table 3.6 Research Structure in Experiential Phase II

Experiential Phase II: From Music to Place					
Sub-Research Questions	Research Approach	Variables	Data Form	Data Collection	Data Analysis
Which musical characteristics are associated with which spatial elements?	▪ Descriptive Research ▪ Exploratory Research ▪ Hermeneutic Research	▪ Affective Variables (Russell Model) ▪ MDEs: Musical Design Elements	▪ Non-Verbal Data ▪ Visual Data	▪ Music Listening/Experience ▪ Focus Group ▪ Note-taking/Drawings ▪ Recording	▪ Subjective Descriptions ▪ Descriptive Analysis
How do participants evaluate MDEs in terms of musical and spatial characteristics?	▪ Descriptive Research ▪ Hermeneutic Research	▪ Affective Variables (Russell Model) ▪ Spatial Preferences	▪ Descriptive Data	▪ In-depth Interviews ▪ Note-taking/Drawings ▪ Recording	▪ Subjective Descriptions ▪ Descriptive Analysis

CHAPTER 4

FINDINGS AND DISCUSSION

This section presents the data obtained in the first and second experiential phases of the inquiry and responds to research questions that seek associations between urban design and music theory. The study aims to find clues to overcoming the risk of becoming a *graphical, top-down, and market-oriented domain in urban design*, which often relies on a single sensory approach, the vision seeking visual perfectionism. Simply, it aims to explore alternative ways to the deterministic mind-set of design thinking with the help of an affective interface (i.e., music). In this context, the main research question is structured as follows:

- How can music and place be associated with each other in urban design?

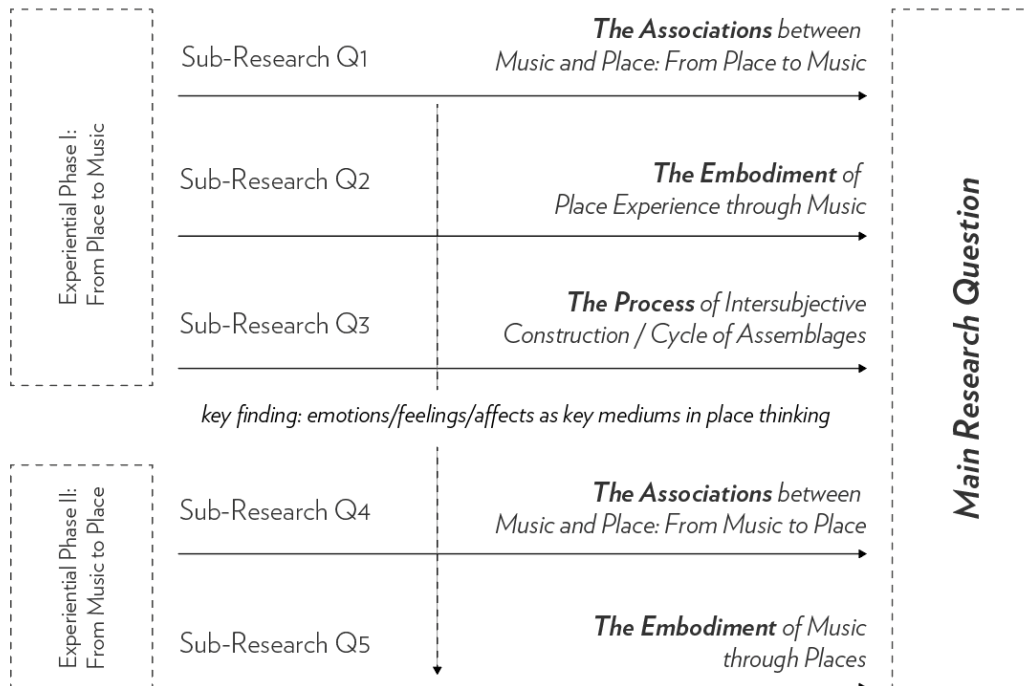


Figure 4.1. The Flow of Findings and Discussion Chapter

The study investigates the topic over two complementary experiential phases due to the nature of the exploratory investigation. Since it deals with a problem that has not been discussed comprehensively in the literature, it structures the inquiry process as an open system and allows the methodology to emerge within the inquiry practice through creative actions. This elicits the emergence of assemblage thinking. These assemblages are created through the discussions on music while motivating the participants to engage their affective minds on place thinking. Hence, every new discussion on music and place consecutively create extensive affects among individuals and helped reveal new perspectives. Eventually, the study proceeds step by step in two experiential phases (Figure 4.1).

In the first phase, the primary investigation is on the fundamental associations of place and music (see Section 3.3). In the scope of urban design, the departure point is to investigate how people assess two selected differing places (METU and Maidan) through shared attributes in music and design, and to understand their response through music. The aim is to compose short musical themes of the places and observe the potential associations between place and music. The sub-research questions are formulated as follows:

- SRQ1: Which spatial characteristics are associated with which musical elements?
- SRQ2: How does music reveal the affective embodiment of the place?
- SRQ3: How does the intersubjective/collective interpretation of place through music contribute to the reconstruction of affective assemblages?

The first phase show that musical compositions acquired affective essences of place experiences. Both musical compositions present similar contradictions in their affective characteristics and reflect these experiences. Most participants highlight the importance of affective interactions as emotions played vital roles in comprehending the place and the collective agreement on the MDEs. On the other hand, while the outcomes are meaningfully constructed through the transition from place to music, the practical qualities of the outcomes for urban design remain relatively ambiguous.

Consequently, the study designs a second phase departing from music to emotions and from emotions to places (see Section 3.4). In this phase, the target is to understand how music stimulates collective emotions through contradictory musical pieces and to examine their associations with spatial elements. In other words, the study applies a mirror method to verify and investigate the topic in more intensive discussion meetings with an expert group of musicians who also perform on stage professionally. The sub-research questions of this phase are formulated as follows:

- SRQ4: Which musical characteristics/emotions are associated with which spatial elements?
- SRQ5: How do musicians evaluate MDEs in terms of spatial characteristics?

The results of the second phase show that places and emotions are connected deeply in people's minds. The participants (expert musicians) mostly imagine similar spatial characteristics while listening to similar musical pieces. Nevertheless, these similarities are described through MDEs and primarily because of the spatial stimulants triggered by similar emotions. The findings show that memories, imaginations, places, and emotions/effects are strongly connected to the mental state. This is an expected outcome. What is not expected are the common spatial and musical interpretations that reveal new paths to think of places as affective assemblages. It is somewhat also an outcome of the first phase that could not be verbalized explicitly, but highlighted as an unspoken connection quickly constructed among participants.

This chapter presents the details about the outcomes of both phases and discusses how each phase helped construct the following phase.

4.1 Experiential Phase I: From Place to Music

4.1.1 SRQ1: Which spatial characteristics are associated with which musical elements?

This section presents four sub-steps to explore the associations between spatial characteristics and corresponding musical elements. Figure 4.2 shows participants' ratings on the MDEs for each site. The quantitative interpretations of place elements are evaluated on a 7-point Likert scale.

Secondly, participants' interpretations for each MDE are given on the basis of the frequency of mentions by participants of the expressed content groups about the dualities along a continuum for each spatial-musical characteristic. The interpretations are categorized under content groups without relying on the dualities (e.g., fast vs slow, major vs minor) as assigned for each MDE prior to the investigation. This analysis is done to retrieve meaningful definitions of the MDEs for the participants. The outcomes of the second and third steps are detailed under each MDE title.

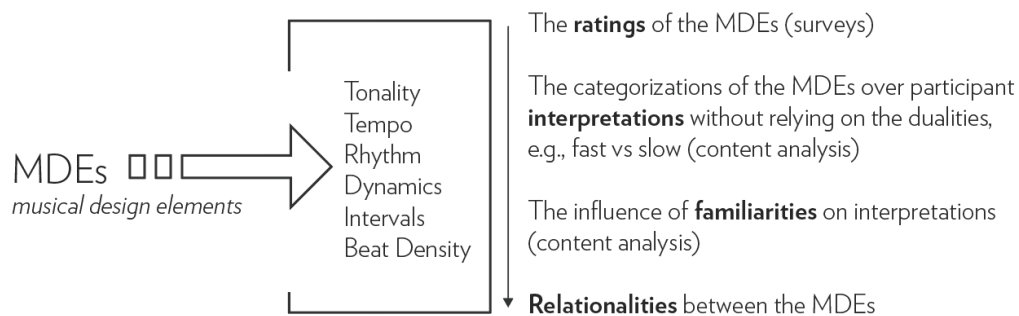


Figure 4.2. The Flow for the Sub-Research Question I

Thirdly, the study investigates whether participants' familiarity with the place changed their interpretations about the musicality of the place. The TFL group is familiar with Maidan (an area they frequently visit), and the METU group is familiar

with the physics lawn (which is one of the most popular meeting spots on campus) where the site visit has taken place. Finally, the relationalities of the MDEs are described based on participant interpretations. This step highlights that MDEs are not independent of each other, but also create assemblages that stimulate emergent relations in the place experiences.

The findings of the SRQ1 show that MDEs present a basic framework to associate musical and spatial features. However, they are so interconnected that it is nearly impossible to consider them singularly. When the musical interpretations begin, a variety of affective assemblages are triggered in the intersubjective processes. Herein, the dualities between MDEs ensure a type of an affective selection in terms of place preferences. Even if people have various contrasting thoughts on the places, the affective communication of music allows the creation of a consensus on the compositional characteristics. Every MDE continuously triggers another and eventually reveals an emergent outcome. This self-organization points to an open system, in which relationality recreates itself during a multi-dimensional and affective experience. For instance, while tempo affects beat density, dynamics influence rhythmic structure, or intervals shape the perception of other MDEs.

In most circumstances, the affective case of the experience influences all MDEs. For instance, some participants state that a fast tempo can be perceived as exciting or exhausting depending on the context. The affective character of the exposed stimulant determines whether it is a desired feature or not. Even though this creates complex relationalities between the MDEs, a general categorization is done from the participants' descriptions as shown in Table 4.1. In this process, there are two significant highlights:

- The individual quantitative ratings of the MDEs do not procure sufficient insights for the place experiences. The participants **interpret MDEs according to each other**. Thus, the experiential content of the place is much more effectively interpreted after the musical composition process.
- The selected sites show clear contrast in terms of their spatial features. Eventually, during the experiential phases, the natural and built environments **stimulated contrasting affective qualities and influenced participants'**

interpretations. However, these interpretations are based not only on these environmental qualities but also on the **affective relationalities of the specific experiences.** Every new affective assemblage recreate a new emergent outcome during the experiences.

Table 4.1 Associations of Place and Music through the MDEs

Musical Design Elements	The Associations with Place
Tonality (Affective character)	• Affective Qualities (56%) • Natural Environment (15%) • Social Environment (11%) • Limitations and Freedom (9%) • Varying Rhythms (8%)
Tempo (Pace)	• Mobility (63%) • Functional Diversification (20%) • Affective Qualities (17%)
Rhythm (Diversity)	• Activities (38%) • Affective and Sensorial Attributes (33%) • Built Environment (15%) • Natural Environment (14%)
Dynamics (Nuances/Surprises)	• Architectural/Physical Elements (45%) • Natural Environment (39%) • Social Environment (16%)
Intervals (Distances)	• Built Environment (53%) • Social Environment (28%) • Natural Environment (19%)
Beat Density (Density)	• Social Activities/Functions (81%) • Static and Dynamic Density (19%)

The MDEs as rated:

At the beginning of the first phase, the participants individually observed the selected sites for 30-45 minutes (METU and Maidan). They were asked to use their all senses, mainly to listen to the environments in association with their spatial experiences and to assess those environments in regards to the proposed musical design elements, i.e., MDEs (on a 7-point Likert scale) (Table 4.2). The primary purpose was to numerically gather participants' ratings for their sensorial experiences and the reasons for their ratings descriptively as short notes to structure a basis for group discussions and the musical composition processes to be held afterwards.

Table 4.2 Phase I: 7-Point Likert Scale Place Experience Evaluations

QUESTIONS	MAIDAN		METU	
	Participants from METU	Participants from TFL	Participants from METU	Participants from TFL
1. What is the mood that the place makes you feel?	4.18		3.93	
<i>The Tonality (Stable 1 2 3 4 5 6 7 Uplifting)</i>	4.44	3.94	4.31	3.59
2. How is the tempo of the place?	4.69		3.54	
<i>The Tempo (Slow 1 2 3 4 5 6 7 Fast)</i>	4.31	5.06	4.25	2.88
3. How did you perceive the diversity in the place experience?	3.84		4.48	
<i>The Rhythm (Symmetric 1 2 3 4 5 6 7 Asymmetric)</i>	4.38	3.35	4.69	4.29
4. Were there any surprises in the place experience? How often?	3.36		3.36	
<i>The Dynamics (No-Surprise 1 2 3 4 5 6 7 Surprise)</i>	3.50	3.24	3.19	3.53
5. How was the distance/intervals in the place?	3		4.6	
<i>The Intervals (Close 1 2 3 4 5 6 7 Far)</i>	3.50	2.53	4.63	4.59
6. What was the density in the place experience?	4.5		4.12	
<i>The Beat (Sparse Beat 1 2 3 4 5 6 7 Dense Beat)</i>	4.38	4.65	4.13	4.12

When the ratings on the MDEs are compared, the survey results show no significant differences in participants' assessments of the selected sites. Two exceptions are that Maidan is assessed to be relatively faster than METU, according to the TFL participants. In other words, even though the site characteristics are dissimilar (please see section 3.3.3), the interpretations of MDEs are revealed as generally similar. As shown in Table 4.2, slight differences appear in the *tempo* and *intervals* of place experiences, particularly for the TFL participants. Maidan (5.06) is assessed to be relatively faster than METU (2.88). Maidan (2.53) is also perceived as relatively more condensed compared to METU (4.59) due to the shorter distances between perceived elements in the place. These results also reveal that the fragmented adoption of MDEs fail to show the contradictions of the sites.

In the later stages, when the intersubjective discussions and the musical process came into play, the proposed design elements (MDEs) started to work as mediums to construct the affective assemblages of place experiences. Music unveiled the emotions as an interface between the places and people, allowing them to express these atmospheres more effectively than the fragmented representations of conventional communication mediums (e.g., numbers and words). It also created an encouraging setting by enabling affective interactions between participants. The following section presents participants' interpretations of the MDEs in the first phase, focusing on the associated features of music and place experience.

The MDEs as described:

The Tonality

Tonality refers to the key characteristic that intuitively determines the affective characteristics of the musical experience. The study associates this MDE with the key emotional state of the place experience. Generally, people feel more comfortable and positive in major tones and more sorrowful or calm in minor tones. The affective place characteristics also stimulate emotions/affects similar to musical compositions.

The **survey results** show that participants do not make any distinctive ratings on the selected sites (METU: 3.93/7, Maidan: 4.18/7). The ratings for both sites claim that they are neither in major nor minor moods.

Although participants' ratings for the tonality of the visited places show no significant difference, not stimulating either major or minor moods (METU: 3.93/7, Maidan: 4.18/7), **in-depth interviews** revealed that intersubjective discussions and musical composition processes had impacted participants' interpretations of the moods of the sites. As shown in Table 4.3, almost all mentions of the participants relate METU with major tonalities through positive emotions (96%) and Maidan with minor tonalities through negative emotions (92%).

While more than one-fourth (28%) of all mentions for METU refer to calmness and relaxation, almost one-fourth (23%) are associated with joy and excitement in the experience. One-fifth of the mentions (19%) address the social significance of the place. As for Maidan, 24% of all mentions refer to the tiring and constricting quality of the place. While more than half of all mentions for Maidan highlight the sense of unnaturalness (22%), emotionlessness (17%), uniformity (10%), and mechanicality (8%), the excitement of the place (8%) composes less than 10% of mentions.

Table 4.3 Interpretations of Tonality in Place Experience

	Interpretations	Frequency of Mention	% in Group	% in Total
METU	Major / Active and Live	79	96%	56%
	Affective Qualities: Calmness and Relaxation (calm, peaceful, soothing, relaxing, restful...)	23	28%	16%
	Affective Qualities: Joy and Excitement (vitality, happiness, cheerful, energetic...)	19	23%	13%
	Social Environment (social environment, individuality, meetings...)	16	19%	11%
	Natural Environment (trees, the sounds of wind and birds, natural)	9	11%	6%

Table 4.3 continued

METU	Limitations and Freedom: Intimacy and Freedom (intimacy, affective, freedom)	7	8%	6%
	Movements (rhythm, movements, fast)	3	4%	3%
	Built Environment (building, sculptures)	2	2%	1%
	Minor / Stable and Emotional	4	4%	2%
	Movements (inactivity, (stable, stagnant)	2	2%	1%
	Affective Qualities: Sadness and Boredom (sad people, boring)	2	2%	1%
	Metu - Group Total	83	100%	58%
MAIDAN	Minor / Stable and Calm	54	92%	38%
	Affective Qualities: Tiring and Constricting (gloomy, stressful, tiring, constricting, boring, closed, flattened)	14	24%	10%
	Natural Environment: Unnatural, Artificial Environment	13	22%	9%
	Affective Qualities: Emotionless (loveless, melancholic)	10	17%	7%
	Affective Qualities: Passivity and Uniformity of Space (passive, cold, monotonous)	6	10%	4%
	Limitations and Freedom (limited movements, mechanical)	5	8%	4%
	Movements (intense movement, chaos, and crowds)	4	7%	3%
	Movements (inactivity)	2	3%	1%
	Major / Active and Live	5	8%	4%
	Affective Qualities: Excitement, Happiness and Curiosity	5	8%	4%
	Maidan - Group Total	59	100%	42%
	Total	142	-	100%

When the **tonality** of the place is examined without limiting the conceptualization through dualities (e.g., major vs. minor), **five main attributes** are noticeable:

- **Affective Qualities (55%)**
- **Natural Environment (15%)**
- **Social Environment (11%)**
- **Limitations and Freedom (9%)**
- **Movements (8%)**

Firstly, as a significant outcome, the content analysis shows that participants' descriptions attribute meaning to place experience dominantly through **the affective qualities** (55% in all mentions). Nearly half of all mentions in METU (51%) associate the element with *calmness, relaxation, and joy* as they provide positive emotions in the place experience. On the other hand, mentions relate Maidan with tiring and gloomy affects (41%). The interpretations describe the tonality of place by reflecting a type of an affective assemblage that is constructed by the relationalities of numerous tangible or intangible features:

‘METU was happy, joyful, and exciting for me. It may have been physically calm, but that only made me feel happier. There was sincerity at METU. It felt as though that did not exist in Maidan. People would finish what they were doing and leave. Encountering people or meeting them was much more beautiful in METU.’ Interviewee 4

‘Maidan felt very unemotional to me. It was an insincere place, devoid of any love or emotion. A place where people are distant from each other. This is something that stresses me a lot. It was a place where people believed socializing was playing with their phones. For this reason, it was not a suitable place for me.’ Interviewee 5

The opportunity to experience a social moment in **the natural environment** creates positive bonds within the experience (15% in all mentions). While mentions highlight that this ensures positive moods through nature in METU (11%), they describe Maidan as an unnatural and artificial place (22%). This is expected since the two sites are contrary in terms of the soft and hard landscape. The concrete environment in Maidan seems to exhaust participants and direct them to assign minor tonalities to the place:

‘Whenever I visit METU, seeing the place intertwined with nature gives me both peace and joy, regardless of it being filled with people or being empty.’ Interviewee 12

‘Maidan was very cold. Nobody knows each other and the whole place is made of concrete.’ Interviewee 25

‘Maidan is a more exhausting environment. The artificial environments there created by lights and movements already feel very exhausting to me. So, it felt more exhausting and colder to me.’ Interviewee 20

The findings show that **the social environment** and activities impact the experience of tonalities for both sites (11% in all mentions). While the *diversity and characteristics of the social activities* stimulate positive affects in METU (19%), Maidan is described as a passive and uniform place in terms of socialization (10%):

‘There were trees, buildings, and sculptures at METU. But people felt very lively because people were engaging in all sorts of different activities. Some were sitting and others were lying down or chatting with their friends. This was not the case for Maidan. There was hardly any human activity there. It was physical.’ Interviewee 1

‘The physics lawn is a place where we visit with our friends, where we smoke and where we go sliding when it snows. So, it is beautiful. For me, it is a place that has housed emotional and happy memories.’ Interviewee 5

‘METU was calmer and more peaceful. It was a place where people sat down and chatted with their friends. But they go to METU to spend the whole day enjoying the place.’ Interviewee 20

The sense of **freedom and limitations** also determines the tonality of place experience (9% in all mentions). In METU, participants are positively affected since they have the freedom of choice (8%). There are no defined activity zones on the lawn, which is seen as a vast gathering place between various campus activities. On the other hand, they reflect Maidan as a limited and restrictive place, since it is designed as a commercial hub, surrounded by cafes, offices and high-rise buildings (8%):

‘In Maidan, the feeling was more monotonous, and it was as though everyone was acting in a robotic manner.’ Interviewee 2

‘The variety of what we can do also provides freedom. I can go wherever I want.’ Interviewee 6

‘I was more comfortable at METU, and I could move freely. I felt like I had no limits.’ Interviewee 15

‘Maidan was passive... It somehow drained your energy.’ Interviewee 21

Almost one-tenth of all mentions (8%) indicate that **varying movements** between activities also influence the affects of place experiences. Participants associate positive moods with lively environments accommodating some types of movement, particularly activities made by people. This liveliness is connected to the dynamic rhythms of the places as people find themselves in a flow of perceptible rhythms. Two different affects are unveiled in METU and Maidan, related to the varying movements. While movement creates a feeling of comfort in METU, Maidan was reported to feel uncomfortable in. The following quotations explain this:

‘It felt very lively in METU, but there were also areas that were still. I mean, everything was mixed in together. Maidan was still in my opinion. We can make a distinction between these two. This distinction can be based especially on human activity.’ Interviewee 1

‘METU was very lively, but this did not bother us. People did not switch their places as if they were saying "I will get up, now you can sit". It was not uncomfortable. This is because we could hear the voices of birds and the sound of the wind next to all that movement. When we went to Maidan, there was something completely different. There was a lot of movement, but it was uncomfortable.’ Interviewee 3

Place familiarities do not change groups’ descriptions about the tonality of the place. The participants of both groups make nearly similar interpretations on the tonality/mood MDE. As shown in **Error! Not a valid bookmark self-reference.**, the TFL (41%) and METU (54%) groups almost equally find METU to be a calm,

active and lively place (TFL: 41%; METU: 54%), and Maidan to be a stable and calm place (TFL: 48%; METU: 44%).

Table 4.4 Interpretations of the Place Tonality According to Place Familiarities

	Interpretations	Frequency of Mention	% in Group	% in Total
METU	Major / Active and Live	79	95%	56%
	TFL Participants	34	41%	24%
	METU Participants	45	54%	32%
	Minor / Stable and Emotional	4	5%	3%
	TFL Participants	1	1%	1%
	METU Participants	3	4%	2%
	METU - Group Total	83	100%	59%
MAIDAN	Minor / Stable and Calm	54	92%	38%
	TFL Participants	28	48%	20%
	METU Participants	26	44%	18%
	Major / Active and Live	5	8%	3%
	TFL Participants	2	3%	1%
	METU Participants	3	5%	2%
	Maidan - Group Total	59	100%	41%
	Total	142	-	100%

The Tempo

Tempo is the speed of motion that decisively directs the affective character of the composition. Urban design does not deeply consider this element since form-based design comprehension is not really able to represent it. The dynamic structure of the feature is beyond its representation mediums. On the other hand, when the place is

considered musically, the input of tempo input becomes vital. However, to apprehend the relationality between place and music, one needs to understand its association with spatial features.

The survey results show that participants experienced Maidan as slightly faster than METU (METU: 3.54/7, Maidan: 4.69/7). As shown in These descriptions of the tempo show that it is not the tempo alone that impacted the perception but also a type of relationality with other attributes, human, functional, and affective, with the main character of the place, which also contributed to the definition of the tempo in place. In this regard, the participants interpreted the speed of the triggers in the place which the whole spatial atmosphere is unveiled.

Table 4.5, in-depth interviews also support this. The frequency of mentions illustrates that METU is almost equally fast (52%) and slow (48%), but Maidan was experienced as a place much faster (82%) than METU. The most significant difference between the places is the affective quality attached to the tempo element. More specifically, while the fast tempo is associated with an exciting mood in METU, it is related to exhaustion in Maidan. Moreover, the participants relate the tempo of the place with people and their mode of being mobile.

While over half (52%) of all mentions for METU refer to fast pace, close to half (48%) associate the experience with a slow tempo. For METU, while almost one-fourth of all mentions (28%) explain people's dynamism, one-third (30%) explain people to be in a passive state. For Maidan, most mentions (82%) associate the place with fast tempo through human mobility and functional diversity, while a few (18%) refer to the stable people gatherings with slow tempo. Half of all mentions for Maidan (49%) refer to the mobility of people, and one-fourth (24%) explained the presence of diverse functionalities in buildings such as cafes, restaurants, and workplaces.

These descriptions of the tempo show that it is not the tempo alone that impacted the perception but also a type of relationality with other attributes, human, functional, and affective, with the main character of the place, which also contributed to the

definition of the tempo in place. In this regard, the participants interpreted the speed of the triggers in the place which the whole spatial atmosphere is unveiled.

Table 4.5 Interpretations of Tempo in Place Experience

	Interpretations	Frequency of Mention	% in Group	% in Total
METU	Fast	26	52%	27%
	Mobility (people, dynamic environment...)	14	28%	15%
	Functional Diversity (changing functions...)	8	16%	8%
	The Affective Quality (energetic, people's energy...)	4	8%	4%
	Slow	24	48%	25%
	Mobility (sitting people...)	15	30%	16%
	The Affective Quality (peaceful, hearts slow, sleeping animals...)	9	18%	9%
	METU - Group Total	50	100%	52%
MAIDAN	Fast	37	82%	39%
	Mobility (people...)	22	49%	23%
	Functional Diversity (workplaces, cafes, confusion...)	11	24%	12%
	The Affective Quality (tiring, exhausting...)	4	9%	4%
	Slow	8	18%	9%
	Mobility (people are stable...)	8	18%	9%
	Maidan - Group Total	45	100%	48%
	Total	95	-	100%

When the **tempo** of the place is examined only on the basis of participants' descriptions without limiting the conceptualization of the element through opposite concepts as they were assigned to structure it within a rating scale, **three main attributes** are noticeable:

- **Mobility (63%)**
- **Functional Diversification (20%)**
- **Affective Qualities (17%)**

Mobility is revealed as the most frequently mentioned attribute of the tempo. When participants talk about mobility, more than half of all mentions (63%) refer to social interactions, the number of people, or the speed of their movements. Mentions evaluate METU as both stable and dynamic (58%) and describe mobility in terms of the rush and leisure activities in Maidan (64%). Some quotations below represent this:

‘It felt like it was high in Maidan. I was particularly focused on human activity. People were coming from or going to places, and they were not hanging around.’ Interviewee 1

‘METU was active. University students were always outside. The walkway was always filled with people. There were people sitting on the physics lawn.’ Interviewee 16

‘METU's pulse was higher. There was more human fluidity. There are no places in Maidan to have such fluidity anyway. So, Maidan's pulse was slower.’ Interviewee 18

Functional changes in the sites represent the second most mentioned attribute for the tempo. One-fifth of all mentions (20%) are associated with this attribute. While in METU, the changes occur between the campus library, the physics lawn, or lecture halls; in Maidan, they are between commercial activities such as cafes, offices, and shopping places. Some relevant interpretations of the participants are given below:

‘The heart rate at METU was mercurial. Especially in the points of the spine we visited, there were different, changing functions. In my opinion, people moved only in certain ways at Maidan and these movements were monotonous.’ Interviewee 2

‘Why do people sit on the physics lawn at METU? Well, they do so before or after going to their classes. On the other hand, there are many functions in Maidan: offices, restaurants, people trying to get on busses. There are only academicians and students at METU. The tempo is much faster in Maidan.’ Interviewee 13

‘In general, Maidan is very active and dynamic. The same can also be said for METU. But this sense of activity is different in each place. There is more than one purpose behind the activities at METU. Studying, meeting people, people going to their dormitories... But, in Maidan, you just meet with people and have food. That's it. When the purpose is different, the pulse also becomes different.’ Interviewee 17

Results show that the participants’ descriptions associate the tempo with the dynamics of **affective qualities**. Like in the case of functional changes, one-fifth of all mentions (17%) indicate this. While for METU, one-fourth of mentions (26%) highlight the pace of affected qualities such as energy and calmness, they associate Maidan with a chaotic and fast environment (9%). Thus, this reconfirms that not only the physical environment but also the pace of the exposed affective stimulus can influence the place experience. Some interview responses illustrate this outcome:

‘In general, the physics lawn is a place where people sit. Its visitors determine the pulse that is present there. But this was not the case for Maidan.’ Interviewee 5

‘If we consider this in terms of my heartbeats, I think METU was calmer. It was faster and more chaotic in Maidan.’ Interviewee 27

‘I think the pulse rate of METU was low because your heartbeats are slower.’ Interviewee 29

Place familiarities have also impacted the participants’ descriptions in two categories. *The TFL group* evaluated METU (32%) and Maidan (15%) slower than *the METU participants did*. Conversely, *the METU group* evaluated METU (28%) and Maidan (44%) faster than *the TFL group did*. Apart from this, there are no significant differences in regard to the element referring to the place familiarity as in Table 4.6.

Table 4.6 Interpretations of Place Tempo According to Place Familiarities

	Interpretations	Frequency of Mention	% in Group	% in Total
METU	Fast	26	52%	28%
	TFL Participants	12	24%	13%
	METU Participants	14	28%	15%
	Slow	24	48%	25%
	TFL Participants	16	32%	17%
	METU Participants	8	16%	8%
	METU - Group Total	50	100%	53%
MAIDAN	Fast	37	82%	39%
	TFL Participants	17	38%	18%
	METU Participants	20	44%	21%
	Slow	8	18%	8%
	TFL Participants	7	15%	7%
	METU Participants	1	3%	1%
	Maidan - Group Total	45	100%	47%
	Total	95	-	100%

The Rhythm

In the previous sections (see section 2.3.2.2), the study reviewed the literature on urbanism and how it examines the notion of rhythm, particularly through rhythm analysis. In this framework, this element is defined as an assemblage of time, space, energy, and the repetition of action patterns. Here, in this experiential phase, the study aims to evaluate the element of rhythm in terms of the symmetrical and asymmetrical features present in the selected sites.

Although participants' ratings on the rhythm show no significant differences for the two sites (METU: 4.48/7 and Maidan: 3.84/7), in-depth interviews demonstrate that the participants refer to METU as an asymmetrical and diverse environment (100%) and to Maidan as uniform and symmetrical (93%). As shown in Table 4.7, the participants almost equally mention activities (METU: 36%; Maidan: 32%) and the affective quality of the place (METU: 36%; Maidan: 32%) for both sides. While the movements of people, the feeling of freedom and multisensoriality are salient for METU, the building use and singular emotions are significant for Maidan. What differed in the participants' assessments about the place rhythm was the natural environment in METU (22% of all mentions) and the built environment in Maidan (32% of all mentions).

Table 4.7 Interpretations of Rhythm in Place Experience

	Interpretations	Frequency of Mention	% in Group	% in Total
METU	Diverse / Assymetric	67	100%	64%
	Activities (movements, activities, people, alternatives...)	24	36%	23%
	Affective and Sensorial Attributes (feeling of freedom, different experiences, smells, sounds...)	24	36%	23%
	Natural Environment (trees, birds, living things, animals, nature, environmental factors...)	15	22%	14%
	Built Environment (buildings, stadium...)	4	6%	4%
	METU - Group Total	67	100%	64%
MAIDAN	Monotonous / Symmetric	35	93%	32%
	Activities (monotonous, empty spaces, shops only, functions and styles...)	12	32%	11%
	Built Environment (symmetry, limitations, restrictions...)	12	32%	11%

Table 4.7 continued				
MAIDAN	Affective and Sensorial Attributes (singular emotions...)	11	29%	10%
	Diverse / Assymetric			
	Activities (people, activities, socializing...)	3	7%	4%
	Maidan - Group Total	38	100%	36%
Total		105	-	100%

When the **rhythm** element of the place is examined only on the basis of what the element meant for the participants, **four main attributes** are revealed as salient. They include ‘activities’, ‘affects and senses’, ‘built environment’, and ‘natural environment’. In a discussion on place rhythm, two-thirds of all mentions by the participants almost equally referred to the activities (38%) and affects/senses (33%). The other one-third equally included the built (15%) and natural (16%) attributes of the place.

- **Activities (38%)**
- **Affective and Sensorial Attributes (33%)**
- **Built Environment (15%)**
- **Natural Environment (14%)**

The diversity of activities is mainly associated with movements of people, building use and functions. While the variety of human activities emerging spontaneously (not altogether at once but sequential, at its own pace), when gathering nodes created a sense of asymmetry in METU, the presence of the identical functions happening everywhere simultaneously in rigid forms in Maidan. This created a monotonous and symmetrical feeling for the participants. Some quotations reflect these thoughts:

‘I think METU was more diverse. For once, it provided opportunities and options. There were too many options.’ Interviewee 4

‘Everyone works on different things at METU. Location of buildings and other things like that creates a lot of variety. The variety of what we can do also provides freedom. I can go wherever I want. If I want, I can sit in the library or in the mathematics department. It offers me a really good amount of variety.’ Interviewee 6

‘Anything can happen at METU. People can stop to have a chat with one other while they are going somewhere. And nature itself is diverse there. There are cats and dogs, and the wind... The people there also adapt to this diversity.’ Interviewee 12

‘METU was more diverse. The types of activities there are quite varied in my opinion. The number of activities you can partake in at METU being limitless and the differences between the emotions you can feel while doing so is also a type of variety.’ Interviewee 17

The affective and sensorial attributes of the place also constituted a significant attribute of the place rhythm (33% in all mentions). Participants’ descriptions reveal that nature played a role in stimulating the senses. The scents, visual compositions, diversity of living beings, and even the wind felt momentarily impacted the emergence of diverse experiences for the participants. As exemplified below, while in METU, participants highlight an affective and sensual diversity (36%), they indicate that affective responses and senses are one-dimensional and monotonous in Maidan (29%):

‘I think METU was very diverse. There was the nature, the sounds, the smells... On the other hand, the buildings were also very different. There is a rectorate building and there is a physics department. They were also very different from each other. On the other hand, the activities people engaged in were also different.’ Interviewee 1

‘METU was more diverse. The types of activities there are quite varied in my opinion. The number of activities you can partake in at METU being limitless and the differences between the emotions you can feel while doing so is also a type of variety. I think this variety is what makes you feel happy while you are there. The lack of diversity in Maidan also makes it less diverse in terms of emotions. When you visit METU, your mood is enhanced with more variety in terms of rhythms.’ Interviewee 17

The participants perceived a rhythmic diversity in **the built environment** (15% in all mentions). In METU, this was defined through the architectural structures such as library and the stadium. In Maidan, the monotonous and symmetrical rhythms of the built structure attracted the participants' attention. The symmetrical form in the commercial hub was illustrated as limiting and uniform. The quotations below explain this:

'Maidan felt boring to me. There is a building there, next to an empty space, next to yet another building. That's it. All buildings are the same. The biggest difference was the restaurant signboards. And that means nothing. There was very little human activity.' Interviewee 1

'Although the locations were different in Maidan, we do similar things. When we look at buildings, we see similar structures.' Interviewee 6

'Maidan is a very symmetrical place because there is the same thing everywhere. Their names change, but the places are the same. If we were to say, put a line in the middle to divide the place, there would be the same purpose everywhere.' Interviewee 9

The rhythmic diversity of **the natural environment** constitutes the last attribute mentioned particularly for METU (14% in all mentions). The participants explain the rhythms of nature through sounds, smells and birds (22%). The nature is referred as an extensive source of rhythmic diversity. The following quotations exemplify this:

'I could see the diversity of nature at METU, and I could even hear the sounds of the wind and birds. Those who read books... When I listened closely, I could hear the sound of the pages turning and the voices of the dogs. If it rained, we would even hear the sound of the water.' Interviewee 3

'There was a lot of diversity regarding the living beings at METU. Trees, animals, and humans were diverse. This was especially prominent in how diverse the people were. There were students watering gardens, teachers, and so on... But, during our visit to Maidan, we only saw those who work there. So, this is how I evaluated the rhythm.' Interviewee 22

The content analysis also shows that familiarity with the sites does not change participants' interpretations. Both groups, the TFL participants as well as the METU

participants, make nearly equivalent remarks on this MDE (rhythm/diversity). They almost equally highlight the diverse and symmetrical significance of METU (TFL: 46%; METU: 36%) and the monotonous and asymmetric character of Maidan (TFL: 47%; METU: 44%) when they refer to the place rhythm (Table 4.8).

Table 4.8 Interpretations of Place Rhythm According to Place Familiarities

	Interpretations	Frequency of Mention	% in Group	% in Total
METU	Diverse			
	TFL Participants	31	46%	30%
	METU Participants	36	54%	34%
	Monotonous			
	TFL Participants	0	0%	0%
	METU Participants	0	0%	0%
	METU - Group Total	67	100%	64%
MAIDAN	Monotonous			
	TFL Participants	18	47%	17%
	METU Participants	17	44%	16%
	Diverse			
	TFL Participants	3	7%	3%
	METU Participants	0	0%	0%
	Maidan - Group Total	38	100%	36%
	Total	105	-	100%

The Dynamics

Dynamics presents one of the fundamental parameters of the musical experience. It may refer to a slight or obvious change that can break the perception of a stable experience and draw the attention of the experiencer to a particular point. This study

adopts the dynamics element by associating it with particular ‘surprises’ in the place experience.

Interestingly, survey results show that the ratings of the dynamics are identical for both sites (3.36/7 points for METU and 3.36/7 points for Maidan). However, in-depth interviews illustrate completely different characteristics of the place dynamics. While half of all mentions refer to the natural environment (52%) and equally to the social (24%) and physical (24%) environment in METU, it is mainly the architectural details (81%) that determine the place dynamics in Maidan according to the mentions. The details of the responses related to place dynamism are shown in Table 4.9. While participants mention the living elements such as birds, slope, light, wind, and scents when they make descriptions about the nature in METU, it is only sunlight and the sky that drew their attention in Maidan. On the other hand, the architectural characteristics are more detailed in Maidan including building heights, balconies, the sense of being closed in, the shadows of buildings and their movements. Participants refer only to sculptures and glass in METU.

Table 4.9 Interpretations of Dynamics in Place Experience

	Interpretations	Frequency of Mention	% in Group	% in Total
METU	Suprising	-	-	-
	Natural Environment (the sounds of nature, birds and the wind, the angles of the light, scents, living things, clean air, slope...)	15	52%	33%
	Social Environment (meetings, dynamism, people...)	7	24%	16%
	Architectural Details / Physical Elements (details of sculptures, glasses...)	7	24%	16%
	METU - Group Total	29	100%	65%

Table 4.9 continued				
MAIDAN	Surprising	-	-	-
	Architectural Details / Physical Elements (building heights, balconies, sense of enclosure, movements according to the shadows, sculptures...)	13	81%	29%
	Natural Environment (angle of the sunlight, view of the sky...)	3	19%	6%
	Maidan - Group Total	16	100%	35%
	Total	45	-	100%

When the **dynamics of the place** is examined only on the basis of participants' descriptives without limiting the conceptualization of the element through opposite concepts as they were assigned to structure it within a rating scale, **three main attributes** are noticeable:

- **Architectural Details/Physical Elements (45%)**
- **Natural Environment (39%)**
- **Social Environment (16%)**

The architectural details in the physical environment, such as building heights, sculptures, and a sense of being closed in are the most mentioned attributes for the place dynamics (45% in all mentions). While in METU, these qualities are less frequently mentioned, nearly all participants highlight them in Maidan. Of course, the dominating built character of Maidan is influential in these interpretations, as participants highlight the decorative pool, the sculptures and the eye-catching architecture in the site. Here are some responses reflecting on this in reference to both sites:

‘Since I had not been to Maidan before, I had no expectations. What surprised me was the height of the buildings and the difference between them. I was not expecting a pool at the centre of the place. It was nice to have an element of water, it added much to the place.’ Interviewee 4

‘When we visited the lawn, there was a statue there [in METU]. That surprising. There aren't many things to surprise you in Maidan.’ Interviewee 18

‘In general, I enjoy the details that lie in the background of the sculptures in METU. They create excellent details and can even surprise people. For example, when walking towards the Physics Department in the afternoon, the sun shining from the right can create pleasant surprises.’ Interviewee 2

The natural environment foster a major dynamism (39% in all mentions). A significant majority of the mentions associate this MDE with such qualities as the topography, wind, and light movements in the place experience in METU. The changing rhythms of the nature also stimulate the sense of place dynamism. On the other hand, only a few mentions address the natural dynamism in Maidan. These are mostly interpreted through the view of the sky and sunlight movements:

‘The quietness of the place and the sloped area in the physics lawn surprised me a lot. I sat on that slope, wondering what its purpose is. That felt very surprising to me.’ Interviewee 1

‘...when walking towards the Physics Department in the afternoon, the sun shining from the right can create pleasant surprises.’ Interviewee 2

‘I've never been to a place like Maidan before. Visiting that place surprised me spatially. When I consider it on its own, the sun shining from the left when we entered Maidan was very beautiful and I liked it very much.’ Interviewee 11

The social environment also constitutes an essential attribute of place dynamism (16% in all mentions). While no reflections were made for Maidan, participants emphasized suddenly encountering groups of people or emerging social activities in METU when talking about place dynamism. For instance, as exemplified in the quotations below, participants mentioned suddenly confronted pedestrian traffic or different types of people fostering dynamism in the METU experience:

‘At METU it was very quiet at first. But when a great number of people suddenly poured out of the lecture hall, I was surprised.’ Interviewee 23

‘But we went to different places in METU. For example, there was this one moment when people suddenly started pouring in. Or there was this one time where the number of birds increased a lot.’ Interviewee 29

Moreover, *place familiarities* also changed participants’ assessments of the place dynamics. While 65% of all mentions of *the METU participants* indicate METU as a surprising place, 81% of all mentions of *the TLF participants* refer to Maidan as a surprising place. The participants from METU express surprisingness for both sites (Table 4.10). This is not the case for the TFL participants, but what is interesting here is that the place familiarity increases surprisingness for one group when the place is thought from a musical perspective, the opposite would be expected according to the existing theory.

Table 4.10 Interpretations of Place Dynamism According to Place Familiarities

	Interpretations	Frequency of Mention	% in Group	% in Total
METU	Surprises	-	-	-
	TFL Participants	10	35%	22%
	METU Participants	19	65%	42%
	METU - Group Total	29	100%	64%
MAIDAN	Surprises	-	-	-
	TFL Participants	3	19%	6%
	METU Participants	13	81%	28%
	Maidan - Group Total	16	100%	34%
	Total	45	-	100%

The Intervals

Intervals mean the distances between notes that define the ranges in the composition. They determine the melody of music and the relationships between sounds.

Similarly, compositional integrity is highly connected to the distances between social and physical elements in urban space. The intervals between them influence the affective perception of the experience.

The survey results show that while Maidan contains close intervals, METU is composed of elements relatively distant from each other (METU: 4.6/7 and Maidan: 3/7). The in-depth interviews also support this and reveal that almost all mentions for Maidan (87%) point out the presence of closer distances between elements, and almost three-thirds of all mentions for METU (64%) refer to the distant elements in the place.

For METU, while more than half of the mentions (65%) describe distant intervals through the natural (33%) and built environment (32%), nearly one-third (35%) address close intervals in terms of social interactions. On the other hand, as for Maidan, nearly all of the mentions (88%) describe close intervals regarding the built (69%) and social environment (19%), while only a few mentions (12%) address distant intervals through the built environment, as shown in Table 4.11.

