

ISTANBUL TECHNICAL UNIVERSITY ★ GRADUATE SCHOOL OF SCIENCE
ENGINEERING AND TECHNOLOGY

**RESILIENT PLACES, RESILIENT CHILDHOOD:
EXPLORING THE ROLE OF THE BUILT ENVIRONMENT IN SUPPORTING
THE WELL-BEING OF CHILDREN IN WAR**



M.Sc. THESIS

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Department of Architecture

Architectural Design Master Program

DECEMBER, 2018

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**DİRENÇLİ YERLER, DİRENÇLİ ÇOCUKLUK: YAPILI ÇEVRENİN
SAVAŞTAKİ ÇOCUKLARIN REFAHINI DESTEKLEMEDeki ROLÜNÜ
KEŞFETMEK**

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To all the children in war,



FOREWORD

All Praise be to God, the All-wise and All-knowing, who commanded that we perform every work we do with *ihسان*; excellence; the best possible way.

This work was brought to fruition with the help and support of many people. First, I would like to thank my supervisor, Assoc. Prof. Doc. Göksenin İNALHAN who went above and beyond in guiding me every step of the way. I am grateful for the countless advice you gave whenever I was stuck, the motivation and passion you inspired which kept this work on my mind and close to my heart. And above all, I enjoyed our lengthy and interesting conversations which fueled my curiosity and desire to know more and ask more questions.

I thank my sister and companion, who was always there to cheer me on, and listen keenly to how my work was proceeding. As always my parent's emotional and moral support was a crucial reason for me to keep on track. You guided me with your love, care and wisdom.

Finally, this research would not have been possible without the patience and kindness of the research participants. Although it was difficult for you to open your heart and reveal these buried painful memories, the smile on your faces reflected hope and strength. Despite the unimaginable fear, pain, separation and grief these young ladies have experienced as children, they showed unshaken resilience and a desire to live life fully. Though your identities were kept hidden, your stories are a witness of your presence on those pages, and in the hearts and memories of those your life narratives have touched. I pray to God that you find happiness, and that you never give up on hope for a better future.

As those narratives were written, my mind couldn't help but wonder to my childhood home, the small table in the kitchen we gathered around, my room with its pink colored walls, the swing in the garden, the wooden bench in the patio where I sat next to my grandmother, the roof where we slept in summer nights. And I couldn't help but recall how this small and ordinary world was shaken with the wailing sound of the first siren. In remembrance of *home*, our shelter for the soul, I hope that those pages contribute in lifting up a few particles of the war dust that settled on our loved places.

December 2018

Sana ALAZZAWI



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RESILIENT PLACES, RESILIENT CHILDREN: EXPLORING THE ROLE OF THE BUILT ENVIRONMENT IN SUPPORTING THE WELL-BEING OF CHILDREN IN WAR

SUMMARY

Millions of children in the world are forced to lead a daily life in conflict and war-torn environments. In these difficult conditions, the intensity of stress, fear, and trauma they face on a daily basis means that many of them are left with numerous psychological consequences later in life. Children's ability to cope under this stress and achieve positive growth is affected by multiple and interdependent factors and systems, including the individual or personal traits, family and the larger social systems, educational systems, political systems, and others. The research on resilience of children in war has witnessed an interest to move to an ecological paradigm in psychology, which emphasizes the nested and interdependent effect of such factors. However, this body of research has overlooked the role of the physical environment as a potential promoter or a hindrance to children's resilience. The field of environmental psychology offers us a theoretical body that relates the well-being of human beings with the physical environment they inhabit and interact with. Theories like restorative environments help explain how certain environmental configurations and conditions can trigger attention restoration and stress relief. People are also bound to places emotionally through forming attachments; the disruption of which can cause a threat to well-being. This body of research is accumulated and presented as the basis for this explorative study, which asks these main questions: how does the physical environment contribute to children's healing and resilience in war? How do children experience war from an environmental perspective? What are the long-term effects of these place experiences?

To answer these questions, environmental experience becomes a central concern of the research methodology. The goal of unpacking children's place experience in conflict and its long term effect on resilience and well-being leads to navigating the data from a retrospective lens. The study is based on seven narrative accounts of people who have; as children, lived in unstable and war-torn environments. Their stories will, through an interpretive phenomenological analysis, uncover the deep meanings of resilience and its relationship to place-meanings.

The significance of this study lies in its advocacy for the careful consideration of planning children's environments in post-conflict reconstruction, by giving voice to war-affected youth, their experience of day-to-day places, as well as argue for the environmental qualities; supported by the analysis and the theoretical framework, which contribute to children's healing and resilience. The challenge that design for

children faces today in the face of this reality is its capacity to be active rather than reactive. The transformative role of design is to elevate the discussion on restoration and resilience from the temporary humanitarian solutions of providing shelter to a long-term active and positive culmination of place meanings, place identities and place attachments. Such an approach encompasses not only the physical but also the mental, emotional, social and spiritual dimensions of children's well-being.



DİRENÇLİ YERLER, DİRENÇLİ ÇOCUKLUK: YAPILI ÇEVRENİN SAVAŞTAKİ ÇOCUKLARIN REFAHINI DESTEKLEMEDeki ROLÜNÜ KEŞFETMEK

ÖZET

Son birkaç yılda, savaş ve silahlı çatışmanın neden olduğu imha görüntüleri, ne yazık ki haberi baskın yapan günlük bir özellik haline geldi. Bununla birlikte, bu görüntüler, bu dehşet altında etkilenenlerin hissettikleri gerçek acıyı aktarmakta yetersiz kalmaktadır. Savaş ve silahlı çatışmanın en yıkıcı sonuçları çocukları fiziksel, zihinsel ve psikolojik olarak etkileyenlerdir. Çocuklar toplumlar arasında en savunmasız olanlardır ve uluslararası çekiciliğe ve çocukların hayatlarını kırmızı bir çizgi olarak kabul etmelerine rağmen, insanlık hala onları koruyamamaktadır. Savaşın çocuklar üzerindeki etkisi muazzamdır ve çoğunlukla uzun süren çatışmalar çocukların uzun süreli felaket sonuçlarına yol açarak hızlı iyileşme ve restorasyon yapmasını önler. Savaş ve silahlı çatışma, çocukları hayati tehlike, yaralanma, aileden ayrılma veya aileden ayrılma, militan işçi alımı, şiddet, işkence, cinsel istismar, yerinden etme, yoksulluk ve liste gibi daha büyük risklere karşı savunmasız hale getiriyor

Çocuklar sadece yaşamları ve yakın aileleri için ölüm ve yaralanma riski, fiziksel çevrenin tahrip olması, okulların, mahallelerin ve altyapının refahlarını olumsuz etkilemesini engellemekle kalmazlar. Ortamlar, çocukların normal bir sağlıklı gelişim için ihtiyaçlarını destekleyemez hale gelir. Bu ihtiyaçlar sadece barınak ve yemek ve suya erişim ile ilgili değil aynı zamanda tüm kaynaklardan yararlanmayı da içermektedir; Her gün yaşadıkları sıkıntıya rağmen, çocukların yalnızca hayatta kalmayı değil, aynı zamanda gelişmesini sağlayan kişisel, sosyal veya çevresel. Bu kaynaklar doğada çeşitlilik gösterdiğinden ve birçok araştırma alanına yayıldığından, soruna kapsayıcı bir bakış açısıyla bakmak ve farklı teorik kavramların psikoloji,

sosyoloji, çevre psikolojisi gibi çeşitli bilgi alanlarına entegre edilmesine izin vermek daha da gerekli hale gelmektedir. ve hümanist coğrafya.

Savaşın ardından, yalnızca barınakların yaratılması için değil, aynı zamanda kontrol hissi veren ve daha iyi bir gelecek umudu için çocuklara koruyucu besleyici bir zarfın sağlanması için ortamların rehabilite edilmesi gerekiyor. Yeniden yapılanma süreci, geçmişle geleceğe yeniden bağlamaya yönelik bir girişimdir ve bu karmaşık çabaya dahil olan birçok tarafla, çatışan çıkarlar ve bir savaşın ardından dengesiz siyasi manzara bu geçiş dönemindeki kilit unsurlardır. Mimari ve çevresel kaygılar açısından, geçmişle geleceğe yeniden bağlanma sorunu, özellikle toplu konut yapımında ekonomik sorunların yanı sıra üslupla ilgili sorulara da yöneliyor. Çatışma sonrası yeniden yapılanma, genellikle etkilenen bölgelerin haritalarına ve finansal sayfalarına bakan ve genellikle evlerine yerleştirilen insanların göz seviyesindeki sorunlarına miyopik olan politik ve ekonomik sürücüler tarafından yönetilir. İnsanların yaşadıkları yerler ile nasıl ilişkili olduklarının ve yaşamlarının bu yerler arasında nasıl yerleştiğinin genellikle görülmeyen boyutu; yani, ekleri yerleştirmek, esnekliklerini arttırmakta veya engellemekte rol oynayabilir. Yeniden yapılanma planlarının ve çevresel müdahalelerin kapsamı, insan-yer ilişkilerini ve ayrıca sosyal ilişkileri içerecek şekilde genişletilebilir.

Bu bağlamda, tasarımcılar, mimarlar ve yapılı çevrenin planlamacıları ve çevre psikolojisinin katkısı ile savaş sonrası yeniden yapılanma sürecinde çok önemlidir. Birkaç örnek olay incelemesi kullanarak, mimar ve tasarımcıların afet çekişli bölgelerde mimarlık ve insani eylem arasında etkili bir ittifak göstermesinin yanı sıra, tasarımı aktivizm ve sosyal hizmet yolu olarak kullanmak için bazı girişimlerde bulunulmuştur. Bu tür çalışmalar, etkilenen bölgelerin savaş ve çatışması için tasarımın hayati rolüne dikkat çekmiştir. İnsani ve etik hedefler, savaştan etkilenen çocuklar için ortamlar inşa etmek ve rehabilite etmek için özellikle muayeneye ihtiyaç duyuyor. Yer eklerinin anlaşılmasıyla ilgili olarak, yer yapımı olarak mimarlık bir tanım olarak daha önemlidir ve şu anki sorunumuzda, buna daha fazla ihtiyaç duymadık. Yer kuramları, fiziksel ortamın kalitesini, fiziksel ortamlarda doygun hale gelen sosyal anlamlar, semboller, değerler ve psikolojik durumlarla zaman ve etkileşimlerle ilişkilendirir. Çevresel etik boyutun bel kemiği olarak yer aldığında, tasarım insani müdahalenin insan yaşamı ve geçim sıkıntısının azaldığı durumlarda bir varlık haline gelebilir.

Takip eden soru; Savaşta çocuk esnekliğine çevresel açıdan nasıl yaklaşabiliriz? Kuşkusuz, çocukların refahını fiziksel çevreye, özellikle de bilişsel, duygusal ve değerlendirici gelişiminde oynadığı rolle ilişkilendiren zengin bir araştırma topluluğu olmuştur. Bu araştırma, mimarlara ve tasarımcılara, bu teorik fikirleri, çocukların evlerinin, semtlerinin, şehirlerinin veya eğitim kurumlarının olsun, nasıl yer ve yer edindiğine dair duyarlılığıyla, çocuk ortamlarının tasarımına uygulama konusunda ilham verdi. Yer deneyimi, bireyin mutluluğuna etki eden bilişsel ve duygusal modlar ve düzenleyici mekanizmaların yelpazesinde değişir. Erken yaşlardan beri, Çocuklar yer ekleri oluşturarak etkiler yoluyla yerlerle ilgilidir. Bazı araştırmalar, çocukların erken yaşlardan beri yerlere doğru şekillenmeye başladığı duygusal bağların, çocukların özel yerlerinin, yer kimliğinin ve çocukların sağlığı için olumlu bağların sürdürülmesi ve beslenmesi gerekliliğini göstermiştir. Çocukluk ilişkisinin bir diğer bileşeni, doğal dünyaya doğru uzanıyor olarak düşünülebilir.