Table 4.11 Interpretations of Intervals in Place Experience

	Interpretations	Frequency of Mention	% in Group	% in Total
METU	Distant / Large Intervals	27	65%	36%
	Natural Environment (greenery, spacious, the sky, comfortable grass area...)	14	33%	19%
	Built Environment (buildings, masses, physical structures...)	13	32%	17%
	Close / Small Intervals	15	35%	20%
	Social Environment (people, mindsets, activities...)	15	35%	20%
	METU - Group Total	42	100%	56%

Table 4.11 continued				
MAIDAN	Close / Small Intervals	28	88%	38%
	Built Environment (buildings, small space, dense buildings, annoying closeness, tight space...)	22	69%	30%
	Social Environment (crowded people, activities...)	6	19%	8%
	Distant / Large Intervals	4	12%	6%
	Built Environment (buildings...)	4	12%	6%
	Maidan - Group Total	32	100%	44%
	Total	74	-	100%

When the **intervals** of the place are examined only on the basis of participants' descriptions without limiting the conceptualization of the element through opposite concepts as they were assigned to structure it within a rating scale, **three main attributes** are noticeable:

- **Built Environment (53%)**
- **Social Environment (28%)**
- **Natural Environment (19%)**

About half of participants' mentions (53% in all mentions) explain intervals in relation to **the built environment**. Since the physics lawn in METU forms a large open space, mentions describe METU as being composed of distant elements. On the other hand, the commercial space is tighter, and the enclosure is higher in Maidan. Thus, more than half of all mentions for Maidan refer to this close interval quality of the built environment. The enclosed space in association with the affect it created on participants' experience of the place is often repeated in the participants' quotations, as exemplified below:

'There is an emotional intimacy at METU, but it may be due to the distance between the locations. It is a spacious and green environment. When you turn

your head, your eyes can wander far away. Even a sort of sadness can be perceived. On the other hand, Maidan is filled with a lot of buildings packed closely and even if you look directly upwards, you would have a hard time seeing the sky.’ Interviewee 3

‘I think the distances between buildings and open spaces are very balanced in METU. Going out from the Department of Architecture, you can see a fountain and an open space, then a large alleyway on the way to the library.’ Interviewee 4

‘I felt more tightly wound, more stressed in Maidan. As a green space, the physics lawn is a place that has limits, sure, but since it is not surrounded by other objects, there are no actual restrictions around it.’ Interviewee 5

Interestingly, the qualities of **the social environment** composed nearly one-third of all mentions (28% in all mentions). The participants evaluated intervals in terms of the distances between people’s mind-sets, social activities, and experiences. While in METU, they address closer relationships between people, for Maidan, they associate intervals in terms of crowds, building functions, and activities. Here are some responses:

‘Everything was very different on the physics lawn. I believe this stems from mentality rather than anything else. Everyone thinks differently on the physics lawn. But everyone comes to Maidan for a certain reason. For example, to sit down and chat with friends while drinking coffee.’ Interviewee 7

‘At METU, the buildings are farther apart, and people were packed more closely on that road. But when you enter that lawn area, they sometimes would drift apart.’ Interviewee 8

‘Experiences at METU are in very close proximity to each other. In this case, you can sometimes experience one thing but suddenly experience something else. Physically speaking, there is a lot of variety in the distance between the buildings of METU.’ Interviewee 6

‘Everything is more intertwined at METU: People and nature are together. But everybody seems to be grouped together in Maidan. Since everyone there is with another person, there is no unity.’ Interviewee 29

No highlights are made on **the natural environment** in Maidan. On the other hand, one-third of the mentions for METU associate the intervals in terms of the natural environment (19% in all mentions). While some participants describe the openness and wide spaces that the lawn provides in the natural landscape, others associate this quality with the social significance of the place and claim that the natural flexibility creates an opportunity for people to get closer in different zones of the site. In other words, the natural environment allows social assemblages to emerge, as explained in the quotations below:

‘As a green space, the physics lawn is a place that has limits, sure, but since it is not surrounded by other objects, there are no actual restrictions around it. That limit exists only because you know it is there.’ Interviewee 5

‘The masses were farther apart at METU. And they were closer in Maidan. If I think of it in terms of experiences and the proximity of nature and human beings, things were placed more closely at METU. There are no natural things in Maidan anyway.’ Interviewee 27

According to the content analysis, there are no contradictory attitudes towards places in terms of *place familiarities*. *The TFL group* described METU slightly closer and Maidan distant compared to *the METU group*. Both participant profiles made nearly equivalent interpretations on the MDE (intervals/distances) as in Table 4.12.

Table 4.12 Interpretations of Place Intervals According to Place Familiarities

	Interpretations	Frequency of Mention	% in Group	% in Total
METU	Distant / Large Intervals	27	65%	37%
	TFL Participants	14	33%	19%
	METU Participants	13	32%	18%
	Close / Small Intervals	15	35%	19%
	TFL Participants	10	23%	13%
	METU Participants	5	12%	6%
	METU - Group Total	42	100%	56%

Table 4.12 continued				
MAIDAN	Distant / Large Intervals	28	88%	38%
	TFL Participants	17	54%	23%
	METU Participants	11	34%	15%
	Close / Small Intervals	4	12%	6%
	TFL Participants	2	6%	3%
	METU Participants	2	6%	3%
	Maidan - Group Total	32	100%	44%
	Total	74	-	100%

The Beat Density

Beat density is a specific repetition of notes in a particular time sequence. The more a movement repeats over, the higher the beat is. It is also a part of the tempo. However, the beat density can also be presented through a particular intensity of a vocal or an instrument. As introduced in the above chapters, the *Godfather* theme is slow, yet the mandolin partition played in the background has a high beat density. Similarly, in the place experience, even if the tempo is slow, some particular spaces can present high densities and draw people's attention.

The survey results indicate that both cases showed a moderate level of experiential densities for both sites (METU: 4.12/7 and Maidan: 4.5/7). However, in-depth interviews revealed that participants experienced different densities in place. For METU, while more than half of the mentions (54%) describe dense beats through the dynamic structure of social activities (48%) and dynamic density (6%), nearly half of the mentions (46%) address low-density in terms of sparse human movements and distributions in the site. On the other hand, for Maidan, nearly all of the mentions (83%) describe high density regarding the static (32%) and dense social activity zones (51%), while nearly one-fifth (17%) address a low density zone in terms of

social activities in the site. As shown in Table 4.13, the social activities and the behaviour of repeated elements determine the place density.

Table 4.13 Interpretations of Beat Density in Place Experience

	Interpretations	Frequency of Mention	% in Group	% in Total
METU	Dense	19	54%	27%
	Social Activities/Functions (point concentrations, activities...)	17	48%	24%
	Dynamic Density (shifting density...)	2	6%	3%
	Sparse	16	46%	23%
	Social Activities/Functions (sparse human movements, activities...)	16	46%	23%
	Group Total	35	100%	50%
MAIDAN	Dense	29	83%	42%
	Social Activities/Functions (cafes, restaurants, functions...)	18	51%	26%
	Static Density (density at the periphery, a linear density...)	11	32%	16%
	Sparse	6	17%	8%
	Social Activities/Functions (no activity or function)	6	17%	8%
	Group Total	35	100%	50%
	Total	70	-	100%

81% of all mentions verify that, even if the current understanding would associate the built structure with density, participants evaluate the MDE mainly in terms of the **social activities and functions**. In METU, half of all mentions highlight the point concentration nodes as dense zones, and the other half refers to sparse densities due

to wide distances between them. In Maidan, more than half of participants' descriptions on the high density in the cafes and restaurants explained this MDE. These findings are presented in some quotations below:

'In Maidan, the density was concentrated mostly on restaurants. There wasn't a single spot of concentration at METU. I couldn't feel a place where the density was concentrated absolutely.' Interviewee 18

'The density was spread in a circular manner in Maidan. If we think of restaurants as a ring, the density was mostly concentrated on this ring. At METU, the density was more spread out over the plane.' Interviewee 19

'Density was higher in Maidan but there were more people at METU. Maidan was somewhat cramped.' Interviewee 23

Participants' interpretations refer to two **types of densities**, static (16%) and dynamic (3%). While one-third of all mentions for Maidan (31%) define static densities through steady activity nodes in Maidan, dynamic density in METU is described through the changing gathering points (16% in all mentions). The changes in other MDEs (e.g., in intervals, rhythms, tonality) also influence the assessment of the beat density. Some of the descriptions also reflect the dynamic density through emotional experiences in METU (6%):

'There is a bush near the physics lawn in METU. That bush creates a sort of mental junction for you: do you want to go to the cafeteria, or do you want to rest? As for Maidan, I am not sure. I cannot say the same things, as the physics lawn represents an almost tangible emotional density.' Interviewee 3

'Since densities were limited and focused on certain areas in Maidan, gatherings usually took place in cafes. This density does spread forth from the cafes. That is not so in the physics lawn. The displacement of density is in a state of constant dynamic change. When you do a film screening, the whole place becomes extremely crowded in just a moment. Bear in mind that this is a pretty large place. We went there with forty people and there was still some space left.' Interviewee 5

'When we first got to the physics lawn, everyone was a little surprised. So, the experience was more intense. But when we stopped and considered things, that intensity went away. My experience was more stable in Maidan.' Interviewee 27

As for group differences in terms of *place familiarity*, results shows no contradictory attitudes (Table 4.14). Both groups made nearly equivalent interpretations on the place density. A slight difference exists between the interpretations of *the TFL participants* on METU and the interpretations of *the METU participants* on Maidan. While *the TFL participants* (31%) found METU to be denser than *the METU participants* did (23%), *the METU participants* (3%) found Maidan to be less sparse than *the TFL participants* did (15%). This may be related to the relationship between the automatization of sensorial perception in the known places and the person's alertness in unknown places; or to the contrasting character of the two selected sites and its interplay with the participants' familiarity with a natural and densely built environment. In either way, it calls for further investigation in future steps.

Table 4.14 Interpretations of Beat Density According to Place Familiarities

	Interpretations	Frequency of Mention	% in Group	% in Total
METU	Dense	19	54%	26%
	TFL Participants	11	31%	14%
	METU Participants	8	23%	12%
	Sparse	16	46%	24%
	TFL Participants	8	23%	12%
	METU Participants	8	23%	12%
	METU - Group Total	35	100%	50%
MAIDAN	Dense	29	83%	42%
	TFL Participants	14	40%	20%
	METU Participants	15	43%	22%
	Sparse	6	18%	8%
	TFL Participants	5	15%	7%
	METU Participants	1	3%	≈ 1%
	Maidan - Group Total	35	100%	50%
	Total	70	-	100%

The Relationality of the MDEs:

When all these categories are examined, it is seen that MDEs operate in relationalism resistant to a reductionist framework. It shows that design elements cannot be handled mechanically and should be evaluated from an affective point of view. When the study proposes MDEs over dualities, it ensures categorical choices to participants to make associations between the place and music experience. The affects are the key mediums in these associations. Thus, they establish relationalities that transcend these dualities. Just like the fragmented quantitative evaluations of MDEs are not sufficient, the singular qualitative evaluations are also inadequate. For instance, a minor tone might refer to stress or a peaceful sadness depending on the relations of tonality with other MDEs. Each MDE impacts the others affectively. This relationality has a crucial role in the emergent structure of affective assemblages in the first phase.

4.1.2 SRQ2: How does music reveal the affective embodiment of the place?

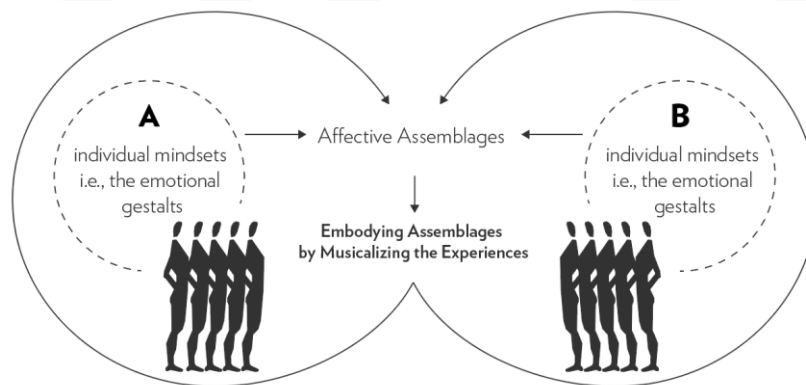


Figure 4.3. Affective Embodiments through Music

One of the most important explorations of the first phase, and a research question that arose from that investigation, are *the affective embodiments that music reveals* in people's place experiences. This is extracted from the research participants' descriptions not only on each MDE, but also for all MDEs within a context interrelating them together, and in association with the affect that they lead in the

participants' place experience. This study argues that the fragmented approaches of the current understanding in urban design cause a type of *loss in the meaning of place*. The comparisons of surveys and in-depth interviews also support this argument (please see section 4.1.1). As people try to classify experiences with given or learned categorizations, the significance of the relationalities is lost under the representative mediums (i.e., words and numbers).

Thus, the clues extracted from words and numbers are opened to their reformulation through intersubjective agreements on individual place assessments considering the MDE character of both sites and their musical compositions. This action in the inquiry revealed participants' affective embodiments more clearly. When they were asked about a place experience through separated emotions/feelings/affects, they gave singular and fragmented answers within the constraints of the language, or evaluate the ratings presented to them, which appeared vague and nonsensical compared to what in fact is felt. Basically, the mind anchors an attached representation, which hinders the evaluation of the experience in another dimension. Eventually, most of the times, the relationalities of the affective phenomena are omitted, and the recognition of the emotional gestalts (the relationalities of emotions/affects) and affective assemblages (the relationalities of minds) is prevented (please see section 2.2.3.3 for more details).

Nevertheless, when the experiences are re-evaluated from a musical point of view, it becomes possible for the participants to relate the experiential components and embody the shared affective atmosphere (Figure 4.3). In this context, to explore further how this embodiment is constructed and how affective assemblages emerged from within a collective practice of dialogue and music composition, music students from TFL ($n_{TFL}=5$) and design students from METU ($n_{METU}=5$) created new sub-groups consisting of ten ($n_{Gx}=10$) participants, and four groups of ten (total $n=40$) are composed. These four groups, then, were invited to discuss the sites in terms of the MDEs, to construct their agreements on the MDE character of both sites, and to musicalize the place experiences in reference to their agreed assessments for each site.



Figure 4.4. Discussion Sessions on the Place Experiences

This process was moderated in three steps:

1. Subgroups tried to agree on the associations of conceptualizations, spatial elements, the main musical features of the places,
2. Subgroups composed short musical themes by combining the shared MDEs,
3. Subgroups performed musical compositions.

In the first step, the subgroups were engaged in dialogue to come to an agreement on the conceptualizations of musical and spatial elements about the visited places. At this step, the composition process was not yet started. The participants discussed the topics only verbally and in written mediums. Each participant shared their individual assessment with other group participants, a few drew the expressed thoughts, and others wrote them on a large sheet of paper on the ground. However, they all tried to construct the group opinion on the shared musical and spatial character of the sites. It was the first time that they encountered contrasting subjective interpretations about place experiences. Some even felt slightly uncomfortable in the beginning, because they could not associate their thoughts with those of the others, but eventually all subgroups reached a common ground within

themselves. The quotations below represent what happened intersubjectively within subgroups:

‘While we were discussing things at first, everyone had different ideas. That was good. It was also nice to see the same thing happening in the other group. I’ve seen things from different angles and my horizons have been widened. We can interpret it like this: I was viewing things from my own emotional perspective.’ Interviewee 5

‘There were too many differences. Initially, a difference emerged between the participating groups. Since the places we visited are environments that we were familiar with, people felt very different emotions during our visit. We had certain feelings and thoughts among us, and so did they. That’s why we tried to reach a common ground at the beginning.’ Interviewee 29

In this process, subgroups described METU as a calm, emotional, and joyful place due to its location in the natural environment. They especially highlighted the place experience as something creating a type of positive affectivity in an exciting and dynamic environment. Its architectural characteristics and the lively social environment were emphasized as important reasons for stimulating such affective responses. This, consequently, led the groups to musically associate the place with major tonalities, asymmetrical rhythms, slow but at the same time fast tempo, and both distant and close intervals and beat densities. Although these reflect the general tendencies of subgroup outcomes, one subgroup came up with a slightly different interpretation of the sites and associated METU with minor tonalities, as they matched stable affective states in the experience. The subgroup differences in reference to the musical interpretations of the sites will be given in detail in the presentation of the second step (Table 4.15).

Table 4.15 METU: Shared Qualities of Place Experience

Conceptualization	Place/Spatial Elements	Musical Elements
- Assigned Colors: Orange, Green and Warm Colors - Calm, Stable, Emotional, Joyful, Exciting, Energetic - Diverse, - Dynamic, Fast - Surprise / Attractive - Low and High Density	- Diverse Natural Environment - People's Movement - Architectural/Artistic Elements, - Distant Spaces between People and Buildings - Livey Social Environment	- 3 Major / 1 Minor - 7/8 Rhythm - Slow & Fast Tempo - High Dynamism - Both Distant & Close Intervals, - Both low & high beat density

On the other hand, all subgroups described Maidan on the other extreme of affectivity, spatiality and musicality. They reflected the experience with grey and cold colours, through monotonous and restrictive emotions, and with few surprises associated with fast human movements and the densely built environment. The contrasting spatial features eventually impacted their interpretations, as the site was a designed commercial complex of leisure activities and offices. Eventually, minor tonalities, with symmetrical rhythms and less dynamic structure in terms of tempo, intervals and beat densities were described, as shown in Table 4.16.

Table 4.16 MAIDAN: Shared Qualities of Place Experience

Conceptualization	Place/Spatial Elements	Musical Elements
- Assigned Colors: Grey and Cold Colors - Monotonous, Regular, Lack of Emotion - Limited and Restrictive - Few Surprises - Density on One Side / Sparseness on the Other	- Buildings, Density of Cafes Around - Faster Human Movement - Few Entries, Tension - All the people are sitting, eating - Rotation Around the Pool	- 3 Minor / 1 Major - 4/4 Rhythm - Slow & Fast Tempo - Less Surprise - Close Intervals - High Beat Density

In the second step of the musicalization process, the subgroups composed short musical themes for each site in reference to the shared MDEs as constructed together within each subgroup in the first step. In this process, the mediums that they used changed completely. Previously, they rated and assigned meanings through singular categories to create a consensus. At this step, they were asked to relate all these features to each other and to compose a meaningful musical theme on the basis of those relationalities. This changed the way of their thinking since they needed to relate parts with each other.

In this regard, the subgroups discussed for three hours and tried to compose the songs with the help of instruments such as piano, percussions, guitars, brass and string instruments. In this step, they tried to associate the MDEs to reflect the shared experiences (Figure 4.5). In other words, while they were trying to create a flow, they were required to determine each MDE to reflect the experience. When the rationalization process was blended with music's emotionality and affectivity, the bridges between subjective experiences were naturally constructed from within the previously emerged affective discussions. This interference played a crucial role in changing their approaches to place experiences, and thus also in their understanding of the place in relation to that.



Figure 4.5. The Musical Composition Process of the Places

The first subgroup (G1) determined a musical flow that included minor tones, symmetrical rhythms (4/4), slow and fast tempos, dynamic, wide key spacing, and mixed intensity for METU. The group discussed these in relation to a stable environment with little variety, and the elements distributed widely in space. On the other hand, they produced a composition in minor tones, with asymmetric rhythms (7/8) and fast, less dynamic, close intervals in an intense flow for Maidan. They

associated these features with the irregular but dense distribution of environmental components, and the presence of people and their movement. The group explanation for their created composition is given below:

‘We used minor tones because there was a more stable environment in METU physics lawn. There was less variety, so it sounds monophonic, but later the tempo increased, and a more diverse environment was presented, so more musical instruments were involved in the composition. We chose a 7/8 rhythm in Maidan because the place showed an irregular distribution. Since there were more people and movements, we also set the tempo faster. Because of the density, the sounds were close to each other, so we defined the key spacing closer.’

The second subgroup (G2) composed a medium-dense piece with major tones, asymmetrical rhythms (7/8), slow tempo, and dynamic flow with wide key spacing for METU. Unlike G1, this group agreed on these musical features because they thought of METU as a calm yet dynamic place, due to surprises having emerged unexpectedly during their place experiences. Furthermore, they evaluated METU as an irregularly settled place whose spatial attributes were distant to one another. As for Maidan, they designed a very dense composition involving minor tones, symmetrical rhythms (4/4), fast tempo, less dynamic structure, and close key spacing. According to this group, Maidan was described as a closed and suffocating place, containing identical dense movements of people with almost no surprises. They described these associations as follows:

‘METU seemed calmer to us than Maidan. That is why we set the pulse as 90 bpm for METU. People were irregularly settled that we set an irregular rhythm of 7/8. There were too many surprises, so we used a dynamic structure. The density was more regular, and nature was more in the foreground. Because of the distances, we also used large interval ranges. On the other hand, Maidan presented a more closed and overwhelming environment. That is why we chose minor tonalities. Since the pulse of people movement were higher, we set the tempo at 125 bpm. We determined a 4/4 rhythm since the movements were more identical and regular. Surprising elements were few, so the dynamism was less. Because of the densities, we determined the key spacing closer.’

The third subgroup (G3) determined a composition that included major tones, asymmetrical rhythms (7/8), slow tempo, a dynamic structure, and wide and close key spacing with a medium intense musical flow for METU. This group also thought of METU as a disorganized place with elements distant from one another, but also described it as a lively place with warm colours, movements, and social interactions. On the other hand, for Maidan, they chose minor tones, symmetrical rhythms (4/4), fast tempo, less dynamic, close interval spacing, and dense composition. This group also described Maidan as a stable but dense place with limited movement and no surprises. The following descriptions explain this:

‘We chose a major tone from this movement since we thought of warm colours and lively movements for METU. We thought the people were disorganized, so we chose a 7/8 rhythm. The masses were distant from each other, but there was an intense situation regarding the people interaction. In Maidan, we made a more stable flow since the movement was limited. We used minor tones based on the still structure. We experienced the masses closer to each other. We have given little space to the nuances since there were not many surprises.’

The fourth subgroup (G4) designed a musical flow that included major tones, asymmetric rhythms (7/8), slow tempo, and dynamic structure, with wide and close intervals and in medium intensity for METU. On the other hand, for Maidan, they selected minor tones, symmetrical rhythms (4/4), fast tempo, less dynamic structure, close intervals and an intense composition. This group’s association between MDEs and their place experiences both for METU and for Maidan indicated similar assessments as the ones of GR1 and GR3. They described theirs as follows:

‘For METU, we set the pulse and tempo as stable. However, because of the good vibes, we used a major tone, a cheerful tone. We tried to compose rich movements, variety in terms of surprise. We identified more dominant and hard transitions for the Maidan, so we used minor tones. We kept the variety less because of the simple functions. The dynamics were less due to the lack of surprising elements, and we kept the density high because of the buildings.’

Once the subgroups designed their music compositions, **they performed them on the stage.** This was an enormous step for the exploratory experience of the inquiry.

No one expected that the outcomes would show similar and distinctive affective qualities through such an experiential approach. Maybe the musical qualities of the compositions would not be rated as “very good” by music professionals. After all, the study did not intend to seek an aesthetic musical outcome in three hours. What was aimed was an exploration of possible relations between music and place. However, the groups’ affective reflections of the compositions were astonishing. The affective atmosphere of the music performances, the expressions of the participants while they were smiling at each other, and most importantly, the intensity of the emotional reflections of place experiences were clearly felt by the audience.

The album/playlist that includes eight compositions for METU and Maidan can be accessed via the Soundcloud platform ([external album link](#)). If there are any problems in reaching these compositions, the readers might contact the author via the email address at the end of the dissertation.



Figure 4.6. Scenes from the Performances

The findings show that **music provided a communicative interface** to understand the affective embodiments of place experience through music compositions. In this process, there are **three significant highlights**:

1. Musical compositions of the place experiences reflected and **embodied the affective experiences**. The assigned affective features of the themes were felt in a unity, in a type of a gestalt which was more than the sum of its

experiential parts, in spite of their heterogeneous features. Basically, these consistencies reflected the affective atmospheres.

2. Musical thinking allowed participants to grasp the **affective relationality in place thinking**. It showed that words about, or ratings of the spatial or emotional stimulants were not enough to describe the place character, as the relationalities revealed the gestalt of the character.
3. Incorporating music and place experience allowed **affects/emotions to play crucial roles in decision-making processes**. Especially, if one considers that the composition of a place was a challenging decision-making process, the interconnections between parts were created through the intersubjective affective agreements. This adoption expedited the decision-making processes and the creation of a consensus in the experiential phase.

Musical compositions of the place experiences reflect and **embody the affective experiences**. The affective experiences of the places were interestingly felt during the musical performances. It should be noted that the study did not anticipate that many consistent and contrasting reflections for the places.

What had initially been stated by all subgroups, the conception of METU being joyful and energetic, and Maidan being chaotic and moody, changed when the music composition started. The relationalization of the participants between the musical and design features in the sites and their reflections on place experience in musical forms led to the emergence of the affective embodiment.

This sense itself was enormously influential both on the groups and the people who listened to them for the first time. None of the participants would expect the generation of such compositions before this experience, since place is often rationally thought. When place was thought in relation to music or by using the communicative interface of music, the rationality was structured through affective thinking. It highlighted the affective features of place experience rather than what is learned as aesthetically right or wrong. Participants could quickly distinguish which music composition represented which site, because they could read the music composition through the affective impact of the sites. The shared affective consensus

on the places reflected the atmospheres to a considerable extend. Participants interpreted the process as follows:

‘I think music is a language that everyone can understand. Seeing is also a language that everyone can understand. That's why they are parallel to one other. For this reason, it is a very easy process to transfer what we see into music. You can convey what you see very easily, and I think everyone can understand it. A person can look at a place, listen to that music and fully understand it.’ Interviewee 1

‘I think it [the composition process] has been very successful. There are endless possibilities in design. It is a bit subjective, to be honest. You cannot say that there are absolutes. It is the same with music... The same qualities can represent different things for different musicians, even though they may be similar. Therefore, place and music are very similar, and it seems possible to translate them to one other. I think this association is very feasible and it is my firm belief that we have succeeded immensely. Considering the result, it made people feel comfortable. For example, when playing our METU theme in our composition, I really felt like I was in METU.’ Interviewee 6

‘While we were playing the music during the composition process, we could understand which song was about METU and which belong to Maidan, even if we weren’t told beforehand. Frankly, this was surprising for me.’ Interviewee 13

‘While we were composing the music, we drew a line of melody that represented the liveliness of the music. This is a great indicator of how well you can associate music with an image. We used minor tones for Maidan, and I felt it deeply. It is more intense in METU, but moodier in Maidan.’ Interviewee 15

Musical thinking allows participants to grasp the **affective relationality in place thinking**. The theoretical framework (please see section 2.2.3.3) of this thesis argues that emotions collide in a complex way and reveal new emotional gestalts. It further asserts that emotions are hard to define in verbal communication since this medium provides a sequence of numerous adjectives that only try to define the affectivity. Nevertheless, in the inquiry process, when music came into play, when the composing started, the intersubjective agreements reached another level of thinking. Singular representations of place changed into emergent presentations of various

affective assemblages. Herein, rationalization through music provided a new dimension, an alternative type of an interface to operate in the description of the complex structure of experience. Most importantly, the participants were able to consider place in terms of its affective features, and to describe the centrality of emotions/affects in the process of composing:

‘Frankly, I think we are a little prosaic about music. Not all groups were composed of people that had a close relationship with music. But this is pretty normal. In general, I think we reflected the emotions quite well.’ Interviewee 2

‘Of course. We can put into music any emotions that a place can represent. We can represent that emotion by sharing it.’ Interviewee 11

‘I think we managed to associate them. Music is made up of representative sounds. When I say representative sounds, I am thinking of the sounds in nature. As a matter of fact, they are very intertwined. Music actually conveys emotions. If you are perhaps having difficulties in expressing your emotions, music might help. In this sense, these two concepts are interrelated.’ Interviewee 17

‘I think we managed to associate them. The melodies we played conveyed those feelings to us. We were able to feel those emotions when we listened to them. For example, I felt really bored in Maidan.’ Interviewee 24

‘When I heard the pieces, I could easily distinguish which piece was for METU and which piece was for Maidan.’ Interviewee 25

‘I think we managed to associate them. I don't know how to explain it, it's something that is felt.’ Interviewee 28

‘I think we were able to represent our feelings. This is because music already is a phenomenon that is used to represent our feelings. I think we managed to pull it off in this activity. We all felt certain emotions during our visits and the compositions we have created are related to those emotions.’ Interviewee 29

Incorporating music and place experience allow **affects/emotions to play crucial roles in decision-making processes**. The process of composing the music has inevitably turned into a decision-making issue. In order to create a consistent flow in

the compositions, the participants first needed to develop an agreement on the MDEs within their groups to incorporate music with place experience. In this process, results showed that the focus was on affective collaborations rather than on the technical agreements of the site physicalities. This came out as a self-emerging fact. The participants were given no instructions in favor of benefiting from the emotional significance of the whole experience. They were only asked to translate their place experiences into musical forms. The participants autonomously based their discussion on the affective significance of the sites in order to design the flow of the music compositions. Eventually, every new discussion on the affective states triggered a new assemblage point, and those assemblages revealed new creative actions. In this way, the musical compositions provided an opportunity to present the complex qualities of place experiences in much more dynamic and emergent forms. In turn, they became more open to including affects and emotions in the rational decision-making processes. The in-depth interviews support this as follows:

‘Let me say this first: when we first started, I believed it was impossible to combine these two concepts. The music is in a separate place, the place is in a separate place. I figured we lived in Plato's world of ideas. Then I realized that what we really do is directly connected with the music.’ Interviewee 3

‘That is what we asked in the beginning: "How do you feel?". Music expresses emotions to people. A song with a slow tempo makes me feel sentimental feelings, while a music piece with a higher tempo makes me feel more cheerful. And it is actually easier to express such things via music. A piece of treble-dominant music can evoke a cheerful mood, while a bass-heavy song can represent a moodier atmosphere. I listened to the music in the conference room and thought it was quite successful.’ Interviewee 14

‘I think we associated them well. It is something that should be in all areas of life. One should avoid isolating things. When you isolate music from other things by saying it is separate, it feels to me like it loses some of its value. When you consider multiple things together, you feel the effects of music better. A good example of this is how it affects you while you are studying. In this regard, I think the study has definitely met its goals.’ Interviewee 22

4.1.3 SRQ3: How does intersubjective interpretation of place through music contribute to the reconstruction processes of the affective assemblages?

The third significant output is extracted from a comparison between individual assessments of the place and the co-generation of the affective assemblages through intersubjective agreements in the process of interpreting subjective place experiences and composing together. As presented in previous sections, the participants first evaluated places on a Likert scale. Afterwards, they were engaged in reaching a consensus on their assessments about the place through the use of the MDEs, and lastly, they composed the songs of the places.

The experiential aspect of the research methodology provided the opportunity for comparing different methods applied through the process. Thus, the study intends to explore how the intersubjective part of the inquiry contributed to the construction of affective assemblages, while this was completely missed out on when the participants were alone in the sites and asked to rate the sites numerically, and to make notes of their observations if they wished.

During the in-depth interviews the participants reflected on how these two experiences, subjective and intersubjective, were different. The content analysis of their responses showed that the quantification of place experiences did not really reflect the underlying qualities of such experiences. The affectivity of the places was something that was in fact extracted from the whole process of musical interpretation of what was experienced. It was also that which moderated that whole process.

Although the participants were instructed and prepared to use their all senses, particularly, to listen to their environments before going to the sites, rating the sites rationally associated them with the pre-defined elements, whose outcomes did not provide many clues about place experiences. When they started discussing their observations with the help of their reported ratings, the basis of their discussion was

an emotional interface, which, thereby, helped continuously reveal affective assemblages among the participants.

The participants stated that in the beginning they questioned the associations between place and music experience, but when they started discussing their experiences and the affective dimension started to play the role of an interface in their discussion, they started creating social and emotional bonds within the groups. Eventually, the perception of place experience also changed as a result of such an interplay between participants, who shared thoughts, emotional bonds, and an engagement to co-creative action.

This section presents the outcomes of the content analysis conducted to evaluate participants' evaluations between individual and intersubjective experiences and examines the impact of music on the learnt mindsets and the discussion processes of place thinking (Figure 4.7).

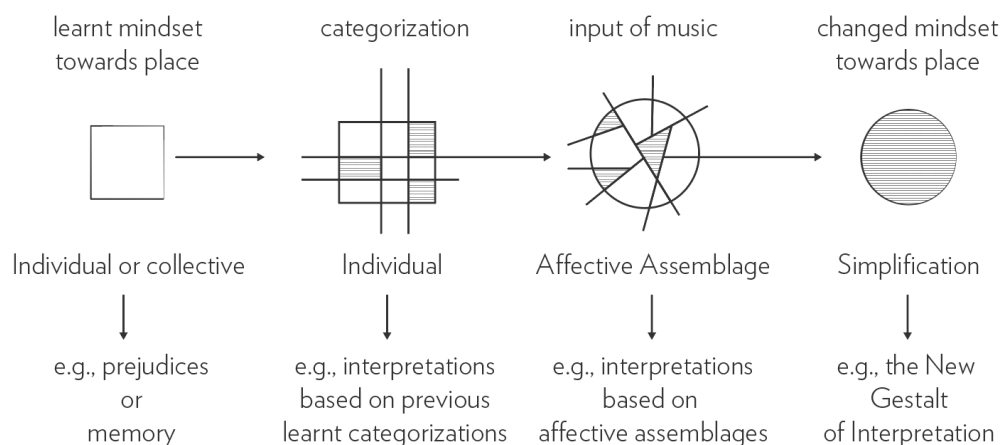


Figure 4.7. Reconstruction Process through Affective Assemblages

As shown in Table 4.17, almost half of the mentions highlighted the positive emotions revealed through the experiential process (23%) and the change in

participants' mindsets (22%). The participants asserted that **music allowed affective interactions** between people and environments very effectively and created harmonization in which ideas were diversified to a great extent, in the beginning of the process. They also addressed that their **mindsets changed** from the previously learned categorical understandings of their place experience. This was also supported by another one-fifth of all mentions, which highlighted the applicability of combining music and place in place thinking (17%). The other one third almost equally referred to the significance of socialization (17%) and consensus-building (15%) in this process. The rest emphasized the presence of diverse opinions (9%).

Table 4.17 Individual and Intersubjective Experiences in the Learning Process

	Interpretations	Frequency of Mention	% in Total
Individual and Collective Experience & Learning Experience	Positive Affects / Emotions (Love, enjoy, excitement, surprise, feeling different...)	47	23%
	Personal Change / Awareness (expanded vision, changin mindset, seeing different angles, new achievements, ability to examine place more carefully, focusig, deep-thinking...)	46	22%
	Outcome Consistency / Success (good results, clear where the music was about, the essence of place, able to reflect the environment, music and space are overlapped...)	36	17%
	Socializing / Sharings / New friendships (social experience, making new bonds, communicating...)	32	15%
	Collaboration / Harmonization (joint decisions, collaboration, combine ideas, partnerships, harmonization, making decisions spontaneously, relaxed as we got to know each other, a very harmonious group...)	28	14%
	Diversity of Ideas / Differences (different opinions, looking at different things, diversity of ideas, opposite opinions, seeing each other very opposite, a lot of difference...)	19	9%
	Total	208	100%

Musical thinking unveiled **positive affects and emotions** in the intersubjective process. It allowed participants to decipher the core affective appraisals in place thinking (23% in all mentions). Generally, when they tried to evaluate their place experience, they referred to numerous physical and social attributes (e.g., trees, streets, people, materials, architecture, etc.), but they still could not fully express what they really experienced in the place with those attributes. When they tried to reach a consensus in reference only to rational categorizations, searching an intersubjective agreement was like looking for a needle in a haystack. Furthermore, if one also assumes that their perception of these categories might not be sufficient, they acted upon the given fragmented contents in most circumstances.

The study revealed that what people share is not only about the physical world but also about their affective experiences, and music played an excellent interface for deciphering the interconnections between the tangible and intangible spheres of the physical world. In this context, the participants could musically discuss the experiences in the universal language of core affective appraisals. As a primary medium, the affective connections that music revealed facilitated a new communication channel for the participants to express themselves and to create new cycles of emergent assemblages. Some responses below illustrate this impact:

‘There was a difference between participants in terms of education. But we managed to become very close in a short span of time, like in three or four hours. I think that was because of the emotional nature of our activity. When you approach someone emotionally, you connect with them much faster.’ Interviewee 1

‘I think it was a lot of fun. It made us consider a monotonous academic process from a different point of view. It turns out there were other aspects to our department. Even so, I was glad that I decided to study at my department.’ Interviewee 1

‘Learning something by experiencing is very different. For example, if they had just told us to go see the physics lawn, it would be very hard to produce these pieces of music. I think knowing that we will experience music allowed us to enter a different type of focused mind-set. But when you combine music with design, one inevitably thinks about what to create. I enjoyed it very

much. It was also very nice to do this with people I am not familiar with. I think it is very important to experience and learn. I do not think stuff like books or other things become permanent in one's head.' Interviewee 8

'In the beginning, we were strangers. We proved there that people of all types can get along just fine. As we reached the end of the workshop, we started to get to know each other better and to make decisions on our own. Most importantly, we were not hesitant about expressing our opinions anymore. As we got to know each other, we became relaxed. It was important to be able to combine ideas.' Interviewee 17

The affective evaluation of place triggered **a personal change and awareness**. The in-depth interviews show that none of the participants expected to associate place with music. They stated that their mindsets and approaches to the place considerably changed when compared to their previous categorical sense of place (22% in all mentions). Previously, they had been approaching places in a purely rational way. However, when they sensorially and affectively considered spatial experiences through music, they were surprised to observe the associations between them. These associations led to the emergence of the affective characteristics of place and enabled the participants to create bridges between each other socially and on the basis of their experiences, rather than through rigid and technical categorizations of the place. The quotations of some respondents illustrate this:

'I was pretty surprised. Because even in that simplicity, it is obvious to which place that music belongs. It reflects the essence of the place. Completely reflects the feeling of it. That felt very surprising to me.' Interviewee 1

'I can say that my mind was completely changed. To put it simply, I noticed that my mindset, which figured that music and place were impossible to combine, had changed. I can say that it has changed in this respect.' Interviewee 3

'Sure, it was difficult to work jointly, but it was also shown that it can also result in creating beautiful things. This is because of the fact that everyone involved in this process had a wide imagination and an unrestricted mindset.' Interviewee 7

'Learning something through experiencing is very different. For example, if they had just told us to go see the physics lawn, it would be very hard to

produce these pieces of music. I think knowing that we will experience music allowed us to enter a different type of focused mindset. But when you combine music with design, one inevitably thinks about what to create. I enjoyed it very much. It was also very nice to do this with people I am not familiar with. I think it is very important to experience and learn. I do not think stuff like books or other things become permanent in one's head.' Interviewee 8

'I think I have learned a lot. I looked at things from new perspectives. I had never thought about a place and transformed it into music before. This was very helpful. I think this has led me to develop my abilities on the instrument I play. Because I think I created something out of nothing. Group work also taught me certain new things. So, I am leaving this workshop as a happy person.' 25

The participants **encountered a diversity of ideas** in the beginning (9% in all mentions), but the outcome consistencies of the musical interpretations were consistent (17% in all mentions). All participants asserted that they were able to transform places into musical forms. But even their expectations were initially low, not all acknowledged the musical quality of the compositions, because the affective adoption of place fostered the emergence of a dynamic form of affective assemblages, which they could freely adopt, affectively embrace and mentally change. Rather than formal representations, they agreed on the shared meanings of affective relationalities and the emotional gestalts. Most importantly, they created these assemblages together in an affective sphere. Because of this reason, the associations of music and place created a new way of thinking and awareness, which gave them a sense of joy. Quotations below represent this:

'While we were discussing things at first, everyone had different ideas. That was good. It was also nice to see the same thing happening in the other group. I've seen things from different angles and my horizons have been widened.' Interviewee 5

'I was more focused on myself. Completely focused on what I was thinking. But others were focusing on different things. Sometimes things happened that surprised me a lot. I think seeing these differences improved my vision. As a group, we visited more reasonable locations.' Interviewee 6

‘We have been working individually since we started. The best thing this study has given me was to experience teamwork. To get other people's opinions. Getting critiques, having discussions with our teachers and we don't even get many ideas from our friends. But this study was so great that I realized that I had not even noticed the opinions of my friends. This adds a lot to a person.’ Interviewee 9

‘I did not have expectations, to be honest. But of course, the partnership and consensus have been great. I think we synthesized it well. We had opposite points of view, but we ended up reaching a common ground. There were people in the group who were playing the piano since they were five. We were educated in public high schools, so we just only recently became interested in art. I think we learned a lot from each other.’ Interviewee 10

‘There have been differences. For example, when it comes to the proximity of places, I initially only thought about the proximity of buildings. Later, when the students talked about the distance between people, I realized that I did not know about this subject. A joint and mutual learning process emerged as a result of this.’ Interviewee 14

‘Before I shared my opinions, I noticed that everyone had different ideas and opinions. But we were able to meet on common ground when we put our minds to it. For example, I did not consider METU to be a very active place and thought Maidan was more active. But as we discussed things, they started to take shape as we conveyed them with music.’ Interviewee 22

‘...we tried to reach a common ground at the beginning. But later, when we were creating the compositions, we were more focused, and we were able to choose things in a more comfortable manner.’ Interviewee 29

Participants also highlighted the **contribution of socialization** to individual experiences in the inquiry process (15% in all mentions) and its impact on the harmonization of ideas (14% in all mentions). The inclusion of music as an affective medium provided the participants with opportunities to bond with each other, and thereby, ‘affects’ acted not only in the form of *emotions and feelings* but also in the form of connections between them. The debates on musical compositions made them think about an affective state and constantly revived participants’ mental and affective interactions. In this way, the consensus building turned into an open-ended and socially renewing process rather than a closed linear continuum. This,

contributed to the reconstruction of intersubjectively shared meanings through a social process that eventually became connecting and harmonious. In this regard, the participants expressed their surprise about the ease in discussing and composing, which seemed relatively more complex and difficult at the beginning. Here are some reflections on this:

‘We managed to become very close in a short span of time, like in three or four hours. I think that was because of the emotional nature of our activity. When you approach someone emotionally, you connect with them much faster. When you enter a university class, you approach things from a technical standpoint. Usually, you ask questions like ‘do you have any siblings?’ or ‘do you have a dog’ when you are trying to get to know someone. But in these experiments, we started a process directly from emotions. I think this speeded up communication quite a lot.’ Interviewee 1

‘First of all, I think our communication skills have improved. How can we get other people's opinions? How can we find a middle-ground between their opinions and our own opinions? How can we start working in a harmonious manner in a short period of time? I think this improves our skills. It also helped me in terms of music as I learned the terms involved. We also helped them. For example, I explained to them what a spine means. There was mutual communication. So, it helped a lot in this respect. I initially thought that this would be a very good thing to do, and it turned out as I expected.’ Interviewee 4

4.2 Experiential Phase II: From Music to Place

The findings of the first phase show that *affectivity* is one of the most critical factors in the intersubjective evaluations of place and music. However, we should admit that the study fell into a latent trap of determinism that it was criticizing before the first phase. Even though it attacked the rigid categorizations of place thinking, it also dealt with place thinking within these limits, took contrasting spatial features and predefined MDEs as a departing point and went on to explore possible associations between music and design. However, the spatial differences between the selected sites unveiled new representative singularities through the MDEs. Even if the musical compositions overcame this problem, the first phase achieved categories of different place features in terms of MDEs.

On the one hand, the study had to depart from a rational origin because what would emerge, the emotional/affective relationality, was not initially set as the main deriving force in place thinking. This rational origin also provided a systematic ground that made a jump into an emergent outcome possible. Thinking jointly on the categorized place and musical attributes allowed the decryption of potential associations that would not be seen otherwise.

On the other hand, the second experiential phase is revealed as a need when the outcomes of the first one are evaluated. In the first phase, the participants could think of the place as a point of departure and interpret their place experience through music. While doing this, they pointed out the significance of emotions and affectivity, and primarily deciphered the relationalities under the affective atmosphere that music ensured. Eventually, this allowed them to recreate the musical compositions consistently and transition from 'Place to Music'.

In the second phase, the participants thought of spatial compositions, taking the music as a point of departure and evaluate these mental experiences through emotions rather than contrary spatial qualities. A group of eight expert musicians participated in a three-hour long focus group. One half were musicians with

advanced knowledge of music theory and the other half were musicians with architecture and planning background. This participant profile allowed to make diversified and enriched discussions. This time, the study explores the spatial outcomes and transitions from ‘*Music to Place*’ and intends to associate musical characteristics with spatial elements (SRQ4).

The participants identify, and discuss together the emotions/affects and places that music stimulate in minds. The aim is to make a transition from the stimulated emotions/affects of music to the stimulated spatial features (Figure 4.8). In this context, spatial interpretations of music without any prior directions are examined within the frame of affective and assemblage thinking.

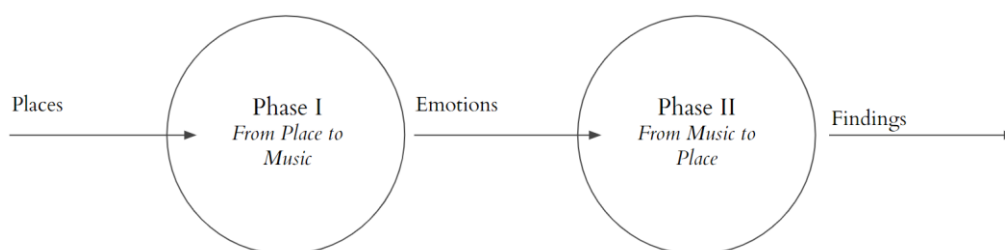


Figure 4.8. The Transition from Phase 1 to Phase 2

Furthermore, this phase also aims to explore how musicians evaluate the MDEs in terms of spatial characteristics (SRQ5). Even though the first phase had already examined them, the second phase sought for relations from musician’s perspectives. In the first one, the participants' spatial interpretations were more programmed since they were informed about the musical and spatial elements in detail. In this one, the musicians directly departed from musical experiences to spatial interpretations. Thus, it became possible to examine the role of MDEs more thoroughly, as study conducted one-hour-long in-depth interviews with each participant (see Appendix C & D).

4.2.1 SRQ4: Which musical characteristics are associated with which spatial elements?

To explore the affective qualities of place experiences through music, two music compositions are selected in reference to Russell's Affect Diagram as a theoretical model for affective thinking (Figure 4.9). The first piece, Haydn's Piano Sonata Partita No.13 in G Major, is a composition in minor tones, with a slow tempo, straight rhythms, few surprises, and close intervals, and is performed by Jean-Efflam Bavouzet. It is assumed that it would provide peaceful and calm affective states for the participants. The second piece, Say's Paganini Variations for Piano Solo, consists of major tones, fast tempo, asymmetrical rhythms, lots of surprises and distant intervals. This piece is composed and performed by Fazıl Say. For the purpose of the inquiry, by choosing this piece, the study aims to stimulate arousal and energetic affective states.

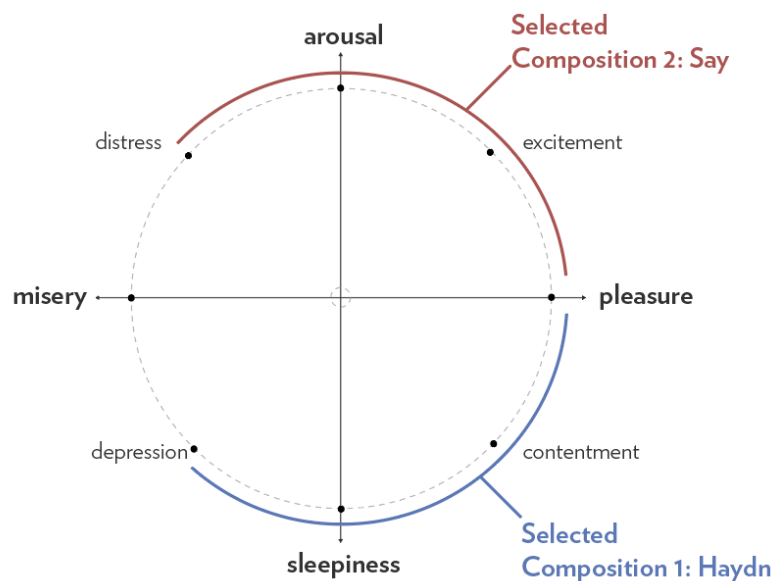


Figure 4.9. Compositional Characters of the Selected Pieces

Figure 4.9 shows the compositional characters that mainly resonate with the combinational affects between arousal, pleasure, and sleepiness. While the specific

position of the compositions cannot be given due to the nature of subjective musical perceptions, the study presents the pieces' main affective characters as perceived by the participants to observe the potential spatial stimulations. On the positive side of the affective qualities, while Haydn's piece represents sleepiness and contentment, Say's piece characterises a type of arousal and excitement. Both are assumed to reveal pleasure. On the negative side, while the first piece may evoke *depression* and *sadness*, the second piece may present *distress* and *tension*.

Focus group discussion **reveals two main findings** in terms of the SRQ4 (*Which musical characteristics are associated with which spatial elements?*):

1. Similar musical compositions led participants to describe **similar spatial experiences**.
2. **Emotion and place are closely intertwined in the mind**. The findings show that places can be interpreted as affective assemblages.

Table 4.18 Shared Spatial Descriptions for the Selected Compositions

Composition 1: Franz Joseph Haydn- Piano Sonata Partita No.13 in G Major, Hob. XVI:6: III. Adagio, performed by Jean-Efflam Bavouzet	Composition 2: Paganini Variations for Piano Solo, performed by Fazıl Say
Character: minor tones, slow tempo, symmetrical rhythms, low dynamics, close intervals and low density	Character: major tones, fast tempo, asymmetrical rhythms, high dynamics, distant intervals, high density
Shared Emotions/Feelings/Affects: - A Feeling of a Journey, - Peaceful, Melancholic, - Introvert, - Emotional, - Listener as the Lead Subject...	Shared Emotions/Feelings/Affects: - Arousal, Striking, - Chaos, Anger, - Extravert, - Excitement, - Composition as the Lead Subject...
Shared Spatial Stimulations: - Natural Environment, - Trees, Wind, Rain, Sun, - Open Wide Spaces, - Peaceful & Lonely Places, - Places with Natural Light...	Shared Spatial Stimulations: - City Centre, - Traffic Jam and Fast People Movements, - Places that People cannot be Alone, - Places that Dominates People, - Chaotic Places...

Table 4.18 shows the **shared affective descriptions** of the participants and **the shared spatial reflections** that they made in relation to the emotions triggered from listening to each composition.

Focus group discussions are centered on a sense of *being in a journey* in *Composition 1 (Haydn)*, in which participants saw themselves as the subjects of a particular scene, a continuous experiential process. The *calm flow* of the composition allowed them to think *freely* in a *relaxed mood*. Like an experience in a natural landscape, they *were in control* and could think in *tranquillity, calmness, and a peaceful melancholy*, about *life* in general.

The notion of a journey was the common reflection of participants. It was understood as the change of some particular conditions or situations, emotional, natural, and territorial, in lifetime or memory. To express this, *four participants* mentioned the change in emotions in association with the environment. This provided some clues for the second outcome of this part as well.

The emotions varied from *hope, surprise, excitement, and expectation to sadness and loneliness*: “*It felt like a person's emotional journey. It is sometimes sad and lonely. Sometimes it gets hopeful, excited, and somewhat blue. But still, it is predictable.*” (Interviewee C); “*I took a note that just states ‘loneliness’. This is not something that is only related to longing, but it is also related to physical loneliness and environments in a place.*” (Interviewee G). Furthermore, one participant referred to different varieties of places in nature: “*This could be a plateau. It could be a garden of poppies. Or a forest. But it was a place where there are different varieties of the things of the same category.*” (Interviewee A). On the other hand, two participants talked about going from one place to another, more specifically migrating from one place to another. One person mentioned a life cycle directly: “*I guess I saw the natural changes that occur during a lifetime. I saw the natural process of life: birth, growing up and it lasted until maybe the mid-life of the person I was observing. But it was as long as it should have been. So, I saw the flow of a normal life.*” (Interviewee E). Moreover, another participant highlighted self-

travelling through constructed memories: “*Since we aren't travelling anywhere: Everything is actually here and now. The memories in our minds, the pictures we are looking at and other memorabilia can only represent depth and character to us via tricks of light.*” (Interviewee H).

On the other hand, *Composition 2 (Say)* stimulated a sense of *surprise* in a disordered place. This place recurred as a built environment, a *city center* or a *landmark* recognizable no matter what, high and large, and the experience in it unpredictably evoked some degree of discomfort. For some, it was *frightening, anxious, busy*, for others, it was *chaotic*. What comes next could not be predicted. Things were set *side by side* as a *broken mirror* with *no specific pattern*, no lines and borders, almost *amorphous*. When all come together, they created a *throng-like setting*. Interestingly, all these resemblances made **participants experience a forcible flow**. Participants were not merely listeners any longer, but the whole experience of listening became dominating and an envisioned place with repressive characteristics. Some expressions of the participants below represent these inferences, the others can be found in Appendix E:

‘It's actually like riding *a roller-coaster* or visiting *a horror house*. You know *you're safe*, but you need that *frightening experience*. This is because the pulse is actually very important to us... But that *pulse* being irregular here and there means that we are being subjected to *rhythmic surprises*... I got a feeling like we were on a *playground* or a *house of broken mirrors*, where our appearance constantly shifts.’ (Interviewee A)

‘I have a 'landmark' note. This means that it made me feel like there was something in that said, "I am here!"... I was reminded of the "Pompidou"...it is in Paris. It is an elegant and aesthetical building. Paris has a very monotonous architectural language. Pompidou, on the other hand, is a very different and *attention-grabbing* building.” (Interviewee B)

“It was like a *chase in a labyrinth*. It is a chaotic place with no specific pattern. Sometimes, there are secluded areas like alleyways, but other times, there are *huge areas where there are large crowds*.” (Interviewee C)

“Chaos, crowds, anxiety, and the hustle and bustle we feel during our everyday life. I was reminded of Tunalı Hilmi Street, *with its crowds of*

people and cars... It is a place like Cihangir or Taksim, where there are many tradesmen.” (Interviewee D)

The shared spatial interpretations did not reflect particular spatial categories, unlike the findings of the first phase, but a sequence of revealed and interrelated experiences based on the affective stimulants. It also led to discussions on the nested relations of place and emotions. Although the experiential process aimed at focusing the participants’ evoked emotions, in the recurring places, the interpretations revealed that **emotion and place are closely intertwined in the mind**. They work in an inseparable and nested way when the mental process stimulated through music is deciphered.

While thinking of emotion, participants imagined places primarily through an *experience of affective embodiment*. They tried to make sense of the emotion that appeared in the mind. In other words, focusing on emotions automatically reminded them of a place, a sequence of affective experiences which occurred in a particular place. While some emotions were shared (such as peacefulness in natural places), others (such as anger) were not directly connected to any spatial image.

It seems possible to explain that this result is derived from a process in which *memory, emotion and place* work together. Every emotion calls upon a particular memory that exists in a particular place. This strong connection leads to a conceptualization of place as an affective assemblage. Some quotations from participants’ responses present this: *“It is not just matching a place with an emotion. It is like matching the experiences of that place”* (Interviewee B); *“It seems like it is impossible to distinguish them. At least for some emotions...emotions arise when I am thinking of the place.”* (Interviewee C); *“I could not fully distinguish it [emotion] from the place. This is because I tried to focus on emotions during the first session and the place in the second. When I focused on emotions, I was the subject. But when I focused on places, I was external. There, I was no longer the subject”* [Interviewee G – Focus Group]; *“I don't think it is possible to create emotional and spatial*

definitions and separate one from the other. For example, I realized that I was trying to express my emotions with spatial definitions.” (Interviewee H).

Even though this looks rather predictable and is confirmed by studies in psychology and neuroscience (Curtis & Bharucha, 2009; Greenberg et al., 2012; Kahneman, 2010), an affective response to an experience in a particular place is significant for constructing memory. Interestingly, nearly all participants stated that they had not realised this association before. They discovered this as a novel experience through the interface of music. The following quotation of interviewee A also verbalizes this: *“It was interesting for me because we never approach music in this way. For me, this was the first time I explored the emotions that I felt while interpreting and analysing a piece of music and associated the results with a certain place.”*

All in all, when the study associated music and place by taking emotions as a point of departure, it encountered *assemblages of imaginations, memories, and individual emotional gestalts* emergently revealed in a liquid state. Any static unity cannot represent this dynamism, since it is connected to continuously reconstructed intersubjective understandings. The affective thinking allows people to recreate an intersubjective consensus on the emotions. In other words, even if people reflect different places, the character of the affective spatial experiences can be shared, just like in participants' expressions about the notion of a *'journey'*.

Moreover, taking emotions as a point of departure made the place and emotions difficult to distinguish from one another. The concepts worked in a nested way in between the memory and the affective mind. When categorizing them individually was attempted, the timbre of the place, the unique assemblage of relationalities became lost in the exploration. That is a significant outcome to comprehend the importance of affectivity in place thinking, bringing back the essentiality of emotions into the discussion.

Just as people cannot consider life without emotions, they cannot evaluate places without them, because all these affective inputs influence ways of thinking about places, and these affects are embodied in particular spaces. It is a cyclical assemblage

that combines heterogeneous parts continuously and reveals new emergent cycles. In this dimension, the affective relationalities direct the central attitudes towards places, allowing for the reassessment of places 'as affective assemblages'.

4.2.2 SRQ5: How do musicians evaluate MDEs in terms of spatial characteristics?

In the second experiential phase, the study once again investigated the roles of MDEs between music and place, this time from the perspective of music professionals. Even though the first phase had already examined them, this phase sought for relations from a different perspective. The participants' spatial interpretations were more programmed in the first phase since they were informed about the musical and spatial elements in detail. Eventually, they structured associations through direct and mostly singular reflections (e.g., the tempo was mainly associated with human movements).

However, in this phase, the musicians listened to the compositions without any prior briefings and without distractions. They were already aware of all the musical elements and had theoretical knowledge on music and experience in its practice. These circumstances allowed a type of a freedom to express their thoughts on the emotions and their affective perception of the recurring or imagined places.

This section presents in detail the descriptive analysis of participants' reflections on the MDEs based on the selected compositions, as a response to SRQ5, (*How do musicians evaluate musical design elements (MDEs) in terms of spatial characteristics?*).

Composition 1 (HadyN) was associated with the *linear emotional flow* of *loneliness, transience, longing, fluid*. The slow tempo made participants think about themselves, *the life that they experience*. The rhythm was *well balanced*, which ensured *a calm, safe feeling*. The low dynamics allowed participants to concentrate *deep inside*, an *introvert feeling*, just as close intervals and low beat density created a *melodic and secure comfort*. On the other hand, Composition 2

(Say) was associated with aggressive, emotional jumps of a distorted flow that create anxiety, rush feeling. The fast tempo made the composition challenging to understand. Somehow it created a chaotic and unconfident pace. However, this chaos was also somehow exciting at specific points. The asymmetrical rhythmic structure was evaluated as a heavy and striking experience. The participants lost control and sense of expectation since the surprises surrounded them with an insecure excitement. The high dynamics created pressure on the perception with contrasting affective states. The large intervals and high beat densities also supported these stimulants.

The analysis revealed **two main findings**, which also showed the difference between imposing the MDEs at the beginning of an inquiry as in the first phase, and elaborating on them afterwards, as done in this phase. The findings further illustrated how the MDEs can interplay when the point of departure was affectivity in an experience of deciphering the music in relation to space.

Firstly, the findings verified that **MDEs are nested elements that can decipher the affectivity of spatial elements through emotions**. All participants of this phase evaluated each MDE in relation to another one, both in terms of their technical and affective features. Thus, the gestalt, the assemblage of relationalities became noticeable compared to the significance of each MDE's particular character.

Secondly, the findings illustrated that the character of the place (i.e., the timbre of the place) determines the affective relations, and **this character cannot be thought of independently from the mind**. In other words, without emotions, the meaning of a particular experience loses its essence. Thus, the affective quality of place is strongly connected to people, and to the socio-cultural and historical dimensions of the related context.

The Tonality

The participants interpreted tonalities in terms of the moods of the compositions. They noted down the affective and spatial features constructed upon the

relationalities during the musical experience. This attempt was to test how much their interpretations were affected by the discussions during the focus group. The notes show that all their individual and collective interpretations were consistent during the focus groups and in-depth interviews.

Composition 1 (Haydn) evoked a sense of *freedom, calmness, and a space* for thinking about *life*. The felt emotions were in the deactivation zone of the Russell diagram. Interestingly, almost all participants defined a type of road, a journey in a natural landscape. When the composition led them to think freely and in a harmonious way, the mind-sets were synchronized with the flow more calmly and peacefully. Nevertheless, this peaceful state was also related to a type of stillness. This revealed the realities of life, loneliness, friends, and families, the natures of human souls that surrounded them and made them think about the person they are. Basically, they were telling their own stories from their journeys, and these stories were interpreted in a calmer and sad mode. The affective continuity and linearity allowed participants a type of freedom:

Tonality (Minor) - 1st Composition:

Emotions: *loneliness, transience, longing, fluid.*

Patterns/relationships of emotions: *linear, regular, internally consistent, flexible, repeating, fluid in a certain cycle, intricate, dependent on one another, whole, dynamic, moving together.*

Actions/Character: *resting, immersing the self in the flow, listeners are the subjects.*

‘The *emotions* actually complement each other. This is sort of similar to how the song was. Alongside that complementation, the emotions also give one other life in both micro and macro scales. As a matter of fact, they were not that distinct from each other. There are more *linear relationships* in the first song.’ Interviewee A

‘Regarding the first song, I wrote notes saying things like it includes autumn, *loneliness*, and *transience*. When you listen to the first song, you can switch from a mood you want to any other mood you want. It has that kind of *flexibility*. If you want to think of nice things, you can lie down somewhere

and put that song to play in the background and listen to it. You can do this when *you want to rest*.' Interviewee B

'There are *many emotions* in the first song, and these feelings are conveyed *in a certain cycle*. There are also *repeating* sections in the first song. They also are present in the second one. But the first is more *regular*.' Interviewee C

'There was *a linear structure* in the first song. It wasn't a song that had a lot of ups and downs. Therefore, I was able *to immerse myself in that flow* with a certain feeling.' Interviewee D

'What I perceived when listening to the first song was a *person's life*. Perhaps all of it, or perhaps just a piece of it. A chapter of that person's life is told first, then, a second chapter. You know, certain parts of his or her life was presented.' Interviewee E

'I am not sure if it is just me, but the fact that there was *a linear pattern* in the first song makes that *flow of emotion* that *intricate*. The emotions it makes you feel are *not independent of each other*. You cannot transition from one emotion to another. They are *very close to each other*.' Interviewee F

'It was completely *fluid* in the first work. When I look at important points, I see that the minor tones in the first song reminded me of *longing*. The mood I was under during period was a more severe longing.' Interviewee G

'I think that the first song is *internally consistent*. The idea it embodies is clear and it carries *only a single emotion*. It is based only on *a single event*. It tells of a journey and a story. There are *moments of longing* within it.' Interviewee H

Composition 2 (Say) attracted great attention with a *chaotic character* compared to the freedom felt in Haydn. All participants reflected the mode of a tension and alertness. Rather than the linearity felt in the first composition, it was portrayed as a process that interrupts the subject and tries to make them listen, continuously grabs their attention, and dominates the experience. Hence, all participants interpreted the second composition as a contrasting, active, crowded, and dense place, such as a city centre or a theme park. The affective atmosphere created by this *chaos and confusion* was reflected.

Tonality (Major) - 2nd Composition:

Emotions: *aggressive, more expressive, rush, anxious, a certain state of emotion.*

Patterns/relations of emotions: *no smooth transition from one emotion to another, distorted, very fast, non-linear, irregular, quick, fluent, rhythmic, jumping, from one emotion to another, constant change.*

Actions/Character *makes you want to see who is playing, you cannot rest your head or lie down or daydream, it asks more of you, a constantly changing discussion about the same thing between a woman and a man.*

‘In the second song, there was no transition from one emotion to another as there was *only a single emotion*. It makes you feel like *you are seeing it* in a distorted manner.’ Interviewee A

‘The second song takes you to a certain place and only to that place. As I said before, it makes you want to see who is playing it. That is the impression it left on me. You can not just rest your head or lie down and daydream about things and put that song to play in the background. *It asks more of you.*’ Interviewee B

‘The second song was very fast-paced and much more aggressive. Let's just say that it was more expressive. The second song is more akin to some person expressing himself...’ Interviewee C

‘The feel of the second song was not very linear. But I was in a certain state of emotion while listening to the first one. While there was sadness, loneliness, and a more calm and relaxed feeling in the first song, the rush in the second one evolved into calmness at one point and that put me in that anxious mood once again.’ Interviewee D

‘As for the second piece, it was a tale of a shorter time period, perhaps just one night. But it was told quickly and fluently, without any breaks in the narrative.’ Interviewee E

‘Unlike the first song, the second one can give rise to more than one emotion. You would normally expect that a slow-paced song like the first song can lead a person to feel a variety of emotions. What I mean by that is, there is a lot of time in the first song where you can think. But it is the opposite for me. The fact that the rhythm picks up the pace in the second song and that it is

irregular engrossed me in the music and this has led me to different thoughts.’ Interviewee F

‘There were jumps in the second song. I felt excited while listening to the second song. The emotions I usually felt were those that skipped. It was going from one to the other in an instant.’ Interviewee G

‘I considered the second song to be an exchange between a woman and a man, how they are discussing things is in a state of constant change. But they are always discussing the same thing. They would discuss it with a sweeter voice at times and argue with a harsher voice at other times. At other times, they would play hard to get. That's how it felt like.’ Interviewee H

The Tempo

Participants expressed tempo as one of the most critical determinants of the musical character and place experience. They associated the MDE with the speed of the experience. Since it refers to the stimulations per unit time, the change in the affective states was often described in terms of the speed of the exposed stimulants. While some of them can be exterior (like a sound from outside), some others can also be interior (like the heartbeats or felt emotions). No matter where the stimulant comes from, internal and external forces work together.

Composition 1 (Haydn) has a slow tempo in contrast to the second composition. Participants associated the element with a relaxed character. This relaxation allowed them to observe personal insights and ongoing mental experiences. Probably because of this, it led them to think of places related to life journeys, because the calmer mode of the composition intensified the emotional way of thinking, and when this emerged with a relaxed flow, it eventually made them think about their life experiences. In this way, they evaluated the tempo concerning the other MDEs, like rhythm and dynamics. So, tempo alone was not a determinant.

Tempo (Slow) - 1st Composition:

Emotions: *loneliness, introversion, sadness, enjoying the sadness, melancholic, calmness, tranquility, comforting, confident, longing.*

Actions/Character: *thinking about lifetime memories, more time to ponder, understanding the notes in between, finding space for the mind to play with, sleeping in peace, slow, heartbeats, regular, low movement of the place, a sense of action.*

Places: *trees, singing birds, natural places.*

‘I explain the tempo by the distribution of *lines and shapes*. With the *movement* of the place there. In other words, with the sense of action given to that place by its architecture. With things that move within that composition. This may be *humans*. Or you can place a column, and that column will have a tempo in line with all other columns next to it.’ Interviewee A

‘It [the first song] directs you to think about things like *loneliness*. It is a bit *introverted*; it makes you think about what is going on in your *life* and remember such things once again.’ Interviewee B – Indepth Interview

‘Does slow tempo mean *sadness*? We can say that, as almost all songs that we might describe as sad have a slow tempo. Therefore, I think there is a correlation there. I think this is related to heartbeats. When you hear a piece that has a high tempo, you naturally want to start moving. Likewise, a slow tempo makes you feel *calmer*. It’s kind of like a suggestion. For this reason, I tend to *enjoy* those truly *sad pieces*.’ Interviewee C

‘In the first song, the tempo is low. Since it is as low as possible, its tonality is also melancholic, so it is calmer and more tranquil. Maybe that’s why it reminds me of a journey.’ Interviewee D

‘If we consider the fact that certain songs are slow and certain songs are faster, or how music is created around the world... We can categorize slower pieces as sad and melancholic and faster music as songs as adventurous and fun. While listening to slower songs, you have more time to ponder, and it is easier to understand the notes that are in between.’ Interviewee E – Indepth Interview

‘I always listen to low tempo music while I sleep. I prefer this because it provides more space for my mind to play with. Perhaps it is wrong to describe it as happy, but such music takes me to more peaceful places. When I close my eyes while listening to the piano, I am taken to places that have trees, singing birds and other such natural places.’ Interviewee F – Indepth Interview

‘When I was saying it was narrow and crowded, I was kind of talking about the tempo. For example, the number of notes per second is much simpler in the first piece.’ Interviewee H – Indepth Interview

Composition 2 (Say) has a *fast tempo* in contrast to the first composition. Participants associated the song with a type of chaotic strangeness that led them to various affective states in the active zones of the Russell diagram. Mostly they interpreted the piece in between nervous and excited moods. The high energy, the frequent impacts of the musical flow reminded them of city centres, as they associated the pace of the crowded environment with the high pace of the flow.

Tempo (Fast) - 2nd Composition:

Emotions: *chaotic, strangeness, being lost, hustle and bustle, happy place, active, quick, hurriedness, exciting, unconfident.*

Actions/Character: *cannot stop, difficult to understand, quick movements, rushing, increase in heart rate, turmoil.*

Places: *traffic of crowds, metropolitan, urban places, city centre.*

‘But the second work of music leads to something *chaotic*. I experienced a sensation of *strangeness*, a feeling of *being lost*. That is how it makes me feel like...’ Interviewee B

‘While listening to the second one, I felt emotions such as a feeling of *hustle and bustle*, a sensation of *quick movements*, an increase in heart rate due to excitement, and an increase in tempo. The idea of *rushing* and the idea of *turmoil* seems to me like they are *fast-paced movements* that you cannot do slowly.’ Interviewee C

‘In the second song, something like this happened: it's a song with a high tempo. For this reason, *chaos* is represented in the song with high tempo. That chaos, the general *hurriedness*, the energy, the *traffic of crowds* and people... Tempo plays a small role in bringing those associations to the fore for me.’ Interviewee D

‘It is *difficult to understand* them [notes] in faster-paced music, such as in songs that have 90-100 bpm. In such pieces, things such as melody and rhythm come into play.’ Interviewee E

‘Any high-tempo music played with the piano can take you to a *happy place* or, depending on the flow of the music, it can also take you to more *urban places*. Places that appear in my head are more *active*, more *metropolitan*. They are places where the flow of life is *quick*. Again, I am not saying being in such chaos is unhappy. I do not think this type of music makes you unhappy. But, as I said, I think of metropolitan places where the flow of life is quick.’ Interviewee F

‘The first note I took says ‘*excitement*’. Perhaps the high tempo created by the major tones or perhaps the percussive use of the piano made me feel that excitement.’ Interviewee G

‘We are jammed in a smaller space and a smaller timeframe in the second song, along with more people and more notes. That's my analogy for describing it.’ Interviewee H

The Rhythm

The rhythm is one of the most discussed topics between music and place. The element is directly related to tempo and beats, and determines the fundamental character of the composition. It constitutes the patterns of relationalities in terms of time, place, and energy. Furthermore, it is also a matter of asymmetric and symmetric relations. In the second experiential phase, musicians defined spatial rhythms in terms of continuity, surprises, sense of order, and variety.

Composition 1 (Haydn) provided a linear flow in *symmetrical rhythms*. The notion of symmetry was crucial since it made the flow easier to follow for listeners. It impacted participants’ emotional interpretations in a balanced and sometimes monotonous way. The calm and safe rhythmic structure did not force participants: some of them illustrated it as a regular heartbeat, a safe feeling, a companion that walks beside them.

Rhythm (Symmetrical) - 1st Composition:

Emotions: *calm, safe feelings, not disturbing, peacefulness.*

Actions/Character: *well balanced, nothing strikes, opposite of chaos, orderly, better chance of thinking, mind can wander off, like a friend walking beside me, a companion, biological rhythm, a meditative state of mind.*

Places: *more spacious places, symmetry.*

‘The regular rhythms of the first work create a *calm* and *safe feeling*. But of course, the fact that the rhythm is reflected in a regular manner is not just related to the rhythm. It emerges with the combination of many different qualities.’ Interviewee A

‘The asymmetry of the first song is *well balanced*. There is *nothing in it to strike* you suddenly while the flow of the song is ongoing.’ Interviewee B

‘Rhythms, such as the 4/4 rhythms in the first song, can be considered regular rhythms. That can also mean the *opposite of chaos*.’ Interviewee C

‘The sense of the rhythm of the first piece is equivalent to its tempo. These two are things that are intertwined. It was designed to be suitable for that. The first piece is as slow as possible, and the rhythm is created accordingly.’ Interviewee D

‘Therefore, an *orderly* pattern within a tempo reminds me of control. You have a *better chance of thinking* if things are moving slowly. It is easier for you to distinguish the notes in between.’ Interviewee E

‘In songs with a regular rhythm, I can think of *more spacious places* since my *mind can wander off*. The music is not disturbing, *like a friend walking beside me*. The emotions are the same: *peacefulness*. Or it can be a feeling akin to a *companion*, like a friend who doesn't leave you, even if you are in an uneasy mood.’ Interviewee F

‘If we associate them with a place, there is a symmetrical monotonous rhythm in the first song, and this leads us to *symmetry*... what led me to that *sense of longing* in the first song was not the rhythm. It was the melody.’ Interviewee G

‘The first song appeals to our biological rhythm. The fact that our every breathing is at the same pace, that it is stable, puts you in a meditative state of mind. You enter a state reminiscent of a trance.’ Interviewee H

Composition 2 (Say) constantly stimulated participants and created chaos through *asymmetrical rhythms*. While this chaos was associated with a type of loss of control, some also related it to a feeling of excitement. Probably for this reason, it was interpreted as a crowded space or a rollercoaster. The constant changes in the affective atmosphere led participants to imagine serial scenes. The peaceful sadness of Composition 1 also stimulated a complex affective state; however, this unbalanced rhythmic structure of Composition 2 was too intense between chaotic affective states. Some of the participants were even disturbed by this unbalanced flow.

Rhythm (Asymmetrical) - 2nd Composition:

Emotions: *insecurity, heavy affects, excitement, surprise, enjoy, happy.*

Actions/Character: *sudden events, heavy, striking, complex, lose sense of things, linearity breaks, high number of functions, we cannot control, disrupt our natural order, creates a daze.*

Places: *rollercoaster, chaotic environments, city centre.*

‘I think of how it uses that rhythm in a melodic line, what colours it integrates with it, and what kind of continuity it offers in the form. I wrote that I stayed there while knowing that I would experience that area of *insecurity*. So, it's something you *experience deliberately*. I kind of likened it to a *rollercoaster*.’ Interviewee A

‘In the second song, there is always this chance to *encounter a surprise*. It is like you enter a place and while walking, you *suddenly* take a left or right turn and become surprised. Because *there are lots of skips* in the song. While the musician is doing one thing, he completely skips over to try something technical. This was *too heavy* for me in terms of being *striking*.’ Interviewee B

‘The second work has a much more *complex structure*. There is also an individual performance there. This *heavily affects* both the tempo and the rhythm. The song shifts to different rhythms. The variety of rhythms present in the second song were interesting. I did not count, but when there are *irregular rhythms* such as 5/4 or 9/8, I lose that sense of things being in order. Therefore, I can say that they are patterns that lay the groundwork for different possibilities and *chaos*.’ Interviewee C

‘The same thing changes in the middle of the second song, where a break occurs. The second song's rhythm progresses in parallel with the tempo, but after that breaking point, the song reaches a point where a down-tempo happens and that *linearity breaks*. Then, the tempo increases again. When I think about it, I cannot say that this matter of time signature symmetry has created any associations for me.’ Interviewee D

‘Asymmetrical rhythms create the *chaotic environments* associated with cities. Rhythmic chaos and disorder take me straight to a *city centre*. These places are already areas that *we cannot control*. Likewise, it is not possible to be in control while designing these areas. Due to the *high number of functions* that need to be there, we can't just put a function to a place where we want it to be.’ Interviewee E

‘I very much *enjoy* irregular rhythms. Even in certain songs with irregular rhythms that do not follow a certain pattern of rhythm, there this atmosphere that makes me *happy* and I think there is a sort of order within those songs specific to themselves. Since I am immersed in music, it can take me away from the place I am in.’ Interviewee F

‘What I really felt *excited* about was the rhythm rather than those things that I could not perceive that existed between the notes. The variety in rhythm in the second song drove me directly to *excitement*. However, what led me to that sense of longing in the first song was not the rhythm. It was the melody.’ Interviewee G

‘The unexpected rhythms of the second song *disrupt our natural order* and rhythm. The constant exposure to something newly *creates a daze*. This is created by the asymmetry of the rhythm.’ Interviewee H

The Dynamics

Dynamics represents changes, differentiations or surprises. A dynamic place has different ups and downs, just like the dynamics in a musical piece. Sometimes it surprises the experiencer, and sometimes it can change the intensity of the affective state. These affective states are so crucial that they direct the perception of the affective experience. When a person is alone with her/his mind in the experience, she/he sees place or music as an interface and finds opportunities to exist in the imaginary world. However, when the trigger starts to surprise and warn constantly, the subject has difficulty reading the patterns in order to create this perceptual sphere.

Just like an overly monotonous comfort can become dull, an appropriate confusion can provide a positive excitement. Thus, the vital thing is to comprehend a balance of the dynamism in the compositions. It is notable that in both compositions, this balance defined their characters.

Composition 1 (Haydn) has *little surprises* in terms of the dynamics. Therefore, musicians mostly achieved a more fluid and comfortable experience. The dynamics were influential in the transitions in the people's affective states. The lack of surprises made the participants feel introverted, calm and peaceful, giving them a space of freedom. In this case, they were able to imagine different places or a single place. Those who made specific spatial interpretations described natural and calm areas, just like in the previous parts.

Dynamics (Low Dynamics) - 1st Composition:

Emotions: *introversion, relaxing, peaceful.*

Actions/Character: *deep inside, internal change, fluid, predictable.*

Places: *takes you to wherever you want to go, changing places, only a single place, natural area, forest.*

‘...in order to understand the nuances of the first work, it is necessary to delve *deep inside* it. So, yes, there are a lot of nuances in the first work and the intertwinement and permeability present in it are caused by those nuances. While it is creating changes in nuance, it is making no changes to the melody. But a change at the deepest layers of the work makes you feel that change in nuance somewhere down the line. But it is not a change that we become very aware of; it is more of an *internal change*.’ Interviewee A

‘If we look at it in terms of dynamics, they play a smaller role in the first song. As I said, it is more *fluid*, and this fluidity continues from the start of the song to its end. It takes you to wherever you want to go, makes you think a little more, and focuses you inwards. I think the first song is a place that has a lot of transitions, and the first song emphasizes its own characteristics’ Interviewee B

‘The way the first song was designed to be as *predictable* as possible. For this reason, when I was listening to that song with my headphones while

relaxing at home, it would take me to a *natural area*. To a natural place that is far away from human beings as possible. It made me imagine a place with *trees*, perhaps a *forest*. This was actually related to the way the piece was designed. Because, as I said, the melody of that song is as predictable, *calm*, and sad as possible.’ Interviewee D

‘The ups and downs in the first piece represent different *parts of a person's life*. Yes, the place changes, but it is still based on *loneliness*. The feeling does not change. It is not individual or social.’ Interviewee E

‘I think the surprises in the first piece are not as striking as those in the second piece. The reason behind this may be related to the intensity of that *peaceful* feeling I get from the entirety of that music because you embrace that place you have been longing for and don't want to let go.’ Interviewee F

‘The touch of the musician is very important there. It is due to the touches of the musician that I ended up being inspired by discernable geometry in describing the amorphous structure in the second song and that geometric and *angular structure* in the first.’ Interviewee G

‘I mentioned *only a single place* for the first song, I can think of various scenes.’ Interviewee H

Composition 2 (Say) caused participants to wander between different emotions and contrasts with its *high dynamics*. As the surprises increased, the affective arousals also increased. These surprises were so frequent that all participants described the piece as *compelling, chaotic and contrasting*. Interestingly, their city centre analogy also bears essential parallels. The affective environment was over-distractive with numerous dynamics. Just like in a crowded boulevard, standing still was quite a challenge . Various stimulants were constantly triggering the affective states and trying to draw attention. Eventually, it was pulling the person with it.

Dynamics (High Dynamics) - 2nd Composition:

Emotions: *surprising, contrasting emotions, alert, chaos.*

Actions/Character: *force you to react, puts pressure on you, make another person feel something, want to see its visual aspects, sudden changes, unpredictable composition, cannot fully focus.*

Places: *middle of the city, amorphousness.*

‘There is depth in the first song. It's as if there is a multidimensional nuance there. Because in the second work, every element is there with a "*bang*". In a very *contrasting* way...The changes that you logically encounter in the second work *force you to react*.’ Interviewee A

‘It has this side to it that constantly *puts pressure on you*. It seems like the type of music that you can use if you want to emphasize something. Like when you want to emphasize something or to *make another person feel something*...When you are listening to the second song, you also watch the performance. You would *want to see its visual aspects*. Because it also has a technical side.’ Interviewee B

‘*Sudden changes* in the music affect how a place can change in your mind. For example, if a change in tempo occurs when the same melody is ongoing, I wouldn't feel like I have gone from one place to another. But when we move on to another piece of the song and there is a change, I feel like I have gone to another place. Therefore, it is very parallel with the changes in place.’ Interviewee C

‘An *unpredictable composition* was created for that piece. Perhaps it is predictable for the artist, but since it is a thing that is unpredictable by the listener, it did not take me to a natural place. It threw me right into this chaos and left me there. It was as if I was in the middle of a city. The cars around me are honking constantly, and there is this bagel seller who keeps yelling. The entirety of the life within that city was present in my mind's eye.’ Interviewee D

‘The second song are a good example for the subject of these ups and downs creating *chaos*. In the second song, the social places are in the process of being changed. In other words, it tells of a story of a person working in a business centre during the day and going to a bar after work during the evening.’ Interviewee E

‘The *sudden* nuances create spatial changes rather than emotional changes. For example, while listening to the second work, your mind *cannot fully focus on designing places*, because the song prevents you from thinking or having a stable mindset...Surprises may cause that place to change and create a different place. This may be the reason behind those places that I cannot fully describe.’ Interviewee F

‘I am looking for a pattern in the nuances. But I am having difficulties finding it in the second song. There are too many of them, and they are all so different...It is due to those nuances that I felt that sensation of *amorphousness* in the second song. It can be perceived as if that amorphous sensation arises as a result of the rhythm, but it was the nuances that gave me that sensation.’ Interviewee G

‘In the second song, thanks to the touches of the music in the background, I could picture a man chasing after a woman, and him pulling her by grasping her arm as if it is a part of a tango sequence. I think the surprises involve such sudden scene changes.’ Interviewee H

The Intervals

Intervals represent distances between components (e.g., notes, chords) in the composition. While they can be tangible elements, like notes in the musical flow or built structures in the physical environment, they can also be associated with the contrast of felt emotions. For instance, the affective intervals between calmness and serenity are much closer compared to those between happiness and tension. The emotional gestalts are always more perceivable in closer distances. However, the relations of affects also play crucial roles, just as they are closely connected to dynamics.

Composition 1 (Haydn) has *closer intervals* compared to the second composition. The smaller intervals led to a sense of control, a sense of predictability, and participants perceived the composition more easily. This allowed them a type of freedom, just like a graph notebook. They could perceive the lines, understand the distances, and fill the gaps with whatever they like. In Composition 1, they did not make any spatial interpretations, also because of the complex relationalities between the MDEs, as most spatial inferences were made already.

Intervals (Close) - 1st Composition:

Emotions: *secure, comfort, longing.*

Actions/Character: *narrower, very melodic, feeling a little more space, more organized, predictable, thinking about same feelings and places, influencing the intensity of emotions, perceive the song quite easily, singular actions.*

Places: **no comments made as places.*

‘The fact that the piano reached its current form during the Haydn period is very clear. That is why we are in a *narrower* playing field.’ Interviewee A

‘The first one feels *very melodic*, perhaps because of its narrow intervals. These are actually components that are not easy to distinguish. I couldn’t reach a complete decision regarding the feelings it has aroused inside me. The songs that have narrower key intervals leave you *a little more space* in terms of perception.’ Interviewee B

‘I believe what they mean is shorter intervals and those make us feel more *secure* and *more organized*.’ Interviewee C

‘I said there is a *predictable* distance because the melodies are close to each other.’ Interviewee D

‘That is actually something that is brought on by the song. If the musician needed to use this in the first piece, he could have increased the interval. But we could have stayed in the same place just the same. The *same feelings and places*.’ Interviewee E

‘In my opinion, the octave of a sound can affect the *intensity of emotions* as much as it affects the intensity of the sound itself. It can prolong the pain, and this might be alleviated with a decrease in octave.’ Interviewee F

‘In the first, the intervals lead to a sense of *comfort* and *longing*. We can *perceive the first song quite easily*, as it consists of familiar minor tunes.’ Interviewee G

‘I think only *one person’s voice* is heard in the first piece. For example, as a woman, I cannot go beyond the vocal range that I naturally possess. The first song makes me feel like this. Something is expressed with a *single accent*, language, and emotions from the mind of a single person.’ Interviewee H

Composition 2 (Say) has *distant intervals* in the second work, revealing surprises with wide openings that appear and disappear suddenly, impacting the feeling of

tension. These sudden changes between distant intervals made participants experience a diversified composition in terms of affective stimulants. Just like a city centre, the experience was not 'normal' anymore. Like the side-by-side parks and skyscrapers, the intervals created a contrast between the earth and the sky. Somehow, the experiencers were obliged to accept these changes within a tense, imperceptible and surprising environment.

Intervals (Distant) - 2nd Composition:

Emotions: *surprising, tension, excitement.*

Actions/Character: *feeling contrast, push the boundaries, wouldn't expect, change very suddenly, the song itself forces you, chaotic, goes beyond the limits of the normal, you cannot perceive, imperceptible, the story is divided into characters.*

Places: *unexpected places, trade centres.*

‘It feels like a heartbeat graph. Its ups and downs can take you to *unexpected places*. Combined with the rhythms, this effect is compounded, and this really makes you *feel that contrast*.’ Interviewee A

‘When you are listening to the second work, it slowly reaches a point where it becomes *surprising*, because it arouses curiosity regarding the involved technique.’ Interviewee B

‘Others [distant intervals] feel like a confluence of notes that *push the boundaries* and *you wouldn't expect* them to be put next to each other in an arrangement.’ Interviewee C

‘But in the second song, the distance between notes can *change very suddenly* and very extremely. Going to a note that is 8 octaves sharper: the stimulus mechanism was in effect right there. The second song had a livelier tempo, the *tension* of those intervals was high.’ Interviewee D

‘In the second song, *the song itself forces you* to use it as well. It is like it is saying "Look at those places, go to these places". Perhaps this can be explained like that. Since the place already contains a lot of variety, it expresses this variety by adding variety to the notes. It weaves a lot of things to describe the place. In my opinion, it describes things like trade centres, etc. from a very different perspective.’ Interviewee E

‘But in the second, they were *imperceptible*, and this led to a sense of *excitement*. When you look at it from this perspective, the second song is completely *chaotic*. It is something that *you cannot perceive*. And this is the bedrock of jazz. It pushes the envelope, goes beyond the limits of the normal, and uses other intervals instead of those intervals you can perceive.’ Interviewee G

‘In the second song, the emphasis on those contrasts brings the vocal range closer to bass on one end and treble on the other. At that point, *the story is divided into two characters* anyway.’ Interviewee H

The Beat Density

The beat density works in a nested relation with the tempo. However, unlike tempo, it expresses a density of a particular subject in the musical flow (e.g., instrument, voice). One can experience an attention-grabbing part through these densities. For example, even if the tempo is slow, an intensity of an instrument or spatially thinking, or similarly a crowd of people in a square, might draw the subject's attention directly to it. In this regard, the participants interpreted the MDE based on tempo.

Composition 1 (Haydn) has *low beat densities* within the calmer piano melodies. Participants stated that this low intensity provided a comfort where they can observe and perceive the flow. Density was like an affective weight in the experience. Some might like it and some other might not. In this case, no outsider's impact influenced their attention, so that they were eventually able to interpret the song and then their individual insights about the composition.

Beat Density (Low) - 1st Composition:

Emotions: *peace, concentrated, calm.*

Actions/Character: *leaves you somewhat free, concentration, not against you, focused, monotonous.*

Place: *defined space.*

‘The density of note beats is lower in the first song. I think this has certain effects. The human brain is a little interesting. I think that my thinking becomes inflexible when I get into it. Like when you want to create designs but there is a lot of noise around you. In such circumstances, you will have difficulties working with full focus. I think this is the main difference between the first work and the second work. The low number of note beats *leaves you somewhat free* and it is as if it is saying that it is working with you, *not against you.*’ Interviewee B

‘In the first song, the fact that the notes are played more *calmly*, more clearly and with softer touches on the piano keeps you in that context. I don't think emotional changes can have much of an impact. In terms of places, it does not lead me to alter the places I am imagining as much as the first song does.’ Interviewee F

‘In the first song, the low density of the notes and their proximity to each other, not in octaves but in their harmonic placement, directs us to a *peaceful* song, even if it is sad. It becomes a piece that is *focused on its audience*. We become the subjects.’ Interviewee E

‘The first one is somewhat limited and *monotonous*. Therefore, the place it leads to is a more *geometric and defined space.*’ Interviewee G

Composition 2 (Say) produced numerous stimulants such as attention, alertness and excitement with the high beat density. The intensity of various MDEs created a feeling of adrenaline and attraction, which was quite heavy for the listener. Eventually, the piece was so heavy that most people could not handle it for a long period of time. Interestingly, the reflections were pointing to the analogy of crowded city centres. They might be enjoyable, but the continuous chaos might create a cramp in the affective states of the experiencer.