İnsanların çevreye verdiği zararın artması ve daha sürdürülebilir düşünmeye duyulan ihtiyaç nedeniyle, çocuklar ve çevre konusundaki söylem, çocukları doğal çevre ile gerekli sağlık ve refah kaynağı olarak bağlama yararına özel bir uyanış göstermiştir. ve gelecek nesillere çevre yanlısı tutumlar ekmenin yanı sıra. Bu hareket, Biyolojik ve psikolojik çevrelerde Biophilia hipotezi olarak algılanan doğuştan gelen biyolojik eğilimin doğayla ve yaşam formlarıyla ilişkilendirilmesinin bir sonucu olarak, insanların doğaya bağlı olduklarında bir refah duygusu edindikleri önermesi ile rezonans bulur. Fakat tüm bu sistemlere ve kırmızı bölgelere geçerken çocuk ve çevre arasındaki karşılıklı bağımlı ilişkiler ne olur? Bu çalışmanın amacı, savaş ve çatışmalar bağlamında çocuklar, esneklik ve fiziksel çevre arasındaki ilişkileri araştırırken, yer tuturma ve restorasyon ortamları gibi teorileri kullanmaktır.

Savaşın zorlaştığı ortamlar ve toplumlarla uğraşmak kesinlikle onunla ilgili zorlukları var. Bu zorluklar, sayısız insan duyguları ve anormal şartlardaki deneyimlerin karmaşıklığıyla ortaya çıkar ve en uygun çözümlere ve müdahalelere ulaşmak için her zaman titizlikle yönlendirilmelidir. Esneklik araştırmacıları, bağlamsal, kültürel ve sosyal bilgi ve anlatıları kullanan daha iyi ve bütüncül şifa tanımları yaratmaya, klinik yaklaşımların ötesine geçme ihtiyacını kabul eder. Bu nedenle, bu bütüncül yaklaşımın, kriz söyleminde çevresel tasarıma nüfuz edebileceği düşünülebilir, bu sayede savaştan etkilenen insanların sesi bizim anlama yerimizi derinleştirmeye yardımcı olur ve ekleri görüldüğü gibi fiziksel ayarlara ses

ıkarır. anlamları, deęerleri ve insanlık deneyimleri. Bu tez, savařtan etkilenen ocukların anlatılarını ve yorumlayıcı bir fenomenoloji yoluyla anlamların evresel tasarım endiřelerini nasıl özebileceęini arařtırmak suretiyle bu hedefe ulaşmak için ortaya

koyulmaktadı



1. INTRODUCTION

This chapter is an introductory part that starts with an overview of the study background. The overview introduces the main problems and targeted group which initiated the research question, as well as a brief introduction to the theoretical body reviewed for this study. The next few sections outline the research scope, main objectives of the study, the scope and limitations, as well as briefly introduce methodological concerns in the research design.

1.1 Thesis Overview

In the last few years, images of destruction caused by war and armed conflict have sadly become a daily feature flooding the news. These images however fall short of conveying the actual suffering felt by those affected under such horrors. The most devastating consequences of war and armed conflict are those impacting children, physically, mentally and psychologically. Children are the most vulnerable among populations, and despite the international appeals and promises to consider children's lives a red line, humanity is still failing to protect them. UNICEF recorded the year 2017 to be possibly one of the worst for children in war, especially in Africa and the Middle East. Whilst the last decade saw more than 2 million children killed during wars "while more than 4 million have survived physical mutilation, and more than 1 million have been orphaned or separated from their families as a result of war" (UNICEF, 2018). The effect of war on children is tremendous and often the extended conflicts prevent children from quick healing and restoration, leaving many long-term disastrous consequences. War and armed conflict make children vulnerable to greater risk, like threat to life, injury, separation from or loss of family, militant recruitment, violence, torture, sexual abuse, displacement, poverty and the list goes on (Machel, 2001).

Children not only suffer the risk of death and injury to their lives and their close family, the destruction of the physical environment, whether, schools, neighborhoods and infrastructure take its toll on their well-being. Environments become unable to

support children's needs for a normal healthy development. These needs are not only related to shelter, and access to food and water, but include making use of all resources; personal, social, or environmental, that allows children to not only survive, but also thrive, despite the distress they experience every day. Because these resources are diverse in nature and spread through many fields of inquiry, it is becoming more necessary to look at the problem from an inclusive perspective and allow for an integration of different theoretical concepts within diverse fields of knowledge like psychology, sociology, environmental psychology and humanistic geography.

In the wake of war, environments need to be rehabilitated, to not only the creation of shelters, but to provide protective nourishing envelope for children, that lends a sense of control, and hope for a better future prospect. According to Bullock; the reconstruction process is an attempt to reconnect the past with the future, and with many parties involved in this complex endeavor, the conflicting interests and the unstable political landscape following a war are key influencers on this transitional period (Bullock, 2002). In terms of architectural and environmental concerns, the question of reconnecting past with future soon becomes directed towards questions on style, as well as economic factors especially in the building of mass housing (Bullock, 2002). Post-conflict reconstruction is often led by political and economic drivers, which look on maps and financial sheets of affected zones and is often myopic to eye-level problems of people resettling in their homes. The often unseen dimension of how people relate to the places where they live and how their lives are ingrained within those places; i.e. place attachments, could have a role in promoting or impeding their resilience. The scope of reconstruction plans and environmental interventions can thus be expanded to include people-place relations, as well as social relations.

In this regard, the role of designers, architects and planners of the built environment, and with the contribution of environmental psychology, is crucial in the post-war rebuilding process. Using several case studies, there have been some attempts of architects and designers to show an effective alliance between architecture and humanitarian action in disaster stricken zones as well as using design as a path of activism and social work (Architecture for Humanity, 2006, Aquilino, 2011, Bell & Wakeford, 2008, Cary, 2010). Such works have brought attention to the vital role of

design, in theory and practice to war and conflict affected zones. The ethical dilemmas of the architecture profession is heightened in post war situations where there is a constant tension between the involvement of social consensus and participative approach and the individualist and idealist outlook that architects of post modern and contemporary world have developed (Ray, 2005). whatever the ethical position, architects should be well equipped to bring the ethical question to the table. The humanitarian and ethical objectives are especially in need of examination for building and rehabilitating environments for war-affected children. In relation to the understanding of place attachments, architecture as *making of place* is more relevant as a definition, and in our current concern, there has never been a more dire need for it. Theories of place relate the quality of the physical environment with the social meanings, symbols, values and psychological states that become saturated in physical settings with time and interactions. With *place* as the backbone of environmental ethical dimension, design can become an asset in humanitarian intervention, in circumstances where the very concern for human lives and livelihood diminishes.

The question that follows is; how can we approach child resilience in war from an environmental perspective? Certainly, there has been a rich body of research that relates children's well-being to the physical environment, especially the role it plays in their cognitive, emotional and evaluative development (Altman & Wohlwill 1978, Heft & Wohlwill, 1987, Weinstein & David, 1987, Evans G. 2006). This research inspired architects and designers to apply those theoretical ideas into the design of children's environments, with a renewed sensitivity to how children experience space and place, whether of homes, neighborhoods, cities, or educational institutions (Day & Midbjør 2007, Dudek, M. 2005, Spencer & Blades, 2006). Experience of place ranges across a spectrum of cognitive and emotional modes and regulatory mechanisms which act on the individual's well-being (Tuan, 1977). Since early ages, Children relate to places through affect which is often metaphoric of the emotional bond formed to a caretaker (Tuan, 1977). Forming emotional ties to places is studied under the umbrella of *place attachment*, or Topophilia; as is known in humanistic geography (Tuan, 1990). Several studies have shown the significance of emotional bonds that children begin to form towards places since early ages, children's special places, place identity, and the need to maintain and nourish positive attachments for

children's health (Chawla, 1992, Twigger-Ross and Uzzell, 1996, Cooper Marcus, 2006, Proshansky & Fabian, 1987, Green & White, 2007, Tuan 1990, Sobel, 2002, Goodenough, 2003). Another component of childhood attachment can be thought of as extending towards the natural world. Due to increasing damage that humans have inflicted to the environment and the need for more sustainable thinking, discourse on children and the environment has had a particular awakening to the benefit of connecting children with the natural environment as a necessary source of health and well-being, as well as sowing pro-environmental attitudes in future generations (Moore & Marcus, 2008, Chawla, 1994, 2009, Kahn, 1999, Kahn & Kellert, 2002, Louv, 2008, Faber Taylor & Kuo, 2006). This movement finds resonance with the proposition that humans derive a sense of well-being when connected to nature, as a result of the innate biological tendency to be affiliated with nature and life forms, conceived in Biological and psychological circles as the *Biophilia hypothesis* (Wilson, 1984 , Kellert & Wilson, 1995, Kellert, S. 1997). In Environmental psychology, the theory of *restorative environments* has had a significant contribution to explaining how certain environmental configurations and qualities affect attention functioning and stress recovery (Ulrich et al, 1991 , Kaplan, 1992, Hartig et. al. 1991). But what happens to all those systems and interdependent relationships between child and environment when we cross to red zones?

Areas of risk to children can range from school or home environment with violence and bullying, to chaotic war environments and zones struck with natural disaster. A limited number of studies have attempted to examine how children experience and adapt to those stressful conditions. Examples of studies on children and risk environment show how environmental degradation affects growing up (Satterthwaite et.al. , 1996, Wigle, 2003), children's rights in environments of poverty (Evans, 2004, Nandy & Gordon, 2009), and participation of children in post-disaster reconstruction attributing to their resilience and healing (Bartlett & Iltus, 2007, Peek, 2008). Studies which tackle children in war and conflict affected zones from an environmental experience are scarce. It is the purpose of this study to utilize theories like place attachment and restorative environments in exploring the relations between children, resilience and the physical environment in the context of war and conflicts.

Dealing with war stricken environments and populations certainly has its challenges. These challenges arise with the complexity of a myriad of human emotions and

experiences in abnormal conditions, and must always be tactfully navigated to arrive at most appropriate solutions and interventions. Researchers of resilience admit the need to go beyond clinical approaches, to creating more inclusive and integrative definitions of healing that harnesses contextual, cultural and social knowledge and narratives (Fernando et. al., 2013). Designers seem to be in danger of dealing with buildings and environments in a clinical mentality as well. As such, this integrative approach can be thought of to permeate to environmental design in crises discourse, whereby the voice of war-affected people helps deepen our understanding place and place attachments, which in turn seemingly gives voice to the physical settings as the realm of meanings, values, and human experiences. This thesis sets out to achieve this goal, by exploring narratives of war-affected children, and how it figures into the environmental design concerns.

1.2 Research Scope and Limitations

This work is mainly concerned with post-war environmental design issues based on how children experience war. It is an explorative study that examines war narratives and applies a phenomenological analysis tools to come to deeper understanding of child resilience and its relation to place attachment and restorative environments. The findings are a result of a rigorous interpretive process that is based on the reviewed literature. The literature review focuses on two attachment components, child-place, and child-nature. These are judged to have a potential for tackling children well-being and the physical environment in war contexts. These general frameworks are shown to be overlapping having components within each other. Furthermore they cover more specific theoretical concepts within them like, sense of place, place memory and place identity, which have significance in phenomenological approaches of environmental studies.

It is hoped that the voice of war-affected people, and our understanding of theories that relate the physical environment to children's well-being, can contribute to discussions within design fields that have been somewhat overlooked. These are mainly concerns about the healing power of the environment, and the role of design, whether independent or with people's participation, to promote healthy attachments, and create restorative environments in a post-conflict contexts. This study advocates these approaches of envisioning design as social activism, but does not tackle

specific design solutions and it is not concerned with speculating on post-war architectural forms, which are context case specific. Rather, the context of the field inquiry, works as a part of the interpretation process, and the physical settings not as abstract spatial forms but as meaningful components of people's narratives.

This study uses different theoretical works from multiple fields like environmental psychology, as in the theories of place attachment, restorative environments or borrowing concepts from biology, psychology, human geography and anthropology like Biophilia, Topophilia, and the theory of resilience. This holistic approach encompasses diverse dimensions, which make up the concept of place potentially effective as a catalyst for children's well-being. As always, knowledge gained from this huge amount of research and literature across many disciplines is limited by time.

As is the case of other interpretive approaches, the emerging patterns and themes are limited by what the narratives provide in terms of richness in data. Although there is an abundance of individuals who have experienced war and conflict as children, especially in the unstable areas of the Middle East, there are many difficulties involved in finding participants willing to share their stories. These and other methodological limitations will be discussed more in detail in chapter 3. In short, future works which present new narratives, different social contexts and cultures can reveal more possible interpretations.