Beat Density (High) - 2nd Composition:

Emotions: *tension.*

Actions/Character: *feel that adrenaline, could interact with that subject, song is challenging you, attract your attention, rush, cannot keep ourselves within the flow, forces us to listen to it, irregular steps of characters.*

Place: *crowded place.*

‘The second work of music took me to a *crowded place*. But this can be crowded as in a crowd of people or as a crowd of images you perceive... Either way, the feeling of being immersed in a crowd was there and emotion wise, I felt as though I was exactly where I needed to be to *feel that adrenaline*. In other words, I was at a place where I *could interact with that subject*. Regardless of that place being a place of fear or a place of adventure, I went there deliberately.’ Interviewee A

‘It is as though the second *song is challenging you*. But I feel like the first song is supporting you. Play in on background while working [the first song], and you can accomplish anything. On the other hand, the second song always wants to *attract your attention*.’ Interviewee B

‘Their effects are similar to tempo. Let’s say there are two works: they have the same tempo, but their measures are different. As they pick up in speed, that feeling of rushing increases, and this creates a sensation similar to what happens with tempo. I feel like I am repeating myself. But of course, if we played the first song with double the speed, it wouldn’t create the same effect. And it also wouldn’t create that feeling of calmness.’ Interviewee C

‘The second song had denser beats. Also, the frequency of consecutive beats was high. All of this created a feeling of *tension in me*. The reason for this tension is this *rush* itself. For me personally, that feeling of *rush* causes anxiety in me. The second song created that feeling inside me.’ Interviewee D

‘The high density of notes in the second piece and the constantly changing harmony *forces us to listen to it*. We cannot keep ourselves within the flow. This is exactly what affects the creation of places.’ Interviewee E

‘The density of the beats is much different in the second piece. It makes you feel completely different things. Again, it also causes you to fail to perceive certain things. It is as though it is taking me to one place at one moment and another place at the next.’ Interviewee G

‘In the second song, there is an irregular rhythm of three sixteenth note structures in a single beat. So, one of the 16th notes come a bit earlier than expected, and that surprises you. The fact that the unit of the beats also changes from time to time makes the *irregular steps of those characters* clearer in my imagination.’ Interviewee H

All in all, most of the affective interpretations were common in all MDEs. It seems that some of the interpretations were repeated. However, the reason for this was that

the songs were experienced together. The affective assemblage of the reflections affected the interpretations of MDEs. In terms of the findings of SRQ5 (*How do musicians evaluate musical design elements (MDEs) in terms of spatial characteristics?*), there are **two significant findings**:

- As the study showed in the first sections, the findings verified that **MDEs are nested elements that can decipher the affectivity of spatial elements through emotions**. All of the musicians evaluated each MDE in relation to another one, both in terms of their technical and affective features. Thus, the gestalts, the sum of relationalities are significant compared to the MDE's particular character.
- The character of the composition (i.e., the timbre of the place) determines the affective relations, and this **character cannot be thought of independently from people**. In other words, without emotions, the meaning of particular experience loses its essence. Thus, the affective quality of place is strongly connected to people, and to the socio-cultural and historical dimensions of the related context.

In the first phase, the study advanced from *place to music*. The interpretations took the parts of an affective assemblage (place components), i.e., places as a point of departure. The participants associated musical and spatial components explicitly with various affective, physical, and social components. Afterwards they composed the songs of the selected sites which revealed the affective embodiment of the places. This phase's findings illustrated that people define different characteristics when they handle place fragmentally, but can also agree upon certain aspects if they think in an affective and relationist way.

In the second experiential phase, the study advanced from *music to place*. The interpretations took the whole of an affective assemblage (musical compositions), i.e., emotions as apppoint of departure. The musicians evaluated MDEs almost through similar interpretations but in a more experiential and nested way. These intertwined relations between the stimulants of emotions revealed the complexity of affective assemblages. While the associations between music and place overlapped, the reasons behind these affections were supported by the nested relations between the MDEs. This result showed that no spatial elements can be evaluated singularly in terms of the composition character of place.

All in all, the findings of the first and second experiential phases show that MDEs make various associations between music and place possible. The findings revealed the complexity of affective assemblages through the relationalities of MDEs. The emergent micro-assemblages create larger unities in the flow. Most importantly, people mainly make sense of them through certain affective positions. However, the findings demonstrate that it is possibly to decipher the assemblages through the proposed MDEs, which should be evaluated regarding the physical and affective/emotional variables in urban design.



CHAPTER 5

CONCLUSION

The thesis presents an exploratory research in which music and place are examined together in a critique of determinism dominating the field of urban design. It starts with ontological and epistemological examinations of space and investigating different definitions of urban design. In doing so, the thesis discusses the fundamental concepts of place, the experience that is constructed by affective assemblages, meaning and relationalities of space as remarked within these definitions. In this context, it elaborates the notion of complexity in contemporary studies, and designates that these studies mainly investigate the concept through visual, functional, temporal and multi-scale dimensions (Alexander, 1965; Allen, 1997; Baynes, 2009; Ben-Hamouche, 2009; Boeing, 2018; Bourne, 1978; Cozzolino, 2020; Elsheshtawy, 1997; Ewing & Handy, 2009; Jencks, 1997; Kaplan et al., 1972; Laverick, 1980; Lozano, 1974; Mackinnon & Wearing, 1980; Rapoport & Kantor, 1967; Sadler, 1998; Salvati & Carlucci, 2020; Ulrich, 1979; Venturi, 1992; Venturi et al., 1972). This thesis suggests that the complex dynamism, multidimensionality and uncertainty of place result from affective relationalities. Based on this argument, it puts forward two essential concepts in the theoretical framework.

The first one is the concept of 'affective assemblages' introduced by Deleuze and Guattari (1987). Accordingly, affective assemblages describe self-organizing, unconscious and conscious heterogeneous structures in spaces (B. Anderson, 2009; De Landa, 2006; Deleuze & Guattari, 1987; J. Hillier, 2011; S. Legg, 2011; McFarlane, 2011a; Van Wezemael, 2008). They do not imply static or homogeneous totalities, but they consist of dynamic and variable associations and help better understand the place's self-organizing structure and sociological relationalities. A person is in a continuous relationship with his or her mind, other people and the environment in an affective sphere. Thus, the intersubjective partnerships help the

person make sense of these relationships and, thus, provide opportunities for comprehending the concept of complexity.

The second one is the concept of 'emotional gestalt' (Berrios, 2019; Castelfranchi & Miceli, 2009; Thagard & Nerb, 2002; Town et al., 2020). The thesis proposes reconsidering the gestalt principles, which are often discussed in terms of form and visual qualities in urban design. Instead of this adoption, this study examines the significance of emotional gestalts through affective relationalities as well as their assemblages that are established within the place experience. It asserts that the emergences revealed by emotional associations in mind are so complex that people often cannot reflect on their emergent feelings/emotions/affects through representative mediums such as words and numbers. This stands as a problem because contemporary studies investigate singular affective spheres. They do that by categorising quantitative and qualitative data as much as existing scientific methods allow and also it is habitually practical to pursue this way. The thesis sees that this kind of singularization of such a complex phenomenon does not adequately explain urban design. It omits the emergent affective states, in which sensory and emotions interact and trigger each other continuously through experience, affects the meaning of the place, its interaction with the people, and ultimately, the reproduction of the space. Just as people perceive an affective relationality while listening to a piece of music, this study asserts that place experience also reveals an affective assemblage. Often, it is not easy to describe this state of mind. Music comes into play at this point and allows the study to explore the affective sides of place experience.

Music is a universal phenomenon that has been examined in regards to its affective, social and communicative features by almost all thinkers in history (e.g., Darwin, 1981; Plato, 1993; M. Weber, 1958; Wittgenstein, 1980). The relation between emotion and human reasoning is also something often highlighted (e.g., Damasio, 1994). The neuroscientific studies in recent years go further and neurologically explain affective communicative bonds that people activate as people's indispensable part of life (Egermann et al., 2015; Levitin, 2006; Paulson et al., 2013). These recent discoveries point out the non-representative thinking, as an emerging

philosophical stand. This thesis pursues the opportunities of this stand and sees the phenomenon of place as an affective interface.

The study embodies affective assemblages through musical thinking, in other words, the experience that words and numbers cannot describe. Thereby, to understand relationalities in place, the study analyzes the emotional settings that form the basis of social life in urban design. It does that in two consecutive experiential phases through which different results are produced at each new step and form the basis of the next one. As a result of this exploratory journey, the findings show the salience of analyzing affective assemblages to decipher and comprehend the concept of place and intersubjective processes in urban design. They also illustrate the correlations between music and place experience through the MDEs and propose a novel methodological framework for assemblage thinking.

In this regard, this chapter, firstly, elaborates on the theoretical contribution of the study in relation to the main research question and how the concepts of music and place can be related in urban design. Secondly, it discusses the contradictions that designers will naturally fall into. Thirdly, it presents the methodological contribution of this study and considerations that can be taken in urban design. Finally, the chapter discusses the limitations observed during the research process.

5.1 How can music and place be associated with each other in urban design?

The findings of this thesis assert that an assemblage thinking perspective can open a new window to urban design and the intertwined association between music and place can help to do that. When taking this perspective as a point of departure, four basic inferences become salient: (1) Complexity: Beyond Representational Thinking; (2) Emotional Gestalts: Complexity of the Affective Mind; (3) Affective Assemblages: Place as an Affective Embodiment; (4) The MDEs: Deciphering the Affective Relationalities.

5.1.1 Complexity: Beyond Representational Thinking

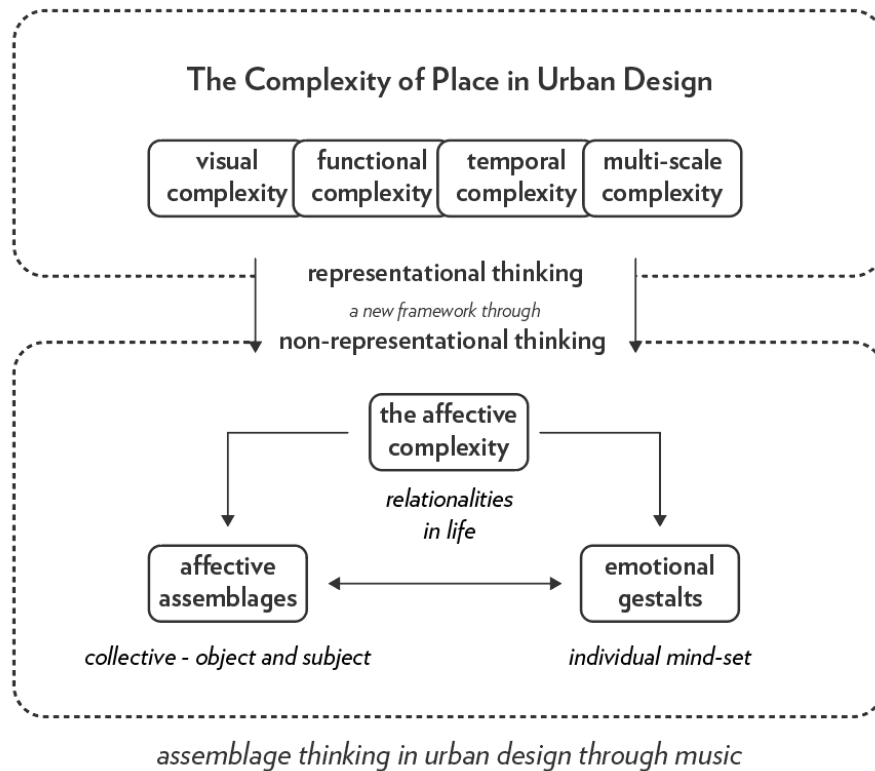


Figure 5.1. Complexity: Beyond Representational Thinking

Associating music and place provides an opportunity to decipher the complex relationalities in place-thinking. Words and classifications are often inadequate to describe the self-organizing emergent structure of these relationalities because they constantly renew themselves, and consequently, reproduce the space and communication mediums. In such a dynamic process, the unpredictability of social qualities sets the limits for handling complexities in representational theories (Figure 5.1).

At this point, the notion of '*control*' comes to the fore in traditional approaches, particularly in the sense of controlling the spatial phenomenon and all actions that take place in it. However, if complexity is defined as "*the state of total confusion*

with no order” (Cambridge Dictionary, 2020), conflicts arise due to the ontological nature of complexity because ‘*control*’ is ontologically connected to a type of order and standardization. Even the definition of complexity can not be fully formulated because it naturally resists reductive approaches (Gershenson, 2008), the claim to rule over it remains primarily unsuccessful. Strange attractors that constantly appear somehow steers the system into unpredictable processes (e.g., Poincare's Butterfly Effect: Lorenz Strange Attractor).

Complexity is addressed through *visual, functional, temporal* and *multi-scale* frameworks in urban design (Allen, 1997; Baynes, 2009; Ben-Hamouche, 2009; Boeing, 2018; Bourne, 1978; Cozzolino, 2020; Elsheshtawy, 1997; Ewing & Handy, 2009; B. Hillier et al., 1976, 1987; B. Hillier & Hanson, 1984; Bill Hillier, 2007; Kaplan et al., 1972; Laverick, 1980; Lozano, 1974; Ulrich, 1979; Venturi et al., 1972). The study adds the *affective* framework to the explanation of complexity in this field. The role of the affects in *actual life* requires this effort. It asserts that the role of the affects in *actual life* requires this effort and structures this argument based on the groundbreaking inferences of Jane Jacobs (1961), Alexander (1965), and Norberg-Schulz (1984) on space and life of cities. When place is considered as an affective interface (of life), it can be proposed that the complexity emerges from those relationalities, from one's individual and public interactions.

Moreover, in decision-making processes, the mind acts under the influence of emotional and rational stimulants. The classifications of rationalism emerge from the relationality of emotion and reason. At this point, a critical crossroads emerges. When rational and emotional minds are considered within a fragmented duality, the one falls into a deterministic trap of making singular and disconnected classifications. Such categories fragment the actual dynamics of life in pursuit of controlling emotions in favour of rationality. However, the actual life arises from the relationality of reason and emotion. Of course, there is also rationality in this relationality, but the definition of its context and how it occurs requires the microanalysis of neurological behaviours of the brain. Speaking from within the boundaries of this thesis, it becomes possible to argue that a consideration of these

two phenomena in a single sphere allows an examination of the complexity of place and its influence on communities to affect each other.

In this context, **the study's findings show that place is an interface between emotion and reason and the same type of relationality also exists in music.** The verbal transmission of the complex structure of experience, especially when done in musical terms, can transcend the reductionist aspect of representative mediums such as words and numbers. Compositional and affective partnerships in the first phase support this situation. In this phase, people were continuously exposed to different triggers, sensorial, emotional, and memorial, in their experiences in place. When the complex frameworks created by these triggers could not be shared over rational representations, an inevitable omission was unveiled. In this case, most research structures fragmentary classifications of numerical or rational evaluations because only through this way, it seems possible to agree on constants within the limitations of existing scientific methods.

This study shows that it is also possible to stretch the existing boundaries out when affective mediums, such as music, comes into play. The common language produced through emotions plays a liberating role with an emancipatory approach in place-thinking. This becomes not a static language but a felt and lived experience that is produced through affective assemblages of relationalities at the individual and intersubjective levels, and music allows them to be described clearly and easily.

All in all, music and place can be associated to understand and demonstrate the complexity of place. Music provides opportunities to think of the framework for dealing with the notion of life through affective and non-representative mediums. In a world stripped of representations and static resistances, through this way, it becomes possible to grasp an open, emergent and self-organized flow. More importantly, music provides opportunities to describe and understand the assemblages formed by heterogeneous conjunctions, not through totalities, but on affective mediums.

5.1.2 Emotional Gestalts: Complexity of the Affective Mind

When the concept of place is considered as a matter of complexity in life, it becomes necessary to make sense of how people perceive the emotions in the place experience. In experience, when people are exposed to external triggers, one experiences the coincidence and integration of different emotional settings. These emotions work in relation to each other, not singularly. People experience the place affectively through emerging gestalts revealed by this relationality (Figure 5.2).

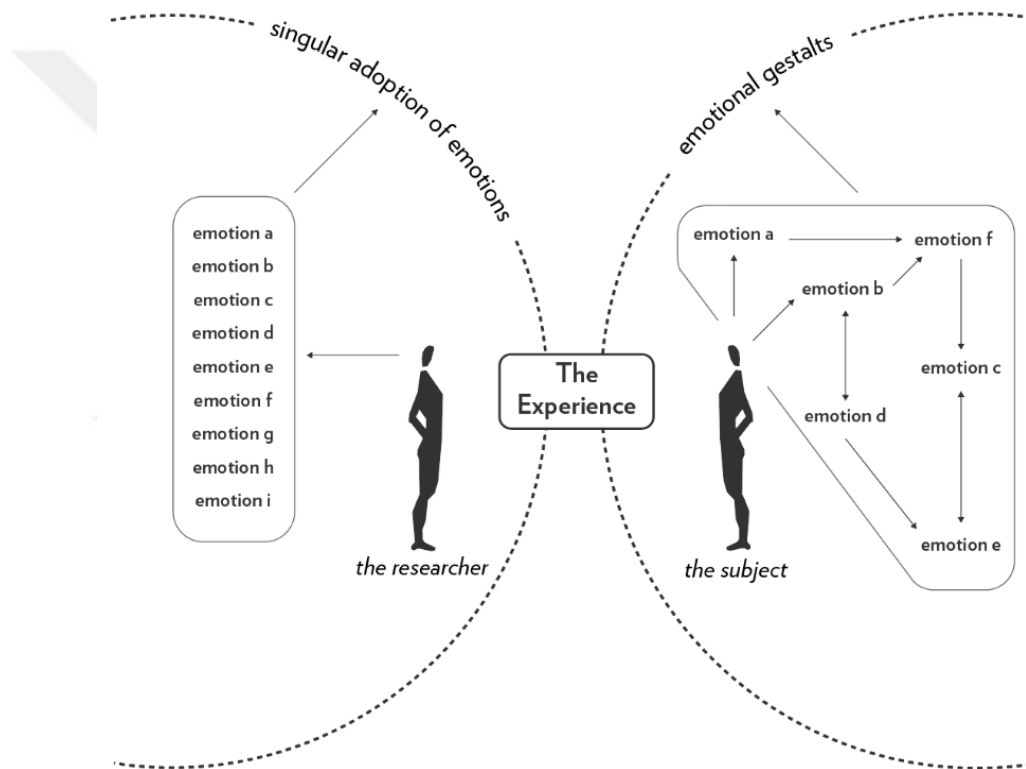


Figure 5.2. Complexity of the Affective Mind

In this context, **the findings shows that it becomes no longer meaningful in urban design to define the perception of place through singular emotions** because in a multiple-dimensional and intersubjective environment, a person involuntarily

programs himself or herself according to the presented representations. Connecting to these static notions inevitably erodes the meaning of experience. Of course, reflections such as happiness, excitement, peace, or confidence give clues about an experience. However, they do not always represent the overall affect of all emotions that may interplay in one experience or extreme (unnamed) emotions can coexist within the same experience. They often emphasize the singular significance of emotions.

The consideration of emotions, feelings, affects and modes (affective phenomena) requires the definition of the psychological reactions based on singular representations. Because the interacting affective states co-create new gestalts that reveal continuous emergences. At this point, once again, the boundaries of verbal language remain insufficient to define these affective relationalities between people and the environment.

The study established an affective communicative association between music and place through the compositions as in the first phase (see section 4.1.2). In other words, it became possible to decipher the emotional gestalts formed through assemblages. Jane Jacobs (1961, p. 112) refers to such a gestalt in her following statement: *“All experiences have taught me something. It may be unprovable, but I think I know what a good place is.”* In the last part of the first phase, when participants listened to each participant group’s musical compositions of the visited sites, in such an indescribable way, they were able to identify which music belonged to which site.

All in all, music could help decipher the emotional gestalts formed by affective assemblages in another dimension. People made sense of these gestalts that they had difficulty trying to make sense of and they could achieve this through the affective integrity of the music. This method allowed participants to overcome the classified and singular comprehension of the current approaches and express themselves more easily.

5.1.3 Affective Assemblages: Place as an Affective Embodiment

This study focuses on understanding urban design through the relationalities of affective states between people and the environment. When the designer deals with the place only through existing representations and mediums, its ontological foundations and the dynamism of life are not considered. For instance, with the assumption that the city is a living organism, today's urban design discourse defines the parts of the spatial system through the biological parts of the body such as the heart, spine or artery. Although this approach allows the city to be formulated as a whole, it closes itself to contingencies since the body parts are defined in a highly static and only formally connected way. However, all these parts, in fact, are connected organically to each other in a dynamic manner, feeding one another, holding together and contributing to the continuity of life at all levels. When seeing the place from this perspective, a significant problem arises in today's urban design discourse.

In human biology, such organs are consequences of millions of years of an evolutionary process. Conversely, urban life exists in a way that constantly renews and changes itself much faster. The comparison of the historical processes of human evolution (seven million years) and modern cities (two hundred years) can simply show that these analogies are reductive in terms of timescales. Cities evolve much faster and contingent than human body parts, as it evolves through a much more dynamic state.

Alternatively, the body's unconscious or conscious neural network might better reflect the relationship between people and the environment. This system is alive and constantly changing through emotional experiences accumulated in time. In this perspective, it becomes salient to read the biological functioning of spaces through affective assemblages. Because, in addition to reading the biological bodies, understanding the dynamics in and across these bodies as fired up by emotional experiences become salient. Assemblage thinking allows that. It helps decipher the space as an extensive neural network that emerges through affective relationalities

(B. Anderson, 2009; De Landa, 2006; Deleuze & Guattari, 1987; J. Hillier, 2011; S. Legg, 2011; McFarlane, 2011a, 2011b; Van Wezemael, 2008). From this point now on, a visual or functional design approach remains no longer sufficient in urban design because this adoption is far away to comprehend the affectivities of the bodies and their way of communication and reproduction through the spaces. In order to overcome these limitations, affective variables are needed to enlighten the relationship between people and the environment.

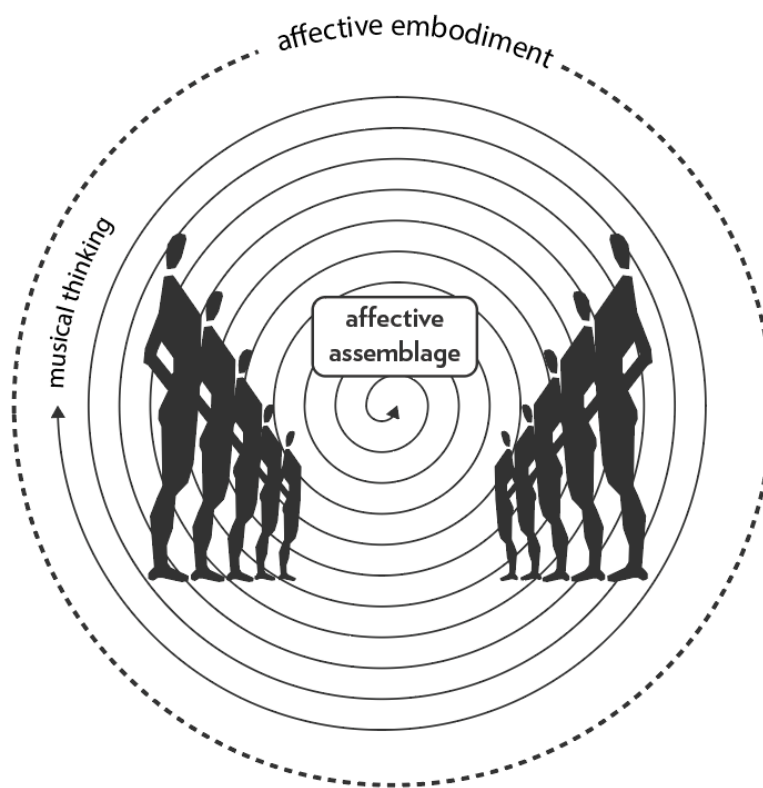


Figure 5.3. Affective Embodiment of the Place

The study shows that while associating place and music, **the embodied forms of affective assemblages about the place can be experienced through music.** Embodiments gain meaning through experiences. As experience emerges within a correlation between time and space, no experience is singular or disconnected from its surrounding cosmos. The embodiment is a process and a consequence of this

dynamic relationality (Figure 5.3). Rather than a representational medium, it should be adopted as an affective 'embodied experience', as mentioned by Nigel Thrift in non-representational theory (2008).

In the first phase, the embodiments of affective atmospheres were constructed and emerged from within a collaborative practice of dialogue and music composition. Through this way, emotions and the assemblages of heterogeneous internal and external factors emerged (2006). These emotional interactions, musical notes, and relationalities of the MDEs, and instruments allowed participants to embody their shared affective experiences.

At this point, it is essential to understand that, even if the same participants (from METU and TFL) experience the same places as in the first phase, they could make different interpretations in different circumstances. The notes, chords, tempo would change in reference to the time and space conjunction and its emerging conditions. However, they would perhaps construct a similar affective partnership. This dynamic but shared state of emotion constantly reveals itself and defines an ontological framework to consider place as an affective assemblage.

The emotional sphere that people unconsciously and consciously communicate makes life meaningful, and urban design has a significant role as it is directly related to this shared interface. The relations between tangible and intangible components, subjects and objects continuously recreate the intersubjective world of affective assemblages. Associating music and place reveals the phenomenological insights, enabling one to fill the gaps to comprehend the place-thinking over affective relations, i.e., the interactions they establish with each other and their environment. Here, music does this to a considerable extent by embodying emergent affectivities that are constantly changing and moving in intersubjective dimensions.

5.1.4 The MDEs: Deciphering the Affective Relationalities

Perception divides experience into categories to grasp complexity, portions the problem into pieces. This is one of the very basic working principles of human logic. The rational mind makes evaluations through certain mediums often through words, numbers, and figures to make judgments over cause and effect relations. However, it should not be forgotten that the qualities that determine the character of a 'fact' do not emerge from the singular representation of the fact but its relation to other facts. The meaning stems from this relationality, and thereby, changes and develops, and continues to regenerate in time.

The study aims at deciphering the relationalities of place through music. Therefore, it is required to establish rational connections between them, to experience and evaluate their associations. Naturally, it is not possible to clearly define the exact number of shared elements between music or urban design. However, the study suggests that one can benefit from the design elements. At this point, the study determines six basic elements (i.e., MDEs: tonality, tempo, rhythm, dynamics, interval, beat density) to capture affective assemblages, to make it easier to read the spatial experience and to combine them as an experiential embodiment.

In this way, affective relationalities between place and music are interpreted not through physical attributes but through sensorial and affective relationalities that occur in the experience. However, it should be noted that, in the first phase, the study established technical and categorical relations between music and place. The significance of the emotions for the intersubjective process and the importance of relationalities between MDEs are determined at the end of the first and during the second phase.

Thus, one might assume that it followed a type of mechanized process until it discovered the core position of emotions for the experiences. The musical compositions show that the affective qualities are produced consistently for both sites. However, the findings also illustrate important implications for the MDEs.

When they are classified based on singular quantities or attributes, as it is done at the beginning of the inquiry, the meanings of affective conjunctions are lost. In other words, while the study asserts that the MDEs are necessary to explain the affective qualities of the place, they do not fully reflect the resulting embodiment. They create a ground for discussion to make sense of the experience and to co-generate a new experience through a creative act. As a matter of fact, their relationality is rebuilt affectively through discussions over composing the musical pieces. Individual elements are integrated, and the meaning of their relationality is refined, and intersubjective affective discussions provide new opportunities for emergent occurrences. In this way, they reveal the affective embodiment of place which is still difficult to describe and associate verbally.

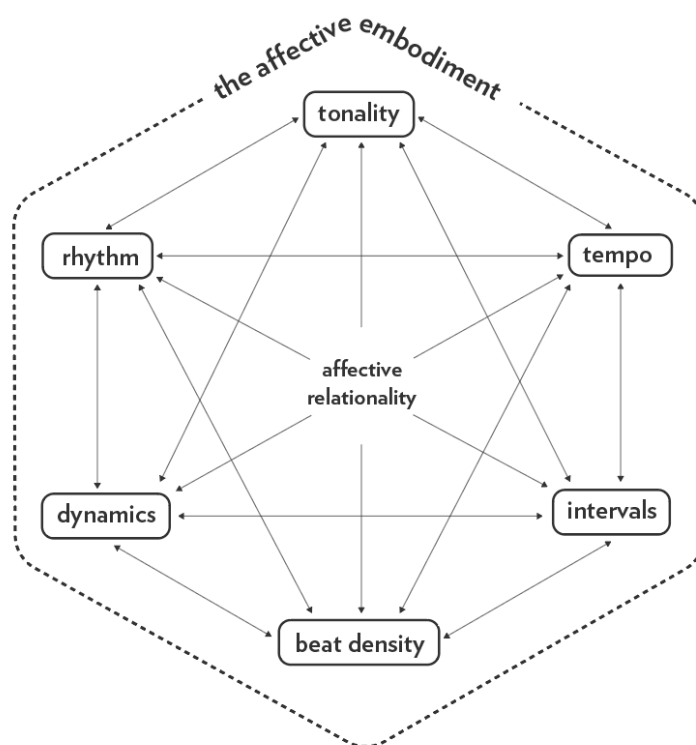


Figure 5.4. Deciphering the Affective Relationalities

As a result, although the instrumentalization of the MDEs provides a reference in terms of establishing the links between place and music, it does not give satisfactory

results about space when evaluated alone. This is undoubtedly an inference realized as a result of the first phase. It must be admitted that before starting the evaluation of the first phase, such a hypothetical error was made. Our learned design reflexes inevitably sought ways to design places better by using music at the beginning of the research. In other words, the study positioned itself to construct a better urban design model by instrumentalizing music. This was surely an acceptable pursuit in terms of representative theories. However, music revealed a much extensive frame than a phenomenon that could be instrumentalized in the research process. It provided opportunities to understand the emotional experiences of life embodied in the space and made it possible to realize the heterogeneous structures of emergent and self-organizing affective processes. Ultimately, the experience of relationalities in the composition process shaped the participants' interpretations in Phase 1 (from place to music) and Phase 2 (from music to place). The dynamic affective assemblages provided by all these mediums determined participant interpretations as well as the research approach itself.

In this case, music and place became mediums that decipher affective and emergent processes when they are dealt with instead of as separate phenomena. In other words, when life is adopted as an assemblage of reason and emotion, music and place reveal some of the numerous interfaces that allow people to grasp and experience this emergence. Therefore, while describing places through music, participants constantly focused on emotions and relationalities between the MDEs. Significantly, the second phase (from music to place) also showed that place, emotions, and music work very closely as how most qualities that make sense of the place are connected to the mind and to affective qualities. Therefore, it is suggested that the relationalities can be read through the MDEs, but it is not possible to define the right or wrong method precisely. Therefore, the relationalities can be read through the MDEs, but it is not possible to define the right or wrong method precisely. It depends on the context of the problem and on the related affectivity. This is perhaps the most critical finding of the experiential journey, and it is discussed in a separate section because it accounts for a crucial dilemma for the designers.

5.2 The Dilemma of the ‘Designer’

Considering the findings of this study, one of the most critical questions arises as: How can the designer position himself or herself towards the place and the life that it hosts? Before thinking about the answer, it should be noted that the position of the study was entirely different at the beginning when compared to the end of the inquiry. This question in fact is closely linked to this shift. It may also have emerged as a natural and expected result of doctoral research and its learning process, however, it will be worth to note here the contradictions that we encountered as urban designers and to reflect on the inquiry process in terms of how it turned into an exploratory journey of repositioning ourselves.

In the initial phase of the inquiry, it was sensed that some relations existed between music and place and could not be described what kind of a relation this was and how it could be understood. The review of literature confirmed that this connection was established before and it was not a novel idea. However, the review also showed that the relationship between music and place was not investigated in a scientific study in urban design. Music offered an intense communicative medium, especially experientially and socially in place-thinking. From this point of view, the study tried to establish the associations between space and place through elements that are theoretically taken as a point of reference both in music and design (the MDEs). Thus, the first phase is designed on the basis of defining the semantic content of the place through music in two sites (METU and Maidan) that formerly and functionally stood on two extremes. At this step, it should be admitted that the study adopted a deterministic point of view while being in an effort of criticizing it. This was in a way an unconscious act, a strong derive to pursue what was learned before, memorized in a way, and transformed into a mental reflection. Ultimately, the goal was set to propose a better understanding of spatial design through music. This was an inevitable instrumentalization process. Nevertheless, at the end of the first step, the study discovered something else either. In almost all in-depth interviews, participants expressed sensorial and social experiences based on emotions/affects.

This finding showed that the communicative channels of music promote communication through affectivity and assigned meanings to the environment.

From this point on, emotions/affects played a fundamental role in the reconsideration and restructuralization of the theoretical framework and in the design of the second phase. The study discovered the critical role that emotions/affects play in discussing and understanding the place. It explored the associations between emotion, music, and place with eight professional musicians and designers. This was a much smaller group but with more experience in the both fields compared to the participants in the first phase. This provided a setting for intensive dialogue through which the microlevel decipherization of the proposed association could be done verbally.

The experimental findings primarily showed that musicians had similar spatial responses towards similar musical compositions. This result arose from the affective qualities of the contrasting music experiences. Musical features triggered similar emotions, and similar emotions triggered similar spatial features. In particular, when the study asked them to evaluate emotions and places in two separate steps (while listening to the selected music pieces), they could not imagine them independently because the mind embodied emotion by using the interface of imaginary places. This showed that affect/emotion was an irrevocable part of the mind as they constructed the reactions towards places in an assemblage of reason and emotion.

So now the question is: How can a designer handle these findings? This study presents a critical perspective on this question by approaching it from two different design positions. The first is the designer who accepts the existing representative organisation and aims to design a functional and aesthetic composition in a totality. The second designer is the one who is liberated from the ontological framework provided by representational theories and who pursues assemblage thinking and the domain of non-representation within still emerging frameworks.

The first position can be defined as a stance that aims for authority and control over the space. As the ultimate goal of urban design, this position claims to solve spatial problems by suggesting functional and aesthetic solutions within the traditional

perspective. It is a position that understands the place and argues that the designer can resolve and direct the space through the determined aims and targets. Even if any participatory processes are operated within this position, experts are seen as the primary decision-makers on behalf of the public.

Reading the findings of this inquiry can expand this position to include the music component in design process but for the purpose of this discussion, here, it is claimed that the reflexes of designers cannot go beyond the instrumentalization of music. The designer can think that the space can be designed better by using music and ultimately, by deciphering the affective bonds between people and the environment. In this approach, like composing a song, a place is adopted as an empty music sheet waiting for musical notes and components to be unified. Emotion is the glue that bonds these components. If the action of urban design is adapted as a matter of control, such design practice may show reflexes to design the affective character of the experience in spatial forms to create affective atmospheres through sensorial stimulants. In this approach, the most useful part would be the MDEs, since they present tangible categories that can be directly used in a design process. This can be a choice, of course, however, considering the main affirmation of the thesis suggests a much extensive perspective that go beyond the boundaries of strongly embedded and professionally approved ways of thinking about the place. This perspective implies the second position of urban designer.

The second position tries to understand the affective dynamics of space and the effects of embodiments. This position adopts the phenomenon of place in a more heterogeneous and self-organizing way. It seeks opportunities for a theory beyond representational components since the definition for euclidian interfaces remains inadequate. Thus, the current definitions of urban design and the designer need to be reconsidered. In this reconsideration, life includes a series of actions and these actions socially emerge within affective conjunctions. When the physical space is seen from within a life perspective, the possibility of designing the physical space in totality becomes invalid. This can stand as a big problem for the designer because when the concept of life is liberated from the rigid lines of the representative

doctrine, the learnt reflexes that claim to direct the space inevitably fail. According to this new understanding, life constantly and dynamically renews itself through affective assemblages. Rather than designing a 'thing' in linearity, the designer now begins to search for assemblages that emerge. Two different design practice can be examined in this framework.

The first one deals with the development of a new vacant land where there are no residents or users. Those who will live on such a land will make it a meaningful place through their unique affective assemblages to be constructed when the physical environment is built. In this case, the design's point of departure would be expected to be the functionality of the land. This is similar to the first sentence of a story. The emergence of assemblages will continue the case in time, and since the affective assemblages will never end, the design will never be finished.

The second design practice deals with the interventions in settled areas. Minor interventions may be required in this intervention process. Eventually, two questions arise regarding the role of place experience and the designer. Considering the scope of assemblage thinking, would it be correct to reduce the design entirely to experience? The answer is: No!

Assemblage thinking allows designers to consider a much broader framework that includes all dimensions of life that come together, interact with each other and produce new emergences, social, psychological, cultural, historical, physical, and natural, relying on the components of the assembled. Having said that, this study claims that experience is a crucial pillar to reconsider embodied forms. The bonds to be established between such dimensions to generate a broader comprehension. In this case, the place is considered a constantly changing interface of experiences, a medium for social reproduction. In other words, experience is no longer examined through the impact of physical composition but through what people create as assemblages in their minds, between each other and their environment in a liberating way. Thus, not only the space but the affective embodiment of the experience constructs the places.

The second question is: *Can some of the interventions be done by urban designers who will have a public role?* The answer is: Yes! The existence of urban design can only be valid depending on the actions that it takes. As long as the designer can concretize them within an emergent process, the designer can gain a public role. At this point, the ties between place-making and design come to the fore where the designer becomes the expert who reveals hidden relationalities of the place, not through Cartesian adoption but by interfering with semantic entity. In order to increase the contributions of such interventions, the designer develops design ideas, this time to improve the forms of interactions in public space and opportunities for people to construct affective assemblages with an aim to ameliorate the public life.

5.3 A Self-Emerging Methodological Framework and Considerations for Urban Design

The study itself was an affective assemblage. Its methodological approach revealed unexpected associations between place and music, which goes beyond the cause-effect relations of the deterministic approaches. Nearly fifty participants and more than ten musicians who participated in the two phases of the inquiry experienced and reflected this partnership (see Appendix B, C and D). It would not be wrong to assert that this process led to the development of as a self-emerged methodological framework. Particularly, examining public spaces in terms of affective assemblages and atmospheres through music introduced a novel action in place-thinking.

This affective methodology was born out of the constant mode of questioning the actions taken and reflecting on those actions in the inquiry process. Collaborations were made with other disciplines, where experts periodically came together to re-create the methodological structure of the research in response to the dynamic and continuous affective spheres emerged as a result of the implementation of each methodological action. The structure was developed in a progressive way by accepting the innovative findings revealed by the difficulties encountered during the experience gained in the inquiry. This adoption was always open to conflicts and

emergences where only the constructive contributions were sought. It was closed to the control and rigid approaches that the study intended to criticize. This methodological approach helped benefit immensely from the transdisciplinary aspect of the inquiry, the richness of intersubjective consensus examining numerous dynamics such as space, and the significance of intellectual gestalts emerging from different perspectives' coming together.

From this point of view, two crucial principles can offer an innovative methodological framework to urban design. The first is the reconsideration of the concept of experience in the practical and theoretical fields. The second is the consideration of space together through alternative interfaces and mediums, and the redefinition of the design as a process that stems from creative actions.

Rethinking the Notion of 'Experience' in Urban Design

Urban design is inevitably intertwined with the concept of experience due to its close relationship with the social space. This experience is a part of a short and long term life experience, compared to a momentary experience. When the problem is set within a life perspective, the designer faces a problematic of space that envelops himself or herself in pursuit of reducing this complexity. Whose experience is that? Of the designers or the people? The definitions categorized by the designer's perception condition the designer and reduce the world to his or her frame. However, these ascribed experiential qualities of space have the potential to change the problem itself completely. Therefore, singular design approaches that omit emergences create a black hole because of their ontological nature. Today, urban design is mainly reduced to singular and visual qualities, ignoring the affective dynamics of life, and tries to find its way in this pit. This attitude automatically instrumentalizes the experience itself and so reifies the notion of life. When it tries to simplify the challenges through functionalism, it blunts considerable relationalities of the social and environmental spheres in practice.

A similar situation is also valid for the methodological structure of research processes. When researchers disengage themselves from life by taking mechanized

actions in pursuit of rationalization, each step begins to function as a particular closed experiment. However, as a field that is intertwined with the field of social sciences, this will probably miss out the richness of social life and what it can contribute to place. Studies that are closed to contingencies and emergent processes repeat themselves by stereotyping and eventually becoming the victims of a tautology. This thesis asserts that the balance between control (expertise) and uncontrol (life) can positively affect the contribution of the research. In both design and planning education processes (which can be considered as junior research steps) and scientific research processes, the fact that the experience of researching itself can provide this balance to lead to the emergence of a dynamic and self-emergent method.

Rethinking the 'Mediums' in Urban Design

In today's circumstances, it is necessary to question the sufficiency of two-dimensional or three-dimensional representations in design comprehension (via pen, paper or virtual interfaces). Most design students leave a creative and affective process in the early years of their education. Especially after the second year, most of them are left alone with numerous classifications and regulatory details of planning and design practice. Eventually, they slowly lose their creative and affective intuitions and approaches towards place-thinking.

The intellectual mediums of urban design can not be limited to the mediums of pencil, paper or a scale. It is necessary to maintain and interiorize the notion of space/place much more effectively by creating mediums that touch life experiences and by increasing their interactions with other interdisciplinary creative fields. This study only addresses the significance of one of them, music, and shows that the profession (planning or urban design) can also be associated with performative actions of the public sphere. These mediums can stimulate affective assemblages to be experienced and reevaluated in terms of urban design practice. The performative actions in creative educational processes can enable students and researchers to become a part of the spaces that they examine. This stance can inevitably contribute to the internalization process of place-thinking.

5.4 Limitations of the Research

Every research contains a particular time, spatial, and organizational limitations within itself. This study also experienced some theoretical and methodological limitations derived from the exploratory aspect of the inquiry process. These limitations can be grouped under four subheadings as:

1. The profile of the participants involved in the process,
2. The categorization of relationships between space and music under verbal language,
3. The limitations of the MDEs and their need to be developed through different forms of affective interfaces.
4. Relying on the non-representative theory, which is an emerging paradigm and not fully clear,

The first limitation refers to the profile of the participants who were involved in the inquiry. This study could produce new knowledge with the participation of musicians. The same knowledge could not be produced only from the urban design perspective if they were not involved. Discussing music in an extensive range and performative actions revealed the necessity of musicians' contributions, as they made significant contributions to musical composition process and discussions on the MDEs. On the other hand, no information has been produced on how this method can work in groups where there are no musicians. This case rises the following question: *Can the study's methodology be applied without musicians when desired to operate in other inquiries?* Under the current circumstances, the answer to this question would be no, because the perspective of external domains (in this study, this is music) are critical where different internalized information is collided and operated under transdisciplinary processes. However, since the study investigated music as an art form of affective assemblages, other artistic activities, such as painting or dance, can also allow to emerge and integrate affective embodiments into the design process.

The second limitation comes from the constraints that the verbal language contains. The study defends that determinism assigns various meanings to control the place by breaking it down into small parts. It criticizes such a perception of place-thinking that instrumentalizes form and visual parts through pure rationalized methods. However, this work itself should be considered as a product of rationality. While conveying the information, the motive of classifying, putting it into a system, and most importantly, composing an understandable structure is inevitable, especially in a scientific research. When the interface is a written medium (the text), the structure is involuntarily classified and it becomes limited to the perceived meanings of the words used. Although the study tried to overcome these limitations by applying a series of phenomenological steps and musical compositions, the transmission of the inquiry experience may still remain limited to specific partial categorizations.

The third limitation involves the MDEs. The study proposed six design elements to associate music and place experience. These were already shared elements in music and urban design, yet experiential partnerships were embodied through them more conveniently. However, their classifications may have determined the limits of the relationalities that emerged between place and music. All in all, they were determined through the discussions of musicians and urban designers at the beginning of the research process. As the interpretations of place experiences might diversify, different MDE variations might also reveal different outcomes in place-thinking.

The fourth limitation relies on the fact that the study pursues non-representational thinking in its explanation of the conducted scientific inquiry but this thinking is a new emerging approach and it still contains terrains that are not clearly defined. For instance, with respect to this study, non-representational thinking leaves designers with a set of challenges when they quit conceptual representations. If the designer leaves the learnt reflexes (the anchored representations), interpreting the dynamic affectivity may evoke a sense of unnecessaryness to act as a designer. In such cases, they may drift apart from the idea of urban design. This, in fact, creates a slippery floor. The ontological positions of *design*, *designer* and *place* should be readdressed due to their positions in life. This should not mean the omission of form, aesthetics,

functionality and so on. After all, every existence emerges through these realities, especially through a form. Thus, rather than omitting these facts, it is necessary to see the deterministic traps in the design process and to rethink the place and its experience through the emergences that can transcend the existing representations. Assemblage thinking and non-representation theory give light for opening a door to explaining this phenomenon but they are still under work and thought, and thus, lack of concrete guiding tools for how to do that.

With this section, we have come to the end of this dissertation. However, the possibilities of affectivity and assemblage thinking are still waiting to be explored in urban design. The meanings that we assign to life and to our experiences are inestimable as they continuously impact us, enable us to evolve, make us think differently, see the ways that we could not see before. This study is an embodiment of this case as it changed its own mindset during the process and nourished from this philosophy. Yes, maybe the limits of its language limited its world, but it also showed that there are infinite ways to go beyond them.