1.3 Research Objectives

This study aims at exploring child resilience in war in relation to the physical environment. It seeks to present arguments in favor of moving beyond the provision of shelter, to conceptualizing child friendly environments that is responsive to children's experiences of place, resilience and active participation in healing. The theoretical framework is aimed at integrating theoretical concepts like Biophilia and Topophilia which deal with people-nature and people-place interactions and utilize that understanding into thinking post-conflict rebuilding.

This thesis asks the questions; how can we understand what children go through in war, from a lens of place interaction, processes and attachments? How can the voice of youth contribute to that end? How do the theories presented within environmental

psychology attribute to the interpretation of resilience and place? It is hoped that by answering these questions can environmental design field be enriched with a sensitivity towards children's experience of war, and take that into consideration when planning children's environments, ranging from home, school, neighborhoods, towns, and cities.

1.4 Research Design

To emphasize the environmental resources, mechanisms of resilience and how war-affected people navigate its landscape, the focus is directed to individual's experiences of war, resulting in an experience-oriented qualitative research. Since it is difficult for children to reflect on their experiences and express their emotions, especially in abnormal circumstances, it is worthwhile to examine the issue from a retrospective angle. This approach also has the advantage of moving beyond momentary factor/predictor methods of resilience into considerations of long-term attainment of well-being, as well as the added depth, meaning, shifts of perspectives in people's experiences.

Autobiographical accounts of people who have experienced war as children are explored through the tradition of narrative inquiry tools and frameworks, which centralizes the role of experience in gaining insight into the richness of people's lives and life histories, and how it relates to the exploration of a certain phenomenon. (Clandinin and Connely, 2004) For this study, seven participants are asked to orally narrate their memories of childhood experience of war. The data is mainly collected through semi-structured open-ended interviews, and memos through lengthy correspondence. Interpretive phenomenology is used as an analysis tool, to uncover themes of place experience. The temporal dimension of the narratives becomes the central spine in how people navigate war environments, which is reflected in their place experiences. This timeline consists of a period preceding the war or conflict events extending indefinitely backwards (pre-conflict), the events of the war itself which extends a certain number of weeks, months or years (conflict), and the transitional period as well as the period following the war that could extend indefinitely to the future (post-conflict). Exploring place experience on a backdrop of the temporal dynamics is especially significant in place attachment studies, which are

mainly concerned with meanings and emotions formed from long-term interaction and intimacy with places.

1.5 Thesis Outline

This thesis is divided into two parts; the first part presents the literature review with the explanation of theories and relevant precedent research. The second part introduces application of theoretical framework into a field study within a qualitative inquiry tradition, and the interpretation linked with findings from the literature.

Chapter 2 will introduce the theoretical framework upon which the interpretive methodology is built, by introducing general assumptions, and reviewed literature on theoretical concepts that are argued to have a potential in discussing the issue of childhood, environment and resilience. The first part includes general assumptions and considerations in studying children and environment, as well as introducing the significance of this discourse in relation to the psychological concepts of resilience, coping and healing for children in war. The second part will introduce the two theoretical concepts upon which the framework is built; the theory of place attachment, which covers people-place interaction and the concept of Biophilia and the theory of restorative environments, which covers the people-nature interaction. Experience and attachment are keywords for both theoretical constructs and will be shown to have a significant role in converging their understanding in the production of positive emotions necessary for healing and resilience. Finally, these two concepts are integrated into a framework that is used for the interpretive method of the study. The final section deals with design issues and possible ways in which findings from the theoretical corpus can be integrated and used in post-conflict rebuilding strategies. This is done through the examination of literature on children's environment and design for well-being, Biophilic design principles, as well as illustrating some examples of post-conflict and post-disaster rebuilding and design.

Chapter 3 outlines the methodology used in this study. This starts by explaining the significance of qualitative research in this type of inquiries. It introduces the general approach, the procedures of the fieldwork and illustrates the use of the phenomenological interpretive thematic method.

Chapter 4 introduces the narratives and thematic findings that are arrived at from the analytical process. The themes are discussed with a reference to findings from the theoretical framework.

Finally, Chapter 5 summarizes the major findings and conclusions of the study, as well as the limitations of the study and possible future research and recommendations.





2. LITERATURE REVIEW

The research questions revolve around exploring ways in which childhood resilience can be promoted in relation to the physical environment in the context of war. This chapter introduces theories, concepts and precedent research, which make up the conceptual framework of the explorative study. This framework includes concepts and theories that have potential in relating the experience of the physical environment and children's wellbeing. It acts as the backbone for the interpretive process, which aims at identifying meaningful associations and patterns in childhood's experience of war environments and its effect on long-term wellbeing.

2.1 Introduction

The nature of warfare and combat following the two world wars may have had tremendous changes, but the devastating damage of civil conflicts between factions and groups, as well as between nations, seems to be the stigma of our time. Loss of civilian life is no longer a matter of collateral damage. News are flooded everyday of images of women and children targeted by armed groups, oppressive regimes and militias, so far reaching in their violence as to leave the observer baffled over the state of the world. If civilians are not directly targeted, they are forced into displacement, often unsure when their predicament will come to an end. In the midst of this chaos, children's lives and welfare becomes a commodity. Many are forced out of school, become part of the violence, or lose close families and homes. The examples are alarmingly numerous. According to UNICEF, "More than 60 per cent of the Rwandan children interviewed said they did not care whether they ever grew up" as they suffered the atrocities of genocide and ethnic cleansing (UNICEF, 2018).

War has the capacity not only to cause physical damage to the lives of people and to the environment. It also causes a rupture of social systems, shatters norms and traditions, and begets bitterness, hatred and psychological strain which stretch so far in the memory-scape of nations. In many instances, war or armed conflict do not

occur as a single disruptive event, an interruptive period of a child's life, but many extended conflicts stretch for years, and become the only normal daily affair a child knows. What then would a child who has known only growing up in a war-torn environment have as a baggage in the journey of making a better future for themselves and those around them?

In war, conceptions of childhood change, the lines between child and adult blur. Children become adults, plunging into a world of meanings they have not come to terms with but are forced to accept. As camps divide, children are stigmatized and looked at with mistrust, as 'future threats' and as 'becomings' of 'the other'.

Ethical and moral standards and traditions are shattered and all that is left is the uncertainty of whether things change for the better. Added to this already dramatic situation is the loss of belief in the very innocence of children and youth. (Beah, 2010)

Experiencing war conflicts is extremely traumatic in developmental stages, and leaves long-term psycho-social consequences. The destruction of facilities and infrastructure that support a child's development like homes, schools and neighborhoods takes a toll on the chances of supporting coping and healing. In the past 50 years, armed conflict on a home soil is recorded to be highest in low income and under-developed countries, such as India, Myanmar, Palestine, and more recently Iraq, Syria and Yemen (Dupuy & Peters, 2010). In low-income countries reconstruction and rehabilitation is often a long and difficult process, and many of those who suffer displacement do not find their way home.

Observers often remark that "never before in history have children and youth become so central in conflicts, as victims and as participants" (Dupuy & Peters, 2010). UNICEF recorded the year 2017 to be possibly one of the worst for children in war, especially in Africa and the Middle East. The last decade saw more than 2 million children killed during wars "while more than 4 million have survived physical mutilation, and more than 1 million have been orphaned or separated from their families as a result of war" (UNICEF, 2018). Children suffer direct consequences of war, like death, injuries and disabilities caused by risky environments and being caught in crossfire between combatants. Indirect effects can be severe undernutrition, and more chances of infections and disease due to blockades and lack of access to resources and medical health care. In addition to all that, wars and armed conflicts

disrupt societies. For a child “growing up under conditions of deprivation cannot lead to the child’s greatest potential in these disrupted societies” (Goldson, 1996).

The well-being of children in war is a topic that has engaged activists and researchers from diverse fields and professions. Whether they stay in unstable war-affected homelands or are displaced to other areas, efforts on larger policymaking level, or local level must be put to ensure a hopeful future prospect for war-affected children. The purpose of research and intervention is to culminate all possible and available resources that can contribute to children’s resilience, coping, and positive growth despite the great amount of stress they face on daily basis. These resources range from focusing on personal traits and individual growth, to enhancing familial conditions to the rehabilitating educational, communal and religious institutions. Some studies have scrutinized the effect of environmental degradation, such as that coming from poverty or natural disasters, and its influence on children’s development. However, less is known about the role of the physical environment in contexts of war and armed conflict. How does a physical environment affected by war and conflict act on children’s ability to cope? Can children in war draw resilience and hope from their surrounding settings? If so, what are the mechanisms by which positive outcomes relate to places and settings? Will this understanding have implications for rethinking post-war rebuilding of children’s environment? This study will address these questions, by building up a conceptual framework that addresses the possible modes by which children relate to the physical environment, and its relation to their healthy development and well-being. This theoretical corpus is used as the basis for a field inquiry that uses a phenomenological interpretive approach to exploring war narratives.

In this examination of relevant literature, the first section lays out the general assumptions and the background that places this research into current landscape of studying childhood and children’s environments. Furthermore, it is important to introduce a general working definition of child vulnerability, children in war and the concept of resilience. Resilience is introduced as a psychological construct that refers to children’s ability to thrive despite the stress that they face in war and conflict situations (Fernando et. al., 2013). Where has research on resilience fallen short in terms of the physical environment? Moreover, the questions on how that gap can be

addressed leads to the concepts in the following section, which deal with more specific concepts that relate children's well-being to the physical development.

Children relate to the physical environment through different modes (Day & Midbjør 2007, Spencer & Blades, 2006). The environment engages both cognitive and emotional capacity of a child (Tuan, 1977). A key component to a child's healthy mental and psychological development is the emotional attachment they constantly form, maintain or sever. In the realm of psychology, attachments refer to the deep and enduring emotional bond that a person experiences in relation to other people. (Bowlby, 1969, Ainsworth, 1991). Attachments have been shown to extend to physical settings as well as to people and some research suggests a parallelism in person-person and person-place attachment observed from infants as they relate to the physical location of the care taker (Giuliani, 2003). As children grow up attachments to place, become associated with deeper meanings and symbolic knowledge. Through patterned interaction extending across a certain period, children start forming emotional attachment to the physical settings they occupy, from home environments to neighborhoods and schools (Chawla, 1992, Giuliani, 2003, Marcus, 1992). Place attachment explains the ties people form towards meaningful settings, with 'place' denoting the psychosocial model referring to more than abstract spatial entities. The dynamics of this theory are sometimes discussed within an environmental psychological perspective and a phenomenological lens, which places place attachment within the different process by which people interact with their environments (Seamon, 2014).

In addition to social environment that is embedded in the concept of place, physical features of place constitute an important role in the wellbeing of individuals. Most significantly is the restorative effect of having nature and natural elements and process present in physical settings. This body of literature explores the child's connection to nature as a source of healthy development. The human-nature connection also finds resonance in experiences relating to affect and attachment. This is best exemplified in the concept of Biophilia, which posits an innate desire to be affiliated with nature and life forms. (Wilson, 1984, Kellert, 1995) Though originating from biological basis, the Biophilia hypothesis finds resonance with an already established theory in environmental psychology known as the restorative environments theory, studies of which found that people prefer to be in settings with

certain qualities and configurations that can act as a mediate to restoring cognitive and emotional resources (Kaplan, 1992, Hartig et al, 1987, Hartig, 2004). The Biophilia theory has also fed into relatively new movements of designing nature into the built environment in what has become known as the discourse of Biophilic Design (Kellert et al, 2008, Browning et al, 2014). Advocates of Biophilic design have already suggested that the direct presence of nature or emulating nature into the building environment can have healing qualities to communities in red zones, i.e zones of high risk (Tidball, 2014).

The last section of the literature review will summarize the conceptual framework whereby both modes of attachment, child-place and child-nature, can be integrated and used as the interpretive basis for this study.

2.1.1 Childhood and child vulnerability

As in every spectrum of the human experience and knowledge, childhood has had diverse frameworks of conceptualization, no doubt affected by the different historical contexts and condition that shaped its discourse. Childhood has always been an area of interest for the philosopher, the scientist, the anthropologist and the psychoanalyst; to name a few, because; needless to say, childhood represents the first small steps in humanity's journey through this life.