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APPENDICES

A. Survey Sheets

Yerin Sesi - Saha Çalışması | METU İsim: _____

çizimler / notlar

1. Mekanın sizde hissettirdiği duygu hali nedir? (Ton)
 Durağan Duygusal 1 2 3 4 5 6 7  Hareketli Canlı 

2. Mekanın nabızı nasıl atıyor? (Tempo)
 Yavaş 1 2 3 4 5 6 7  Hızlı

3. Mekanında gözlemlediğiniz hareket çeşitliliğini nasıl algıladınız? (Ölçü)
 Tek Düzey 1 2 3 4 5 6 7  Çeşitli 

4. Mekanında sizi şaşırtan değişimler var mı? Varsa ne sıklıkta gerçekleşiyor? (Nüans)
 Hiç yok 1 2 3 4 5 6 7  Sıklıkla var...

5. Mekanındaki deneyimlerin ya da kütelerin birbirine olan uzaklığını tanımlayınız. (Tut Aralık)
 Yakın 1 2 3 4 5 6 7  Uzak

6. Mekanında algıladığınız yoğunluk nasıldır? (Ritim Düzeni)
 Az Yoğun 1 2 3 4 5 6 7  Çok Yoğun

Yerin Sesi - Saha Çalışması | MAİDAN İsim: _____

çizimler / notlar

1. Mekanın sizde hissettirdiği duygu hali nedir? (Ton)
 Durağan Duygusal 1 2 3 4 5 6 7  Hareketli Canlı 

2. Mekanın nabızı nasıl atıyor? (Tempo)
 Yavaş 1 2 3 4 5 6 7  Hızlı

3. Mekanında gözlemlediğiniz hareket çeşitliliğini nasıl algıladınız? (Ölçü)
 Tek Düzey 1 2 3 4 5 6 7  Çeşitli 

4. Mekanında sizi şaşırtan değişimler var mı? Varsa ne sıklıkta gerçekleşiyor? (Nüans)
 Hiç yok 1 2 3 4 5 6 7  Sıklıkla var...

5. Mekanındaki deneyimlerin ya da kütelerin birbirine olan uzaklığını tanımlayınız. (Tut Aralık)
 Yakın 1 2 3 4 5 6 7  Uzak

6. Mekanında algıladığınız yoğunluk nasıldır? (Ritim Düzeni)
 Az Yoğun 1 2 3 4 5 6 7  Çok Yoğun

B. Experiential Phase I: In-depth Interview Transcriptions

Author Note: The experiential phases are based on two exploratory phases, which include hours of interviews and focus groups. It is usually not necessary to give the raw transcriptions in the appendices section. However, we believe that the unity, the natural flow of these conversations might reveal different outcomes according to the reader's point of view.

INTERVIEWEE 1 (from METU)

How would you describe the place experiences during the workshop?

We knew what to do when we arrived there, but it was strange from a certain point of view. We don't really perceive our environment. We just move through those places and leave. But we never sit down and take a real look at what is there, not even for fifteen minutes. It felt strange to realize this. I don't think this is a good thing. We need to be mindful of our surroundings. Despite METU being a place where we spent a lot of time, I thought to myself "Why haven't I seen this place before?" This was especially true for the area with the slope. That place made me feel emotional. It was different and opposite of what I knew. It was a strange feeling. Realizing that I don't really see... Maidan was also different. Because I had never been there before. It was also a very different place. I don't know many other places like it in Ankara. There are many tall buildings. That created a nice sound barrier. Actually, I didn't like it very much. I didn't like it at all, but it was still a very different place that I didn't know existed.

How would you describe the tonality/affectivity of the places?

It felt very lively in METU, but there were also areas that were still. I mean, everything was mixed in together. Maidan was still in my opinion. We can make a distinction between these two. This distinction can be based especially on human activity. There were trees, buildings, and sculptures at METU. But people felt very lively because people were engaging in all sorts of different activities. Some were sitting and others were lying down or chatting with their friends. This was not the

case for Maidan. There was hardly any human activity there. It was physical. The buildings were high and tightly packed and the water feature placed in the centre was also a physical quality. But the human activity was denser at METU.

How would you describe the tempo of the places?

It felt like it was high in Maidan. I was particularly focused on human activity. People were coming from or going to places, and they were not hanging around. They didn't spend much time outside. Everything was indoors. In restaurants or buildings. People were walking, sitting, spending time, but they were mostly indoors. Nobody was walking around hurriedly. That's why it had a softer pulse.

How would you describe the rhythm/diversity pattern of the places?

I think METU was very diverse. There was the nature, the sounds, the smells... On the other hand, the buildings were also very different. There is a rectorate building and there is a physics department. They were also very different from each other. On the other hand, the activities people engaged in were also different. Maidan felt boring to me. There is a building there, next to an empty space, next to yet another building. That's it. All buildings are the same. The biggest difference was the restaurant signboards. And that means nothing. There was very little human activity. The water feature did not add much in this regard either since there were no humans around it.

How would you describe the dynamics/surprises of the places?

I have mentioned this before. The quietness of the place and the sloped area in the physics lawn surprised me a lot. I sat on that slope, wondering what its purpose is. That felt very surprising to me. The sculptures and other things were not very surprising, but I think they may be surprising for other people. The height of the buildings in Maidan actually surprised me, but it was not a pleasant surprise. There seemed to be a lot of contrast.

How would you describe the intervals/distances of the places?

In the drawing I made at METU, I portrayed three individuals as if they were situated closely in an empty space, while also using smaller forms to give them shape. I can't say for certain they are close or distant. I mean, they are distant in terms of actual distance but in the context of the distances in question, they are close. So, I can say that they were both. They felt very far for me at Maidan. It is like it follows a pattern of building, empty space, and building.

How would you describe the beat/density of the places?

The density was not concentrated at a single point in METU. It was scattered all over the place, but in a balanced way that encompassed the entire location. If we were to draw a circle to demonstrate this for Maidan, the outer lines of the circle would be very dense, and the inner space would be empty.

Were you able to relate place experiences to musical components (MDEs)?

I think music is a language that everyone can understand. Seeing is also a language that everyone can understand. That's why they are parallel to one other. For this reason, it is a very easy process to transfer what we see into music. You can convey what you see very easily, and I think everyone can understand it. A person can look at a place, listen to that music and fully understand it. Anyone can listen and understand that music, not just a certain group. Likewise, I think everyone can combine what they see and hear.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

I think it ended up going somewhere different and it became simpler. This happened due to time constraints. I think music needs to have five or ten major-minor shifts to really describe a place. Still, I was pretty surprised. Because even in that simplicity, it is obvious to which place that music belongs. It reflects the essence of the place. Completely reflects the feeling of it. That felt very surprising to me.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

We never argued. It was as if everyone had an idea. We just did it. When someone said, "we should add a road", others agreed. Everyone was satisfied with the outcome.

What do you think about the education method and the learning process?

There was a difference between participants in terms of education. But we managed to become very close in a short span of time, like in three or four hours. I think that was because of the emotional nature of our activity. When you approach someone emotionally, you connect with them much faster. When you enter a university class, you approach things from a technical standpoint. Usually, you ask questions like "do you have any siblings?" or "do you have a dog" when you are trying to get to know someone. But in these experiments, we started a process directly from emotions. I think this speeded up communication quite a lot.

INTERVIEWEE 2 (from METU)

How would you describe the place experiences during the workshop?

Frankly, I had prejudices regarding both areas. I live in METU. That place is like a home to me. I've been to Maidan before and it's a place I don't like. I hate being surrounded by so much concrete. So, I was a little prejudiced at first. But I realized both places had things I liked and disliked. It was not like the rhythm analysis we had done before. When I visited both of these places, I noticed that I was moving unconsciously. When I visited one of these locations to consciously perceive it, I noticed different things. This time, my visit was not just an ephemeral thing. I started to actually look at the movements of the people and animals there, and different results started to emerge.

How would you describe the tonality/affectivity of the places?

METU had a more lively and mercurial rhythm. In Maidan, the feeling was more monotonous, and it was as though everyone was acting in a robotic manner.

How would you describe the tempo of the places?

The heart rate at METU was mercurial. Especially in the points of the spine we visited, there were different, changing functions. In my opinion, people moved only in certain ways at Maidan and these movements were monotonous.

How would you describe the rhythm/diversity pattern of the places?

METU was more asymmetrical. The objects around the spine were all different. When we focused on the pool in Maidan, it was very symmetrical. From an experiential point of view, human movements at METU were more asymmetrical. Since the area is large, there were people who were acting as they desired. If we were to trace these movements, I am sure that they would not be symmetrical. On the other hand, a symmetrical and triangular form was apparent in Maidan.

How would you describe the dynamics/surprises of the places?

In general, I enjoy the details that lie in the background of the sculptures in METU. They create excellent details and can even surprise people. For example, when walking towards the Physics Department in the afternoon, the sun shining from the right can create pleasant surprises. In Maidan, this was more about buildings, a balcony ledge above buildings for example. The surprising elements were only physical.

How would you describe the intervals/distances of the places?

Of course, this existed in METU. The movements were denser, especially on the physics lawn. But I saw a more homogeneous density in Maidan.

How would you describe the beat/density of the places?

The distribution of people walking around or sitting in cafes was more homogeneous.

Were you able to relate the place experiences with musical components (MDEs)?

Absolutely. Frankly, I think we are a little prosaic about music. Not all groups were composed of people that had a close relationship with music. But this is pretty normal. In general, I think we reflected the emotions quite well.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

Of course, there were differences. For example, one group used minor notes in a place where every other group employed major notes. But we were able to reflect that mercurialness, for example, the happy and peaceful environment at METU.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

Obviously, we first started with the plan. We had a different idea. We intended to mix them all together on a single sheet of paper. But due to time constraints, we decided to create a collage. Then, we created the plan and assembled to collage by looking at the pictures and using them based on the emotions they inspired.

What do you think about the education method and the learning process?

It is very useful to combine different things in education as it reveals the similarities and differences of both parties. Our experience remained incomplete due to time constraints. We were not able to achieve what we wanted in a complete manner. It would have been much better if it lasted longer. But apart from that, it was nice to experience it, both as a personal experience as well as a social event. Mixing two or three different concepts not only consolidated each of them but also enabled people to learn about other issues and allowed them to see what they had in common.

INTERVIEWEE 3 (from METU)

How would you describe the place experiences during the workshop?

I used to go to the physics lawn. There have been many times I went there for a purpose, but this time I felt different things. Maybe it's an area that is always on my route. But this is the first time I've focused so much on human movements and the sound of nature. I tried to be aware of the things that existed, but I did not notice. So, it was very good in that respect. There was a certain difference in Maidan. You know, the cities have water and there are statues inside them. It is a classic. Commerce and trade areas. Maidan was not a huge surprise, but even that place had some differences when viewed from this perspective. As a matter of fact, you can become aware of many things that you are not aware of but should be. I think we realized this.

How would you describe the tonality/affectivity of the places?

In terms of hustle and bustle, METU was very lively, but this did not bother us. People did not switch their places as if they were saying "I will get up, now you can sit". It was not uncomfortable. This is because we could hear the voices of birds and the sound of the wind next to all that movement. When we went to Maidan, there was something completely different. There was a lot of movement, but it was uncomfortable. For example, we had to speak loudly because of the music there. On the other hand, when I look at the lawn of the physics department, I can see a close relationship between the people, as there are many different people there, some reading books and some just sitting and relaxing. There is such an atmosphere. There were no lawns or similar places to sit down in Maidan, it was mostly establishments such as cafes and restaurants. One only feels the need to take a picture next to the place where there is a signboard that says "love".

How would you describe the tempo of the places?

This is very similar to the previous question. There was a lot of movement in METU, but the overall pulse is slow. There was something that moved very slowly, it felt like it was a place of stability. Maidan, on the other hand, felt unstable. We could not

understand much anyway, due to the high prevalence of loud sounds. The pulse was much higher.

How would you describe the rhythm/diversity pattern of the places?

The variety was great in both places, but the types were different. For example, I could see the diversity of nature at METU, and I could even hear the sounds of the wind and birds. Those who read books... When I listened closely, I could hear the sound of the pages turning and the voices of the dogs. If it rained, we would even hear the sound of the water. As I said, there was no diversity in Maidan as buildings and the music were dominant. Since there are such buildings all over Ankara, I could not see any differences. Sure, it came up short in terms of diversity when compared to METU, but that does not mean it lacked any diversity whatsoever.

How would you describe the dynamics/surprises of the places?

We sat down and tried to listen. When I start the experience, I could hear the sound of the birds and the wind. I was so surprised that I couldn't hear this before. This was the same at Maidan. It became very apparent when we spoke. For example, when someone asked whether we could hear the bird sounds, we remembered it, but we realized we had never truly "recorded" it. This came to our minds when we spoke.

How would you describe the intervals/distances of the places?

There is an emotional intimacy at METU, but it may be due to the distance between the locations. It is a spacious and green environment. When you turn your head, your eyes can wander far away. Even a sort of sadness can be perceived. On the other hand, Maidan is filled with a lot of buildings packed closely and even if you look directly upwards, you would have a hard time seeing the sky.

How would you describe the beat/density of the places?

There is a bush near the physics lawn in METU. That bush creates a sort of mental junction for you: do you want to go to the cafeteria, or do you want to rest? As for

Maidan, I am not sure. I cannot say the same things, as the physics lawn represents an almost tangible emotional density.

Were you able to relate the place experiences with musical components (MDEs)?

Let me say this first: when we first started, I believed it was impossible to combine these two concepts. The music is in a separate place, the place is in a separate place. I figured we lived in Plato's world of ideas. Then I realized that what we really do is directly connected with the music. We just need to be able to see it. We had a total of three meetings, and I came to believe in this even more with each meeting. I really think that music and space are not independent of each other.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

I can say that my mind was completely changed. To put it simply, I noticed that my mindset, which figured that music and place were impossible to combine, had changed. I can say that it has changed in this respect.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

First of all, we said that we are well-informed regarding the subject of space and thought that we should discuss the matter of integrating music. We consulted with friends who had knowledge of music and gradually tried to integrate it. We didn't do anything extra.

What do you think about the education method and the learning process?

I think anyone would be really happy when he or she sees that his or her field is connected with another field, regardless of him or her being interested in places or music. He or she will say that "my field can reach even these places" and become aware of this fact. If they had talked about music before, we would have no idea.

Now though, we can interpret it over the concept of place. Now, even students who have been apathetic have knowledge not only about music but also about place. So, I believe this was really useful in this respect. I believe that one negative side of this is that we conducted this way too late in the education process. I wish it had been done sooner.

INTERVIEWEE 4 (from METU)

How would you describe the place experiences during the workshop?

We had studied METU before. But this time, I wanted to observe it again without any prejudices arising from my previous studies. I wanted to do this because the conditions are always different. I experienced it with another group this time, and it was fascinating. It was a quiet and peaceful place compared to the other group of participants. In my opinion, the calmness made things happier and whereas it was boring for them, it was peaceful for me. I went to Maidan for the first time. There were three large buildings and from the moment I entered, I felt that they were disturbing. It felt oppressive and suffocated me. But it was still a lively and energetic place according to the other group.

How would you describe the tonality/affectivity of the places?

METU was happy, joyful, and exciting for me. It may have been physically calm, but that only made me feel happier. There was sincerity at METU. It felt as though that did not exist in Maidan. People would finish what they were doing and leave. Encountering people or meeting them was much more beautiful in METU.

How would you describe the tempo of the places?

METU was a little quiet that day. The place that we had visited was not very crowded, but the pulse was high because there was work to be done. I can say that the pulse of the movements was the same in Maidan, although the overall purpose was different.

How would you describe the rhythm/diversity pattern of the places?

I think METU was more diverse. For once, it provided opportunities and options. There were too many options. This was not the case for Maidan. Restaurants, maybe shopping ... At METU, on the other hand, you could finish something that you were doing in one place and move to another place you wanted.

How would you describe the dynamics/surprises of the places?

Since I am at METU most of the time, I was not very surprised. However, looking at things individually, hearing the sounds of the birds or meeting people I know felt very surprising. Since I had not been to Maidan before, I had no expectations. What surprised me was the height of the buildings and the difference between them. I was not expecting a pool at the centre of the place. It was nice to have an element of water, it added much to the place. There was one statue and I liked it. The area with the escalators was also interesting.

How would you describe the intervals/distances of the places?

I think the distances between buildings and open spaces are very balanced in METU. Going out from the Department of Architecture, you can see a fountain and an open space, then a large alleyway on the way to the library. Maidan felt to me like everything was on top of each other as if they tried to fit a lot of things in a very small space. It was disturbing.

How would you describe the beat/density of the places?

METU was generally dispersed, but small clusters were formed in certain areas. The area in front of the library, the departments or the physics lawn is a good example of this. Each had its own different purpose, whether providing people with a place to rest or allowing them to take breaks. There was no density on Maidan. I can say that there was only one central location. They were all introverted and I generally observed people sitting in cafes.

Were you able to relate the place experiences with musical components (MDEs)?

I think we were able to represent it with music. I believe that we were able to reflect our perspectives.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

Let me start with the Maidan. There were different ideas for Maidan. Despite my dislike of the place, other people liked it, especially the other participant group. As such, the music we created was a bit complicated. Especially the second one. Still, I think we were able to reflect our thoughts. It was said that METU was more boring, less dynamic. But we used a 4/4 rhythm for the piece we created and made it slower. And once again, we were able to reflect our thoughts. As a result, I think we were able to have the place and the music overlap.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

Well, we kind of started working from where we left off. The members of our group got along with each other quite well. They are also very valuable students. Our ideas were similar in most cases. More precisely, we were able to reach a consensus on most discussions. For this reason, we knew what to do. We just conveyed our knowledge using terms. The other participant group managed to adapt immediately. We created a plan and moved on to creating a collage. Along the way, we decided that we might as well add some clay. We had lots of fun.

What do you think about the education method and the learning process?

First of all, I think our communication skills have improved. How can we get other people's opinions? How can we find a middle-ground between their opinions and our own opinions? How can we start working in a harmonious manner in a short period of time? I think this improves our skills. It also helped me in terms of music as I

learned the terms involved. We also helped them. For example, I explained to them what a spine means. There was mutual communication. So, it helped a lot in this respect. I initially thought that this would be a very good thing to do, and it turned out as I expected.

INTERVIEWEE 5 (from METU)

How would you describe the place experiences during the workshop?

We are first year university students. This is the first time that we are attending such a workshop. I held a bass guitar for the first time in my life. It was the first time I met with a different group of people and carried out a common activity. The subject we sought to experience was also new for me. We did certain studies before, but they were limited to studio studies in METU. Things are different when it comes to real life. On the other hand, it was important for my own future plans. I participated eagerly and I think it was very nice.

How would you describe the tonality/affectivity of the places?

Maidan felt very unemotional to me. It was an insincere place, devoid of any love or emotion. A place where people are distant from each other. This is something that stresses me a lot. It was a place where people believed socializing was playing with their phones. For this reason, it was not a suitable place for me. The physics lawn is a place where we visit with our friends, where we smoke and where we go sliding when it snows. So, it is beautiful. For me, it is a place that has housed emotional and happy memories. It is a place full of emotion. Of course, that emotion changes based on what a person wants to feel at that moment.

How would you describe the tempo of the places?

Maidan's pace was higher. In general, the physics lawn is a place where people sit. Its visitors determine the pulse that is present there. But this was not the case for Maidan. This is because the people working there had a distinct tempo. The workers or company employees presented a certain level of movement. Even though it was

very quiet, the tempo was still present. On the other hand, even dogs go to the physics lawn to sleep.

How would you describe the rhythm/diversity pattern of the places?

Variety was not that high in Maidan, and it was more symmetrical. Asymmetrical movements occurred more often on the physics lawn. If we make a full comparison, the physics lawn was quieter than usual, but even then, a guy came out and said that he was going to water the grasses. It is highly unlikely to see such things in Maidan.

How would you describe the dynamics/surprises of the places?

In the physics lawn, what surprised me was that there was nothing to surprise me. My surprise of the physics lawn was derived from my previous experiences. But the "love" statue in Maidan turns out to be something that is changed on important days, for example. So that little detail was nice to see. The water feature being there was also a surprising detail.

How would you describe the intervals/distances of the places?

I felt more tightly wound, more stressed in Maidan. As a green space, the physics lawn is a place that has limits, sure, but since it is not surrounded by other objects, there are no actual restrictions around it. That limit exists only because you know it is there. For example, there are trees there, but it is not a place that is constrained and limited by bushes. As a result, the experiences were farther apart on the physics lawn, and they were more closely packed at the Maidan.

How would you describe the beat/density of the places?

Since densities were limited and focused on certain areas in Maidan, gatherings usually took place in cafes. This density does spread forth from the cafes. That is not so in the physics lawn. The displacement of density is in a state of constant dynamic change. When you do a film screening, the whole place becomes extremely crowded in just a moment. Bear in mind that this is a pretty large place. We went there with forty people and there was still some space left.

Were you able to relate the place experiences with musical components (MDEs)?

I think we associated them very clearly.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

While we were discussing things at first, everyone had different ideas. That was good. It was also nice to see the same thing happening in the other group. I've seen things from different angles and my horizons have been widened. We can interpret it like this: I was viewing things from my own emotional perspective. I didn't want to hear an energetic song regarding the physics lawn. But a consensus was reached as a result of our discussions, and we achieved great results.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

We became friends with people in our group. We had a short chat in the beginning and started working right away. Rather than focusing directly on the concept, we wanted to see what was there first. Then we thought about those things and what we were imagining. Two days seems like a short time, but we exchanged a high number of ideas between us. I was insisting that I wouldn't go up on the stage at first, but I ended up going up there with an instrument I had never played in my life. So, a form of sincerity developed between us despite the short amount of time we had spent together. For this reason, it was very comfortable. We asked a few questions and tried to establish a partnership.

What do you think about the education method and the learning process?

Well, regarding the concept of education, I recently started to think that I would become an academician. Of course, I do not have the knowledge and experience of an academician. But I am hopeful. I wondered whether we had experienced being an academician while we were teaching things to each other. At the very least, I can

play four notes now. By talking to other people, we were able to learn things from them. For example, I do not like cropping photos, but I saw that even something beautiful could come out of it.

INTERVIEWEE 6 (from METU)

How would you describe the place experiences during the workshop?

At METU, I always feel the same good feeling every time I leave the studio, no matter what. I love to observe people while walking towards the physics lawn. I love to observe the stairs, buildings, the relationships between these elements. The experience at METU was exciting and very good. And I felt relieved when I sat down on the physics lawn. Unlike most people, I liked the atmosphere of Maidan during our visit there. I liked that the cafes had a certain distinction between them. Despite the somewhat claustrophobic feeling of the buildings, we were still able to see the sky as some buildings were shorter. Knowing that the sky is included in the experience dissolved my feeling of being trapped and made me feel safe. I really liked the modern architecture of the buildings. I would like to experience this on a larger scale.

How would you describe the tonality/affectivity of the places?

I felt very nice and calm emotions at METU. They were pleasant feelings. It was neither a too intense of a feeling of happiness nor a type of melancholia. I just felt like I had relaxed. On the other hand, I felt more excited in Maidan. It is a place I had seen for the first time and never experienced before. I was wondering what would happen. The location of the pool was especially impressive to me. I was very obsessed with Lynch's "landmark" concept. I've been trying to integrate it into many works recently. There was a "landmark" there and we could use it as a reference regardless of where we were. This made me feel relaxed and happy.

How would you describe the tempo of the places?

Looking at METU, the pulse felt high-paced. Some people are just lying around, while others are walking. I think this was high paced. On the other hand, if we ignore

the cafes in Maidan, things were very quiet. But when you factor in the cafes, the voices and buildings of the place became much higher-paced and busy.

How would you describe the rhythm/diversity pattern of the places?

Everyone works on different things at METU. Location of buildings and other things like that creates a lot of variety. The variety of what we can do also provides freedom. I can go wherever I want. If I want, I can sit in the library or in the mathematics department. It offers me a really good amount of variety. For example, I can drink my coffee while sitting on the lawn. There was more freedom there than anywhere in Ankara. Although the locations were different in Maidan, we could do similar things. But when we look at buildings, we see similar structures.

How would you describe the dynamics/surprises of the places?

There were many surprising changes in METU. Even the scents had an effect on this. For example, while leaving the department of architecture, I caught the smell of the plants and then it disappeared all of a sudden. Rhythms and buildings suddenly emerge before your eyes. You see the library on one side and there are long gaps on the other side. However, there were surprising things in Maidan as well. For example, I did not expect a feeling of confinement. A feeling of being confined came upon me the moment I walked in. There were a lot of cafes and the fact that there was a pool there was a surprise. Just when the feeling of being confined became almost overwhelming, I would see a completely blue sky. Of course, this emotion can change in a moment. But my feelings at that moment were very beautiful. The number of surprises was not as high in Maidan, but I believe that I was able to experience them.

How would you describe the intervals/distances of the places?

Experiences at METU are in very close proximity to each other. In this case, you can sometimes experience one thing but suddenly experience something else. Physically speaking, there is a lot of variety in the distance between the buildings of METU. For example, even the fact that the distance between the trees planted on the road is

variable is a difference. Everything happened according to a certain order in Maidan. The proximity was higher in most cases but there was a constant rhythm.

How would you describe the beat/density of the places?

If we look at it as a design, everything is more spread out at METU. Groups of people were spread out over the area in clusters. We were confined to a certain area in Maidan. There, the peripheral areas were dense, but the central areas were more or less empty. It was like we were in a castle. We were surrounded by dense fortifications, but the central area was less dense.

Were you able to relate the place experiences with musical components (MDEs)?

I think it has been very successful. There are endless possibilities in design. It is a bit subjective, to be honest. You cannot say that there are absolutes. It is the same with music... The same qualities can represent different things for different musicians, even though they may be similar. Therefore, place and music are very similar, and it seems possible to translate them to one other. I think this association is very feasible and it is my firm belief that we have succeeded immensely. Considering the result, it made people feel comfortable. For example, when playing our METU theme in our composition, I really felt like I was in METU.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

I was more focused on myself. Completely focused on what I was thinking. But others were focusing on different things. Sometimes things happened that surprised me a lot. I think seeing these differences improved my vision. As a group, we visited more reasonable locations. Something did not happen in line with my own desires but since this was a group study, consensus within the group took priority.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

Our group appeared to have got along quite well from the beginning. I am a sociable person and I love to communicate. So, I tried to establish a socializing environment within the group. When we tried to make music, we had great cooperation. We didn't feel like strangers when we arrived there. We checked out our papers to see what we have done until that point. Then, our first step was to come up with a plan. We questioned how the design of the open space could be. We got everyone's opinion. At the end of this process, we created a plan.

What do you think about the education method and the learning process?

For me, it was extremely beneficial. My perspective has changed. I learned new things from new people. It was also the first time I attended a workshop. When I saw "Bilinmeyen Ulus" project, I experienced strange feelings. I was wondering how it would be like to experience it. Even in this short time period, I believe I developed myself immensely. On the other hand, I am wondering what the results would be like if the workshop lasted longer. If this workshop is repeated, I would gladly participate again. In my opinion, it was a very successful experiment.

INTERVIEWEE 7 (from METU)

How would you describe the place experiences during the workshop?

First of all, we did something with a different group of people. I understood that other people can perceive things very differently. So, it helped in this regard. On the other hand, there was a time in the past where I played music and I decided to pick up the violin once again. I visited the school and had my violin tuned. This made me very happy. I am glad I joined this workshop. I remember that, while I was using scissors to cut something, a friend next to me asked why I chose this department. And I answered that I like my department a lot. I told him that if he wanted, he could also come here and take an interest in this field. He said "Yeah, I am considering studying architecture now". In other words, we were able to teach certain things to them, just as they taught other things to us.

How would you describe the tonality/affectivity of the places?

Maidan felt a little mechanical to me. But for some reason, I felt happy there as well. That place was very dynamic and there were a lot of people there. Sure, it was not a natural place, but there was a certain kind of happiness. I am not sure how true this feeling of happiness is, however. There was also happiness in the physics lawn, but for some reason, there was also stillness. It was as if people were sad, and they were coming there to relax.

How would you describe the tempo of the places?

I evaluated this by looking at the people. Maidan was much more dynamic than METU. METU had more stillness. Other factors seemed equal in both places.

How would you describe the rhythm/diversity pattern of the places?

Maidan was more symmetrical. There was an empty area in the centre, and people were evenly distributed around it. On the other hand, people visiting the physics lawn were choosing where they would sit on their own. They could cluster anywhere they desired, and this was not based on a certain pattern or decision.

How would you describe the dynamics/surprises of the places?

I was surprised that there was nothing on the physics lawn to surprise me. Everything was very normal in Maidan.

How would you describe the intervals/distances of the places?

Things were packed closely in Maidan. The places are already in very close proximity and the things to do there are the same. Everything was very different on the physics lawn. I believe this stems from mentality rather than anything else. Everyone thinks differently on the physics lawn. But everyone comes to Maidan for a certain reason. For example, to sit down and chat with friends while drinking coffee.

How would you describe the beat/density of the places?

The central area in Maidan was so devoid of things that people were forced to sit on the peripheral areas. That's why there is an evenly distributed cluster of people. The distribution was broader in METU.

Were you able to relate the place experiences with musical components (MDEs)?

I absolutely believe that it is possible to make this conveyance. Whenever I considered a note, it always felt somewhat ordinary. But I discovered that this could branch and improve immensely as others carried out activities.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

Sure, it was difficult to work jointly, but it was also shown that it can also result in creating beautiful things. This is because of the fact that everyone involved in this process had a wide imagination and an unrestricted mindset.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

First of all, we discussed the concepts of plan and environment. We distributed the tasks together and everyone started to work on the subject they felt closest to. I started cutting but also asked whether anyone liked to join me since volunteering was very important. A friend of mine joined me and we completed our task together.

What do you think about the education method and the learning process?

I think it was a lot of fun. It made us consider a monotonous academic process from a different point of view. It turns out there were other aspects to our department. Even so, I was glad that I decided to study at my department.

INTERVIEWEE 8 (from METU)

How would you describe the place experiences during the workshop?

It was very nice, I already told many of my friends. I used to participate in such things in high school. I was very excited when I first heard about it. At the beginning of the process, I wondered if other people would participate or be unwilling. When we started, I noticed that everyone was enjoying their work and had observed the process. I would never have thought of many things that were created by our group. There have been things I was extremely surprised about. I think it was very nice.

How would you describe the tonality/affectivity of the places?

Since physics lawn is a place that I am very familiar with, I don't think I can evaluate it very objectively. But I wanted to listen to the light there, even though it was quiet during our visit. I think it's a place that excites me. Even though it is quiet, you suddenly see the green, the people, and the sculptures. Maidan is a place that is disagreeable to me. I do not like such places anyway. Yes, there are a lot of people, cafes, people going in and out. Was it dynamic? Yes, probably. But it was not the sort of dynamism that I would prefer. There was somewhat of a melancholic atmosphere in Maidan.

How would you describe the tempo of the places?

Both were quite fast but had different structures to them. METU had an irregular tempo, while Maidan was at a stable pace.

How would you describe the rhythm/diversity pattern of the places?

The range of notes was divergent in METU, while Maidan's notes were fast and monotonous.

How would you describe the dynamics/surprises of the places?

While we were at METU, a man wearing a cowboy hat produced a hose and started watering the lawn. There were not many surprising things in Maidan. The surprising elements were more common at METU.

How would you describe the intervals/distances of the places?

The distances were higher at METU and more tightly packed at Maidan. Maidan felt like a closed circle. The closely arranged design of the buildings was suffocating. While you are at the centre of it, you would wonder where the sky was. In METU, the distances between buildings were high and the height of the buildings was low. This has the effect of making you feel like the distances are higher.

How would you describe the beat/density of the places?

There are certain gathering areas at METU. Densities were higher there. In Maidan, the cafes were very busy, and the density was distributed in a circular manner.

Were you able to relate the place experiences with musical components (MDEs)?

I think we were able to.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

I was attempting to create a piece of music in my own way, but the process of composing music is very difficult. When I first heard about this study, I wondered how we would manage to do it and thought to myself that it is very hard to create a piece of music for a place. However, during the process of creation, our discussions within the group produced ideas like "this rhythm would be nice" or "this melody is suitable". As our ideas began to diversify, we ended up creating a result that I did not expect at all. I had many different ideas, but everyone contributed in their own way. No one was left out of the process.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

Unfortunately, I could not participate during the final day of the study.

What do you think about the education method and the learning process?

Learning something through experiencing is very different. For example, if they had just told us to go see the physics lawn, it would be very hard to produce these pieces of music. I think knowing that we will experience music allowed us to enter a different type of focused mindset. But when you combine music with design, one inevitably thinks about what to create. I enjoyed it very much. It was also very nice to do this with people I am not familiar with. I think it is very important to experience and learn. I do not think stuff like books or other things become permanent in one's head.

INTERVIEWEE 9 (from METU)

How would you describe the place experiences during the workshop?

I did not think I'd enjoy it to this extent. Everyone viewed this event like a group of participants would arrive from somewhere and we would visit wherever we were going to visit. But I noticed this: Some incredible ideas were produced. Especially by certain individuals. They said such beautiful things that it was as though we re-learned the concepts, we thought we knew. So, I thought that this is how teachers felt when they heard things like this from us. We created different things as a result of our interaction.

How would you describe the tonality/affectivity of the places?

Physics grass was very still. The place was quite empty when we visited it, but it still gave me peace of mind. But despite the stillness, there was a more positive mood at METU. I believe this is because we could do whatever we wanted. Since there was always circulation in Maidan, people were in constant motion. Compared to those hours, Maidan was full of hustle and bustle. For example, you cannot just lie down at whatever place you choose in Maidan. That place is a bit pretentious...

How would you describe the tempo of the places?

When we visited METU, it was slow. It was the same in Maidan. Maidan is usually very crowded during the evenings, but it was very calm. Both places were calm. There is a denser but smaller area at METU. Maybe Maidan felt calmer due to its large area...

How would you describe the rhythm/diversity pattern of the places?

Maidan is a very symmetrical place because there is the same thing everywhere. Their names change, but the places are the same. If we were to say, put a line in the middle to divide the place, there would be the same purpose everywhere. But METU is not like that. Maybe I'll go down to the Devrim for sports. Or maybe I'll visit the library to study or the cafeteria to eat. Maidan seemed more symmetrical to me. METU is different. There is a monument on the physics lawn, for example. People lay down next to it, and if you go behind it, there is a whole new, different environment.

How would you describe the dynamics/surprises of the places?

Frankly, there weren't a lot of surprises in Maidan. This is due to the fact that is a closed area. But in METU, the shadows of the trees fall on you and the sun shines down upon you. Then we move to another place. There's this feeling at the physics lawn. There are many different types of living things there, for example, the dogs that love to visit that place, and this distracts us. There are no distractions in Maidan or any of the things that we are used to seeing. Anything can happen on the physics lawn to surprise you at any moment.

How would you describe the intervals/distances of the places?

The distances were high at METU and closer in Maidan. There, the people move with the aim of reaching somewhere. It is not like that at METU, because the physics lawn is a place located at the centre of a huge area. Therefore, many places can be reached from it. That's why it feels to me like distances are smaller in Maidan. METU almost appears to be infinite.

How would you describe the beat/density of the places?

In general, there are two or three entrances to Maidan. When people entered that place, they would immediately go to the café closest to them. You can't roam around the place and the density is quite low. While you are going towards the physics lawn at METU, the entirety of the place feels like it is densely used.

Were you able to relate the place experiences with musical components (MDEs)?

I think it is possible. They can be associated with one another. But it is very important to know what details you will be focusing on in this process. What you focus on becomes gains great importance.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

While I was talking to other people, one of them brought forth an idea that was so opposite to mine that it came to take shape between the two of us. So, we decided to collaborate. This is a subjective process anyway.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

We decided to do everything we can to complete it despite our limited time. First, we decided what we wanted to do. Then we decided that, since planning is easy, we should create the collage. At first, we based our work on the plan and took Maidan as our basis. Our friends from the other group wanted a closed-off place like Maidan. Great ideas emerged in the process. We made a lot of modifications along the way. It was actually pretty nice to work like this.

What do you think about the education method and the learning process?

We have been working individually since we started. The best thing this study has given me was to experience teamwork. To get other people's opinions. Getting

critiques, having discussions with our teachers and we don't even get many ideas from our friends. But this study was so great that I realized that I had not even noticed the opinions of my friends. This adds a lot to a person.

INTERVIEWEE 10 (from METU)

How would you describe the place experiences during the workshop?

The workshop was enjoyable for me. But since the experience was somewhat complex for me, I cannot say for certain what areas I have experienced. For example, some of my friends visited us and sat on the physics lawn for about thirty minutes. But the physics lawn is a different place in our perspective and much different from their perspective. Experiencing it for an hour would not teach anything to them. I think they needed more time because the meanings of that place are different in our minds.

How would you describe the tonality/affectivity of the places?

Since my definition of an experience is different, both places were monotonous for me. Both were pretty boring. Of course, this is all in the context of that day on those experiences.

How would you describe the tempo of the places?

METU was slightly more still. Maidan, on the other hand, was more active.

How would you describe the rhythm/diversity pattern of the places?

Maidan is more symmetrical of course. As for the matter of monotonousness, there is only one entry point and places for specific purposes. Physics grass is a much more functional place. There are kinds of people there, some read books, others just sit and relax, and so on.

How would you describe the dynamics/surprises of the places?

We looked at it from different perspectives. For a change to occur, a change must occur on a stable plane. As far as I remember, the experience at physics was

monotonous. Maidan is not such an environment anyway. There were people sitting on the physics lawn, while there were people sitting there.

How would you describe the intervals/distances of the places?

Maidan had equidistant buildings that had certain functions. However, the distances on the physics lawn were just slightly further apart.

How would you describe the beat/density of the places?

Density was higher in Maidan. There were more people per square meter there.

Were you able to relate the place experiences with musical components (MDEs)?

After this process, yes, I can see how it can be done. Quite frankly, I was thinking about the harmony of music and space before the workshop. But it has become more tangible after this.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

I did not have any expectations, to be honest. But of course, the partnership and consensus have been great. I think we synthesized it well. We had opposite points of view, but we ended up reaching a common ground. There were people in the group who were playing the piano since they were five. We were educated in public high schools, so we just only recently became interested in art. I think we learned a lot from each other.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

It was not like a brainstorming session per se. Rather, everybody seemed like they knew what they need to do. When someone decided to do something, he would do it. But that was a problem for me. How do you know what to do?

What do you think about the education method and the learning process?

There was something of a hierarchy with the so-called "moderation". Perhaps it was because of that, but it didn't feel effective. There were two or three people in our group who did not contribute at all. But I know those individuals. Under conditions where everyone is equal, they would have made good contributions. There are no problems when you are considering whether you should do it or not, but once you decide to do it, there may be problems. On the other hand, there was no need for someone to take charge. The participants of the other group were more well-equipped than most of us. Not only in the subject of music, but in other subjects as well. They were looking at the issue from perspectives we did not consider or learn to consider. Besides this hierarchy thing, it was really enjoyable for me. It was a very good workshop.

INTERVIEWEE 11 (from METU)

How would you describe the place experiences during the workshop?

Most places we see while walking or while just passing by are places that were considered before us. This includes both elements structured by human actions as well as the natural flow of nature, as we can see in the formation of paths. These slowly start to take on a rhythm on their own. What we were trying to do was to notice these things. To look and to see are different things. We didn't just look there. We tried to see. We tried to make an analysis based on our environment and this allowed us to obtain the data that is necessary to put it into music.

How would you describe the tonality/affectivity of the places?

METU was active. In fact, the majority of the group described it as slower. The reason I said it was active is because of the fact that people didn't need to rush to places. When I visit the physics lawn, I can always find things to look at. Besides, Kızılay is also very active, but it is not a very cheerful place. That's why I said it was active here because there were so many things around to attract our interest. It was cheerful in Maidan, but not as much as METU. Of course, there are also things there

that attract interest... I don't know. The water element in that place added an emotional atmosphere. The place was surrounded by buildings, and it felt suffocating. I think it was closer to emotional. What I meant by active or cheerful was not present at that place. Elements such as the three pine trees found in METU did not exist in Maidan.

How would you describe the tempo of the places?

I think both were high paced. Both had a high pulse rate. I think both were close to 120 BPM. I am not even thinking about that day in particular while saying this. I realized that we, as METU students, made certain inferences based on our memories. Of course, if I think specifically about that day, the pulse was sort of slow. But it felt faster. There are people going in and out of classrooms. So, both places were close to being high paced.

How would you describe the rhythm/diversity pattern of the places?

Both seemed diverse. I can't say for certain at this moment. In general, there is something that is present at METU. The existence of a water feature makes Maidan also somewhat diverse. It is possible that Maidan was more diverse in general, but I wouldn't say that METU was not diverse. Considering it from the perspective of functionality, I would say that METU is more diverse. There are only things like cafes and restaurants in Maidan, but it is possible to do a lot more things in such places.

How would you describe the dynamics/surprises of the places?

I've never been to a place like Maidan before. Visiting that place surprised me spatially. When I consider it on its own, the sun shining from the left when we entered Maidan was very beautiful and I liked it very much. But if we assume that this was my first visit to the physics lawn, there was a lot of things that would have drawn my attention. The statue, the windows, the Kemal Kurdaş monument and so on are good examples of this.

How would you describe the intervals/distances of the places?

Our group discussed this matter. The distances were closer at Maidan if we consider it proportionally. In the physics lawn, the elements are farther apart. Maidan already feels more confined due to the presence of tall buildings.

How would you describe the beat/density of the places?

I had difficulties regarding the concept of density. I suppose I would say Maidan was busier, but I can't provide a concrete example to prove it.

Were you able to relate the place experiences with musical components (MDEs)?

Of course. We can put into music any emotions that a place can represent. We can represent that emotion by sharing it.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

I think the composition for METU created by our group wasn't very good, but our Maidan piece was spot on. Having a piece of menacing music to represent Maidan was a great idea. Our METU composition turned out to be a piece that you might hear at a festival, but I do not think that sort of atmosphere was present there. I can agree with the idea that it should be an upbeat piece, but I don't think the end result fits with the place at all. As I said, the Maidan composition was really suitable in my opinion.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

Unfortunately, I was absent that day.

What do you think about the education method and the learning process?

I came to take my first steps in understanding music. I liked learning the concepts of major and minor. We did a similar rhythm study before, but we didn't turn it into music. I know now how to do something like this by myself. So, this was good for me. I had fun; it was great.

INTERVIEWEE 12 (from METU)

How would you describe the place experiences during the workshop?

It was nice to see the differences. When you visit Maidan, you feel a lot of different things. This showed me that we need to examine things better. Other than that, it was nice to work with another group. It was difficult for me to represent things I have seen or felt with music. But it was very enjoyable to be able to convey it this way. It was a very good process for me, frankly. It showed me that I need to examine the space more carefully in everyday life. That I should avoid making thing monotonous.

How would you describe the tonality/affectivity of the places?

Whenever I visit METU, seeing the place intertwined with nature gives me both peace and joy, regardless of it being filled with people or being empty. Since the entirety of Ankara is full of buildings, Maidan felt somewhat gloomy to me. But it has a dynamic particular to itself. It is not still or calm, but gloomy.

How would you describe the tempo of the places?

Although we have not seen a lot of people in Maidan, it is a place with a high tempo. METU is also a very dynamic place. Both places are high in terms of tempo, but they represent different experiences.

How would you describe the rhythm/diversity pattern of the places?

There is always more diversity at METU. You are very limited in Maidan. You can have a meal somewhere or you can go to work. Anything can happen at METU. People can stop to have a chat with one other while they are going somewhere. And nature itself is diverse there. There are cats and dogs, and the wind... The people

there also adapt to this diversity. METU was more asymmetrical, and Maidan was more symmetrical.

How would you describe the dynamics/surprises of the places?

We are actually very used to METU ... The place is so intertwined with nature, and the people being so relaxed... It allows people to remove all thoughts regarding their lessons and classes and just live a relaxed life. There are surprising elements in Maidan, like the pool or the sound of the water emanating from the pool. But they weren't that surprising for me. These are things that are now everywhere.

How would you describe the intervals/distances of the places?

It was closer at METU because when you look at it from the context of mass, the buildings are farther apart, but the interaction between the elements are higher. There are no other interactions present in Maidan with the exception of those between buildings. Therefore, there were more interactions at METU. Besides the physical distance of the masses, I think the distance between them is not that high in the context of interactions.

How would you describe the beat/density of the places?

Things were more clustered in Maidan. People are almost always in restaurants. In METU, there are people, activities, and events around every corner. So, things are a bit more spread out in METU.

Were you able to relate the place experiences with musical components (MDEs)?

I think it is possible to unite these concepts. Even when listening to music, the lyrics or the melodies of a song can make you feel like you are somewhere else. Take the song "California Dream" by Sia, for example. Even if the weather is sunny outside, the song can make you feel like it is overcast.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

The first day was really rough. It's hard to reach a consensus. The other group felt differently than we did, especially about Maidan. But, as I said, building consensus is a difficult task. I think we were more dominant in METU. I believe that we could represent the energy of METU. It was more difficult to reach a consensus regarding Maidan. This is probably because they are always there, just like we are always here.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

We first discussed the subject of what a place should make a person feel. Well, actually, we started working right away. Our process of thinking was along the lines of "this makes us feel that way" and "if we mix this with that, that should create the emotion we are looking for". We tried to bring Maidan and METU together. We actually wanted to intertwine them. And this didn't turn out to be too difficult because everybody was more or less thinking the same thing.

What do you think about the education method and the learning process?

I realized that I always had great respect for my teachers. I really realized how hard it is to deal with us. The participants being in the same age group, in general, was a huge advantage for us. You gained a lot of respect from me just because of this. Additionally, we found the answer to the question of whether we should be academicians or not. Working with other people and conveying your knowledge to them is a difficult thing. So, this event ended up changing my thoughts on becoming an academician. As I said, it is pretty difficult. I didn't like the idea of becoming an academician in the past, but after this workshop, I want to become one. At the same time, we have also mutually learned something as students. We never placed that much attention on things like sports or art. But I believe that, if other participants can find the time to pay attention to such things, we should also be able to. It taught us a

lot of things. It was very nice for me. It was great fun. It was a type of experience that had me say "I am glad I participated" instead of "why did I bother". Thank you so much.

INTERVIEWEE 13 (from METU)

How would you describe the place experiences during the workshop?

It was very good for combining the views of us participants. It was rather nice that both parties managed to reach a joint result. We enjoyed bringing two different groups together.

How would you describe the tonality/affectivity of the places?

METU had a more relaxed environment. During our visit, the students took a break and the general atmosphere inclined towards resting. On the other hand, the atmosphere in Maidan made you feel like strolling around. So, I would describe the emotion at METU as peaceful. METU was more relaxed. But I would describe Maidan as more energetic.

How would you describe the tempo of the places?

Why do people sit on the physics lawn at METU? Well, they do so before or after going to their classes. On the other hand, there are many functions in Maidan: offices, restaurants, people trying to get on busses. There are only academicians and students at METU. The tempo is much faster in Maidan.

How would you describe the rhythm/diversity pattern of the places?

In terms of physical structure, Maidan was more symmetrical. In METU, even the existence of cats or dogs creates a sort of asymmetry.

How would you describe the dynamics/surprises of the places?

From the top of my head, even the people riding bikes may count as a difference that exists at METU. We heard bike sounds while we were sitting there. Physically, there were a lot of surprises at METU.

How would you describe the intervals/distances of the places?

Since Maidan is more closely packed, they were closer there. It was more spread out at METU.

How would you describe the beat/density of the places?

Everyone attempted to find a shaded location while we were lying on the physics lawn. On the other hand, there are too many places in Maidan, so it is scattered all over the place. But for the physics lawn, everyone comes to sit on the grasses.

Were you able to relate the place experiences with musical components (MDEs)?

Yes, I think so. While we were playing the music during the composition process, we could understand which song was about METU and which belong to Maidan, even if we weren't told beforehand. Frankly, this was surprising for me.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

Many people in my group were saying that METU was more active. I said the opposite. But we separated them in pulse and variety. Upon understanding what other people were thinking, I said, "Yes, I was wrong about this."

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

The first thing we did was creating groups. Then everyone started to work on the collage. We started working and followed through to the end. Combining nature and people was our fundamental concept.

What do you think about the education method and the learning process?

I was a little hesitant at first. The self-confidence of other participants was great. So was the effort to try to come up with something together as a group. Having these

two parties work on a common thing was a great idea. For example, we had friends who were thinking of becoming academicians. They thought that they'd mentor others for the first time in their lives. I think that process was very nice. There were also people among them who were familiar with musical arts. We could also have contributed a thing or two when creating music.

INTERVIEWEE 14 (from TFL)

How would you describe the place experiences during the workshop?

We visited METU first. When we entered the classroom, there were people we did not know but we quickly exchanged names and became familiar with them. The people in our group were cordial. We quickly moved forward and started working. We were all aware of what we were doing. On the first day, we could only observe. We arrived at the school during the afternoon and were divided into groups. Despite being older than us and being university students, METU students still asked for our opinions. That was pretty nice in my opinion. They were very familiar with METU, but we were familiar with Maidan. I enjoy this communication a lot.

How would you describe the tonality/affectivity of the places?

The atmosphere was pleasant, relaxing, and natural at METU. You can go there whenever you want, regardless of being happy or unhappy. But this is not the case for Maidan. That place feels somewhat artificial. It is a place surrounded by concrete structures. But you visit it to grab a coffee. Or to quickly buy yourself something. I mean, there was a more sincere atmosphere at METU.

How would you describe the tempo of the places?

METU's pulse was stable. I guess it is that way so that it does not bother people. Maidan is different. There is constant movement all around you, at all times. It is more complex.

How would you describe the rhythm/diversity pattern of the places?

In my opinion, it was equal. In METU, there were people sitting around and there were people riding bikes. There were also those who were singing. Or those who are studying. In Maidan, some were sitting down, and some were walking. There were a lot of things. I think there was a lot of variety in both places.

How would you describe the dynamics/surprises of the places?

I think there was nothing surprising about either place.

How would you describe the intervals/distances of the places?

The distances were very close in Maidan. It was almost as if everything was on top of each other. This was particularly evident in the central area, where the places are located right next to each other. At METU, the buildings are farther apart, and people were packed more closely on that road. But when you enter that lawn area, they sometimes would drift apart.

How would you describe the beat/density of the places?

METU was denser. But for example, it is very busy in Maidan after school hours.

Were you able to relate the place experiences with musical components (MDEs)?

Yes, I think so. That is what we asked in the beginning: "How do you feel?". Music expresses emotions to people. A song with a slow tempo makes me feel sentimental feelings, while a music piece with a higher tempo makes me feel more cheerful. And it is actually easier to express such things via music. A piece of treble-dominant music can evoke a cheerful mood, while a bass-heavy song can represent a moodier atmosphere. I listened to the music in the conference room and thought it was quite successful.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

There have been differences. For example, when it comes to the proximity of places, I initially only thought about the proximity of buildings. Later, when the students talked about the distance between people, I realized that I did not know about this subject. A joint and mutual learning process emerged as a result of this.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

We first separated the photos. They suddenly said that we should draw a plan. Everything was sort of improvised. We liked it very much. We painted the warmer places green; we painted the chaotic places red... I liked it.

What do you think about the education method and the learning process?

I think it was just fine. We met with our group and carried our work out with teamwork. When they came here, we welcomed them and when we visited their place, they welcomed us. I think it was very nice.

INTERVIEWEE 15 (from TFL)

How would you describe the place experiences during the workshop?

I think we can say that Maidan and METU are very different places. It felt very strange for me to participate in this event, which included university students. We engaged in a different sort of activity by spending our time together. The whole meeting process at METU was pretty good. I don't remember ever becoming this familiar with a group of people this quickly. That was very surprising for me. I can't say that visiting Maidan meant a lot to me since I visit that place daily. It was nothing out of the ordinary for me.

How would you describe the tonality/affectivity of the places?

I was more comfortable at METU, and I could move freely. I felt like I had no limits. The fact that there is nothing natural in Maidan felt a little constrictive. I can honestly say that visiting that place daily makes me feel sort of stressed.

How would you describe the tempo of the places?

I felt more comfortable at METU. You'd expect that place to be more slow-paced, but METU had a higher pace in my opinion. I mean the pedestrian path is a place that was always active during our visit, but it was peaceful as well. Maidan was slower.

How would you describe the rhythm/diversity pattern of the places?

Lying on the grasses of the lawn and listening to the environment of METU was a very different experience for me. METU was very diverse. The experience was varied. This was less so in Maidan. I noticed people looking down from their homes and offices. People sitting in cafes and looking around... These are the actions that you can classify.

How would you describe the dynamics/surprises of the places?

There weren't many surprises at METU. But in Maidan, the pool located at the centre would have surprised me if that was my first visit. But since we are regular visitors, that wasn't surprising.

How would you describe the intervals/distances of the places?

If I were to consider this on the basis of roads and buildings, the masses in Maidan were further apart. I felt like this because the buildings were located near us on the walkway at METU.

How would you describe the beat/density of the places?

Certain parts of METU had no density at all, but we can say that the density is the same everywhere. But in Maidan, the paths were less busy, and the cafes were busier. The density in that place was more encompassing.

Were you able to relate the place experiences with musical components (MDEs)?

While we were composing the music, we drew a line of melody that represented the liveliness of the music. This is a great indicator of how well you can associate music with an image. We used minor tones for Maidan, and I felt it deeply. It is more intense in METU, but moodier in Maidan.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

I think I have learned a lot. I made mistakes while delivering the musical performance, which was a good lesson for me.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

I was absent on the last day of the workshop.

What do you think about the education method and the learning process?

I think it would have been better if we had more time. We could have covered all the topics in more detail. On the other hand, I think there was a very friendly atmosphere. It was very enjoyable to be at a university. It was great in that respect. In essence, it thought us many things. Whether on the subject of music or the subject of abstract or concrete thinking. We attempted to examine a place where we visit often from a different angle.

INTERVIEWEE 16 (from TFL)

How would you describe the place experiences during the workshop?

METU was a peaceful and happy place. I cannot say that it was a cheerful place, but it was nice all the same. It was full of green. It was filled with trees and plants and

was overall beautiful. Maidan, on the other hand, was a grey and lifeless place that demonstrates the worst aspects of urbanization.

How would you describe the tonality/affectivity of the places?

METU felt a little more beautiful and peaceful to me. Maidan had a more lifeless and boring environment.

How would you describe the tempo of the places?

Regarding the subject of pulse, there METU was more active. University students were always outside. The walkway was always filled with people. There were people sitting on the physics lawn. That's why I realized that the pace there was higher. When we visited Maidan, the place felt more stable and calmer. The pulse there felt lower since people are either inside the buildings or are working in their offices.

How would you describe the rhythm/diversity pattern of the places?

METU was more diverse. There are people walking, sitting, studying, sleeping at METU. There were such different situations. In Maidan, I only saw people walking. At most, there were one or two people who were running. So, METU was more diverse.

How would you describe the dynamics/surprises of the places?

There were no surprising changes at METU. It was moving forward at the exact same pace. There was a sense of pattern and similarity. It was like I just said. When visited Maidan, we heard the noises of the traffic and there was a sudden sound of car horns and sirens. That, for example, was surprising for me.

How would you describe the intervals/distances of the places?

When I consider the distance between the masses, it feels like they were further apart at METU. The Rectorate building was at a certain place but there was a large open space next to it. At the end of that space, there was a faculty. It was a spacious area.

That's why that part of the physics lawn felt very spacious. In Maidan, the masses were close to each other, and this had the effect of making a person feel confined.

How would you describe the beat/density of the places?

The density seemed to be more linear at METU. Most buildings were built next to the walkway. This is why I think there is a linear density. There are three buildings on Maidan, and they are clustered around a pool.

Were you able to relate the place experiences with musical components (MDEs)?

I think we managed to. By closely listening to the sounds of METU and Maidan, we were able to create works of music that fully represented those places. At the same time, we were able to express that music quite well with instruments. We were able to create differences and tempo and sound changes. For example, we thought of METU as lively and so we used major notes there.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

No Answer.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

No Answer.

What do you think about the education method and the learning process?

No Answer.

INTERVIEWEE 17 (from TFL)

How would you describe the place experiences during the workshop?

I visit both places during my daily life. Both are places where I have memories of daily life. But these places are very different. How can I explain this? For example, we eat and chat in Maidan. But in METU, you go to the Carşı, leave, and go to Çatı to eat. When visit Maidan socially, you are in your environment, and you do not have much interaction with people. But since there is a school culture in METU, you inevitably talk to others. So, it is better in that sense.

How would you describe the tonality/affectivity of the places?

The environment and people are very different. People of all ages visit Maidan. But, overall, there are only university students at METU. People talk differently when you are there anyway. Things happen in a different framework in Maidan.

How would you describe the tempo of the places?

In general, Maidan is very active and dynamic. The same can also be said for METU. But this sense of activity is different in each place. There is more than one purpose behind the activities at METU. Studying, meeting people, people going to their dormitories... But, in Maidan, you just meet with people and have food. That's it. When the purpose is different, the pulse also becomes different.

How would you describe the rhythm/diversity pattern of the places?

METU was more diverse. The types of activities there are quite varied in my opinion. The number of activities you can partake in at METU being limitless and the differences between the emotions you can feel while doing so is also a type of variety. I think this variety is what makes you feel happy while you are there. The lack of diversity in Maidan also makes it less diverse in terms of emotions. When you visit METU, your mood is enhanced with more variety in terms of rhythms.

How would you describe the dynamics/surprises of the places?

There weren't many surprises. But if we look at what people were doing, there were some surprises.

How would you describe the intervals/distances of the places?

For Maidan, since the place is somewhat monotonous, I would say they were close. But METU has many places. Even if they are separate, they do not feel that far apart. This shows that they are not limited.

How would you describe the beat/density of the places?

The central part of Maidan was empty. Generally, everyone concentrated on the restaurants there. During course periods at METU, the classrooms were full. In essence, this changes according to the time of the day.

Were you able to relate the place experiences with musical components (MDEs)?

I think we managed to associate them. Music is made up of representative sounds. When I say representative sounds, I am thinking of the sounds in nature. As a matter of fact, they are very intertwined. Music actually conveys emotions. If you are perhaps having difficulties in expressing your emotions, music might help. In this sense, these two concepts are interrelated.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

In the beginning, we were strangers. We proved there that people of all types can get along just fine. As we reached the end of the workshop, we started to get to know each other better and to make decisions on our own. Most importantly, we were not hesitant about expressing our opinions anymore. As we got to know each other, we became relaxed. It was important to be able to combine ideas.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

We asked each other what they wanted to do. Things developed spontaneously and we somehow managed to finish it.

What do you think about the education method and the learning process?

I think the method was good. First of all, every age group has different experiences. Everyone has different experiences in different areas. We were selected to be work on the music and they were selected to work on the place. Our experiences were very different from their experiences. But we brought our experiences together and shared our knowledge. We have proven that different groups can get along. This also shows us that nothing is limited. This was a great experience regarding interactive approaches.

INTERVIEWEE 18 (from TFL)

How would you describe the place experiences during the workshop?

Frankly, I liked METU more. METU was an environment where we felt more open and freer. It was a peaceful place with plenty of trees. The groups of people there were different. Maidan was a more crowded, narrower, and slightly more intense place. To be honest, I liked METU more.

How would you describe the tonality/affectivity of the places?

METU has s a more peaceful and relaxing environment. Maidan has a more active and exciting environment.

How would you describe the tempo of the places?

METU's pulse was higher. There was more human fluidity. There are no places in Maidan to have such fluidity anyway. So, Maidan's pulse was slower.

How would you describe the rhythm/diversity pattern of the places?

Maidan is a place designed for dining or chatting with friends. But you can do more at METU. Trees, nature, buildings... It was a relaxing place, very good for hanging out with your friends.

How would you describe the dynamics/surprises of the places?

When we visited the lawn, there was a statue there. That was surprising. There aren't many things to surprise you in Maidan.

How would you describe the intervals/distances of the places?

Things were placed very closely in Maidan. Everything had a certain distance between them at METU. Whether the trees or the people, the distances between the masses were greater than those in Maidan.

How would you describe the beat/density of the places?

In Maidan, the density was concentrated mostly on restaurants. There wasn't a single spot of concentration at METU. I couldn't feel a place where the density was concentrated absolutely.

Were you able to relate the place experiences with musical components (MDEs)?

I think we managed to associate them.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

I think had I learned a lot by the end of the study. The ideas our group came up with weren't too different from one other. So, it was not difficult for us to create pieces of music.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

During the study, everyone stated clearly what they wanted to focus on. What they would enjoy doing. Those who wanted to get busy with clay did so and those who wanted to cut things did that. We did not have any difficulties while deciding on the concepts.

What do you think about the education method and the learning process?

Overall, it was a great experience for me. But I think the activity should have lasted longer. That would have given us more time to consider things.

INTERVIEWEE 19 (from TFL)

How would you describe the place experiences during the workshop?

I was excited on the first day because I would be working with others. We went there and I ended up liking the event. There were two rows of people, and everyone explained to the person next to them the concepts they did not understand. I think that was fun. We became familiar with the people we will be working with. Apart from that, I think the group was very compatible.

How would you describe the tonality/affectivity of the places?

METU was more spacious, and I felt freer. Maidan felt a little more prone to stress, as there were taller structures, and the spaces were narrower. But I felt freer and more comfortable at METU.

How would you describe the tempo of the places?

It felt like both places had slower pulses.

How would you describe the rhythm/diversity pattern of the places?

There is not much variety in Maidan. But there was a little variety within the restaurants. I saw something like a philosophy group at METU. That felt like an example of variety to me. If I were to compare, Maidan felt more monotonous.

How would you describe the dynamics/surprises of the places?

Physically, there was nothing too surprising at METU. I mean, the heights of all buildings and things like that were fixed. It was moving along in a smooth, regular line. In Maidan, even the buildings are monotonous. There were no differences or changes.

How would you describe the intervals/distances of the places?

It felt as though masses were spread over a larger area in METU. Maidan was more cramped because of the buildings.

How would you describe the beat/density of the places?

The density was spread in a circular manner in Maidan. If we think of restaurants as a ring, the density was mostly concentrated on this ring. At METU, the density was more spread out over the plane.

Were you able to relate the place experiences with musical components (MDEs)?

I think it's possible to associate those things. Music is an important part of my life. For example, I always associate certain songs and rhythms with certain things. For example, I associated a song with a story. I think it is possible to achieve this depending on the feel of a location.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

I think we were a very harmonious group. About 95% of the whole process was on the scales we had previously stated.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

We continued as if we had a half-hour break instead of a week-long break. We were sorry that it was over. We continued as if we had never stopped working.

What do you think about the education method and the learning process?

In my opinion, one of the unsuccessful parts of this activity was that the chosen dates were not suitable for either side. It was a busy time for us. We already have a very busy schedule. For this reason, it would have been great if a date where we had a

little less stress was chosen. Other than that, having more than two hours for creating a composition would also have been welcome. That could have been spread over a whole week to work on the project for a longer period of time. As for the successful parts, I believe I have become more sensitive to my environment when I am examining a place. I think it was very successful to do such a thing, thank you very much. They knew METU. We knew Maidan. But I think it would be better to work in a place that neither side knew nor visited before. Since we were so familiar with Maidan, it felt very boring and static. But this was my first visit to METU, and it was very exciting.

INTERVIEWEE 20 (from TFL)

How would you describe the place experiences during the workshop?

I think it was very enjoyable. I had never seen the physics lawn in detail before. After meeting people there and making comparisons at the end of the first day, some things that I hadn't anticipated came up. For example, I said that METU was calm and there wasn't too much activity there. On the other hand, people from the other group perceived the actions and behaviour of humans there as a form of activity. Maidan was more active but the environment there felt artificial to me. I saw how the things I thought would be different for other people and that was very beneficial.

How would you describe the tonality/affectivity of the places?

METU was calmer and more peaceful. It was a place where people sat down and chatted with their friends. But they go to METU to spend the whole day enjoying the place. Maidan is a more exhausting environment. The artificial environments there created by lights and movements already feel very exhausting to me. So, it felt more exhausting and colder to me.

How would you describe the tempo of the places?

METU felt like it was more stable. Maidan's pulse was faster. Everyone was going to different places in Maidan. I think it was more active.

How would you describe the rhythm/diversity pattern of the places?

I found Maidan to be more diverse. There were people who were there to study, to have a coffee or to eat. METU was calmer and more peaceful.

How would you describe the dynamics/surprises of the places?

It's a relative concept for me. Things such as an unexpected white wall in a location that characteristically have black walls are things that can surprise me in a place. For example, I am surprised when I see something interesting when we go to the museum or something. But neither of those places made me feel anything like that. There were surprises neither in Maidan nor at METU.

How would you describe the intervals/distances of the places?

METU has a larger area. It is a natural environment anyway. I did not think about crowds when I was told about masses. In Maidan, people are mostly located around the periphery and the central area is empty. So, the masses were closer there.

How would you describe the beat/density of the places?

At METU, people were scattered around by themselves. I did not feel such a density in Maidan.

Were you able to relate the place experiences with musical components (MDEs)?

If I were asked this question before the study, I would ask "What do those things have to do with each other?". But when you really look at it, there are similar concepts in them. I think these questions made more sense for METU students. But I also think there is a connection between them.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

There were a lot of differences. A place that felt lively to me may have felt boring to other people. That's why there were a lot of results. We made calculations by taking the average of all numbers on the papers.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

For example, we said there should be cafes here and someone else said we should have benches over there. We designed the place as we wanted, and everyone contributed to it. We divided up the work among us and managed to come up with something.

What do you think about the education method and the learning process?

It was beautiful. The only problem was that our time was limited. I think creating music is not something you can do in two hours. For example, I had not played a transverse flute in a long time. And when I played it there, it did not sound very good to me. Much better things could have come out if we had practised for a longer period of time. Still, it was very nice. We had very good ideas during this process, too.

INTERVIEWEE 21 (from TFL)

How would you describe the place experiences during the workshop?

There was a pleasant atmosphere at METU. I can say that it is caused by the disorder present there. The stones on the road. Right at the middle of the road, or the trees there on the spine. These are all unexpected things that enable people to constantly interact with the place. I mean, there are birds chirping around in that place. You can hear those sounds, whether you like them or not. And you can listen to them if you want to. Other than that, there is also art there. As a matter of fact, one of the most important things that make that place come to life is the people. It also is very nice the whole place is intertwined with nature. On one side, you have things constructed by human hands. Take the stones for example. But it is also nice to have grass right next to those stones. It shows that humans can live in harmony with nature. The movements available to you are limited in Maidan. You can go forwards, backwards,

left, and right. There are no alternatives beyond those. It felt pretty inhospitable to us, to be honest. It is grey all around. It's like the whole place was designed to be beautiful and to attract people's admiration. It is insincere. The fact that the entirety of the place is flat and monotonous makes it feel inhospitable.

How would you describe the tonality/affectivity of the places?

METU was cheerful. Maidan was passive... It somehow drained your energy.

How would you describe the tempo of the places?

The pulse wasn't that low in Maidan. If we look at the crowds, sure, it was high. On the other hand, if we look at the pulse represented by the people there, it was quite low. The opposite was true for METU. The energy was high, and people were energetic. The pulse was definitely higher.

How would you describe the rhythm/diversity pattern of the places?

METU was definitely more diverse. There was more diversity in humans and objects. Even the roads were more diverse. Even those details there put you in a spot to interact with things. Even the colours were monotonous in Maidan. It was all grey.

How would you describe the dynamics/surprises of the places?

I liked METU, there weren't many surprises there. Generally, the physics lawn was a little more crowded. I liked the fact that people studied in groups there. This was not so in Maidan.

How would you describe the intervals/distances of the places?

I interpreted the key range to be closer at METU. I did so because there were too many objects. The buildings were far apart. But when I think of the objects between them, they feel very close.

How would you describe the beat/density of the places?

METU seemed a little homogeneous. People were spread out all over the place. Same with the objects. I can't say the same for Maidan. Masses and people were located at the same place in Maidan. There was a pool at the centre and any action took place next to that pool. But it was limited. It was obvious where you had to go.

Were you able to relate the place experiences with musical components (MDEs)?

At the beginning of the workshop, lectures were given at METU. It was really nice to listen to those lectures. Frankly, I could not associate places and music. Sure, I could say that sunny weather could influence music somehow, but beyond that, I had no idea regarding the concept of music and place. Now, I believe that they can be associated. As a matter of fact, they should be associated.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

I, for example, found that METU was denser, at least physically. It is not that dense if you focus solely on the buildings. Regarding this matter, my group said that it was less dense, and I agreed.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

We just said let's get started and we started. After all, our time was limited. This was a driving factor. We don't have much time to make clay.

What do you think about the education method and the learning process?

I think it was generally successful. The reason for this is that we were immediately given a lesson once we arrived. I considered whether there would be different ideas if things were left to students. My reasoning is that, once someone brings forward an idea, everyone starts to think along the lines of that idea. You can't think of anything

else. The educational method was very nice though. The exploration phase, which followed the explanation of the topics, was also quite good. You first learn the theory regarding the subject. But putting it into practice is different. I think that, in this sense, it was a different study than our other studies.

INTERVIEWEE 22 (from TFL)

How would you describe the place experiences during the workshop?

I think it was very unusual. It involved art, music, and space designing... Combining all of these was pretty nice. I think it was a very creative idea. It was not a thing that only involved us visiting METU. The things it made us feel were different and much deeper. It was very difficult to combine place and music, but I think we succeeded.

How would you describe the tonality/affectivity of the places?

These places were different from each other. Although METU felt more peaceful and calmer, Maidan was a more complex and exhausting place.

How would you describe the tempo of the places?

I think both were very fast. Both places had a certain hustle and bustle. But the thing is, this hustle and bustle didn't make me feel uncomfortable at METU. On the contrary, it felt somewhat peaceful. But the rush in Maidan made me very nervous. It made me feel exhausted.

How would you describe the rhythm/diversity pattern of the places?

There was a lot of diversity regarding the living beings at METU. Trees, animals, and humans were diverse. This was especially prominent in how diverse the people were. There were students watering gardens, teachers, and so on... But, during our visit to Maidan, we only saw those who work there. So, this is how I evaluated the rhythm.

How would you describe the dynamics/surprises of the places?

I haven't seen a grassy lawn area this big in the universities I had visited before. There were these sculptures. I had never seen a sculpture placed at a location where many people sit on before. Honestly, the fact that the place is called physics lawn was also interesting to me. There is a place next to the statue and it seems like it has a special name. The pool in Maidan is everywhere. I know that these things are there to attract attention, but the sculpture at METU seemed more attention-grabbing to me.

How would you describe the intervals/distances of the places?

There were more people in Maidan. Too many people and all were in a very small space. Considering METU, the number of people there was also high. But since they were spread over a wider area, I figured that the feature that we call key range would have a wider range.

How would you describe the beat/density of the places?

I don't think there was any density at METU. I think so because people were distributed quite evenly. There were those who had to go to their classes and those who were sitting. There were too many people, sure, but they were distributed quite well over the landscape. This was not so in Maidan. People there were sitting at cafes and these cafés were tightly packed. So, I think Maidan was denser.

Were you able to relate the place experiences with musical components (MDEs)?

I think we associated them well. It is something that should be in all areas of life. One should avoid isolating things. When you isolate music from other things by saying it is separate, it feels to me like it loses some of its value. When you consider multiple things together, you feel the effects of music better. A good example of this is how it affects you while you are studying. In this regard, I think the study has definitely met its goals.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

Before I shared my opinions, I noticed that everyone had different ideas and opinions. But we were able to meet on common ground when we put our minds to it. For example, I did not consider METU to be a very active place and thought Maidan was more active. But as we discussed things, they started to take shape as we conveyed them with music.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

At first, we failed to come up with anything. We had to recall past experiences. I think I am good at music. It was easier for me to convey our thoughts regarding music. But after a short period of brainstorming, we started quite comfortably.

What do you think about the education method and the learning process?

I think this experience has taught me a lot. Despite knowing a lot about music, I learned a lot of new things. Apart from that, I realized that having such an experience regarding an area I had never been to before was very interesting for me. When I observed both the music and the works of the students there, I realized that this could be a very fun profession.

INTERVIEWEE 23 (from TFL)

How would you describe the place experiences during the workshop?

I've been playing the piano since I was four years old. But I just played and never associated it with something else. For example, I never thought to myself once while playing music that this looks like a place that is still. I was very surprised and excited when I was accepted to this workshop. Because I always perceived the piano as something that is just played. Establishing an association between music and place in this manner surprised me.

How would you describe the tonality/affectivity of the places?

I am fond of my freedom, and I do not like confined spaces. Therefore, I liked METU more. It made me feel calm emotions. Like many other shopping malls, Maidan felt confined to me. I felt stressed there.

How would you describe the tempo of the places?

Actually, Maidan had a higher pulse. But here's the thing: METU has a much larger area, and it did not seem that dense despite the higher number of people. For example, if we were to put all the people at METU in Maidan, the place would overflow. Maidan was a smaller place but its density to volume ratio was higher.

How would you describe the rhythm/diversity pattern of the places?

METU definitely had more diversity. People visit Maidan to meet with their friends or to eat. There were people doing all kinds of things at METU. There were those who rested, listened to music, or just went about their businesses. It was really diverse in this respect. There was not much difference between the two in terms of buildings, but there was a lot of green space at METU.

How would you describe the dynamics/surprises of the places?

There weren't any surprises in Maidan. At METU it was very quiet at first. But when a great number of people suddenly poured out of the lecture hall, I was surprised.

How would you describe the intervals/distances of the places?

Everything was more distant from each other at METU, and it was more relaxed. So, the distance between masses was less in METU and more in Maidan.

How would you describe the beat/density of the places?

Density was higher in Maidan but there were more people at METU. Maidan was somewhat cramped.

Were you able to relate the place experiences with musical components (MDEs)?

Absolutely. After the conclusion of this study, I have been feeling different things about the concept of music and places. Now, when I enter a place, I wonder how I would play it if it was a piece of music. And when I play a song, I wonder how it would be as a place.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

The recommendations of experienced people who have done a lot of work on these subjects have changed my point of view. I realized that I perceived certain things wrongly. I said, yes, this is how it must be. Also, the ideas of people who did not play an instrument in my group helped me improve. In general, our thinking was similar.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

No answer.

What do you think about the education method and the learning process?

No answer.

INTERVIEWEE 24 (from TFL)

How would you describe the place experiences during the workshop?

The first day wasn't that much fun for me. I was quite bored in Maidan, that's for sure. This was probably because I am familiar with that place.

How would you describe the tonality/affectivity of the places?

Frankly, I did not feel any emotions in Maidan. I was happy at METU.

How would you describe the tempo of the places?

I think both places had slow pulses. I didn't see much activity in either place.

How would you describe the rhythm/diversity pattern of the places?

I don't any of those places had any variety. At METU, people were just sitting. In Maidan, there was this water element and not much else.

How would you describe the dynamics/surprises of the places?

I didn't have any surprising experiences.

How would you describe the intervals/distances of the places?

They were close both at METU and in Maidan. Everything was close to each other in Maidan. People were very close to each other at METU.

How would you describe the beat/density of the places?

I think both places had a good amount of density. In Maidan, this density was mostly caused by the restaurants. And at METU, it was caused by the people. The density was concentrated on the physics lawn at METU and on restaurants in Maidan.

Were you able to relate the place experiences with musical components (MDEs)?

I think we managed to associate them. The melodies we played conveyed those feelings to us. We were able to feel those emotions when we listened to them. For example, I felt really bored in Maidan.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

There weren't too many differences.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

I cannot say that I was too involved in that process.

What do you think about the education method and the learning process?

If the purpose of this was to combine places and music, I think it has been successful. It would have been much better if this were organized after the semester. We couldn't concentrate on it too much. So, it would have been better if we did this after our exams were finished.

INTERVIEWEE 25 (from TFL)

How would you describe the place experiences during the workshop?

It was nice to look at things I always see with a fresh perspective. I never considered the places I visit in terms of music. This workshop made me think that way. That was pretty nice.

How would you describe the tonality/affectivity of the places?

Since METU is a more energetic place, it was more natural and warmer. But Maidan was very cold. Nobody knows each other and the whole place is made of concrete.

How would you describe the tempo of the places?

METU's pace was higher. I think Maidan's pulse was slower.

How would you describe the rhythm/diversity pattern of the places?

Maidan was very static. There are only cafes there. There was a variety of natural elements at METU. Diversity was abundant.

How would you describe the dynamics/surprises of the places?

Since this was the first time, I've ever been to METU, the number of surprising changes were higher there for me.

How would you describe the intervals/distances of the places?

The ones in Maidan were more closely packed. In METU, things were spread over a large area.

How would you describe the beat/density of the places?

It felt like density at METU was concentrated on the central area and the grassy lawn area. But I did not feel this in Maidan.

Were you able to relate the place experiences with musical components (MDEs)?

I think we were able to. We were able to do this using the major and minor tones. When I heard the pieces, I could easily distinguish which piece was for METU and which piece was for Maidan.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

Yes, there were. When we gathered, I noticed that some people rated things I rated very high as very low. But I think this is due to differences in points of view. There were many people there who were interested in both music and places. Honestly, seeing these different points of view changed my mind.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

Since a great group study was made beforehand, everything was pretty easy.

What do you think about the education method and the learning process?

I think I have learned a lot. I looked at things from new perspectives. I had never thought about a place and transformed it into music before. This was very helpful. I think this has led me to develop my abilities on the instrument I play. Because I think I created something out of nothing. Group work also taught me certain new things. So, I am leaving this workshop as a happy person.

INTERVIEWEE 26 (from TFL)

How would you describe the place experiences during the workshop?

We went to the places involved in the study and considered the subjects deeply. Then, we took a tour of both of the places. I enjoyed it; it was pretty good. But if someone tells the whole thing to me like I am telling it now, I might not understand it.

How would you describe the tonality/affectivity of the places?

I have great memories of Maidan. So, I might be seeing that place through rose-tinted glasses. Maidan is a lively and dynamic place where people go to just wander around. This was my first time visiting METU. Everyone describes Maidan as depressive, but I think Maidan is rose-coloured. METU is a more relaxing place. It seems like a good place to chat and relax. It is a perfect place to lie down.

How would you describe the tempo of the places?

I think both places had slow pulses. I think so because there wasn't much activity in either of these places. The environment was static in Maidan. You just wander around. People just being there does not count as an activity, so I think it was static.

How would you describe the rhythm/diversity pattern of the places?

METU was more diverse. There were trees, grasses, and a walkway going through the place. The environment there is more natural, and you can see different shades of green. There is only concrete in Maidan.

How would you describe the dynamics/surprises of the places?

We were smothered in the service bus. I was hit by fresh air the moment I left the bus. That was a beautiful moment I had at METU.

How would you describe the intervals/distances of the places?

I think they were closer in Maidan. METU was a little more spacious.

How would you describe the beat/density of the places?

The physics lawn was very dense in terms of activity. That did not exist in Maidan.

Were you able to relate the place experiences with musical components (MDEs)?

Ultimately, musical components are always about something. The components that make up a place exist in music. Therefore, a place can also have music. But a place cannot have a one-size-fits-all type of music that is applicable for everyone. As I said before, I described Maidan as rose-coloured, but others called it grey.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

I always thought Maidan was more colourful. I thought that place to be more diverse, but when I couldn't persuade others, I gave in.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

We mostly made the music, and they helped us draw.

What do you think about the education method and the learning process?

It was nice and fun. But the results weren't that great. The music could have been better. This is somewhat related to time constraints, but lack of skill also played a part. Composing is a difficult thing and my talents, or rather our talents, are naturally limited in this regard.

INTERVIEWEE 27 (from TFL)

How would you describe the place experiences during the workshop?

I think METU had a peaceful and calming effect. Maidan was a more familiar place, so I didn't feel anything different. I liked METU more.

How would you describe the tonality/affectivity of the places?

METU is soothing, peaceful and beautiful. Maidan was monotonous. I cannot tell the difference in terms of major and minor tones, but these are essentially what they make me feel.

How would you describe the tempo of the places?

If we consider this in terms of my heartbeats, I think METU was calmer. It was faster and more chaotic in Maidan.

How would you describe the rhythm/diversity pattern of the places?

I think METU was more diverse than Maidan. In terms of the diversity of living and non-living beings, Maidan was monotonous in my opinion. In contrast, there were a lot of things at METU.

How would you describe the dynamics/surprises of the places?

That period was tense and stressful for me. I felt very comfortable and happy at METU. That was surprising for me.

How would you describe the intervals/distances of the places?

The masses were farther apart at METU. And they were closer in Maidan. If I think of it in terms of experiences and the proximity of nature and human beings, things were placed more closely at METU. There are no natural things in Maidan anyway.

How would you describe the beat/density of the places?

When we first got to the physics lawn, everyone was a little surprised. So, the experience was more intense. But when we stopped and considered things, that intensity went away. My experience was more stable in Maidan.

Were you able to relate the place experiences with musical components (MDEs)?

I think we were able to. Music is in all parts of life. It has the power to change our minds. For example, if I put on a calmer song when I am tidying my room, I tend to spread myself out over larger areas. It may sound silly, but it really happens. Or when

I turn on a song that is lively, I just start throwing things on the ground and I end up creating more of a mess than I started with.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

For example, I generally thought of METU as a calmer place, but our group said there were major tones. But we later managed to reach a consensus.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

At first, we immediately got to work. We all remembered and didn't need to think much. We immediately divided up the labour and started working. It was pretty easy.

What do you think about the education method and the learning process?

In a social sense, it was very successful for me. We became familiar with new people and established new ties. I think it was also very successful academically. Because it introduced a new profession to us, as well as a university department.

INTERVIEWEE 28 (from TFL)

How would you describe the place experiences during the workshop?

METU was calm. I had never seen that place before. It felt nice and relaxing to me. But it was also my first visit to Maidan. That place also felt calm to me.

How would you describe the tonality/affectivity of the places?

Honestly, I felt negative things in both places. This may be a little weird, but I don't know.

How would you describe the tempo of the places?

METU was calmer and slower. There was a lot of activity in Maidan, and I think it was faster.

How would you describe the rhythm/diversity pattern of the places?

There were so many different things at METU. Birds, trees, nature, people... Maidan did not have much to speak of. Buildings and people.

How would you describe the dynamics/surprises of the places?

I had never been to either place before. So, both were surprising to me. I liked METU very much. The sculpture in Maidan caught my attention.

How would you describe the intervals/distances of the places?

METU had both of those things. The masses had a distance, but at the same time, people were sitting side by side on the lawn. People and objects were very closely packed in Maidan.

How would you describe the beat/density of the places?

There was not much density at METU. It was spread out over the place. The same was true for Maidan. I did not feel any density in either of them.

Were you able to relate the place experiences with musical components (MDEs)?

Yes, I think we managed to associate them. I don't know how to explain it, it's something that is felt.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

I think there was. When we were making joint decisions, my opinions were generally different. My opinions changed during the activity. This was especially true for my opinions of METU. I think some of the members of my group said it was more inactive. My ideas changed after I listened to them.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

We started working in accordance with the notes we took. Then we split into groups. I was tasked with working with the statue. We made a sculpture, a bust of a woman. It was pretty good.

What do you think about the education method and the learning process?

I think it was successful. This study was a proposition that came out of nowhere for us. It felt a little improvised, but it was nice. We took note of our shortcomings. For example, I wasn't told what to do with the first song. So, I couldn't do anything and got distracted. But other than that, I think it was nice.

INTERVIEWEE 29 (from TFL)

How would you describe the place experiences during the workshop?

Maidan is a very familiar place for us. We almost always go there when we leave school. So, I didn't really feel anything out of the ordinary. But since METU is surrounded by nature, it was a peaceful place and I think that experience was very good.

How would you describe the tonality/affectivity of the places?

I cannot decide regarding this in terms of major and minor tones. But that is a concept that can be made to fit into a lot of situations. I cannot define the locations too well based on the definition of minor being sad and major being lively. But as I said, METU had a quieter environment. Maidan, on the other hand, was relatively more chaotic. Because, in Maidan, everyone is trying to get to somewhere and it is completely encircled by buildings. But METU has a more natural and calmer environment. Everyone is more relaxed.

How would you describe the tempo of the places?

I think the pulse rate of METU was low because your heartbeats are slower. Maidan was faster due to the chaos.

How would you describe the rhythm/diversity pattern of the places?

Maidan was more monotonous. Although it was a messier environment, what you can observe is limited. Because you keep seeing the same thing. There are only buildings and people there. But different things can happen at METU. Again, I think this is because of nature.

How would you describe the dynamics/surprises of the places?

There weren't any surprises in Maidan. But we went to different places in METU. For example, there was this one moment when people suddenly started pouring in. Or there was this one time where the number of birds increased a lot. Yeah, there were some strange things.

How would you describe the intervals/distances of the places?

Everything is more intertwined at METU: People and nature are together. But everybody seems to be grouped together in Maidan. Since everyone there is with another person, there is no unity.

How would you describe the beat/density of the places?

I think there was a type of density in Maidan. You can see a lot of people gathered in cafes. For example, the area at the centre of the place is generally empty compared to other areas. But I think people were more evenly distributed at METU.

Were you able to relate the place experiences with musical components (MDEs)?

Yes, I think we were able to represent our feelings. This is because music already is a phenomenon that is used to represent our feelings. I think we managed to pull it off in this activity. We all felt certain emotions during our visits and the compositions we have created are related to those emotions. I think we were able to represent them with music.

Were there any differences between the shared and individual opinions? When you compared your experiences on the field and the discussions that followed, did your opinions change?

There were too many differences. Initially, a difference emerged between the participating groups. Since the places we visited are environments that we were familiar with, people felt very different emotions during our visit. We had certain feelings and thoughts among us, and so did they. That's why we tried to reach a common ground at the beginning. But later, when we were creating the compositions, we were more focused, and we were able to choose things in a more comfortable manner.

On the last day of the workshop, while designing the plans, collage and clay making, how did your group start the decision-making/discussion process?

We didn't have a process where we had to remember things. We just said "Ok, we should have things like this and that" and started creating. Everyone did what they wanted, and we moved forward.

What do you think about the education method and the learning process?

I think we could have observed things in a little more detail. All we did was like going there and wandering around. Because nobody could fully focus on what to do. And it would have been better if there was no time between the activities. It was a little difficult to communicate at first. People were a little reserved initially, but we managed to get over it in time.

C. Experiential Phase II: Focus Group Discussions

Author Note: The experiential phases are based on two exploratory phases, which include hours of interviews and focus groups. It is usually not necessary to give the raw transcriptions in the appendices section. However, we believe that the unity, the natural flow of these conversations might reveal different outcomes according to the reader's point of view.

Interviewer: Was there anything striking for you in this experience? We listened to the pieces one by one. We examined the unity of emotions and the qualities that they formed in our minds. Was any part of this experience striking for you?

Interviewee A: The most striking thing for me was the presence of the same instruments in different characters and how they were sampled. Both pieces had pianos. But, while it was used as a percussion instrument in one of the songs, it was represented more as a lyrical instrument in the other. The use of this instrument in both of the samples has made me think that if the same tool is used with an emphasis on its different qualities in things we experience, this shapes how our entire experience will develop.

Interviewers: Would you like to say something about those different experiences?

Interviewee A: Should we focus on the first and second songs while doing this?

Interviewer: Yes, of course...

Interviewee A: In the first work, I found myself in a position of an observer. There was a variety of sameness in the entirety of the song. So, everything is the same, but at the same time, there was a great amount of variety. It looks like it was used as follows: There is only one colour. But we are in different tones of that colour. There are very smooth transitions. Forms, proportions, rations... everything is very balanced. I mean, we know very well where it will take us. But with its unexpected colour variations, we essentially continue to make our observations within that serenity and calmness. There is a dialogue. It is like a dialogue that takes place

between something that is binary. There is a theme and how that theme is developed and diversified is very different. You know where it will start, you know where it is going, and simplicity is a point of focus. The first song progresses in a very planned manner.

Interviewer: What did you mean by theme?

Interviewee A: There is a melody, and that melody is constantly changing and transforming in colour and timbre. It progresses by weaving into itself and there are no sharp lines or unexpected things. It seems to consist only of intertwinement of different colours.

Interviewee B: Can I continue?

Interviewer: Sure, go ahead...

Interviewee B: If I were to talk about the music, the first song made me feel like it is autumn. I should say that I would like to learn the name of that song because it is very similar to the songs that I listen to, especially while I'm making designs. I think it will be very useful for me in that regard. It made me feel like I was on a journey. Like I was going from one place to another place. This song is in the background. It made me feel calm. I also wrote about the subject of diversity. I considered it to be a little more transitional. Because the song had parts where it was tranquil and parts where it made a crescendo. I also found it a bit introverted. It was as if it was describing a thing that you do by yourself as opposed to something you do with a group. In general, these were the notes I took regarding the piece.

Interviewee C: I also would like to say something.

Interviewer: Go ahead...

Interviewee C: Your first question was to ask us if there was anything striking. Regarding that question, I can say that listening to the same work from two different perspectives was really interesting. It was interesting to listen by focusing on emotions on the first time and focusing on places while listening on the second... I

found myself making different deductions based on the same material. That was an interesting experience for me. If I were listening to this under normal circumstances without conditioning myself for anything, I am sure that I would have thought of some of the words and emotions in my notes, but I am also sure that some would elude me. I listened to the songs in a purposeful search of these things, and a lot of things came to my mind that I wouldn't normally think about.

I agree with what my friends said. They are parallel to my thoughts. It is a little introverted. It felt like a person's emotional journey. It is sometimes sad and lonely. Sometimes it gets hopeful, excited, and somewhat blue. But still, it is predictable. It has a certain frame, and it does not exceed any boundaries. It is somewhat of a journey and the things that came to my mind in the places, the emotions I feel... For example, I wrote of a long path surrounded by trees, and I imagined a large, windy field. It was interesting and beautiful to see the parallels in this.