Whether in the rationalist views that focuses on a mentally and cognitively developing biological entity, or the romantic and spiritual traditions that view childhood as the purer representation of humanity and its relationship with the natural world, childhood has preserved an almost universal state; that is mainly related to the issue of child vulnerability. Throughout history, children, seen as fully undeveloped individuals, have often represented purity, innocence and carefreeness, as well as a state of weakness and dependence. More recently, the needs that arise from this vulnerability have helped shape an understanding of childhood that go beyond age group specifications, mainly based on biological transformation, to qualities of living in the child's life. According to UNICEF (t.y), childhood is a period where children should go to school, feel loved by family and community, can spend time playing, and are protected from fear, abuse and other risks that affect their healthy development, and "as such, childhood means much more than just the space

between birth and the attainment of adulthood. It refers to the state and condition of a child's life, to the quality of those years" (UNICEF, t.y).

These perceptions however come to be questioned, violated and defended when children's lives and well-being become commodities in wars and conflicts. Despite the global agreements and international laws to protect children's basic rights, wars and conflicts remain blind to the sacredness of children's lives. Psychologists posit that childhood is conceptualized as a period of human life which are characterized by individuals who are naturally vulnerable. Children, unlike adults, are dependent on others for the provision of nourishment and protection. Indeed people can be seen to have crossed the threshold of adulthood when they become *invulnerable*, and able to fare well on their own (Herring, 2018). In extreme conditions rife with violence and risk, children's vulnerability takes an understanding of child rights and its protection. Children's rights were brought into focus following the first Convention for the Rights of the Child in 1989, which has called upon the international community to "recognize that children are the holders of their own rights and are therefore not passive recipients of charity but empowered actors in their own development" (UNICEF, t.y). According to Johnson, Childhood vulnerability defined from a perspective of violations of human rights can be due to 1) *invisibility*, or children's rights abuse staying hidden behind "family secrecy" and "poor governmental oversight"; 2) *protection*, which becomes weak or non-existent in abusive families, social context rife with social violence, poverty, or families weakened in wars and involuntary displacement; 3) *undefendedness*, or the inability of families, communities and media to reach out or have the will to defend children's rights (Johnson et.al., 2013).

Dealing with childhood in research requires a constant flexibility to navigate its perceptions, such as assuming that children are naturally resilient, naturally vulnerable and other assumptions we might have about children and which can be largely influenced by cultural contexts and social conditions. In questioning our perceptions of childhood, we are also opening the door to the understanding of how children relate to the natural world, and by extension to the physical environments that they live in. Do we view that relationship from a utilitarian perspective? Do children simply use the physical environment based on biologically equipped apparatuses to support their developments, or are there deeper connections that go

beyond explanations of function? Conceptualizing deeper experiences of environments in western thought certainly had its influence from Romantic philosophy, poetry and art of the 19th and early 20th century. Childhood and nature has played a part in evoking emotional and spiritual experiences as well as nostalgia, the longing for a better time and a better humanity in turbulent times where industrialization, world wars and economic instability threatened to wipe rural life and replace them with dehumanizing urban sprawls. In a reality slowly slipping from spiritual associations, childhood's attachment to nature has become a silent call to that gap left by modernity and modernization. The words of the romantic poets, like Wordsworth, echo childhood's deeply spiritual bond to nature, and paints a picture of a child's fascination with its lively elements. Longing for a harmonious existence with nature seems to be a commonly shared phenomenon, even for someone who spent all their childhood years in urban streets and neighborhood.

There was a time when meadow, grove and stream,

The earth and every common sight,

To me did seem

Apparelled in celestial light

In lonely rooms and 'mid the din

Of towns and cities, I have owed to them

In hours of weariness, sensation sweet. (Wordsworth, 1947)

The diverse conceptions of childhood have offered contributions on discussing children's places in the world, their rights, well-being, voices and roles in the global landscape. A holistic discourse combines such efforts to complement each other and act as an inclusive circle for social mobilization. For example, studies of childhood place attachments; while previously pervading serious consideration, have certainly found its way into psychology, not least because -it could be argued- the presence of childhood, and indeed the culture of childhood, has become more noticed in the scientific arena. (Chawla, 1992) Following the 19th and 20th century boom of industrialization and urbanization, not to mention the two world wars, there was a movement from all fields that brought about a rediscovery of childhood. With the improvement in medical care, child mortality dropped and the child population

increased throughout the world, as if now demanding more attention. Due to devastating difficulties suffered by children around the world, there were also the international declarations of children's rights and the founding of worldwide organizations to protect those rights. With notable corner stones in research like the Piagetian theory of development, children were viewed as individuals with unique traits and capabilities, occupying different settings and socially acting in the modern world.

Studies on childhood have relied on developmental theories as the basis for understanding how children's well-being should be preserved on multiple levels and social circles. However, from an anthropological perspective childhood encompasses diverse experiences and rather than being defined stages, it is conceptualized with a sense of continuity. Both views allow us to understand a child's world, learning and development so that; working towards achieving their wellbeing, we become more aware of the societal roles and values that deal with children, whether in the immediate circle of the family or beyond that. For example, designing spaces for children, like daycare facilities of schools have witnessed a shift of thinking in light of children's cognitive, emotional and social skills that we have come to understand better in educational and developmental theories. (Strong-Wilson & Ellis, 2007)

This introduction have posited two issues in initiating a study on childhood and environment. First, conceptions of childhood and child vulnerability. It is important to scrutinize the way childhood is viewed in different contexts and cultures. Are we dealing with children as 'becomings' and future competent earners? what is our conception of children in 'not typical' or 'not normal' circumstances? Do we preach universality and sacredness of childhood, but practice discrimination against even the most vulnerable groups? Anthropologists often observe that childhood undergoes a swift transformation in circumstances of displacement, war and poverty. At-risk children soon come to be seen as risky children who need to be held at bay. Second, a change to the way we understand children's abilities and competence is needed, especially in our times and cultures, and to remove misconceptions and stigmatizations we hasten to form about children. According to Goodenough (2009), "childhood is thus both a chronological stage and a mental construct, an existential fact and a locus of desire, a mythical country continually mapped by adults in search of their own subjectivity in another time and place".

We need to be more sensitive to a child's intelligence, emotional, logical or social and that each child possesses unique individual characters and traits, as well as being highly absorbent of the social conditions they live in. In times of distress or illness children should be able to have their voices heard. In conflicts, they are the most vulnerable and need support. They feel pain and sadness, and the pain, if not resolved with care and compassion tends to accumulate.

Establishing a discussion of childhood and vulnerability conceptualizations, coupled with an awareness of developmental theories, sets the stage for the examination of how children relate to their day-to-day settings, and how that relationship is affected by risk factors. Studies in environmental psychology and other fields have made breakthroughs in deepening our understanding of not only how the physical environment affects children's behavior and health, but also to shed light on the diverse emotions related to place experiences. Landmarks of these theoretical contributions will be generally introduced to place the inquiry of children's well-being in environments of risk within relative research.

2.1.2 The role of the physical environment in children's wellbeing

As mentioned in the previous section, romantic literature of the 19th century concerning childhood and nature sparked an interest in the physical settings in which children live, especially with the harsh reality of the newly industrialized cities. Later on, studies of childhood, had the main goal; from a psychological perspective, of understanding its developmental aspect. Landmark theories of development include that of Piaget (1936, 1957), Vygotsky (1978) and others. Some developmental studies took the interest of how the physical environment, as opposed to only the personal and social one, can affect children's behavior and health (Evans, 2006). The recent shift in environmental psychology, from a behaviorist to interactional and transactional paradigms meant a convergence towards a model of a reciprocal relationship between people and their environments. In this understanding, people were not passive objects whose behavior is shaped by external physical conditions; their thoughts, actions and interactions are similarly working to change, transform and modify their surrounding environments (Stokols, 1991).

This bi-directional relationship, as well as the growing awareness of the damage done to the natural environment, brought about a focus on reversing human action

towards the environment, springing forth objectives of pro-environmentalism coupled with a discourse on human well-being and the environment. These objectives find their way into childhood's studies as well. Moore sees the "ultimate framework for thinking about the role of the physical environment in child development" within the ecological paradigm "is the interdependence between childhood and biosphere" (Moore, 2017). In an era where children are forced to live in a degrading biosphere caused largely by human action, the global scale of this statement must find resonance in the smallest forms of environmental interactions that children have in their everyday localities (Moore, 2017). Memory has a key role to play in this equation. Encounters, interactions and life rhythms in childhood become patterned, they produce personal "environmental biographies" (Cooper, 1979, Cobb, 1998). These patterns shape environmental attitudes later in life (Chawla, 1999).

On the objective of well-being, many studies investigated how physical settings can affect children's physical, social, cognitive and emotional health and development (Evans, 2006). In parallel, studies in ethnography, geography and anthropology conducted in different settings and contexts shed light on cultural factors and place-based experience of children (Sobel, 2002, Holloway & Valentine, 2000). Theories in environmental psychology and its application in children's settings, which includes natural environment, home environment, neighborhood and schools, and its application for creating children spaces are discussed in the notable work of Altman and Wohlwill, (1978), Heft and Wohlwill (1987), Evans 2006, Weinstein and David (1987) and Spencer and Blades (2006). On the other hand, works by Dudek (2005) and Day and Midbjer (2007) represent efforts by architects to apply principles of child development to design. Qualitative approaches to children and environment, from ethnographic, anthropological and phenomenological perspective such as Clare Marcus Cooper's study of home meanings (2006), David Sobel's studies of Children's Special Places, (Sobel, 2002) place-making and place-based education (Sobel, 2013), and Elizabeth Goodenough's Secret spaces of childhood (Goodenough, 2003). Some dimensions in these studies include the emotional encounters and the deep meanings associated with places, which gives the lived sense of places. Children's relationship with the environment have therefore seen an interest in both the effect of the objective physical environment and its relation to

behavior, as well as deeper meanings, emotions and essences that make up the subjective experience of a place.

Recent studies have also tackled the issue of children and environments of risk. Examples of that are children living in environments of poverty. For example, Evans (2004) records the multiple dimensions of how a deprived environment rife with social vulnerability affects children's development. More works focus on children's rights and mitigating risk in environments. In cases of disaster, natural or man-made, intervention based studies provide practical strategies in relief, access to healthy environments and play opportunities (Satterthwaite et al., 1996, Johnson, 2003,). However they often have the disadvantage of treating children as passive victims rather than active participants in the process of healing and restoration. More qualitative input is recently introduced within these issues to bring out voices of youth into research outcome and policies. These studies have mainly been concerned with risky environments resulting from natural disaster, poverty or school violence, but not many have examined the role of the environment in war-affected zones.

2.1.3 Resilience of children in war

The relationship between human beings and the environment has always faced disruptions and tensions in countless struggles and predicaments. People had to face those difficulties with *coping* and *resilience*, outweighing the odds and emerging with aspirations towards fulfilling a more prosperous future. Resilience has always been part of humanity's existence. Having the ability to adapt to life-changing events, trauma or stress, is a process that takes place naturally within anyone overtime. And yet with careful management of coping resources, adaptation can be facilitated and turned into a generator of positive well-being outcomes. The concept of resilience has been examined as psychological mechanisms that allow the individual to function well despite being under risk conditions. Although some vagueness shrouds the term of resilience, it can be said to have the view of "1) beating the odds, 2) coping well, 3) bouncing back, and 4) achieving post-traumatic growth" (Fernando & Ferrari, 2013).

Researchers of resilience use their findings to promote well-being especially for at-risk children and youth, considering them the most fragile faction of the population. Risk factors can include domestic violence, armed conflict and war, terrorism,

occupation, and sexual abuse among others. Research on resilience has certainly fed into interventions and initiatives that helped shield at-risk youth populations from future mental health problems, post traumatic and chronic stress conditions.

Resilience research has witnessed a change of approach in relation to the style of coping, from 'passive avoidance', which begets a sense of 'non-controllable' situations, to an active approach which puts more control on the situation. It started with an aim of defining risk factors and removing them. The focus then shifted to achieving resilience through implementing protective factors, such as empowering family ties, friends and peers and cultural and religious institutions with an emphasis on participation (Tol et.al., 2013). The dual strategy of removing risk factors and encouraging protective factors requires more than superficial technical knowledge of humanitarian relief or emergency psychiatry. It is becoming more and more relevant to integrate local knowledge, traditions and cultures, of participation of victims in building of resilience. The ecological approach of Bronfenbrenner (1979), has had the leading influence on the investigation of resilience through multi-faceted and nested model of multiple effect contexts, such as the cultural, social and religious, which have an influence on child development. For example, a child's development of healthy mental capabilities, might not only look into home environment and those directly related to it like the parents, but also incorporate indirect influences such as that coming from the nature of workplace of parents and their socioeconomic status, and/or the socioeconomic status of peers and friends at school (Tol et.al., 2013).

Citing key literature on children's resilience, Wells (2014) summarizes the historical development of resilience research, noting that it initially focused on individual characteristics and traits of the child role in the face of adversity, especially in the context of the domestic realm. It then moved to wider circles of influence like the family, and the surrounding social context. Wells also posits that there is a recent attention to understanding protective mechanisms; how children mitigate the effect of risk factors, rather than simply identifying protective factors; i.e. what makes children resilient. By understanding those mechanisms, it is easier to allocate sustainable resources to resilience. This is important to consider when integrating the role of the physical environment in the process of resilience, as there is clearly a lack of connecting two bodies of research, that of resilience, and the physical environment and children's well-being (Wells, 2014).

Research on resilience has its share of methodological challenges. Some of them are related with issues of traversing childhood resilience across different cultures and contexts. Simply put, the challenge, as Barton (2005) suggests is to assure that the objectives and the end results, such as attaining children's well-being or empowering young girls, should be in sync with and respectful of the context. Often this is confused and overlooked by researchers as well as social workers. As intervention comes from 'the outside'; from knowledge produced in psychology often in western context, the difference in childhood conceptions and of cultures, for example, causes conflict and ignores complexities that arise from the fact that not all models of well-being conform to that of industrialized high income countries. This is significant on the practical level. Dealing with context and appropriateness may sometimes result in the favoring of 'culturally appropriate intervention' over a clinical approach (Barton, 2005).

To navigate these challenges, recent studies of child resilience have concluded that there is need for more qualitative input. Ungar and Teram (2003) argue that the western psychological paradigm in dealing with children at-risk has, due to its symptom focused approach, resulted in the arbitrary selection of evaluation factors, hastening to label children as 'healthy' or 'not healthy', and has in addition to that overlooked some contextual issues such as the availability of resources and the influence of different cultures and socioeconomic conditions (Ungar, 2003). A qualitative approach has the ability to bring out voices of those who have gone, or are going, through adversity, as well as the cultural context, into research. Voices of youth can act as a reminder that by psycho-pathologizing children's behavior, we tend to treat recovery as a way of bringing children back into preconceived molds of acceptable behavior, and overlook emotions, culture or other factors (Ungar, 2003). Responding to this methodological reasoning, as well as other considerations; which will be explored more in depth later on, a qualitative research methodology is adopted for this study. On the other hand, qualitative approaches to studying environment-behavior draws on human experiences, and the various meanings that are generated in relation to interactions in settings and places (Seamon, 2016). By working with war-affected people and their experience of war, this research is therefore designed to explore environmental experiences that might point to linking to children's resilience in war zones. To do that it is important to answer the

following questions: what are the constructs that mediate the child's relationship to the physical environment? How do they manifest in environmental experience and interaction? Moreover, how do they act towards the attainment of health and wellbeing? Can the meanings generated from these experiences and interactions be cultivated in the building of resilience in times of distress? Going back to the roots of human existence, countless attempts have been made to argue the connection with nature as an intermediate to having a healthy relation to the physical environment. The next section scrutinizes the connection of people in general and children in particular to the natural world and argue for establishing a link with embedding nature into children's environmental experience and their health and well-being.

2.2 Healing in Nature: Biophilia

Having access to natural features, settings and elements seems to be an intuitively basic right for every child. The study of Biophilia, as a concept that was born from biology and psychology is proving the essential and primitive nature of connecting human beings to the living processes and natural world. This section explores more deeply the connection people have to the natural world, its basis, and implications for creating restorative environments for the healing child. The discussion is initiated by exploring the concept of well-being and its relation to the nature connection, introduces the Biophilia hypothesis and provides evidence to the benefits of considering nature in children's healing environments.

2.2.1 Health and well-being

In dealing with war-affected children and promoting their post-war rehabilitation and healing, it is worthwhile to look at the meanings of health and well-being. There is a debate, inside philosophy, politics, psychology and other realms as to what constitutes the concept of well-being. For example, a relatively new way to evaluate economic success of nations is a call for promoting well-being of a nation rather than the country's GDP. As mentioned in the previous section, concepts such as well-being may have different levels of meanings and connotations across different cultures, traditions and philosophies. As so, practices to attain well-being may differ. It may derive from material success, social and communal connectedness, sharing and selflessness, internally focused practices and introspection, or a combination of

those. However, there are points of agreement and references that allows for this widely used term to have a shared universal experience to it. Well-being encompasses the wide spectrum of the human experience, from sensory and material to spiritual.

As an objective and an end result to be attained, well-being has great implications for moral questions, for ethical values and decision making whether in politics, economy, or environmental design. The concept of well-being is often related to that of happiness. Happiness can mean the attainment of pleasure and the avoidance of pain, known as *hedonic* happiness, and is related to feeling good that tend to be momentary and within the domain of affect. Some insist however, that well-being lies beyond that, in *eudaimonic* long term self-fulfillment concerning one's purpose and meaning of life (Bradley, 2015). Therefore, well-being is seen to be connected with not only mental but also spiritual dimensions, inner balance, wholeness and peace. According to Bradely (2015), well-being is closer related to the idea of 'intrinsic goodness' and that you are well-off when you feel good and attain the things that are intrinsically good for you (Bradley, 2015).

Well-being is happiness in the broadest sense of happiness. It is flourishing. Well-being is something that, normally, is good in itself and makes the universe better. It is one of the most important things we want for those we care about. (Bradely, 2015)

The term 'well-being' has modified the perception of health; which according to the World Health Organization is "a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity" (WHO, 1946). This reflected on the shift of focus from physical cure, to inclusive prevention that takes into concern all the different levels and dimensions of well-being. For example, some of the most widely spread health problems of cognitive decline for the elderly, and the problem of obesity, can be tackled with preventive strategies, like the promotion of physical exercise and social and communal connectivity. These strategies and policies work hand in hand with a physical environment that support them, which ultimately points to the role of designers and architects to consider not only the impact on health but also the promotion of well-being in the environments they shape (Day, 2004).

For the physical environment to achieve that objective, the question is mainly that of quality, and that not only means high-end materials and technology and complex

forms, but rather often resonate with the deep experiences and associations that extend beyond visual impact. In his book, *the architecture of happiness*, philosopher Alain De Botton (2014) argues that “one of the often unmentioned causes of both happiness and misery is the quality of our environment” (De Botton, 2014). In this sense, architecture has both an aesthetical and an ethical function. Happiness stems from our naturally absorbing the qualities of all that we judge to be beautiful into ourselves. It is this subject-object fusion according to De Botton (2014), which inspires a sense of happiness derived from the places we encounter everyday of our lives. “What we seek, at the deepest level, is inwardly to resemble, rather than physically to possess, the objects and places that touch us through their beauty” (De Botton, 2014).

The relationship between places and well-being can even be thought to have a scientific basis. Medical Doctor Esther Sternberg (2011) makes this point in her book on the science of well-being, showing how certain settings and conditions can be therapeutic. Examples of these qualities are: “quiet places, places in the sun, places that smell good, places with the presence of loved ones, places of belief” and others (Sternberg, 2011).

The science of well-being does not only imply design solutions for health care facilities, healing qualities are essential in daily spaces. Healing, is similarly not only for the physically sick, it is a continuous process acting on the long term of restoring our reserves and resources of psychological well-being. Architecture has a potential vital role in healing, physically or psychologically. The presence of a protective envelope, of a safe shelter, is arguably architecture in its most primal essences.

Most studies on restorative environments conclude that restoring coping resources is best attained from being in natural settings, away from the hustle and bustle and daily stress of urban life. However, having therapeutic qualities is not exclusive in nature and can be found in many man-made settings. In fact, the optimal set of mind should be of bridging the gap, between what is natural, and therefore health giving, to man-made and supposedly alienating from our natural connection. This is finding resonance in the recently popularized Biophilic Design movements which finds roots in the deep connection that humans have with the natural world.

2.2.2 The Biophilia hypothesis

The concept of Biophilia has recently gained attention in environmental design and planning. Its proponents think that it takes on the shade of a paradigm shift, and a wakeup call to true environmentalism that has been led by the sustainable design movement to unfruitful destination. While sustainable design and development have introduced many solutions in terms of reducing environmental impact, it remains technology focused, and unable to steer the design disciplines towards a solid ethical ground in relation to the built environment and the natural world (Pallasmaa, 2017). According to Pallasmaa (2017), “The real issues are mental and ethical, not primarily technological, and they arise from values of life, not economics”.

The theoretical assumptions and implications of the Biophilia Hypothesis echo that of many philosophies and spiritual traditions that humanity’s relationship with the natural world is essentially a relationship of *reciprocity* and *interdependence*. Human beings do not exist in separateness from nature, they absorb it, and whatever damage and exploitation done to nature is ultimately a damage and threat to humanity. Thus, Biophilic design supports health and well-being, in turn it is an awakening of ecological awareness and true environmentalist attitudes in the face of increasingly dangerous impact on the biosphere. This is seen as a fundamental ethical objective, that needs to be reformulated in the wake of the increasingly declining concept and applications of sustainability.

Biophilia literally means the love of life and living processes. In 1984, the term was introduced in the work of Biologist Edward O. Wilson, who hypothesized that the human affiliation with nature is innate, resulting from long evolutionary processes. He defines it as an “innate tendency to focus on life and lifelike processes” and “innate emotional affiliation of human beings to other organisms” (Wilson, 1984). His work in the field of biology and social evolution seeks to awaken an environmentalist movement within science which doesn’t shy away from reflections of personal experiences in nature and aesthetizing nature as is evident in his writings. Further, the connection with nature and natural systems is introduced as being crucial in human development, of nourishment and attainment of well-being. According to Wilson (1984); cognitive mechanisms are patterned in the process of evolution with dependencies on other species and living organisms, which explains how it is genetically built in. Being equipped with a disposition that seeks association with

nature and other species means that humanity has inherited psychological and ethical values in the course of its co-evolution. This idea is later expanded on in works of different fields and researchers. ‘The Biophilia Hypothesis’ put together by Psychologist Stephen Kellert alongside E. O. Wilson (1995) proposes the necessity to nourish the connection with nature, beyond basic sustenance, which carries the hypothesis into the frame of the environmentalist movement. According to Kellert, Biophilia is a ‘weak’ biological tendency and its values are largely subject to sociocultural conditions. The creative capacities of humanity has the ability to nourish this tendency, but it can also impede it (Kellert et. al., 2008).

There is a good amount of scientific evidence that supports the position of achieving well-being by nurturing the connection with nature. In fact, this body of knowledge has contributed to the theory of *restorative environments* within the field of environmental psychology. Restoration refers to the recovery process of resources that become diminished, whether physiological or psychosocial, that is triggered by particular environments and environmental configuration (Hartig, 2004). Research into the restorative capacity of environments was first brought into focus by Roger Ulrich’s cornerstone research into hospital views (Ulrich, 1984). He found that patients, who have a window view of natural features like trees, were more likely to recover from post-surgery than patients who had a view of a brick wall. Later work established other mechanisms of restoration like stress recovery (Ulrich et. al., 1991) and Attention restoration (Kaplan, 1995). Ulrich’s study of Stress recovery showed that contact with nature, like having visual access to natural elements, initiated a restorative process, resulting in reduced levels of arousal, and better conscious cognitive functioning. Hartig and Frumkin (2014) trace historical patterns of what makes human-nature interaction restorative in the midst of increasing urban demand, and find the insight of early landscape architects to be prescient in this question. For example, the words of Fredirick Law Olmsted who posited that “scenery worked by an unconscious process to produce relaxing and unbending of faculties made tense by the strain, noise and artificial surroundings of urban life”. Stephen and Rachel Kaplans’ (1998) work on restorative environments identified four factors in people’s preferences and their account of restoration. *Fascination*, which is represented in environments not requiring the need for focused attention and cognitive functioning. *Extent*, which gives a feeling of connectedness with environment, *being away*, from

daily hassles, and having *compatibility* with the individual's preferences and inclinations (Kaplan et.al., 1998).