Interviewee D: Can I continue?

Interviewer: Yes please...

Interviewee D: In connection with the question you asked, when we listened to music before, we could picture places in our minds. This would happen to anyone, I think... One of the most important reasons why this process is this striking is that we had a pen and paper with us, and we took notes regarding things we were listening to. It is kind of like we have our emotions right in front of us.

Something like this happened in the first piece: It created in me a feeling of migration. It made us feel as if we were migrating from one place to another. It created feelings of sadness and hope. The process of migrating from one place to other holds hope on one hand and sadness on the other. It is now somewhat impossible for you to return to your place of origin.

There were minor and major tones. I really shouldn't talk about the subject of harmonisation too much. It brought to my mind the movie "Eternity and a Day" by Theodoros Angelopoulos. It was the problem that was examined by that movie. The

issue of immigration and refugees. The emotions I also felt were entirely related to this matter of migration. Because in my personal life, we constantly migrated with my family. So, the piece awakened in me those feelings once again. But I did not imagine a natural area. Instead, I focused on a city. It felt like a calm, rainy and misty Ankara morning. These were my general interpretations. The work was also a bit poetic. I guess it was the language of the piece.

Interviewee B: I would add some things to what I just said. These were among my notes, I guess I missed them. To tell the truth, I have seen how important the reflections of what we see are. Because when I listened to the music, it made me reminisce about that movie about a pianist. You probably have seen it. In a really great scene in that movie, a musician who had not played the piano for a long time starts to play a piece and he gradually gets used to playing once again. He begins to play one of Chopin's beautiful works. It was a beautiful finale. That's what the piece made me think about. When I first started listening, I was considering how important scenes are for cinema. But now that I think about it, music is also one of the fundamental parts of cinema. Music is perhaps one of the most important elements of cinema because it can really take hold of you and take you somewhere else. It made me see realize this, so I wanted to mention it.

Interviewee E: Can I continue?

Interviewer: Please, go ahead.

Interviewee E: Now, the most striking thing for me was this: At first, I couldn't even attempt to feel the emotions first and the place afterwards. For the first song, I had to perceive the place involuntarily based on the emotions that I was feeling. For the second song, I tried to think of the place first, but the emotions got involved anyway. So, the most striking thing for me was that I was unable to separate emotions and places. I tried to do this for both pieces, and I failed in both of my attempts.

For the first song, when I look at it from an emotional perspective, I guess I saw the natural changes that occur during a lifetime. I saw the natural process of life: birth,

growing up and it lasted until maybe the mid-life of the person I was observing. But it was as long as it should have been. So, I saw the flow of a normal life. Emotions such as joy, sadness, surprise, and expectation emerged. At the same time, the open places, or places that I am alone in have stood out to me more within this narrative.

On the other hand, even if I take places as my starting point for this, the places, where emotions such as being at home, the warmth of a home, love, family, birth, familiarity with loved ones, the process of opening up to the external world, being in school, or being with friends occur have come to my mind. Maybe a narrative about memory added as an interval somewhere... Additionally, I took a note, which says "being together with friends in open areas and becoming lonelier in the process of growing up". It's like being alone as you grow up in areas where you used to be with friends. I think this is a good allegory: I have an interpretation that this person was born in the city, grew up and migrated to a rural, lonely area. So, this subject of migration and roads was at the core of my emotions.

Interviewee F: Can I continue?

Interviewer: Sure, go ahead...

Interviewee F: The striking thing for me was my inability to separate places and emotions. I think this is difficult to do, because the place that we have listened to a piece of music for the first time creates an impression in our memory, and our later experiences with that piece of music remind that place to us. At least, that is what happened to me. A feeling of migration was what we got from the first song. Our childhood, the processes of acclimatization, the effects of the cities we migrated to after leaving Hakkari was all there in the first work. I am not sure why the first song took me to such places. There is also this feeling of triumph in the first song. I think it might be because of the place that I am in. The sounds of the construction machines were suddenly gone. That calm music has won a victory against the construction machines that destroyed the beautiful sounds of nature. This is my interpretation.

Interviewee D: Can I continue?

Interviewer: Of course, go ahead.

Interviewee G: Now, I'm going to talk about something very personal regarding these striking experiences. It may be something that only involves me. Music is mostly used as a background sound or as something that complements other things in our lives. And especially in recent times, where we are unable to go to concerts or to focus on anything. For this reason, carefully listening to music is something that happens to me only when I am transcribing a work of music. Last time I focused on transcribing a song this hard was when I was actively involved in music. This is the first time I've focused so much on a piece of music for something else. For me, that was very striking.

As an urban planner, place is deeply involved in everything that I do in my life, so much so that I cannot separate it from anything. I wish I could, but I found it to be impossible. When you become a part of this profession, even your personal life starts becoming associated with places. During my first listening session, I tried to distinguish them and focus more on emotions.

The first piece of music made me feel like I am in a place full of people I love, full of people I really miss. The minor tones of the song made me feel a strong sense of longing since I live in another city. But, due to the changes in the rhythm of this song, I am reminded of periods where this sense of longing surges or subsides. What I mean by rhythm in this context is the alterations in the use of melody within the piece. In fact, I even drew a graph to describe this.

I took a note that just states "loneliness". This is not something that is only related to longing, but it is also related to physical loneliness and environments in a place. Regarding the subject of reflecting this to the place, this is perhaps also true for the second work since we listened to it a second time. I compared them a little. I mean, I compared these two works of music there. I actually had no intention for doing so at first.

The familiar minor melodies in this first piece constantly remind you of something you know. Since the theme repeats itself from time to time, I had drawn an area with set boundaries for myself and my spatial perception of that place was very geometric. It evoked a feeling of a closed or semi-closed place. A sensation of being in a dark or partially illuminated place. What feels different and strange here actually is that it felt as though the other piece would make me feel similar. Interestingly, the use of different planes and the sporadic repetition of the same theme has made me feel different planes. Both works turned into a decision, that is, the decision turned into tone. For this reason, I managed to draw my boundaries in this manner due to these reasons. I do not know if we should not move on to the other. Both of them made me draw the boundaries.

Interviewer: Some of you stated that they could not distinguish between emotions and places and some of you said I thought of an emotion first and a place afterwards. We are curious about this: there is the song and there is a certain variety within the song. Music makes us feel something as a whole. It makes you feel a variety of emotions, and some emotions are a bit more dominant. Likewise, when we think about a place, we start to experience certain things regarding that place. In this context, what happened while we were transitioning from the song to the place? Some of you said that they couldn't distinguish them. They said that those things are intertwined. If so, is it an emotion or a place? Or does it have an emotion you can attribute to it? Or there are those of you who have distinguished emotions and places and there are those who have made certain place-related inferences. When you are considering places in the second phase, were there certain emotional inferences or, perhaps, changes to those emotions? I mean, the initial unity of emotions, the emotions that emerge when you focus on them. Do the place-related emotions change when you think about the place? Can we talk a little bit about that experience? I mean, can we decipher it? Like, what happens in our heads that leads us to start designing places? We start off from a single piece and at the end of the process, we have designed a place. This may be a path we are walking on or a space with certain

boundaries. What happens during those transitions? Can we go back to that experience and try to decipher it? What is the trigger?

Interviewee H: I don't think it is possible to create emotional and spatial definitions and separate one from the other. For example, I realized that I was trying to express my emotions with spatial definitions. In the first song, there was actually a peaceful melancholy. This peaceful feeling is there because we are the observers. It's like looking at a photo. It is not like a migration per se, but we are not in our memories when remembering an old memory, we are here, and the event does not affect us as strongly it was affecting us back then. So, there is a somewhat of a state of acceptance. So, when we recall a sad memory, we are somehow stronger. We don't relive that memory as it was. Therefore, when I was making a spatial definition, wrought iron came to my mind. Wrought iron looks very elegant, has curves and it can be bent. But since it is iron, it is strong and durable. So, I made such an association. It was called monochromatic before. In my opinion, it is definitely monochromatic. Since we aren't travelling anywhere: Everything is actually here and now. The memories in our minds, the pictures we are looking at and other memorabilia can only represent depth and character to us via tricks of light. In essence, the peaceful thing within the emotion that I call peaceful melancholy is that it receives light, particularly the light of the sun. A place that is covered with glass all over is a place that I can feel peaceful and secure in. I can see everything as it is, but I can also get light and I am safe. So, I made such an association.

Interviewer: Go ahead.

Interviewee C: I would like to say some things regarding your question. I stated that I was starting to distinguish them a little. So let me continue from there. It is actually like this: as other people have said, it seems like it is impossible to distinguish them. At least for some emotions. Since I am specifically focusing on it, emotions arise when I am thinking of the place. But in reality, I was imagining places where those feelings were matched.

For example, loneliness and sadness were my first two keywords for the first work. When I tried to picture it as a place, I thought of a long road surrounded by trees. If we are talking about physical loneliness here, I think of a similar location. It is already very difficult to separate what we call loneliness from places. Of course, a person having no friends is also a type of loneliness, but when I hear the word itself, what I think of is more of a place-related type of thing.

For this reason, certain emotions such as these are already attached to the concept of place. I do not think of emotions that are detached from places. So, when I am not thinking of places, I am sort of thinking about emotions. But some emotions, such as anger, do not immediately create an image of a place in my mind. In my opinion, while some emotions naturally form an image of a place, others do not. So, what did I do in such situations? I thought about what kind of space would describe an emotion of ire. In particular, the second work of music had certain sections that were chaotic and aggressive. While listening to those sections, I said to myself "OK, this is what I am feeling now, but what sort of a place can this represent" and I wrote more virtually to force myself to reach a conclusion. In summary, places naturally appeared in my mind for some emotions, but for others, this did not happen, and I tried to imagine them.

Interviewee G: I also would like to share an experience. I could not fully distinguish it from the place. This is because I tried to focus on emotions during the first session and the place in the second. When I focused on emotions, I was the subject. But when I focused on places, I was external. There, I was no longer the subject. It was like I was a spectator. I wanted to share this experience. I had two different experiences.

Interviewee B: I would like to add something. It made me feel like I marked the places or the things I saw inside those places with emotions. Because while I was thinking about music, I was thinking not only about the emotions it aroused in me, but also the memories I had in that place. The things I had experienced in them crossed my mind. It was as if these were not pieces, but a whole. The music went on

ahead like it was saying "I can make you choose this, or that". At least, this was its effect on me.

Interviewer: So, what you are saying is that there was a unity between those experiences?

Interviewee B: Yes. It is not just matching a place with an emotion. It is like matching the experiences of that place. For example, when I am listening to a song, it might remind me of a wonderfully aromatic coffee I had in the past. These are all like parts of a whole. And the music I am listening to takes me to that place.

Interviewee A: Can I say something?

Interviewer: Go ahead.

Interviewee A: First of all, I would like to apologize to you. I got something wrong. I realized it while people were telling their interpretations. When you asked us whether we had any striking emotions, I answered no. But you were talking about experiences. But, in reality, the experience itself is striking. Because we've never listened to music this way before. So, trying to define them spatially and detached from emotional definitions really felt like searching for a needle in a haystack. Only certain words, such as loneliness, introversion, intertwined or sameness came to mind. Listening to the experiences of others, combined with representations such as being in a single room throughout one's life, has made me imagine three places. If I think about it, I think emotions beget places. To go back to your previous question, I imagined three things. The first of these is being in a natural place. This could be a plateau. It could be a garden of poppies. Or a forest. But it was a place where there are different varieties of the things of the same category. Then, a road appeared in my imagination. So, I felt like I had experienced three different places. I was on a pathway, but I was also in a museum. But if I examine what these three places have in common, I realize that I was an observer in all of these places. Regardless of the place, I was an observer. But this is a very difficult thing. Frankly, I was shocked by this.

Interviewee E: The first song and the second song were very different experiences in terms of the transition between emotions and places, at least for me. This transition is very natural in the first piece. At first, I could feel the emotions, and this was followed by images of a place in my mind. Since we focused on emotions in our first listening session of the first song, I had difficulties. I mean to say that I was confused for a short time when I considered what I was feeling while listening to the second song. At that point, I realized that the second song actually represented a place for me from the beginning. In other words, it is a unity of places. Moving from this as my basis, despite the fact that I had scribbled being excited or curious in my notes during the first listening session or my attempts to come up with emotional things to say while doing so, for me, the second song had me more deeply encompassed in a story.

Yes, for both of these songs, we are trying to reach somewhere by using emotions as our starting point. But for the second song, I noted words such as mischievous or naughty. Then, I found myself writing a story. It included things like drifting from one place to another, hustle, and bustle, struggling to find something, reaching a conclusion, or remaining within that process. Right after that, the need to get to the place as soon as possible arose. This turned into an effort to remain in this story as if I were a person who is wandering around in an enjoyable location. A location with narrow streets and many small places. I tried to describe something here rather than the feelings I experienced.

I realized this during my second listening session. I understood it much more clearly the second time. Listening to the second piece for the first time was actually the place I was looking for. The only things that came to my mind were offices and office plazas. There are fun and lively business places there, as well as serious ones and boring ones. I found all of them to be working and discovered the feelings of people there. What I'm talking about here is actually more of a longing for the old-school places. Take Kızılay in the past, for example. Ultimately, I described it as a journey from Ulus to Kızılay. From certain serious locations in Ulus to Kızılay, where the German architectural style is dominant and where official buildings, public housings,

the Grand Assembly lie, along with more enjoyable places such as Konur and Karanfil Street... These came to my mind. SSK Commercial Complex, taverns, bars, live music... In other words, the fact that all of these qualities exist side by side in a place where people see them one by one during the same day while not being aware of it. For example, one person can go about his business dressed up in a suit, while another may be going to a bar to have a beer at the same time. This type of things is what came to my mind. In this transition, I am characterizing things that are single and binary as things that are completely different from each other.

Interviewee G: I also would like to add a small note here. When I first heard about the subject, something like this came to my mind: Like our sense of smell, sounds are also triggering memories. They are phenomena that makes you concentrate and focuses your memory to a single point. For this reason, I thought that these songs would make me remember a place while listening to them. But it never happened. Both places that I imagined were places I had never seen before, but perhaps they are places I had designed in the past.

Interviewer: We should continue this after you state your views and experiences regarding the second song.

Interviewee B: If you look at them, the first song and the second song represent completely different characteristics. There are more experienced musicians among us, but it was one of Paganini's interpretations. Paganini is a master of the violin, who achieved virtuosity. Therefore, the technique is a little more predominant. The emotions I felt were more on the aggressive side. Because when you listen to the first song, you can hear each individual note. It really makes you feel something. But the second song has an even denser feeling of chaos and an attempt to demonstrate more technique. Other than that, it felt very loud and a little exhausting to me. Because it was more akin to watching an individual performance. You really are listening to a virtuoso, and he is doing everything he can to demonstrate the technical side of his music. Some may like it, but it is not the sort of thing I prefer. For this reason, it perhaps created a slight feeling of indecision. Like it was out of focus. Perhaps a bit

flashy. I perceived the work as though the musician was saying "Look, I am really good, and I can do these things". It made me feel a little nervous. As I said, at its core, it did not make me feel very calm and serene. Speaking in terms of preference, I think the first song appeals to me more. I could find something of myself in the first song, but I can say that I had difficulties with the second song.

Regarding the second song, I took the following notes regarding the place: First of all, I have a 'landmark' note. This means that it made me feel like there was something in that said, "I am here!". That was the thing I felt. There are two notes I took regarding architecture here. I was reminded of the "Pompidou". You probably are aware that it is in Paris. It is an elegant and aesthetical building. Paris has a very monotonous architectural language. Pompidou, on the other hand, is a very different and attention-grabbing building. Next, I thought of "Burj Khalifa". In terms of being attention-grabbing, it is a great feat of architecture. It is a structure that says, "I am here!". I was also slightly reminded of the style of "Zaha Hadid". As you may know, she was an architect who had a very focused style. She created beautiful structures, all of which were extremely remarkable. It also felt a little rebellious to me. Like it seeks to push the envelope. The second song is almost a thing that is trying to break free of its mould.

Interviewee D: Regarding the second song, the emotions I felt were: a sensation of rush, tension, calmness... The song seems to settle down at a certain point, but it does not stop. It continues to get louder and louder and reaches a peak. In general, I kept wondering when the song would end. I wanted it to end to be free of that feeling of tension. In the songs I listen to or create during my regular life, there is usually a feeling of calmness. Listening to songs with high energy can be very exhausting for me.

Spatially speaking, I already talked about the chaos, crowds, anxiety, and the hustle and bustle we feel during our everyday life. I was reminded of Tunalı Hilmi Street, with its crowds of people and cars. Apart from that, I studied in Antalya. Maybe there are those of you who are familiar with the Antalya Grand Bazaar. It is a place like

Cihangir or Taksim, where there are many tradesmen. It felt crowded like that place. It also reminds me of life before the pandemic. Of course, I am excluding the previous month while telling you this. Things have been going on as if they are normal during the previous month. The regular life prior to the pandemic, the daily routines, crowds, the city... In general, these are the types of things that song arouses within me.

Interviewee G: The first note I took says "excitement". Perhaps the high tempo created by the major tones or perhaps the percussive use of the piano made me feel that excitement. On the one hand, I compared emotions in the second song as well. One of the notes I took was "flirtation". In the questions and answers in this song, particularly within those within its melody, there were atonal answers in the sections dedicated to answers that came after the questions. In other words, while the melody was actually major in tonality, we would suddenly hear atonal sounds. This created a sort of flirtation, like ones that arise between men and women. Since I was feeling that flirtation and excitement, I interpreted the questions and answers as men and women. The question is different, and so are the answers. So, I felt like I was in that type of a flirtation scenario.

I've heard very familiar chord progressions from time to time. These familiar cadences made me feel like I was seeing familiar faces when I am lost in a very tense moment. Regarding my spatial feelings, while the other song felt more angular and geometric, this one felt amorphous. In other words, I couldn't grasp or see any corners. That is to say, I could not perceive any points that I use to define a place. The melody was shifting and changing constantly, and it was moving over to different places within the same tone. That gave me an amorphous feeling. But I perceived a very wide plane. Instead of different planes I had perceived in the other song, I perceived a plane whose boundaries I couldn't grasp. Perhaps this is due to the high level of technical details within the song. I took a note that says, "a rhythm without a pattern". I was able to grasp the descents, but this did not give me any clues regarding the pattern, which completely eluded me.

The simple minor melodies in the first song actually allowed me to grasp the patterns and my perception probably somehow matched them and put them into an order. But this did not happen in this song at all. There was a constant rhythm, but I couldn't understand its pattern. But since it finally turned to a decision, I determined its boundaries. I had drawn boundaries for it, but it is a very amorphous and very wide area. And it is mostly level. Despite the song being very energetic, that energy only made me feel a sensation of spaciousness. Rather than a place that is wavy, I perceived a level place. But I also felt like I was constantly fixated on its boundaries.

Interviewee D: There is something I would like to add. The second song sounds very threatening. The first piece was more comfortable. It doesn't have a big impact on the listener. It does not tire you. Since the second song is more aggressive, it might be a little uncomfortable. So, this was the feeling it created inside me. I mean, that feeling made me wish the song would end soon. I would also like to say that nothing related to nature came to my mind. Of course, this is perhaps due to the fact that we are living in a city. But if I had listened to the first piece in a different environment, maybe I could have thought of a natural area. This is perhaps because I didn't think about it that much. But this is one of the main reasons why this study is this impressive. It makes you think about things extensively and takes you back to your past. That's why it was effective.

Interviewee H: What I observed about the second song is that the "walking bass" part of the piano is more masculine and static. I think it had this feeling of masculinity because it was played in a forceful and strong manner. For this reason, the musician created a female-like duality with his right hand. This created a feeling of masculinity and femininity. I also felt like the man and woman were on the run from something and just when they were about to get caught, they managed to slip away. It forces them to try different approaches. That is actually why we call them variations. They try to tell us this one thing using different sentences, but they keep tossing about and failing. It is as though they are looking for ways to communicate. But they also don't want to listen to each other. The important thing for them is to speak about themselves. These were my feelings of the second song.

Therefore, I associated them with the following regarding the place: I thought of these variations as a mosaic. It is as if each square meter has a different theme. But, in actuality, they all belong to the same, single whole. They are partitioned by boundaries, and they are divided. It kind of reminds me of random and irregular uses of contrasting colours, such as green and red or black and white. Or chequered floor tiles. It actually makes me think of confined and crowded places. This is because there are a lot of things to talk about, and none of these things is fully explained, and none of them is fully understood. There is this feeling of being trapped. But the effort involved within it and the desire to communicate is huge. Therefore, while the first song felt introverted, the second song made me imagine a location that may be preferred by extroverted people.

Interviewee F: My first feeling regarding the second song was admiration. This may be because of my longing for my instruments. I think those two things are intertwined for me. The desire to play the piano. As Interviewee G said, the rhythm prevented me from slipping to different places. But I was only able to describe a single place. It is not an angular place, but rather, a jazz stage with rounded edges. So, I imagined a stage. It was probably because of the instruments. I imagined the band members who were playing on the stage. They were enjoying the music they were creating and chatting with each other. The pianist was a black guy. I couldn't leave that place. This was probably because of the high volume of that music.

Interviewee C: I vaguely remember this piece. The original form of this work was symphonic. It may be unrelated to this subject, but I think it is the pianist's interpretation that creates these feelings in us. Probably because it is a really great personal performance. When I look at my notes, I see that I had imagined an aggressive, hasty, curious, and excited person who is yelling "I am here!". But there are also relatively stable and calm moments. He plays the piano a lot he descends, then goes straight. Sometimes he does a forte and increases the tempo. If I remember correctly, I described it as unbalanced and enthusiastic for this reason. He injects blues and jazz melodies in certain places. This is an interpretation of the original

anyway. So, it gave me a very chaotic feeling. It is a work with a lot of emotion and many ups and downs.

When I tried to describe it as a place, I said that it was like a chase in a labyrinth. It is a chaotic place with no specific pattern. Sometimes, there are secluded areas like alleyways, but other times, there are huge areas where there are large crowds. In the end, I imagined towers that are infinitely high. So, these were my notes.

Interviewee A: First off, the work was very cleverly arranged. It certainly knows how to affect its listeners. It is as though we are trapped via emotional manipulation in a place that is focused on directing you, instead of you going wherever you want to go. While the first piece was introverted, the second one is extroverted, and we experienced this after choosing to be subjected to it. It's actually like riding a roller-coaster or visiting a horror house. You know you're safe, but you need that frightening experience. This is because the pulse is actually very important to us. We know the continuity by heart, regardless of it being slow or fast. But that pulse being irregular here and there means that we are being subjected to rhythmic surprises because we do not know what to expect, even if we know the original material. I got a feeling like we were on a playground or a house of broken mirrors, where our appearance constantly shifts, or, you know, something like that. I knew that I was safe, but I also felt like something could happen to me at any moment.

Interviewer: Something caught my attention. If I am understanding this correctly, there are things common in your emotions regarding the second song, right? It is a little tenser, a little louder, and a little more unexpected. And its place is a bit more similar. It makes you imagine places where the level of action is high. It refers to some more familiar places. Chaotic places. It is reminiscent of those places.

I didn't see that commonality for the first song. It is more monotonous. Its variety is a little more contained, maybe even lower. But the emotions that are triggered merge with sadness and peace, and the places become a little more different and diverse. Some of you said it was circular, some described a road, others said that they are lonely, but there seems to be a little more diversity. Can we say that first one is more

open to interpretation, or maybe more flexible? On one hand, it is well-defined and flat, but more flexible in terms of expressing emotion. On the other hand, since it gives more space to the audience, the places that come alive in the mind become a little more diverse. The other song takes us to a place that is more certain. So, is this due to the piece itself? Or do we design different places when we make a distinction? In the first, there is a place that matches with a designed piece of music rather than a remembered one, and in the second song, more well-defined places are remembered. Am I wrong about this?

Interviewee C: I agree with what you said. The second work has a clearer emphasis. It is perhaps due to it being a work of music that more explicitly evoked common feelings in all of us that it has led us to create similar places in our imaginations. The first song is maybe a little softer and a little more defined. It is very familiar, and it does not have different points of exit. So, it is something that is familiar to our common perception. So, since it is a thing that all of us are very familiar with, we may have matched it very different places. In my opinion, there may be a lot of places that can represent common emotions. There is a commonality in the other song as well. We all reached the same conclusion, but the expressions of that song are more explicit and harsher. Perhaps it is exactly because of that harshness that we thought of places that reflect that harshness. During the first song, I wrote of many places. For example, I wrote of places with high ceilings. It was also a progressive song. A song that advances constantly, like a story. Therefore, the song made us feel different places at different moments. But because of its less defined nature and its weaker emphasis, it may have caused everyone to imagine different things.

Interviewee B: My general feeling is also related to two parts, the second part has more precise descriptions, but the first part seems to define somewhat greyer areas. It can evoke different feelings in everyone and portray slightly different things. Oh, and I forgot to mention. The place I imagined has a river and you can walk by that river. It was somewhat like the season is autumn, at least, that was the feeling I had. In the second song, the music is emphasised more heavily. I mean, it says "This is it!". "You have to think about this!". So, it directs you toward that thing. The first

song gives you a little more space to play with. You have more space to use your imagination. Maybe this is because of the song's softer nature.

Interviewee A: I believe that is because of this: The second song is a theme adapted from a song written by a violinist who lived in the 19th century. Not only the original was spiced up a little bit with piano, but it was also combined with a little jazz. That's why it's cleverly constructed. The way it was composed was clearly designed to manipulate the listener. It is now a work of music that was transformed for this purpose. Maybe that's why we had these common experiences. The first work is like reading a poem, the second is like reading the third-page news. For this reason, my attention was divided while listening to the first song and I experienced different things at the same moment. But they all had one thing in common, a place where they converged. But, as I said before, the second song was like riding a roller coaster: it moves at one moment, comes to a halt, then it suddenly starts moving again and stops. The experience is set and defined beforehand, but I'm there all the same, because I want to have that experience. Where I am included, I am included. But the first song is all about me. Me and the environments, people and living things that I interact with. It is about everyone.

Interviewee G: The fact that we all had common feelings, that we felt different things while listening to the first song and imagined similar locations while listening to the second may be related to a sense of security. We were all in a very safe area while listening to the first song. We heard familiar minor melodies and they manipulated us at certain times. The jazz tones, atonal beats and melodies interjected to certain intervals may have caused a sense of insecurity in us. This is actually not something we are very familiar with. In fact, it is not something that the human brain is very accustomed to. When our minds are taken to unsafe and unfamiliar grounds, we are forced to focus on a point. This may be instinctive. We can feel different things in the safe area, we can leave ourselves more comfortable in that respect. This is commonly said about jazz: "The familiar things make us feel safe and unfamiliar things excite us. Jazz is becoming excited about familiar things and trusting the unknown." These atonal, unfamiliar, and unnatural sounds force us to focus on

something. We feel very far away from safety, and we get mostly excited. I think this may be one of the reasons.

Interviewee F: Based on your second question, I said that the first work allows us to create designs. It didn't stop me from imagining spaces. I could easily combine my emotions with places. But the second work of music forces upon us its own designs. Maybe even its own emotions. So, we couldn't even avoid the emotions. The reason why emotions are so mutual between us may be due to the fact that the song imposes on us the emotion it wants us to feel. The song actually does exactly what it was designed to do. It is a pretty dominant piece of music anyway. Its design and emotions create that affect within us. It is very difficult to escape from the second song.

Interviewee E: I think the most important difference here is the feeling of control. As humans, we all prefer to be in control. We want to have self-control. We want to be in control. And this is what happens with the first song. We are in control and any listener can have his or her own personal experience. But while listening to the second song, we are not in control. The person who is interpreting the original is in control. So, the song describes to us exactly what the composer wants to tell us. There is no space for outside interpretations. This is also reflected in any places that you might imagine through the song. In the first piece, we can be in the places we choose. We can be alone in the places we imagine to our heart's desire. But we are never alone while listening to the second song and we cannot even do what we desire to do. We cannot choose to go to the places that under our control and we see unfamiliar faces when we look around. I think this is the biggest difference. If you look at it, all of us have described a city for the second song. In other words, the inability to control the city. I felt like I cannot decide who will be next to me or I couldn't decide who will be crossing from the other side of the street as I am crossing it.

Interviewee G: We interpreted this state of being or not being in control by considering the melodic and rhythmic structure of the songs. Because this subject is mostly viewed from this perspective. I would like to specifically ask something that

had crossed my mind. It is regarding the reverb effect present in the song. So, this reverberation, not just the rhythmic melodic part the fact that the second song is a live recording adds an interesting reverb effect. I think that the reverb gave me a feeling of not being in control. In the first song, there is this controlled echoing that is not caused by the acoustics of the place and that effect relaxes me. The reverb in the second song made me feel a little uncomfortable, but I am not sure. What do you think?

Interviewee E: Now, the first song we listened was a studio recording. Or a controlled recording. The reverb effects and the equalizer of the piece were controlled externally. Naturally, muddy frequencies were removed from it. For this reason, it has a more sterile feeling. This contributes to how easy it is to listen. The other is recorded in a live performance hall, and you can even imagine that hall. It is like an amphitheatre or an indoor theatre. It feels like a medium-sized hall, nothing too big. Since reverb settings were not modified, they create a darker environment. It causes the creation of disturbing sounds that you do not want to hear. I always had that contradiction in my mind, I was wondering whether this experiment was going to like that eight-dimensional thing that has been popular recently. Frankly, I was afraid. You said we were going to be a part of a very exciting experiment, but I was wondering whether you would make us listen to eight-dimensional music. I am very glad you didn't. I think the two works of music selected for this experiment were successful. I don't think the point here was songs being live recordings or having uncontrolled reverb like the second one. Because if we go into that subject, we will start to describe where the song was recorded. Therefore, I tried to listen by ignoring those qualities. I tried to reach conclusions without thinking about them. I did not listen to the uncomfortable feeling caused by the live recording of the song and instead tried to focus on the general style, playfulness, touches and interpretations that the composer added to the work. Frankly, I tried to ignore the other factors.

Interviewee H: Maybe it is too forceful to make such an analogy but, in my opinion, the music presented to us in the first song was an empty frame. So, we had the subjectivity to imagine whatever we wanted within that frame. The second song, on

the other hand, was like asking us what we saw in a cubic painting. It seemed like what was asked of us was to describe our perceptions and emotions regarding a well-defined work of art. For this reason, since the first work was subjective, certain places, where the listeners could feel sad or peaceful, have emerged in their imaginations... While I feel peaceful in places with high ceilings, some people feel more peaceful and secure in darker or dimly lighted places. In my opinion, this is why the definitions were so diverse.

Interviewer: We would like to thank every single one of you for your participation and contributions.



D. Experiential Phase II: In-depth Interview Transcriptions

Author Note: The experiential phases are based on two exploratory phases, which include hours of interviews and focus groups. It is usually not necessary to give the raw transcriptions in the appendices section. However, we believe that the unity, the natural flow of these conversations might reveal different outcomes according to the reader's point of view.

INTERVIEWEE A

How would you describe your overall experience of the experiment?

First of all, it was interesting for me because we never approach music in this way. For me, this was the first time I explored the emotions that I felt while interpreting and analysing a piece of music and associated the results with a certain place. It was also exciting because it was a group activity. The interesting part was that there were a lot of similarities and a lot of differences. The similarity was that, while everyone was trying to describe their feelings with different words, they were describing similar things. That naturally makes you wonder how sensible the thing you are trying to describe in the first place. So, as an experience, it was interesting for me.

How would you describe the emotional states and their relationalities of the musical experiences? Were emotional/affective states in unity?

The emotions actually complement each other. This is sort of similar to how the song was. Alongside that complementation, the emotions also give one other life in both micro and macro scales. As a matter of fact, they were not that distinct from each other. There are more linear relationships in the first song. In the second song, there was no transition from one emotion to another as there was only a single emotion. It makes you feel like you are seeing it in a distorted manner.

How would you describe the spatial reflections and their relationalities of the musical experiences? Were spatial features in unity?

I said before that the boundaries are clear for the first song. Additionally, parts of the song such as introduction, development and finale are presented clearly. Looking at the notes I wrote earlier, this makes me think of a certain form. Other than that, I felt everything I wrote. In the first work, the feeling of intertwinement is very dominant. Interestingly, I can combine that intertwinement with this: While this intertwinement becomes complete with the transition of colour tones to the next one in the first work of music, it is addressed in a different way in the second work. So, it is as if the concepts themselves are transformed. Like the meanings have changed. There is a sense of complete unity in the first work. Everything is independent of each other, but there is a natural fluid harmony in the whole. In other words, it is like nature itself, rather than artificial places. Trees are always independent of each other, but you see them as a whole when you look at a forest. There are no sub-places in the first song. I feel a sense of distortion in the second work. You know, sort of like those mirrors in amusement parks. They make you look distorted and interlaced. Suddenly, that one person who has been looking at me becomes ten people. They're that type of distortion. That place seems to be there for one moment and over there for another.

How would you describe the tempo in the pieces? How did you associate them with emotions and places?

I explain the tempo by the distribution of lines and shapes. With the movement of the place there. In other words, with the sense of action given to that place by its architecture. With things that move within that composition. This may be humans. Or you can place a column, and that column will have a tempo in line with all other columns next to it. There is such a pulse. Anything can happen to make you actually feel that pulse.

How would you describe the rhythms in the pieces? How did you associate them with emotions and places?

We can call rhythm the way we place the details into this general tempo. When comparing regular rhythms with irregular rhythms, the thing we feel changes according to how much of that irregularity is reflected to the listener. If we were to

talk about this on the basis of the musical works, we can say that this is how we inject rhythm into the pulse. The regular rhythms of the first work create a calm and safe feeling. But of course, the fact that the rhythm is reflected in a regular manner is not just related to the rhythm. It emerges with the combination of many different qualities. When you ask about it, I don't think of a single rhythm. I think of how it uses that rhythm in a melodic line, what colours it integrates with it, and what kind of continuity it offers in the form. I wrote that I stayed there while knowing that I would experience that area of insecurity. So, it's something you experience deliberately. I kind of likened it to a rollercoaster.

How would you describe the dynamics in the pieces? How did you associate them with emotions and places?

There is depth in the first song. It's as if there is a multidimensional nuance there. Because in the second work, every element is there with a "bang". In a very contrasting way. But, in order to understand the nuances of the first work, it is necessary to delve deep inside it. So, yes, there are a lot of nuances in the first work and the intertwinement and permeability present in it are caused by those nuances. While it is creating changes in nuance, it is making no changes to the melody. But a change at the deepest layers of the work makes you feel that change in nuance somewhere down the line. But it is not a change that we become very aware of; it is more of an internal change. On the other hand, the changes that you logically encounter in the second work force you to react.

How would you describe the intervals in the pieces? How did you associate them with emotions and places?

The fact that the piano reached its current form during the Haydn period is very clear. That is why we are in a narrower playing field. However, the jazz adaptation of Fazıl Say takes advantage of all the possibilities of today's 21st century piano. So, there is a very clear difference. But if we think in terms of composition and melody, Paganini's theme is actually very limited. The work was originally composed for violin, but it has reached an unlimited scale on piano with Fazıl Say's adaptation. It

feels like a heart beat graph. Its ups and downs can take you to unexpected places. Combined with the rhythms, this effect is compounded, and this really makes you feel that contrast.

How would you describe the beat density of the pieces? How did you associate them with emotions and places?

Of course, we felt the density of these beats. Because these two works are very contrasting to one other. In other words, the answer to your question very obvious due to this contrast. The second work of music took me to a crowded place. But this can be crowded as in a crowd of people or as a crowd of images you perceive... Either way, the feeling of being immersed in a crowd was there and emotion wise, I felt as though I was exactly where I needed to be to feel that adrenaline. In other words, I was at a place where I could interact with that subject. Regardless of that place being a place of fear or a place of adventure, I went there deliberately.

To what extent, considering music and space together, can contribute to the design process?

Actually, this also crossed my mind. I absolutely think that they can contribute because the human system can reach to a stage where the synchronous relationship between emotions can be felt very strongly. I believe that a person can reach a point where he or she can feel characteristics that might be called superhuman when subjected to a moment or an experience that can trigger the content both auditorily and visually. For example, I went to a Van Gogh exhibition at CerModern. We were in an experience where they reflected Van Gogh's works on walls and ceilings in very high resolutions by magnifying them with new technologies. It was as though we were actually inside the paintings. Meanwhile, diaries or notes of Van Gogh were being read out loud. Carefully curated classical music pieces were being looped in the background and we were being subjected to multisensory stimulation. We were reaching to a point where we could even not move. This is because all of these elements were all in harmony with each other. I remember sitting down and crying involuntarily for half an hour. It was a very exciting experience for me. The tears I

cried weren't happy tears or sad tears. It was a spontaneous feeling arising out of that interaction. When visual and auditory experiences are combined, I think that can lead to an experience that can affect a person drastically.

If we consider the programmed and absolute music, how would you describe the representation modes of these styles?

I do not think it is possible to describe a subject without representing something. Since you are a part of the society and culture you live in, you convey things in a manner that is integrated to such phenomena. The music you create absolutely is a representation of something. But you convey it to the person standing in front of you in general terms and you expect him or her to fill that frame in with his or her own colours. The rest is up to that individual. What's more detailed in programmed music is that it provides you with words. That gives a title to the music and directs you to such things in a direct manner. So, while you have this huge playing ground in one of them, you are still in a defined area. But here, you are in a curated place within that area.

2- INTERVIEWEE B

How would you describe your overall experience of the experiment?

Maybe it is caused by me being a musician, but this activity is one of the questions that have popped up in my mind a lot since I got into the department of architecture. Goethe even has a saying related to this: "Architecture is the frozen state of music". It has become one of my favourite definitions. The harmony, the flow, and the notes of music and how it manages to take you somewhere else. Architecture is actually a field that has parallel features with music. For this reason, places are not addressed on their own in some museums, but rather, they are combined with music to create a certain effect. That's why I associate architecture with music to this extent.

Whenever I listen to music, something always comes up in my mind. There's always music in the background while I'm working, I can't do without it. I would actually listen to the first song while working on something. I would put it to loop in the

background, allow it to direct me. I can do things while listening to it. But if I were listening to the second song, I would drop everything I am doing out of the curiosity to check who is playing it. To understand what the song is directing me towards. To examine the performance presented by it. Because the song naturally directs me towards such things. As a matter of fact, what you are listening to is more of an individual performance. It is as though the musician is saying "*I am here, I have an excellent technique, I am very good at this.*" So, you feel the need to see what is going on visually. That is not the case for the first song. While listening to the first song, you can close your eyes and let it take you away. It feels like it is more flexible.

How would you describe the emotional states and their relationalities of the musical experiences? Were emotional/affective states in unity?

Regarding the first song, I wrote notes saying things like it includes autumn, loneliness, and transience. When you listen to the first song, you can switch from a mood you want to any other mood you want. It has that kind of flexibility. If you want to think of nice things, you can lie down somewhere and put that song to play in the background and listen to it. You can do this when you want to rest. It can take you places. At least, that's what I think.

But the second song takes you to a certain place and only to that place. As I said before, it makes you want to see who is playing it. That is the impression it left on me. You can't just rest your head or lie down and daydream about things and put that song to play in the background. It asks more of you. The first has more linear flows of emotion, but the second one has more fragmented ones.

How would you describe the spatial reflections and their relationalities of the musical experiences? Were spatial features in unity?

The following passed through my mind while listening to the first work. It can be used as a soundtrack for any documentary. You can just add it to the background, and it would play when dialogues are cut. It was easier to blend things with the first song. If I wanted to associate it with a certain place, that would certainly be those

audio tour guides that they provide you in museums. You can easily use that song as a piece of background music for such things. You can tour the entire museum while listening to it. I do not think anyone will be bothered by this song. Nobody would say "why the hell did they choose this song". It is a work that can easily blend in with its surroundings. I think it can be harmonized with your intentions to use it. The second work is a little different. For example, there is an architect named Daniel Libeskind, who designed a Jewish Museum. He did something very interesting there. You enter a place and there is only this area above you that is in darkness. The light enters the area from that place. It is completely in darkness. He wanted you to experience such an area. He wanted you to feel as though you were in a dungeon. So, when you want to give someone a certain feeling, you can choose the second piece. When want a friend to experience a certain thing, you can use that music.

In the first song, I am the subject. But in the second song, the place becomes the subject. At least, that's how it feels. Regarding what the second work evoked in me; I took a note that says "landmark". There is something there draws attention to itself. It stands on its own like an innovative and modern building within the urban fabric of a very traditional French city. Or like Burj Khalifa. Technically, it is one of the highest altitudes that human beings can reach. But it just stands there. I mean, I always tried use it as a focus for something.

How would you describe the tempo in the pieces? How did you associate them with emotions and places?

Maybe this can be generalized... Generally, I think that lighter music directs us towards good memories if there are good things related to them. For example, there is a work of music composed by Chopin, which is very similar to the first song. Whenever I listen to it, it always reminds me of autumn. So, I was made to reminisce about similar things with this song. In general, light music tends to direct you towards such things. It directs you to think about things like loneliness. It is a bit introverted; it makes you think about what is going on in your life and remember such things

once again. But the second work of music leads to something chaotic. I experienced a sensation of strangeness, a feeling of being lost. That is how it makes me feel like...

How would you describe the rhythms in the pieces? How did you associate them with emotions and places?

There are asymmetries in both songs. But the second one is more asymmetrical. However, the asymmetry of the first song is well balanced. There is nothing in it to strike you suddenly while the flow of the song is ongoing. In the second song, there is always this chance to encounter a surprise. It is like you enter a place and while walking, you suddenly take a left or right turn and become surprised. Because there are lots of skips in the song. While the musician is doing one thing, he completely skips over to try something technical. This was too heavy for me in terms of being striking.

How would you describe the dynamics in the pieces? How did you associate them with emotions and places?

If we look at it in terms of dynamics, they play a smaller role in the first song. As I said, it is more fluid, and this fluidity continues from the start of the song to its end. It takes you to wherever you want to go, makes you think a little more, and focuses you inwards. It always presents in the second song. It has this side to it that constantly puts pressure on you. It seems like the type of music that you can use if you want to emphasize something. Like when you want to emphasize something or to make another person feel something. I think this is because it is intrinsically closed off. Like it doesn't direct you to think this way or that way. I think the first song is a place that has a lot of transitions, and the first song emphasizes its own characteristics. If I want to examine them in terms of the music they present, I will imagine listening to them in a concert situation. When you are listening to the first song, you just listen to the song. But when you are listening to the second song, you also watch the performance. You would want to see its visual aspects. Because it also has a technical side.

How would you describe the intervals in the pieces? How did you associate them with emotions and places?

The first one feels very melodic, perhaps because of its narrow intervals. These are actually components that are not easy to distinguish. I couldn't reach a complete decision regarding the feelings it has aroused inside me. The songs that have narrower key intervals leave you a little more space in terms of perception. We can just leave those songs playing in the background. When you are listening to the second work, it slowly reaches a point where it becomes surprising, because it arouses curiosity regarding the involved technique.

How would you describe the beat density of the pieces? How did you associate them with emotions and places?

The density of note beats is lower in the first song. I think this has certain effects. The human brain is a little interesting. I think that my thinking becomes inflexible when I get into it. Like when you want to create designs but there is a lot of noise around you. In such circumstances, you will have difficulties working with full focus. I think this is the main difference between the first work and the second work. The low number of note beats leaves you somewhat free and it is as if it is saying that it is working with you, not against you. This is not the case with the second song. It is as though the second song is challenging you. But I feel like the first song is supporting you. Play in on background while working, and you can accomplish anything. On the other hand, the second song always wants to attract your attention.

To what extent, considering music and space together, can contribute to the design process?

As I said at the beginning, music and architecture are complex structures. I think that, for some structure types, it is impossible to bring smaller pieces together and present them as a whole. For example, if you look at it from an architectural perspective, this is very likely to happen when you are constructing museums, because they are open to such approaches. You can put a piece of music to play in the background and

design that place according to that music. This allows you to wrap it all up in a package and present it. You can't really isolate one part from the other. They are like the elements of the design. It seems to me that music should be a part of the design, just like how the place already is. They are very complex. I don't think it is possible to separate these two from. Perhaps you can do this: When you want to emphasize an emotion in a place, there is a chance to reflect this emotion by using both the space and the music together, but piece by piece. As I mentioned before, the sincerity of the place is also important. I used to be in a band. During one of our concerts, the electricity went out. This was perhaps the worst thing that could happen. The lights went out and our amps turned off. But we figured that music is ultimately something you can do using bare sound. That concert was perhaps the most unforgettable and most enjoyable program for me. Because everyone was suddenly able to divorce themselves from other distractions. There was only the place and the music. The people there weren't even able to see each other. I really liked that experience.

3- INTERVIEWEE C

How would you describe your overall experience of the experiment?

It was a good experience. It was nice for me since I had never been able to establish such a correlation in my head before, at least consciously. That day, I noticed that the emotions that arise while listening to a piece of music arise in your mind alongside a place. I did a lot of spatializations for the first song. While listening to the song that was heavier, there were places constantly popping up in my head. It was nice to see that, it was different. If they asked me before that if it were possible to use places as an interface for emotions, I would not have been able to imagine such a relationship. I would probably have answered negatively. But after experiencing this from that perspective, I have now realized that it really could happen. There seems to be such a similarity. It was also interesting to see similarities in the other people's descriptions of places and songs.

How would you describe the emotional states and their relationalities of the musical experiences? Were emotional/affective states in unity?

I think the first one is more interrelated. Still, there was a lot of variety in both songs. The second song was very fast-paced and much more aggressive. Let's just say that it was more expressive. The second song is more akin to some person expressing himself. There are many emotions in the first song, and these feelings are conveyed in a certain cycle. There are also repeating sections in the first song. They also are present in the second one. But the first is more regular. But I still cannot say that one is linear, and the other is not. I think they both contain a lot of emotions and transitions between those emotions. But the emotions in the first song are calmer and more passive. The second song, however, is more extroverted.

How would you describe the spatial reflections and their relationalities of the musical experiences? Were spatial features in unity?

I didn't imagine just a single place. I was jumping from one place to another. Whenever a change occurs in the melody of the music, it feels almost as though that change is reflected in the place I am imagining. While listening to the first song, I imagined places such as a long road surrounded by trees, a wide and open area, a long hallway, or phenomenon such as a journey... A more chaotic place emerges from the second work. But it is not a static space. In both, the places were changing in parallel to the changes in music.

How would you describe the tempo in the pieces? How did you associate them with emotions and places?

Does slow tempo mean sadness? We can say that, as almost all songs that we might describe as sad have a slow tempo. Therefore, I think there is a correlation there. I think this is related to heartbeats. When you hear a piece that has a high tempo, you naturally want to start moving. Likewise, a slow tempo makes you feel calmer. It's kind of like a suggestion. For this reason, I tend to enjoy those truly sad pieces. More than ninety per cent of my favourite songs are slow-paced and melancholic. So, I imagined more stable and calm things with the first work. While listening to the second one, I felt emotions such as a feeling of hustle and bustle, a sensation of quick movements, an increase in heart rate due to excitement, and an increase in tempo.

The idea of rushing and the idea of turmoil seems to me like they are fast-paced movements that you cannot do slowly. So, the tempo is definitely related to the emotion there. I think the tempo is the main determinant here.

How would you describe the rhythms in the pieces? How did you associate them with emotions and places?

The second work has a much more complex structure. There is also an individual performance there. This heavily affects both the tempo and the rhythm. The song shifts to different rhythms. Rhythms, such as the 4/4 rhythms in the first song, can be considered regular rhythms. That can also mean the opposite of chaos. The variety of rhythms present in the second song were interesting. I did not count, but when there are irregular rhythms such as 5/4 or 9/8, I lose that sense of things being in order. Therefore, I can say that they are patterns that lay the groundwork for different possibilities and chaos.

How would you describe the dynamics in the pieces? How did you associate them with emotions and places?

Sudden changes in the music affect how a place can change in your mind. For example, if a change in tempo occurs when the same melody is ongoing, I wouldn't feel like I have gone from one place to another. But when we move on to another piece of the song and there is a change, I feel like I have gone to another place. Therefore, it is very parallel with the changes in place.

How would you describe the intervals in the pieces? How did you associate them with emotions and places?

I cannot say too much about this subject. I do not think I am very knowledgeable about theory. But I believe what they mean is shorter intervals and those make us feel more secure and more organized. Others feel like a confluence of notes that push the boundaries and you wouldn't expect them to be put next to each other in an arrangement.

How would you describe the beat density of the pieces? How did you associate them with emotions and places?

Their effects are similar to tempo. Let's say there are two works: they have the same tempo, but their measures are different. As they pick up in speed, that feeling of rushing increases, and this creates a sensation similar to what happens with tempo. I feel like I am repeating myself. But of course, if we played the first song with double the speed, it wouldn't create the same effect. And it also wouldn't create that feeling of calmness.

To what extent, considering music and space together, can contribute to the design process?

I am thinking of my own practices. As I said, there was no such idea in my head. We had worked with a similar idea in our first year in a design assignment by Professor Baykan. That was also based on rhythm. In my opinion, it can have benefits. Why? Because music can be an excellent metaphor for representing the dynamism in a place. As a matter of fact, I just remembered that, in one project in Armutalan, we had designed the area to be similar to the bars of an equalizer. When you design a place, you cannot just add the same density to every section of that place. There needs to be dynamism. You need to place an opening somewhere, or a door to another place. Or, you need to add custom places to create customization at different levels. When we consider these types of varieties, the variety provided by music can be beneficial.

What you think about the departure motivation in design process, is it emotion or is it function?

Interesting question. As a designer, when I am given a task, I have to understand what exactly is asked of me first. When we create designs, we add visualizations to the posts. My goal is to have something appear in my mind when I read the title of the post. The title represents something that attempts to describe that post in a single sentence. In general, when I read that, an idea emerges in my head, and I try to

describe it. It is close to being intuitive and I cannot distinguish it completely. It is more of a grey area.

4- INTERVIEWEE D

How would you describe your overall experience of the experiment?

The first thing that came to my mind was that we did something collectively that day. That collective endeavour was very good for me in terms of discussion culture. On the one hand, it was actually a very individual experience. I mean, before we had that collective discussion, everybody wrote something on their own and the discussion followed. It was both a very individual and a very collective endeavour. This is the first thing that comes to my mind when I think of the characteristics of this study.

How would you describe the emotional states and their relationalities of the musical experiences? Were emotional/affective states in unity?

There was a linear structure in the first song. It wasn't a song that had a lot of ups and downs. Therefore, I was able to immerse myself in that flow with a certain feeling. But in the second work, the flow might be just ongoing on normally at one point and then drop all of a sudden. It is like there is a deceleration in the tempo of the song. I reached a point of calmness at that moment. Because, from the start of this song, there was this sense of anxiety, this hurried sensation. In fact, I said before that it was reminiscent of the pre-pandemic period. I felt as though I was surrounded by a large crowd. If I were to speak of it at this moment in time, it has led me to a feeling that we have returned to a period of relative normalcy after the pandemic. This is because there is something in that environment that makes you feel like there is nothing wrong. Certain places of the world, especially Turkey, have become very crowded. The feel of the second song was not very linear. But I was in a certain state of emotion while listening to the first one. While there was sadness, loneliness, and a more calm and relaxed feeling in the first song, the rush in the second one evolved into calmness at one point and that put me in that anxious mood once again.

How would you describe the spatial reflections and their relationalities of the musical experiences? Were spatial features in unity?

The first piece of music created a feeling of immigration in me. Perhaps this is because migration plays a huge role in my personal tale. My family lived in various provinces of Turkey for many years. Then I went to Antalya to study. So, my dominant emotions were reminiscent of what I would feel when we were migrating. It also reminded me of the movie *Infinity and One Day*. Such a subject was also discussed in that movie. Topics such as migration and the refugee problem were covered. But at the same time, it also made that confined feeling present in Ankara dominant because I lived there for a long time. The buildings, the lack of green areas, the current season of autumn and the pessimistic weathers. Like the last night's rain. There are things that are reminiscent of these in the first song as well. As for the second song, I felt like that place was more densely packed. It was as though there were huge crowds of people and long traffic jams. In the second song, it feels to me like the subject is society. On the other hand, I am the subject in the first one.

How would you describe the tempo in the pieces? How did you associate them with emotions and places?

In the second song, something like this happened: it's a song with a high tempo. For this reason, chaos is represented in the song with high tempo. That chaos, the general hurriedness, the energy, the traffic of crowds and people... Tempo plays a small role in bringing those associations to the fore for me. In the first song, the tempo is low. Since it is as low as possible, its tonality is also melancholic, so it is calmer and more tranquil. Maybe that's why it reminds me of a journey. This is because that tempo makes me feel the same feelings present in the songs I write or perform. In general, the tempo of the songs I compose is always low. I mean, I didn't go above 90 bpm much. Because I do not enjoy performing such fast songs. Maybe it's a subconscious thing. I don't know exactly. As for the matter of the journey, I believe the road is more important than the destination. The arrival isn't important for me, as being on that road makes me feel calmer.

How would you describe the rhythms in the pieces? How did you associate them with emotions and places?

The sense of the rhythm of the first piece is equivalent to its tempo. These two are things that are intertwined. It was designed to be suitable for that. The first piece is as slow as possible, and the rhythm is created accordingly. The same thing changes in the middle of the second song, where a break occurs. The second song's rhythm progresses in parallel with the tempo, but after that breaking point, the song reaches a point where a down-tempo happens and that linearity breaks. Then, the tempo increases again. When I think about it, I cannot say that this matter of time signature symmetry has created any associations for me.

How would you describe the dynamics in the pieces? How did you associate them with emotions and places?

The way the first song was designed to be as predictable as possible. For this reason, when I was listening to that song with my headphones while relaxing at home, it would take me to a natural area. To a natural place that is far away from human beings as possible. It made me imagine a place with trees, perhaps a forest. This was actually related to the way the piece was designed. Because, as I said, the melody of that song is as predictable, calm, and sad as possible. The opposite is true for the second song. An unpredictable composition was created for that piece. Perhaps it is predictable for the artist, but since it is a thing that is unpredictable by the listener, it did not take me to a natural place. It threw me right into this chaos and left me there. It was as if I was in the middle of a city. The cars around me are honking constantly, and there is this bagel seller who keeps yelling. The entirety of the life within that city was present in my mind's eye.

How would you describe the intervals in the pieces? How did you associate them with emotions and places?

Let's detail the subject that we call the interval. The distance between a sound and another sound determines the intervals. For example, there are two whole sounds

between do and mi: do, re, mi. Now in the first work, the intervals weren't that distant from one other. I said there is a predictable distance because the melodies are close to each other. But in the second song, the distance between notes can change very suddenly and very extremely. Going to a note that is 8 octaves sharper: the stimulus mechanism was in effect right there. The second song had a livelier tempo, the tension of those intervals was high.

How would you describe the beat density of the pieces? How did you associate them with emotions and places?

The second song had denser beats. Also, the frequency of consecutive beats was high. All of this created a feeling of tension in me. The reason for this tension is this rush itself. For me personally, that feeling of rush causes anxiety in me. The second song created that feeling inside me.

To what extent, considering music and space together, can contribute to the design process?

I am certain of it. We should never think of those two things like things that are separate from each other. We are designing places even when we are thinking of abstract things. Our minds are accustomed to this. Because we are very familiar with it. After all, we cannot design something we do not know. My own music design endeavours also have this effect. If I think about Ankara itself, the cliches that are told about Ankara, such as the city being grey, full of buildings, full of government officials, gloomy and dark, are all true, despite being cliches. I personally benefited from Ankara in these creative processes. It directly affected the words I wrote. Instead of perceiving the place as a city or a room, perceiving one's own mind as a place affects me in an abstract manner in the process of producing songs, at least from a melodic standpoint. For example, there are major and minor tunes. We can say that major tunes are more lively and more enjoyable. On the other hand, minor tunes lay the ground for the emergence of gloomy and melancholic emotions. When I'm composing, I usually try to produce songs within that minor atmosphere. But I create such songs not because I want to compose them in this manner, but rather

because I am used to it. Perhaps because I am in such environments. It's all about the places... A process of creating music independent from places is unthinkable.

Is it emotion or a type of a moment you want to convey to the listener during the composing process?

The first thing I want to convey in music is the feeling of the music. I am a guitarist, so I chose a method of creating the music first and arranging the lyrics afterwards. Honestly, the other way around is quite difficult for me. It is difficult to compose music to fit into a set of lyrics. How do I do it? When I pick my guitar up and think about the things I have experienced, the place I live in or a place I don't live in and start playing, my process begins. Since I have completely internalized those feelings at that point, I can put them into words. But of course, there is a math to this. Although it is improvised most of the time, it is necessary to make it smoother. For example, even the silences that you add to your composition are important. So, I first come up with the emotions and verses and then I find the words to describe them. But when I place a great deal of emphasis on the mathematics of the thing, my results end up being mediocre. Perhaps this is a disadvantage, but I do not become satisfied if I do it the other way. It makes me so happy that my process becomes completely intuitive and spontaneous. Of course, that is not to say that I do not put a technical touch or two in the mix. At first, I come up with a sketch, a draft, completely intuitively. It is like a building. Then, I add melodies, chord progressions, a flow and syntax on top of it. Then I start writing lyrics for it depending on whether it is suitable for poetry or not.

4- INTERVIEWEE E

How would you describe your overall experience of the experiment?

If we look at our culture, our birth, and other things like that, the place is always at the forefront. For example, if we base our discussion on these two songs, Fazıl Say's piece is like fusion jazz. This is also an urban phenomenon. When Jazz first emerged, the cities were already there. Therefore, it is not possible for anyone listening to this

to stray too far away from the city. Because these songs and where they came from have become intertwined in the minds of those who listen to them. So, when we hear that music, we think of jazz bars, Manhattan, and other related things. As I said, they are intertwined in our heads. So, based on this, I asked myself this question: Is the song describing this to me emotionally? Or is it because of the associations in my head? We can smell something and know what it is exactly. A memory associated with that smell emerges. That's what has been going on in my head. If that which we are seeking is purely emotional, this leads to a contradiction. On the other hand, classical music is associated with music halls in my head. But while I was listening to this song, I was able to set aside my prejudices and go elsewhere. But even without those prejudices, I always came back to that city-like structure.

How would you describe the emotional states and their relationalities of the musical experiences? Were emotional/affective states in unity?

The biggest benefit of this work in my opinion is that it has added the concept of emotion to places and discarded the idea of mechanization prevalent in the process of design. The process of designers shouldn't be like this: "I am designing a happy place" or "I am designing a sad place". Rather, they should be saying "I am designing a place that houses a variety of emotions". This is because, in the place that they are designing, the emotions are reshaped according to those within them. When visiting a certain location, one person might feel calm and relaxed, while another person might feel melancholic. So, the real purpose here is to design peaceful places. A place not housing any emotions might also be a thing that harms that sensation of peacefulness. What I perceived when listening to the first song was a person's life. Perhaps all of it, or perhaps just a piece of it. A chapter of that person's life is told first, then, a second chapter. You know, certain parts of his or her life was presented. As for the second piece, it was a tale of a shorter time period, perhaps just one night. But it was told quickly and fluently, without any breaks in the narrative.

How would you describe the spatial reflections and their relationalities of the musical experiences? Were spatial features in unity?

I am reminded of rural places by the first song. But I can also picture various images with it. Perhaps a chapter of an individual's life, like being born in a small house, growing up in a certain environment that is not very crowded... It is as though you are living in a village or somewhere even more spacious. The peacefulness reflected by that song is in such places. Places far away from people and places that leave you alone with nature. The second work is the opposite. It makes me imagine urban places. The second song is very crowded, but you don't have to be familiar with everybody in it. In other words, it is as if the song is describing the chaos that exists in the centre of a city. There is no need to say too much regarding the second song. Sakarya Street, central business areas, lots of people running around. The musician is the subject of the song, and he frankly shows off a little bit.

How would you describe the tempo in the pieces? How did you associate them with emotions and places?

In my opinion, the tempo has no meaning in terms of music. This is because note density is high and fast in songs with low tempo. It is like a fast process within a slow tempo. So, in my opinion, the tempo is not that decisive. But there are general concepts. Like concepts of Italian origin, such as adagio. These feelings are what such terms are based on. These are expressions that indicate the rhythm while also determining the tempo. This is related to tempo, as well as how you should be playing that song. Because, in this context, the intertwinement of two of these things is what creates the meaning. But if we consider the fact that certain songs are slow and certain songs are faster, or how music is created around the world... We can categorize slower pieces as sad and melancholic and faster music as songs as adventurous and fun. While listening to slower songs, you have more time to ponder, and it is easier to understand the notes that are in between. But it is difficult to understand them in faster-paced music, such as in songs that have 90-100 bpm. In such pieces, things such as melody and rhythm come into play.

How would you describe the rhythms in the pieces? How did you associate them with emotions and places?

Asymmetrical rhythms create the chaotic environments associated with cities. Rhythmic chaos and disorder take me straight to a city centre. These places are already areas that we cannot control. Likewise, it is not possible to be in control while designing these areas. Due to the high number of functions that need to be there, we can't just put a function to a place where we want it to be. Like, who would want Kızılay to be in its current state, considering its transformation? Who would design such a place? But different decisions are taken in different places and over time, things change and evolve. That's exactly what we provide. This tempo can also have an effect. After all, you cannot jump off a fast-moving train. Therefore, an orderly pattern within a tempo reminds me of control. You have a better chance of thinking if things are moving slowly. It is easier for you to distinguish the notes in between.

How would you describe the dynamics in the pieces? How did you associate them with emotions and places?

The dynamics do not bear the same resemblance as the rhythm. But the surprises do. However, how they are reflected in a place is not the same in my opinion. Both pieces have dynamics. Ups and downs...The second song are a good example for the subject of these ups and downs creating chaos. On the other hand, the ups and downs in the first piece represent different parts of a person's life. Yes, the place changes, but it is still based on loneliness. The feeling does not change. It is not individual or social. In the second song, the social places are in the process of being changed. In other words, it tells of a story of a person working in a business centre during the day and going to a bar after work during the evening. The dynamic variables there are variables such as these.

How would you describe the intervals in the pieces? How did you associate them with emotions and places?

That is actually something that is brought on by the song. If the musician needed to use this in the first piece, he could have increased the interval. But we could have stayed in the same place just the same. The same feelings and places. In the second

song, the song itself forces you to use it as well. It is like it is saying "Look at those places, go to these places". Perhaps this can be explained like that. Since the place already contains a lot of variety, it expresses this variety by adding variety to the notes. It weaves a lot of things to describe the place. In my opinion, it describes things like trade centres, etc. from a very different perspective.

How would you describe the beat density of the pieces? How did you associate them with emotions and places?

I think this is what lies at the core of this issue. Where this piece belongs can be understood by taking a look at its density. It's the composition. The formation of the melody. These things are what determines where the piece belongs to. In the first song, the low density of the notes and their proximity to each other, not in octaves but in their harmonic placement, directs us to a peaceful song, even if it is sad. It becomes a piece that is focused on its audience. We become the subjects. On the other hand, the high density of notes in the second piece and the constantly changing harmony forces us to listen to it. We cannot keep ourselves within the flow. This is exactly what affects the creation of places.

To what extent, considering music and space together, can contribute to the design process?

Let me divide this subject in two. During our time as university students, we were learning to plan on one hand and making music on the other. At that time, this subject was often crossed my mind. Music was always in our minds while designing places. We were always trying to design the space with them in mind. When I first graduated, we were able to create designs by thinking that music gave us the opportunity to witness various lives, that it enabled us to get to know a wide variety of people, and that it allowed us to consider this diversity of individuals while designing places. In other words, what is important here is that we created designs not solely based on our perspectives, but all possible perspectives. It is important to us that our designs appeal to everyone.

6- INTERVIEWEE F

How would you describe your overall experience of the experiment?

It was a subject I had never thought about before. It turns out that music is not something that is independent of places for me. Especially the music I listen to. When I look at the notes I've written, there are things like Longing, a book, a balcony, a picture of a pigeon. Things that you think about when you wake up at five in the morning. It is all related to places. As I said, this was a subject I had never considered before. What music made me feel was similar to going to that place or a sensation of finally meeting after a period of longing. Of course, it was a very good idea. Everyone listens to music, but when you think about it thoroughly, it's a topic that you can discuss for hours.

How would you describe the emotional states and their relationalities of the musical experiences? Were emotional/affective states in unity?

I am not sure if it is just me, but the fact that there was a linear pattern in the first song makes that flow of emotion that intricate. The emotions it makes you feel are not independent of each other. You cannot transition from one emotion to another. They are very close to each other. On the other hand, I get caught up in the rhythms while listening to the second song. Unlike the first song, the second one can give rise to more than one emotion. You would normally expect that a slow-paced song like the first song can lead a person to feel a variety of emotions. What I mean by that is, there is a lot of time in the first song where you can think. But it is the opposite for me. The fact that the rhythm picks up the pace in the second song and that it is irregular engrossed me in the music and this has led me to different thoughts.

How would you describe the spatial reflections and their relationalities of the musical experiences? Were spatial features in unity?

In the context of the first song, I felt a longing for Ankara. To my friends and to my family... In general, there were no spatial changes in the first work, contrary to my feelings. The emotions I felt there were striking. You can easily transition to different

emotions, but there were no changes in the place they take place in. The desire to walk in one place turns into a desire to wander in another. I was more completely engrossed in a picture. This is because you have the opportunity to ponder things and the rhythm, and the melody is more suitable for putting the song in the background and wandering around. Therefore, I want to explore that space rather than changing it immediately. I was more inclined towards this approach for this piece of music.

In the second work, two types of places have emerged in my mind. The first song is like an Aziza Mustafa Zadeh concert. I am not familiar with that many pianists, but it reminded me of this. Especially the introduction part. It feels like I am watching it live. But it is easier to transition from one place to another in the second work. I mean, in parallel with those emotions. You are more engrossed in the music, and you cannot just leave it playing in the background. The rhythm provides constant stimulation and it's almost as if it beckons you to join it. Therefore, more than a single place emerges in your head. I may be a concert hall in one moment and become a place that I cannot describe visually in the next. But the transitions are faster, more fragmented, and more independent from each other. The closest thing I can describe it as is a concert hall, but I am also aware that it is a place I cannot clearly define.

How would you describe the tempo in the pieces? How did you associate them with emotions and places?

I always listen to low tempo music while I sleep. I prefer this because it provides more space for my mind to play with. Perhaps it is wrong to describe it as happy, but such music takes me to more peaceful places. When I close my eyes while listening to the piano, I am taken to places that have trees, singing birds and other such natural places. This may be because places such as those are suitable with my definition of peaceful. If I am alluding to a lonely place when I am thinking of a peaceful atmosphere, then this definition is related to such a place. This may be a coastal area. Or it may be reading alone. Or just sitting idly on your own. Or gazing at the sky in a place filled with trees and singing birds. This may be related to the fact that the piece we are listening to is played with the piano. If the works included tunes or

sounds close to the things I've heard while I was a kid, maybe they could have taken me to different places. I cannot answer this in this sense. Since we get used to the sounds of the piano and actually listen to it and establish associations with its sounds at a later age where we are being westernized and urbanized, the sound of that instrument takes me to such places.

Any high-tempo music played with the piano can take you to a happy place or, depending on the flow of the music, it can also take you to more urban places. Places that appear in my head are more active, more metropolitan. They are places where the flow of life is quick. Again, I am not saying being in such chaos is unhappy. I do not think this type of music makes you unhappy. But, as I said, I think of metropolitan places where the flow of life is quick.

How would you describe the rhythms in the pieces? How did you associate them with emotions and places?

I like to listen to jazz. I very much enjoy irregular rhythms. Even in certain songs with irregular rhythms that do not follow a certain pattern of rhythm, there is this atmosphere that makes me happy and I think there is a sort of order within those songs specific to themselves. Since I am immersed in music, it can take me away from the place I am in. Because when you close your eyes and follow that rhythm in your head, they can take you far away from where you are. I just thought of this as an example: It is like I was following the rhythm of the drumsticks while paying no attention to where I am, with my eyes closed, in a pitch-black void... I occasionally had such moments. It is almost as though the emotions were deeply embedded within the music and it gave you little to no opportunities to consider the place.

In songs with a regular rhythm, I can think of more spacious places since my mind can wander off. The music is not disturbing, like a friend walking beside me. The emotions are the same: peacefulness. Or it can be a feeling akin to a companion, like a friend who doesn't leave you, even if you are in an uneasy mood. This is true in both emotional states. After all, I like to listen to music when I feel sad. In that sense, even if I am anxious or unhappy, the emotion that songs with simple rhythms evoke

in me is like a friend who is right beside me, but it is a friend who knows of a place where I can think. This puts me in an emotional state that provides me with the space to think about the matters related to that sadness.

How would you describe the dynamics in the pieces? How did you associate them with emotions and places?

The dynamics are more common in the second song. The sudden nuances create spatial changes rather than emotional changes. For example, while listening to the second work, your mind cannot fully focus on designing places, because the song prevents you from thinking or having a stable mindset. So, only imaginary spaces remain. Or it is just a single place, but I cannot build upon or add anything to that place. These surprises are perhaps what started the transformation of those places. It is not just them being high in number that prevents my mind from designing the place, their unexpectedness is also a factor. Surprises may cause that place to change and create a different place. This may be the reason behind those places that I cannot fully describe.

I think the surprises in the first piece are not as striking as those in the second piece. The reason behind this may be related to the intensity of that peaceful feeling I get from the entirety of that music because you embrace that place you have been longing for and don't want to let go. But what I can say for certain for the second song is that these changes prevent the place from becoming.

How would you describe the intervals in the pieces? How did you associate them with emotions and places?

I do not think this matter of distance affects the place. Of course, the density of these changes, or rather, their repetition, is also a factor. Emotionally speaking, I think I was listening to an instrument. When I listen to a piece of music played on a fretless guitar, I experience a serious intensity of emotions between higher octaves and lower octaves. But this may be related to the fact that they are blended extremely blended in this piece of music. For example, Erkan Oğur does this extremely well. He changes

octaves in such unexpected places that you cannot prevent yourself from being amazed. In my opinion, the octave of a sound can affect the intensity of emotions as much as it affects the intensity of the sound itself. It can prolong the pain, and this might be alleviated with a decrease in octave.

How would you describe the beat density of the pieces? How did you associate them with emotions and places?

The fact that the beats are differentiating and changing prevents similar spatial changes from taking place. The existence of different beats is somewhat attractive for me. Mastery over an instrument is especially attention-grabbing, and it feels as though I can immerse myself more emotionally while listening to such music. In the first song, the fact that the notes are played more calmly, more clearly and with softer touches on the piano keeps you in that context. I don't think emotional changes can have much of an impact. In terms of places, it does not lead me to alter the places I am imagining as much as the first song does.

To what extent, considering music and space together, can contribute to the design process?

I do not think these phenomena are separable. What I mean by that is we cannot produce music by completely divorcing it from the place. In other words, we were producing music by thinking about a place and encapsulating it. There are certain things that occur naturally, and someone has to direct your attention to them for you to become aware of them. This is what I understood from this. I was already living the music with places, but I only became aware of it thanks to this study. It wasn't something I had thought about before. While you are listening, you are depicting places and despite the fact that you are depicting a virtual place that you cannot visually describe, you are still depicting a place. Of course, you cannot separate this place from emotions very well. You experience that emotion in that place, and it becomes a symbol for you in that place. So, I realized that this is what happens regularly. If you ask people who produce emotional music, or rather, any music at all, you will see that they haven't produced a single piece of music that is divorced

from places, even if they are not aware of this fact. Those feelings have become an inseparable whole with those places.

7- INTERVIEWEE G

How would you describe your overall experience of the experiment?

We see a common point in all discussions between the participants. This may be related to human nature. It must be. Music somehow becomes intertwined with visual images. This first starts with an experience, and it is described more often in visual arts, such as the cinema, the theatre, or musicals. I feel like it converges in the experiences there. For this reason, the emotions it evokes inevitably becomes reminiscent of our past experiences to some degree. It feels as though they are bringing our memories back to life, at least to some extent.

For this reason, I believe that the things we have experienced in this experiment are somewhat related to the things we have watched, seen, or otherwise associated with what we've experienced in the past. Other participants have also seen this from this perspective. Regarding the subjects that my views differ from one of them, I think that they might have seen or experienced different things and this causes them to feel different emotions.

The matter of associating them with places is again related to the visual memory, or rather, what we have seen in the past. I have observed a number of things that urban planners have created involuntary associations with. I also noticed certain things that they deliberately created associations about. Associating everything with geometry seems to me like a thing that comes with the territory regarding this profession, though I am close to calling it an occupational sickness. The same thing happens in my musical life. I'm looking for patterns in everything I see. I am trying to create something whole by combining these patterns. There, when I listen to these, that is the first thing I perceive. This happens involuntarily. So, it's a bit about the experience. Our memory seems to recall places through music.

How would you describe the emotional states and their relationalities of the musical experiences? Were emotional/affective states in unity?

It was completely fluid in the first work. When I look at important points, I see that the minor tones in the first song reminded me of longing. The mood I was under during period was a more severe longing. But this time, the longing I felt was a little less severe. There were jumps in the second song. I felt excited while listening to the second song. The emotions I usually felt were those that skipped. It was going from one to the other in an instant.

How would you describe the spatial reflections and their relationalities of the musical experiences? Were spatial features in unity?

There was definitely some type of unity. With the first song, I felt I was in a closed space. Like a concert hall. The form of that feeling and the form of the song felt polygonal and due to this form, I perceived a song in which everything was definite. I could see everything because of that form. I felt enthusiasm and an open space whose corners I could never quite describe with the second. That area felt almost indescribable to me. I felt like I was at the centre of a void. I did not feel like I was in a particularly special place. The first song created the feeling of watching a performance in a serious concert hall. I cannot say for certain where I was in the second song. It felt very amorphous to me. But there was a sense of open space, or I may have felt that way because I couldn't define its boundaries.

How would you describe the tempo in the pieces? How did you associate them with emotions and places?

The first song had a regular and low tempo. That was comforting for me. There weren't any scares throughout the work, it made me feel confident. It was thanks to that confidence that I was able to describe it a little bit. The second song had changes in tempo. The parts where such changes occurred excited me and did not give me any confidence. It was as though I did not know where the song was going. For this reason, the feeling of longing in the first song and the sensation of excitement in the

second song is somewhat related to this matter. What triggers emotions are our perceptions and what triggers these emotions are these principles. Both music and place were completely overlapping with each other, similar how they work in principles of designing.

How would you describe the rhythms in the pieces? How did you associate them with emotions and places?

If we associate them with a place, there is a symmetrical monotonous rhythm in the first song, and this leads us to symmetry. On the other hand, the second song has this pattern, despite being so asymmetrical. The pattern might not be symmetrical at the moment when you grasp it, but when you look at it as a whole, you want to feel something similar to symmetry. And in the end, you do. At least, I did. These ups and downs are what led us to that excitement. The most important principle that made me excited was the rhythm. What I really felt excited about was the rhythm rather than those things that I could not perceive that existed between the notes. The variety in rhythm in the second song drove me directly to excitement. However, what led me to that sense of longing in the first song was not the rhythm. It was the melody.

How would you describe the dynamics in the pieces? How did you associate them with emotions and places?

This is the part that I was thinking of when I said I couldn't spatially discern the corners. It feels amorphous to me. Once again, I am looking for a pattern in the nuances. But I am having difficulties finding it in the second song. There are too many of them, and they are all so different. Not only are they high in numbers, but they also are different in terms of ups, downs, rises and falls. The touch of the musician is very important there. It is due to the touches of the musician that I ended up being inspired by discernable geometry in describing the amorphous structure in the second song and that geometric and angular structure in the first. It is due to those nuances that I felt that sensation of amorphousness in the second song. It can be perceived as if that amorphous sensation arises as a result of the rhythm, but it was the nuances that gave me that sensation.

How would you describe the intervals in the pieces? How did you associate them with emotions and places?

I think this is the most difficult subject to examine. Because it is a very technical subject. It is extremely difficult to combine it with sensations. This is because of the fact that rhythm and tempo are concepts that are fundamental to music. The part that is placed on top of these concepts is the part that can be perceived most easily. This is just two notes going back on forth between all notes and becoming closer. It is not only that but also in certain patterns, such as musical scales. Or chord progressions.

When you evaluate these songs using this relationship, there is a huge difference between the first and second songs. Just like how it is in spatial design, if there are a thousand points, my ideas emerge as a result of the pattern between all the points, not just the line between the first point and the second point. When you look at it from this perspective, the second song is completely chaotic. It is something that you cannot perceive. And this is the bedrock of jazz. It pushes the envelope, goes beyond the limits of the normal, and uses other intervals instead of those intervals you can perceive. But these intervals also constitute a rule. That is why the resulting work of music does not feel as though it is completely irregular. You can describe something, but it is something that is difficult to describe.

We can perceive the first song quite easily, as it consists of familiar minor tunes. Bobby McFerrin's demonstration of the pentatonic scale is a great example of this. In every area of life, we enjoy it when things are symmetrical and easy to perceive. But we cannot easily perceive asymmetrical things, we cannot just say there is something here. We get so used to symmetry that we tend to see it everywhere from the moment we are born. Actually, asymmetry is not a strange thing. There seems to be no such thing as a wrong note. In the first, the intervals lead to a sense of comfort and longing. But in the second, they were imperceptible, and this led to a sense of excitement. But of course, thanks to the habits I developed as a musician, I can see the whole it creates.

How would you describe the beat density of the pieces? How did you associate them with emotions and places?

The density of the beats is much different in the second piece. It makes you feel completely different things. Again, it also causes you to fail to perceive certain things. It is as though it is taking me to one place at one moment and another place at the next. So, it slightly confuses my perception. So, if I were to associate it with a place, I would say it is amorphous. It confuses me. I cannot see the corners. Sometimes, it would lead me to think I am moving wrongly when I am in fact moving correctly. So, it also plays with my perceptions to some extent. The changes in the beat are particularly effective in causing this. The first one is somewhat limited and monotonous. Therefore, the place it leads to is a more geometric and defined space.

To what extent, considering music and space together, can contribute to the design process?

I don't know if I can explain it, but there is definitely a relationship. It is possible to notice similar design principles in both. It is sort of like a gestalt. It is not necessary to know this. That is why I am curious about the result of the study. Especially the opinions of the participant who are not professionally related to the concept of places. There definitely is a relationship. It feels like it is impossible for it to not have a relationship. I don't know if it is a thing that I am feeling or a humane thing. But it definitely has an effect.

Let me give an example from my own spatial design process. I do not like to listen to music while designing. This is because I feel like music tends to direct me. Normally, I enjoy rock and metal music. But I like to listen to classical music while working on (designing) things. But I feel like classical music calms me down too much and puts me into a state of mental block. It makes me less productive. It certainly feels like I am going to be more productive, but I don't end up becoming so. While listening to metal, my ideas go to extreme points due to the harshness of that style, and I become very brave in creating designs. So, I don't listen to any music. I definitely do not listen to music when I enter the design process. But it definitely

has an effect. Technically speaking, I am not sure if it really directs me or not, but since it has an emotional effect, I think I end up being affected. And this is directly reflected in my designs.

What you think about the departure motivation in design process, is it emotion or is it function?

It seems like a function to me. Music exists in places independent of people. But what we call urban places or musical design is produced by humans. Now, when these concepts were first being created, there weren't things like rules or education. People started to design things based on their perceptions and emotions and they designed and produced a lot of things. So, it is very reasonable that all of these started with emotions. Like, the emotion of fear might be guiding you when you are constructing a shelter, or the sounds of birds might have served as a point of inspiration for the creation of music. This thing that had started with emotions became completely associated with function completely during the phase where the drafts were being transformed into designs. For this reason, as a person who has received training both on places and music, I am being led directly to the function. I start with a function, not an emotion. Maybe if there were no rules, I would start with emotion. For example, I start with emotions when comes to music. But in spatial design, the function is the starting point. During my education, we were trained to start general designs based on emotions, but approach urban design based on function. We cannot perceive that intermediate transition. So, in this context, I think that we can transition from emotion to function. It would be nice if that happened.

8- INTERVIEWEE H

How would you describe your overall experience of the experiment?

I noticed something new: Initially, we entered a different atmosphere with a slow song. It is such a delicate atmosphere that, even a movement as light as a feather can affect our senses to create large ripples. It makes us even more sensitive. So, when there is a sudden transition, you are stunned. We discussed this: The emotions and

places were very intertwined. I actually pictured myself not only as feeling an emotion but also as experiencing something in a certain environment. Since emotions are things from our environment that affect us and end up causing effects within us, they are very intertwined.

How would you describe the emotional states and their relationalities of the musical experiences? Were emotional/affective states in unity?

I think that the first song is internally consistent. The idea it embodies is clear and it carries only a single emotion. It is based only on a single event. It tells of a journey and a story. There are moments of longing within it. There is a sensation of acceptance there and only a single emotion dominant. But, since I considered the second song to be an exchange between a woman and a man, how they are discussing things is in a state of constant change. But they are always discussing the same thing. They would discuss it with a sweeter voice at times and argue with a harsher voice at other times. At other times, they would play hard to get. That's how it felt like. So, while the transition between emotions was more fluid in the first song, they were also changing within the messages.

How would you describe the spatial reflections and their relationalities of the musical experiences? Were spatial features in unity?

I think there is only one emotion in the first song. Therefore, it is simpler or more internally consistent. I imagined a place without any contrasts, where the transitions between things happened more smoothly. The first song makes me imagine introverted individuals. More mature individuals. I took a note for the second song, which states "mosaic". I think mosaic is an excellent definition for it. Although there are different qualities in each piece of the song, they are combined to create a thing that is whole. Those transitions of emotions seem to represent that as well. The second song is more extroverted and callous. It is messier. But still, I get that feeling of order within chaos while listening to it.

How would you describe the tempo in the pieces? How did you associate them with emotions and places?

What takes shape within my mind while making music with an instrument is already spatial. A journey and the visual images I associate with it creates comes to life in my mind. While listening to the first piece, I think of a pattern of laces or the gears of a clock. They are very internally consistent. It is being woven meticulously and the craftsmanship of that music is dominant. It is sort of like Bach... Bach's composition techniques are similar to mathematical theories. There are symmetries and other things like that... It sort of reminds me of a dome of a cathedral. When I was saying it was narrow and crowded, I was kind of talking about the tempo. For example, the number of notes per second is much simpler in the first piece. On the other hand, we are jammed in a smaller space and a smaller timeframe in the second song, along with more people and more notes. That's my analogy for describing it.

How would you describe the rhythms in the pieces? How did you associate them with emotions and places?

The first song appeals to our biological rhythm. The fact that our every breathing is at the same pace, that it is stable, puts you in a meditative state of mind. You enter a state reminiscent of a trance. But the unexpected rhythms of the second song disrupt our natural order and rhythm. The constant exposure to something newly creates a daze. This is created by the asymmetry of the rhythm.

How would you describe the dynamics in the pieces? How did you associate them with emotions and places?

In the second song, thanks to the touches of the music in the background, I could picture a man chasing after a woman, and him pulling her by grasping her arm as if it is a part of a tango sequence. I think the surprises involve such sudden scene changes. Since I mentioned only a single place for the first song, I can think of various scenes. But in the second song, they go to the bedroom in one scenario, go

to a café in the next one. Or I can picture them in scenarios where they are driving in a car and bickering on the road, and so forth.

How would you describe the intervals in the pieces? How did you associate them with emotions and places?

I think only one person's voice is heard in the first piece. For example, as a woman, I cannot go beyond the vocal range that I naturally possess. The first song makes me feel like this. Something is expressed with a single accent, language, and emotion from the mind of a single person. In the second song, the emphasis on those contrasts brings the vocal range closer to bass on one end and treble on the other. At that point, the story is divided into two characters anyway.

How would you describe the beat density of the pieces? How did you associate them with emotions and places?

This seems a bit complicated to me. In the context of rhythm, the number of notes per second and the number of people seem similar to me. Those did not feel like different elements to me. And sometimes there are four 16th notes in a single beat. In the second song, there is an irregular rhythm of three sixteenth note structures in a single beat. So, one of the 16th notes come a bit earlier than expected, and that surprises you. The fact that the unit of the beats also changes from time to time makes the irregular steps of those characters clearer in my imagination.

To what extent, considering music and space together, can contribute to the design process?

I absolutely think so. I was taking a course on notation this semester. We discussed the subject of tone in that course. I am telling this because it is also a timbre of place. In actuality, music is also a visual thing. It is like a blind person seeing. I already think of the colours and the colours of the light there, which might be the colours of the sound, or it might be just red or yellow, as something visual. When I perform a piece of music, I feel like I am drawing something or designing a place in my head. I think it is something totally intertwined. There is even a very famous bassoon player

related to this. He was a painter while he was a child, but he noticed later on that he could play an instrument. Most of the time, I think the framework here is similar.



E. Individual Spatial Descriptions for the Selected Compositions

Interviewee	Descriptions
A	Composition 1: <i>'I imagined three things. The first of these is being in a natural place. This could be a plateau. It could be a garden of poppies. Or a forest. But it was a place where there are different varieties of the things of the same category. Then, a road appeared in my imagination. So, I felt like I had experienced three different places. I was on a pathway, but I was also in a museum.'</i> Composition 2: <i>"I feel a sense of distortion in the second work. You know, sort of like those mirrors in amusement parks. They make you look distorted and interlaced. Suddenly, that one person who has been looking at me becomes ten people."</i>
B	Composition 1: <i>'If I were to talk about the music, the first song made me feel like it is autumn. I should say that I would like to learn the name of that song because it is very similar to the songs that I listen to, especially while I'm making designs. I think it will be very useful for me in that regard. It made me feel like I was on a journey. Like I was going from one place to another place.'</i> Composition 2: <i>"Regarding the second song, I took the following notes regarding the place: First of all, I have a 'landmark' note. This means that it made me feel like there was something in that said, "I am here!". That was the thing I felt. There are two notes I took regarding architecture here. I was reminded of the "Pompidou". You probably are aware that it is in Paris. It is an elegant and aesthetical building. Paris has a very monotonous architectural language. Pompidou, on the other hand, is a very different and attention-grabbing building."</i>

C	Composition 1: <i>"It is somewhat of a journey and the things that came to my mind in the places, the emotions I feel... For example, I wrote of a long path surrounded by trees, and I imagined a large, windy field. It was interesting and beautiful to see the parallels in this."</i> Composition 2: <i>"When I tried to describe it as a place, I said that it was like a chase in a labyrinth. It is a chaotic place with no specific pattern. Sometimes, there are secluded areas like alleyways, but other times, there are huge areas where there are large crowds. In the end, I imagined towers that are infinitely high. So, these were my notes."</i>
D	Composition 1: <i>"It created in me a feeling of migration. It made us feel as if we were migrating from one place to another. It created feelings of sadness and hope. The process of migrating from one place to other holds hope on one hand and sadness on the other. It is now somewhat impossible for you to return to your place of origin...It felt like a calm, rainy and misty Ankara morning. These were my general interpretations. The work was also a bit poetic. I guess it was the language of the piece."</i> Composition 2: <i>"Spatially speaking, I already talked about the chaos, crowds, anxiety, and the hustle and bustle we feel during our everyday life. I was reminded of Tunalı Hilmi Street, with its crowds of people and cars. Apart from that, I studied in Antalya. Maybe there are those of you who are familiar with the Antalya Grand Bazaar."</i>
E	Composition 1: <i>"Being together with friends in open areas and becoming lonelier in the process of growing up". It's like being alone as you grow up in areas where you used to be with friends. I think this is a good allegory: I have an interpretation that this person was born in the city, grew up and migrated to a rural, lonely area. So, this subject of migration and roads was at the core of my emotions."</i> Composition 2: <i>"The only things that came to my mind were offices and office plazas. There are fun and lively business places there, as well as serious ones and boring ones. I found all of them to be working and discovered the feelings of people there. What I'm talking about here is actually more of a longing for the old-school places. Take Kızılay in the past, for example."</i>

F	Composition 1: <i>“A feeling of migration was what we got from the first song. Our childhood, the processes of acclimatization, the effects of the cities we migrated to after leaving Hakkari was all there in the first work.”</i> Composition 2: <i>“I was only able to describe a single place. It is not an angular place, but rather, a jazz stage with rounded edges. So, I imagined a stage. It was probably because of the instruments. I imagined the band members who were playing on the stage. They were enjoying the music they were creating and chatting with each other. The pianist was a black guy. I couldn't leave that place.”</i>
G	Composition 1: <i>“The first piece of music made me feel like I am in a place full of people I love, full of people I really miss. The minor tones of the song made me feel a strong sense of longing since I live in another city. But, due to the changes in the rhythm of this song, I am reminded of periods where this sense of longing surges or subsides.”</i> Composition 2: <i>“I couldn't grasp or see any corners. That is to say, I could not perceive any points that I use to define a place. The melody was shifting and changing constantly, and it was moving over to different places within the same tone. That gave me an amorphous feeling.”</i>
H	Composition 1: <i>“The memories in our minds, the pictures we are looking at and other memorabilia can only represent depth and character to us via tricks of light. In essence, the peaceful thing within the emotion that I call peaceful melancholy is that it receives light, particularly the light of the sun. A place that is covered with glass all over is a place that I can feel peaceful and secure in. I can see everything as it is, but I can also get light and I am safe.”</i> Composition 2: <i>“I associated them with the following regarding the place: I thought of these variations as a mosaic. It is as if each square meter has a different theme. But, in actuality, they all belong to the same, single whole. They are partitioned by boundaries, and they are divided. It kind of reminds me of random and irregular uses of contrasting colours, such as green and red or black and white.”</i>



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