Tidball (2014) notes that in the course of the evolutionary process, humans were able to develop adaptive systems and resilience in the face of natural disaster, they did that of course while living in natural environments. In this current age, humanity is facing mostly man-made problems within environments they have created (Tidball, 2014). This does not imply that the solution lies in going back to living in natural environments, that is impossible, and it does not go beyond showing a sentimental nostalgia for romantic life. Rather, humanity has a potential to unlock, in going back to a learned resilience which sprung from man-nature interaction (Tidball, 2014).

Exploring the healing power of nature and forwarding a concept of '*Urgent Biophilia*', Keith Tidball (2014) cites many examples where people seem turn to nature in the midst of, or following a disaster. This propensity, he posits, can be explained through the culturally and psychologically relevant hypothesis of Biophilia (Tidball, 2014). According to Kellert (2008), the desire to be closely affiliated with nature, life and living systems brings about "the widest range of values derived from our dependence on nature" including "emotional connection, intellectual competence, the experience of beauty, a sound moral compass, and a world of enduring meaning and relation".

Having this innate tendency means that it could be traced in humanity since childhood years, where the emotional attachment seems to be at its clearest, where children's dependence on nature is an extension of their needs in gaining competence, skills, achieving healthy development of emotions, and even values and morals mediated by the guidance of adults towards the environment. So how deep does this connection go? And what evidence do we have to the benefit of connecting children to nature especially in extreme conditions?

2.2.3 Childhood and nature

Natural settings are seen by many developmental psychologists as the realm where children learn and acquire skills. Natural elements, some believe, do not hold any special meaning for the child beyond utility, and it does not have any superior intrinsic values over man-made objects and environments, that make it better for learning and development (Tuan, 1978). According to Tuan, experiences within

natural settings are largely saturated with sociocultural conditions, and are not, despite what our value biases make us believe, universal. There are however some patterned behaviors observable almost anywhere in children's behavior such as climbing trees, sliding and creating nooks (Tuan, 1978). These patterned behaviors in nature have sparked ethnographic studies within humanistic geography and other disciplines that have discussed the embodiment of children's needs and the activities in natural wild or semi wild settings (Sobel, 2002, 2008, Moore, 2017).

On the other hand, some traditions, like the Romantic philosophies and spiritual traditions tell us that humanity possesses deep transcendental connection to the natural world and it is most evident in childhood. A child's gaze through any window to the cosmos is that of marvel and enchantment. It is the genius of childhood, still untouched by the intellect (Cobb, 1998). Deep down the connection to the natural world is a biological one, but it has also been viewed as a transcendental spiritual bond. It is in the recent literature on Biophilia that we begin to see the human-nature connection neither purely rationalized nor overly romanticized. Instead, the affinity to nature can be seen through the different levels of human nature. In their examination of architecture and neuroscience, Salingrose and Masden (2008) outline these assumptions in three levels of human being and how these levels are reflected in the way we make buildings: first, *the abstract human*, as an entity that is disconnected from the natural world, a state to which the conception of modern man converges towards. Modern architecture exemplifies this abstraction by its focus on utility. Second, the human being as *a biological sensory system*, receiving and interacting with stimuli through the sensory modules they are equipped with. Vernacular way of building, for example, is seen as a biological response to the immediate environment. And third; *the transcendent human*, interacting with the world within a spiritual engagement, which recognizes that a connection exists that is beyond the physical dimension and remains a mystery. Some architectural attempts have always voiced a quest of communicating that sense of mystery (Salingrose & Masden, 2008). Defining humans's relationship with the physical world, and with nature is in short a navigation of emphasizing any or a combination of these levels, each have certain behavioral, cognitive and emotional responses.

Edith Cobb (1998) wrote a book on childhood's connection to nature titled *the ecology of childhood imagination*. Through examination of people's biographies and

past experiences, she traces a connection between creativity and genius to the connection with nature in years of childhood. She explains the nature of this wonder:

Rhythm, like motion, is a cosmic experience, in fact, and the child's "world making" is a continued cosmic speculation in the form of a recreation and rearrangement of parts of the environment into the synoptic wholes in which the self exists. (Cobb,1998)

Childhood's experiences in nature are mapped, and extrapolated into "patterns of speech and systems of behavior" which is most immediate in the activity of play. According to Cobb (2018) ,"play can be observed to be a sort of "fingering over" of environment in sensory terms, a questioning of the power of materials as a preliminary to the creation of highest organization of meaning".

When children are engaged in natural play, they are exposed to many opportunities for developing skills and cognitive and emotional learning. In the realm of evolutionary and developmental psychology, Kellert and Kahn (2002) provide an analysis of how exposure to nature, whether directly, indirectly or symbolically can affect the different modes of learning; cognitive, affective and evaluative. For example, children's cognitive capabilities are enhanced with encounters of different types of trees and animals by giving the desire to name, label, classify, and recall. Children are able to emotionally receive and respond, in forming ties and attachment especially with animals. Evaluative development has to do with forming moralistic, ethical and aesthetical values and are evidently enhanced in activities that involve taking care of nature, like in gardening or taking care of pet animals (Kellert & Kahn, 2002). It should be iterated here, that learning systems are interdependent and these learning outcomes can be reached with the constant mediating presence of guiding and caring adults. Children are not expected to roam in wilderness and somehow emerge cognitively, emotionally and ethically competent (Tuan, 1978).

Exposure to nature is also related to children's physical and mental health. Recent studies have begun to investigate the benefits of children spending more time outdoors and in contact with nature, such as countering sedentary behavior, cognitive development problems, and attention functioning disorders (Moore & Cooper, 2008). For example, researchers have found that children with Attention-Deficit Disorder (ADD) showed reduced symptoms after exposure to outdoor natural settings (Taylor et al., 2001). Other benefits can be in dealing with issues such as child obesity, Attention Deficit Hyperactivity Disorder (ADHD), low attention span and myopia

(Moore & Cooper, 2008). Moreover spending time in nature especially in middle-childhood can even be associated with spiritual or transcendental experiences. A study done by Edward Hoffman (1992), shows that many people when asked to recall spiritual experiences in middle-childhood associate that with encounters of nature (Hoffman, 1992). Similarly, Edward Robinson's *The original vision* is a study of religious experiences and their attribution to middle childhood. Robinson finds an interesting link between child's play in nature and the meditative state of religious prayer (Robinson, 1983). Moreover, experiences in nature have an influence to people's environmental attitudes later in life. Wells and Lekies (2006), found a pattern in their study that support a connection between childhood experiences and adult attitude toward the environment. A large number of self-claimed environmentalists give account of extended time periods spent in wild or semi-wild settings, or even engaging in domestic care for plants or pets in their childhood, as well as the presence of adults who taught the respect and love of nature (Wells & Lekies, 2006).

In short, we seem to know now much more about the benefits of maintaining and nourishing the connection between children and nature. The question next would be, now that 'we know better', are we closer to being more responsible towards the natural world, more in harmony with it? The answer is sadly no. more than any time before, we are alienated and disengaged from the natural world, the more urbanized and technologically advanced we become, the more selfish, the more damage we inflict on the natural world. Are we then surprised that children living in the 21st century, would much rather prefer sitting behind screens, than go out and play outdoors. In his book *Last child in the Woods*, Richard Louv, warns that the more we become technologically advanced the more we seem to be disconnected from the natural world. He stresses the need for a paradigm shift in thinking to avoid an inevitable outcome of nature depravity. He terms this phenomenon as the 'Nature Deficit Disorder' (Louv, 2005, 2011) which he defines as is an "atrophied awareness, a diminished ability to find meaning in the life that surrounds us whatever forms it takes" (Louv, 2011).

A theoretical framework that centralizes the natural paradigm has the potential to explore children's coping in stressful environments. Fred Besthorn (2005) points out the gap in research concerning children's resilience and its relation to nature:

Published research explicating the connection between children's experience with nature and a child's ability to adapt to chaotic environments is small and fragmentary. However, the intense connection that stressed and traumatized children have with special places in nature is no furtive enterprise. (Besthorn,2005)

He concludes in his article that, although in need of empirical evidence, the natural connection has the potential to lend coping resources and resilience for children in distress. However, one should not forget the way that connection is viewed in the western discourse, indeed how nature is viewed in the capitalist narrative. What is needed is to incorporate children's "interpretive frameworks that they use to make sense of their lives that may not always correspond well to accepted knowledge" (Besthorn, 2005).

Addressing this gap in research, the aim of this study is to explore the role of exposure to natural environments as an intermediate in children's coping and resilience in conflict zones. However, a connection to natural settings is rarely independent from interactions with day-to-day places and man-made built environment which make up a child's world. From early ages, children begin forming attachments; emotional bonds to those places, starting from home, school, and neighborhoods. These attachments represent an anchor of stability, in a world that keeps changing. The changes that come with war or conflict can be sudden and severe, thereby threatening attachments and the psychological stability that come with it. The next section explores more deeply the theory of place attachment, and where it can be placed in exploring children's resilience in war.

2.3 Healing in Place: Topophilia

Another dimension of how people relate to the physical environment is the affective ties they form towards places. Place attachment has implications for people's health and well-being, and has therefore witnessed an increased interest among many disciplines. This section discusses the theory of place attachment, and its role in children's emotional well-being, and the potential it has in exploring place experiences in war and conflict zones.

2.3.1 Dwelling, nature and place

Making a case for ‘naturalizing’ our urban environments may well get caught in a discussion that constantly refers to an opposition between a harmful ‘man-made environment’ and a healing ‘natural environment’. The dichotomy is not very helpful. Wherever humans live, the two environments do not exist separately, they intersect and overlap, and both are porous and absorb elements from each other. Critics of modernity and the modernist movement argue that this sense of harmony has suffered in urban cities following the transformative process of industrialization and modernization. In this social, economic, and political transformation, the pluralization of life led to people existing in multiple circles and institutions forcing them to adopt new paradigms the source of which often comes from new technology, thus the experience of everyday places in the city was no longer the same (Hynen, 2000). Salingrose and Masden (2008) point out that historical human communities had no such distinction as man-made and natural- it was not necessary and as such, vernacular building sprang from a ‘neurological response’ and the immediate logic of available materials, it was fundamentally a reaction to nature and in some cases can even be called bio-mimetic; i.e. imitating nature (Salingrose & Masden, 2008). The underlying genetic factor of Biophilia establishes the connection to nature, which is stronger with an ‘organized complexity’ and less potent with a ‘plain disorganized complexity’. According to Salingrose and Masden (2008) “Reaction to neurologically nourishing environments is physiological-emotional- rather than intellectual”. When architectural design became a field and a discipline it was drawn to philosophy and principles and disconnected from the natural world causing this rift between man-made and natural environments (Salingrose & Masden, 2008). Proponents of natural ways of building stress that this argument shouldn’t be read as a superficial call for ‘revival’ of vernacular ways of building, nor is it a sentimental look to the past, rather it is meant to invoke a ‘revival’ of ‘the connection’ or a ‘paradigm shift’ as Stephen Kellert calls it in favor of applying ‘Biophilic Design’ principles (Kellert et al., 2008).

The loss of harmony with the natural world resonates with the loss of *dwelling*, a notion put forth by philosopher Martin Heidegger in *Building, Dwelling, Thinking*. Heidegger proposed that all buildings can provide physical shelter, but not all embody the concept of dwelling. Dwelling is only possible, he proposes, when a

sense of continuity, in any existential situation, relates past, present and future. The relationship with existence is that of 'nurturing' and 'nourishing', and in Heidegger's own words: "the basic character of dwelling is to spare, to preserve... dwelling itself is always a staying with things" (Heidegger, 1971). Dwelling, as preserving, keeps what he terms *the fourfold* in that with which mortals stay: in things ; " the fourfold is: Earth, Sky, Mortals and Divinities, and the relationship with them is that of wholeness. Heidegger's philosophy inspired a search for an environmental ethics which is starting to get attention in the architecture discourse, seeing the way of dwelling as an ethos, such as in the work of Karstin Harris in his book the ethical function of architecture (Harris, 2000). The current philosophy of naturalism and material sciences dominating in the west has led to the questioning of the development of humanity, its technological advancement and its impact on the existence of the human race. An environmental ethics is by definition biased towards the natural environment, and are directed to humans and non-humans, instead of taking an anthropocentric worldview of morality (Gardiner & Thompson, 2017).

Heidegger's philosophy, as well as other landmark phenomenological philosophers like Merleau-Ponty and Gaston Bachelard, is an essential base for phenomenological ways of seeing our relationship to the environment. It has certainly helped in understanding how architecture and design of environments are a vehicle for place-making, through the descriptive and interpretative process of understanding experience in place. The aim of phenomenology is to describe and understand the essence of human experience in a certain situation. Phenomenologists see that; facing the issues of our current era, a change of perspective means that architecture should look beyond the formalities of structure and space, to the humanely embedded notion of *place*. David Seamon (1985) summarizes the need for this shift as the result of the urban decline, coupled with human's impact on the natural world:

At the height of our technological mastery, we often find ourselves separated from both the earth and our own human being. After many centuries of building our world, we meet an unsettling nexus of domination and homelessness. Confronting the powerful assumption that what matters is construction in space with our planet as raw material, we find an emerging need to take seriously what is ignored or discarded: not merely technological construction, but dwelling; not merely homogeneous and mathematized space, but place; not merely planetary raw material, but environment. (Seamon, 1985)

At its most basic level of meaning, place is “the arena of experience” (Tuan,1977). Place makes sense of and gives anchor to experiences. Experience is defined by Yi Fu Tuan as “a cover-all term for the various modes through which a person knows and constructs reality”. Knowledge is a construct of experience, which manifests in a spectrum of personal feelings and conceptions, with thought tinting all experience, and emotion tinting all experiences as well (Tuan,1977).

Most experiences, events and actions occur within a place. And yet, there are multiple layers of meaning that are evoked when the word place is spoken. Place is a no doubt a complex construct, indicating more than a spatial entity. It is a spatial construct of social values and practices embedded within a physical location. Place concretizes values, meanings, and cultural aspects of the human experiences. (Tuan,1977) As the arena of experience, place in the words of Tuan is a “special kind of object” where one can “dwell. Dwelling evokes the phenomenological perspective towards viewing the relationship between person and environment. An important aspect of phenomenological understanding of this relationship is through our bodily encounters with places, or how we embody spaces. *Embodiment*, refers to the modes by which we use our bodies to become associated, and emotionally ingrained and immersed within our spatial spheres (Seamon, 2000). Phenomenologist Merleau-Ponty emphasizes the phenomena of place through our bodily experience, in which the very physical form of the human body becomes an ontological structure for being-in-the-world. Such views shed a different light on a phenomena usually discussed within psycho-social models. It is this view of embodied experience that led some architects and critics, like Juhani Pallasmaa to consider that modern and contemporary architecture has become obsessed with the visual aspect, and imagistic forms forgetting the ‘sensuousness’ of place, that extend to the body’s multivariate mechanisms and sensations. Architectural aspects such as place ambience, sense of place and atmospheres contribute to discussions of wholeness of experience within a place in face of constantly reductionist approaches to space (Pallasmaa,2012).

The journey of this research takes us into childhood places. When we explore narratives of life, we are looking at actions and events taking *place*. Descriptions of place are already engrained with the meanings we make, our moods, attitudes, memories and identities. The aim of an interpretive phenomenology is to find themes and patterns, that make up the experience of the narrative and the places that are an

inseparable part of it. Research within environmental psychology has looked into which factors help form and maintain attachments to places, and what happens to an individual's psychological well-being when these attachments are disrupted. This is a key concern when studying children's well-being in chaotic war environments as these attachments are under constant threat. The next section explores the theory of place attachment and some key studies that shaped its understanding.

2.3.2 The theory of place attachment

"Environment" writes Tuan, "is not just a resource base to be used or natural forces to adapt to, but also sources of assurance and pleasure, objects of profound attachments and love" (Tuan, 1990). *Place attachment* is a theory that spans different disciplines like environmental psychology, and humanistic geography, such as in the concept of Topophilia, which literally means the love of place. Bachelard uses this term in his phenomenological investigation of poetic images in "felicitous space" that "seek to determine the human value of the sorts of space that may be grasped, that may be defended against adverse forces, the space that we love" (Bachelard, 1958). All contributions to the understanding of place attachment refer to emotional ties that people form to meaningful places. Whether developing affective ties to place is explained as biologically or culturally constructed, researchers find parallels between interpersonal attachments and attachments to place, where both contribute to the well-being of the individuals (Guiliani, 2003).

Scannel and Gifford (2010) define place attachment using a tripartite framework that consists of *person*; who is attached, *place*; what is being attached to, and *process*; how is this attachment expressed (Figure 2.1):

1) The Person dimension; refers to the type of attachment and strengths are affected by personal factors, a person's experiences and memories that lead to different meaning-making which is necessary in making attachments. Attachments can also vary among individually-formed attachments to personal spaces like home, and collectively-formed ties, like places that are significant culturally or religiously for the community, like the significance of Mecca to the Muslims. Attachments also vary with age; while adults are more involved in meaning-making and social interactions, children's attachments tend to be considered as weak developing attachments (Scannel & Gifford, 2014).

2) Place refers to what people are attached to; that is the physical environment. Attachments can be formed to places of different scales, from corners to rooms, to neighborhoods and countries. Some studies have shown that certain physical characteristics or qualities can be considered as predictors to forming attachments to places, such as the presence of natural features, and taking care of gardens (Sime & Kimura, 1988). Other physical features that were found to be related with attachments include the type and scale of dwellings, surrounding facilities and streets neighborhood (Scannel & Gifford, 2014). For example, single-family independent house units tend to denote rootedness more than apartment units (Liver & Lavrakas, 1981). Other researchers dismiss the predicting relationship between the physical features and place attachments, and stress the importance of considering the attachment to a physical environment in relation to the social relations and interaction that take place. In other words, environments are perceived by the quality of both the physical settings, and the people that live and interact within them.

3) Process; refers to how people express attachments to places. These processes develop overtime, with experiences and interactions that become patterned. Attachments are articulated and expressed through cognition, affect and behavior. Cognitively, people develop mental images and representation of places, by becoming familiar with the physical milieu and how to navigate it. In addition, memories of events, history of place and any related information are stored as a part of that representation. Emotional responses to places of attachment include feelings of happiness, joy and contentment, but it can also evoke ambivalent or negative feelings. Finally, behavior that is attributed to place attachment can range from personalizing places, to place stewardship and preservation from possible threats.

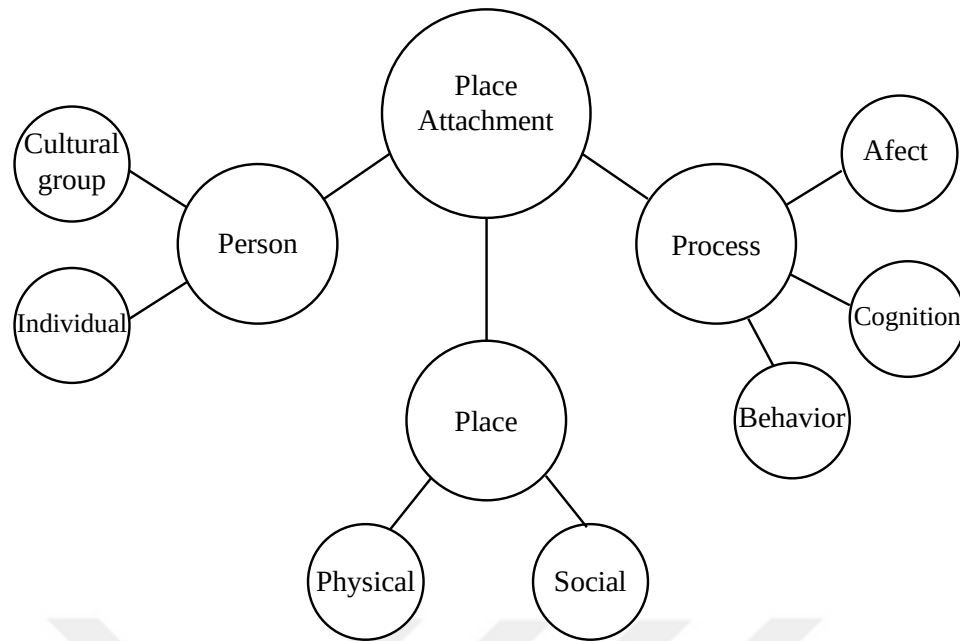


Figure 2.1: A tripartite framework for defining place attachment (Scannel & Gifford, 2010).

Place attachments differ in level and strength as well as how it is expressed with changing factors and influencers. These include time, personal factors, age, place ownership, social status, and gender (Scannel & Gifford, 2014). In most cases, place attachments are the result of accumulating experiences and interactions that develop overtime. Place memories and experiences provide a sense of continuity, between past, present and future, which lends a sense of control and stability in lived spaces (Twigger-Ross, & Uzzell, 1996). Place attachments are also affected by personal factors; for example, if the function and quality provided by the physical environment fits the individual's needs and allows for a certain degree of control and flexibility, this produces a sense of ease and comfort in interactions and people are more likely to form attachments to these places. This *self-place congruence* is also reflected in how people seek to be affiliated with and immersed in environmental aspects that reflect their identities and resemble their aspects of self (Twigger-Ross, & Uzzell, 1996). This way, one dimension of attachments is considered as “the incorporation of place into the larger concept of self” and is therefore related to the concept of *place identity* (Scannel & Gifford, 2014).

Another factor that affects place attachments is mobility. Since attachments are largely determined by time spent in place, weaker attachments are sometimes found to be caused by constant movement (Fuhrer et.al., 1993). However, this is not necessarily always the case with people on the move. People can still be able to form

attachments to multiple places. Due to the advancements in transportation and communication technology, they are able to keep in touch with places that are far. Some research has even found that being away from home can strengthen attachments to home (Tognoli, 2003). On the other hand, lack of mobility and staying in one place for all life can engender negative emotions for some people, and a drudgery that prevents them from exploring possible life opportunities elsewhere (Guiliani, 2003).

These previous studies look at the attachment phenomena from an environmental psychology perspective, and has been explored in both quantitative and qualitative methodologies. Some researchers view qualitative inquiries as the most fitting method for understanding place attachment, as the phenomena revolves around people's rich subjective meanings and deep experiences towards places that can be otherwise reduced and oversimplified in quantitative scales. With a focus on place experience, the interest in place attachment has found a place in humanistic geography and place phenomenology approaches. Yi Fu Tuan's original text which introduced the concept of Topophilia focuses on the experiential base of attachment and the sense of place, rather than identifying characteristics of place which serve conventional psychological methods of environmental perception. For Tuan, Place can be a city, or a wilderness. He explores a spectrum of attachment modes, from ties to land and nature with cosmological associations, to the strong sense of safety in a home, to the places that are restorative and fresh which people prefer to be in (Tuan, 1977).

Phenomenologists insist that people experience places holistically. According to David Seamon (2014), place attachment can't be measured with scales and predictors, rather it is "part of a broader lived synergy in which the various human and environmental dimensions of place reciprocally impel and sustain each other" (Seamon, 2014).

Understanding this synergism comes through the examination of body-subject and its relation to dialects of place, such as movement and rest, inward and outward. Place attachment, according to Seamon (2014), has varying intensities and rather than being an independent phenomena relates to six place processes. These are; 1) *place interaction*; or the typical actions in a place. Places can support different routines that become patterned with time spent in place and contribute to creating attachments. 2)

Place identity explains how place becomes part of personal and group identity through patterned interaction, 3) *place release*; or the serendipity of unexpected encounters and events, like meeting a childhood friend in café, which gives meaningful and pleasurable memory relating to this physical setting. 4) *Place realization*; is the presence and ambience of place, perceived by people who are attached as places having unique features. 5) *Place creation*, which can occur in design process, rebuilding or rehabilitation, or seeing to place needs and intervening with empathetic knowledge of place. Finally 6) *place intensification* refers to reinforced actions and routines with time that are supported by design of place. These place processes arguably become attuned, their complexity increased with the years of a person's lifetime (Seamon, 2014).

Holistic experiences of place is a characteristic of *sense of place* and it is evident in how people remember places, from mental images, smells, events, people etc. (Relph, 1997). Sense of place is a conceptual construct that emphasizes the phenomenological perspective of relating to physical settings. The importance of place in the human life seems obvious and intuitive. However, this importance becomes intensified in cases where places and the people in them are threatened. Edward Relph (1997) makes a point that sense of place is so important to people's life experiences that it can become a source of threat when exploited:

It is a perverse testament to the importance of sense of place that one of the most enduring of all military strategies is the destruction of places in order to undermine the will of a people. It is, of course, an even more powerful testament to the importance of sense of place that these places are invariably rebuilt by those whose attachment to them has not been destroyed. (Relph, 1997)

Place attachment has implications for an individual's well-being. Benefits of having places of attachments can vary from a sense of psychological comfort, a sense of control, belonging and positive emotions like joy (Scannel & Gifford, 2014). Research has shown that the most significant benefit related to place attachment is self reportedly the sense of continuity that people experience; meaning, places of attachments memorialize the events, people and social interactions (Figure, 2.2) (Cooper Marcus, 1992, Twigger-Ross, & Uzzell, 1996).

The psychological outcomes to having places of attachment are related to all modes of experience, cognitively, emotionally and behaviorally. In relation to cognition,

people who are attached to places have knowledge and memories which make up the mental image of a place. Having memories of places is what lends into the sense of continuity with one's past, present or future, and is the reason why people have to go through tremendous distress in cases of attachment disruption as will be discussed later on. Emotionally; having places of attachments comes with a myriad of emotions, such as comfort, joy, sense of belonging, relaxation, and a feeling of privacy and intimacy. Place attachments are also reflected in individuals and groups behavior towards their homes and favorite places. People who are more attached are more likely to show territorial defensive behavior. Some are prone to displaying pro-environmental attitudes and actions to preserve the ecology of their places of attachment (Figure 2.3).

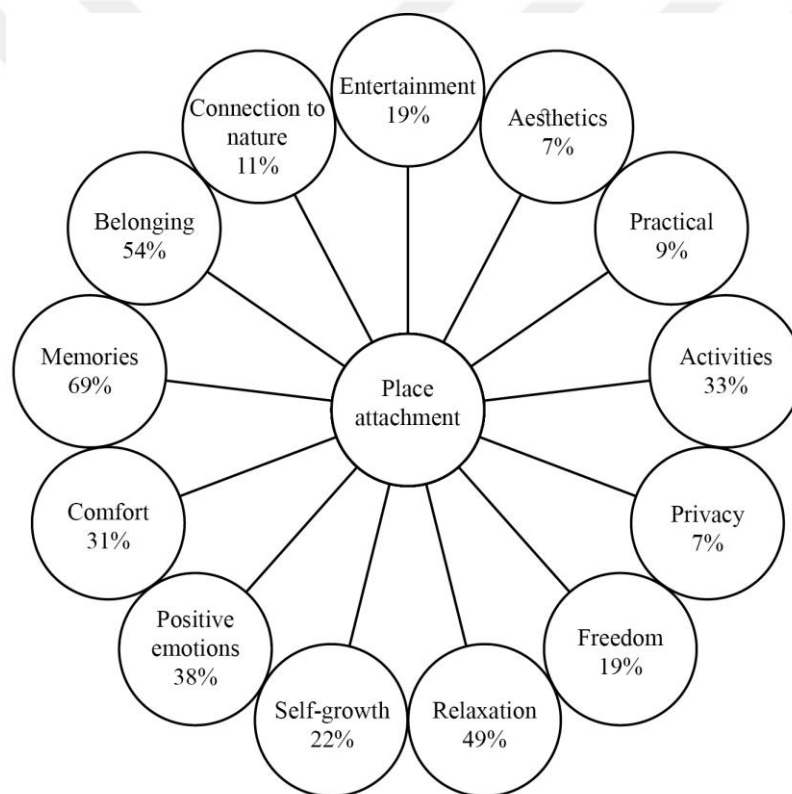


Figure 2.2: Thirteen Functions of place attachment (Scannel & Gifford, 2014).

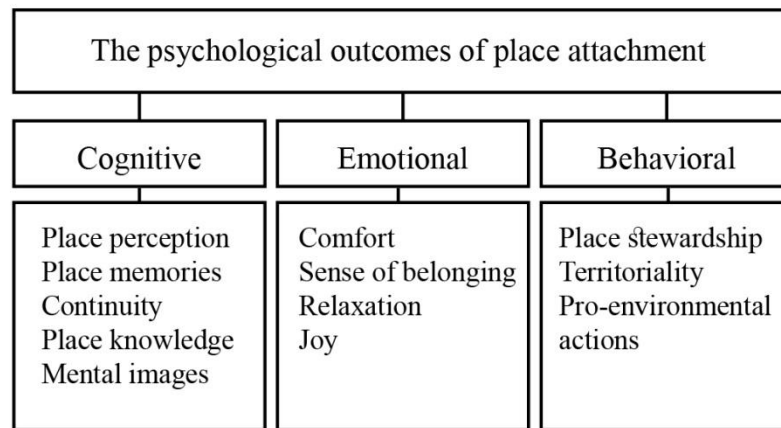


Figure 2.3: The psychological outcomes of place attachments, adopted from (Scannel & Gifford, 2014).

The role of memory, environmental biographies and life narratives is therefore crucial in cases that involve disruptions of place attachment, such as displacement due to war or natural disasters. Going back in memory to childhood places is reported by many people as a way of reconnecting with their past self, and making sense of their present.

2.3.3 Children's place attachments

Childhood places has become a topic of interest especially in relation to attachments and restoration that has implications for children's healthy development and well-being. Exploring childhood's experiences can't be disentangled from the attachments a child forms to places, people and objects. A mother's embrace, one's room, home, school, street, neighborhood, garden and city form a hierarchy of attachments. One by one they start becoming reference points, items of relevant permanence to a body that keeps mobilizing, crossing boundaries and searching for the unknown. This concept of place having a two-directional pull; that is, the dual function of providing stability and safety [pulling inward], and the point from which we move to question and discover what is beyond its boundaries [external pull], is an explanation that has become essential in the studies of place attachment, and is assumed to be an extension to the attachment formed to the figure of the caregiver, usually the mother. Tuan (1997) explains that the image of place for a child is that of permanence and stability, an infant finds that place first in his mother's care; as "a strange world holds little fear for the young child provided his mother is nearby, for she is his

familiar environment and haven. A child is adrift-placeless- without the supportive parent” (Tuan, 1997).

Studies in children and place attachment focus on the concept of home, and favorite or special places of childhood. In studying the deep meanings people attach to home, Claire Marcus Cooper uncovers how children feel at-home. It is mainly by having a place of nurturing, a place of sociability, places where children have a degree of control over shaping the environments, places that support their identity and self-esteem, places of exploration and simulation, and a place of one’s own (Marcus, 2006). Some studies show that children who suffer from stress and anxiety can use their favorite places as a self-regulation medium, and it often occurs in outdoor areas. Self-regulation is a theoretical framework that has the capacity to encompass different mechanisms to achieve desired levels of self-esteem and identity (Korpela, 2002). Preferring outdoor settings is often related to children’s mobility, opportunity for wider navigation, as well as the ability to manipulate and change the environment especially in natural settings, which is responsive to children’s creative needs (Chawla, 1992, Luckashok & Lynch, 1956, Marcus, 1974).

Louise Chawla identifies four types of childhood place attachment. *Affection* usually refers to places where there is a high degree of psychological comfort in proximity to family and loved ones, *transcendent attachment* evokes a sense of independence from cultural and social association to a deep connection to experiencing nature and environment. *Ambivalence* towards places, is an attachment that cannot be fully embraced, because of past tensions and histories that impinge on the comfort derived from remembering places of origin, and finally as children grow, they form idealized attachments, which are attachment to places not necessarily lived-in but imbued with symbolic values, and ideological associations, like having a sense of patriotism (Chawla, 1992).

With that in mind, one can only imagine what a child goes through when these necessary attachments to both parents and home are disrupted, a state in which millions of children suffer in our turbulent time of global conflict, immigration and displacement. Living in degrading and chaotic environments, not only impedes access to places that support exploration, but greatly reduce any sense of having control and shaping the environment. Having the ability to manipulate, change or have control over a specific environment is a powerful component in designating

special meanings and attachments to places. These activities have come to be known as *place-making* activities in childhood discourse. Studies of children's place-making activities have come to conclude that these experiences are mostly universal regardless of culture, age or gender, even if they differ in the way they materialize.

Whether these places were called forts, dens, houses, hideaways or clubhouses whether they were in the home or were found, modified, or constructed, they all seem to serve similar psychological or social purposes; places in which separation from adults were sought, in which fantasies could be acted out, and in which the very environment itself could be modelled and shaped to one's own needs. This is the beginning of the act of dwelling, or claiming one's place in the world. (Marcus, 2006)

Many studies show that places that nourish autonomy, place-making, privacy, discovery, and a sense of adventure and mystery mostly occur within naturalistic settings. The study of children's activities and use of wild, or semi-wild places has come to be known as a field study called children's geographies. Place-making plays an essential role in studying children geographies. In his extensive studies of children's geographies through ethnographic methodology, educator David Sobel emphasizes the role of special places in middle childhood through the way they model the natural environment around them. These places manifest in children's place-making activities, creating almost universal prototypes which he names as forts, dens, and bush-houses. These prototypes have an essential role in developing an image of self, self-esteem and identity, and are thus significant in recalling childhood places (Sobel, 2002). Sobel also sheds light into children's place-making interactions and activities in natural settings which manifest into play motifs, and archetypes of special places, like dens, forts, and hideouts.

Spend time at a safe, woodsy playground and you'll find children (1) making forts and special places; (2) playing hunting and gathering games; (3) shaping small worlds; (4) developing friendships with animals; (5) constructing adventures; (6) descending into fantasies; (7) and following paths and figuring out shortcuts. (David Sobel, 2008)

Tori Derr (2005) discusses similar findings in his study with a group of children aged 9-11 in New Mexico and conceptualizes children's experience of place into four categories (Figure 2.4). *Rites of Passage* refers to the exploratory and adventurous aspect of interacting with places. Here, children are especially relying on their physical competence and movements which they incorporate into discovering geographies like climbing hills and walking through forests. Similar to Sobel's

findings, children are more inclined to exploring natural settings, however some children find similar interest in exploring some old or abandoned buildings. *Fort-makers* theme refers to children's special places and place-making activities, which usually occur in away-from-home places. Contrary to what we might think children sometimes seek places of privacy where they can be fully themselves and are able to change and manipulate the environment to their needs. A study found that even within the most institutionalized environments, like a hospital, children showed a desire to configure their own rooms when they were given the opportunity (Wolfe & Rivlin, 1987).

However, children's experiences of places are not and should not always be free of constrictions and behavioral patterns dictated by the supervisions of adults. The third theme, *Learning Care*, refers to the children learning to develop attachments to places as they interact with adults. The adult acts as guiding model of respect towards nature, animals and other people. This may include activities like gardening, ethnobotany and taking care of animals. The final theme explains how children experience a cultural place, giving context to the meanings and attachments they feel toward a place. *The Web* shows a deeper layer of connection to places, through attaching stories, from family, community and especially the elderly, to the building of place knowledge. Stories leave a long-lasting impression on children, a story of grandparents, events, and festivals, or stories of ghost haunting a certain place, evokes a sense of being part of the place culture and community (Derr, 2005).

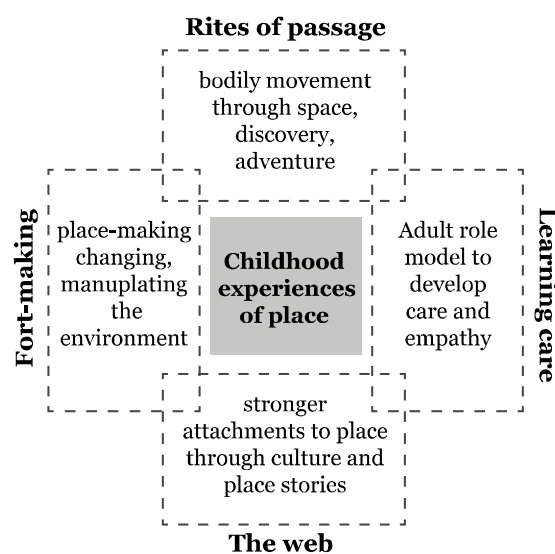


Figure 2.4: Modes of childhood experiences of places adapted from (Derr, 2005).

Although most studies about childhood special places are done within western contexts, and the results often coincide with special places occurring outdoors, other cultural contexts can yield different results. With factors such as parental supervision and child rearing, or the expectations of gender roles for example, might result in girls not having much access to outdoor play (Korpela, 2002). In places of conflict, parents become overly protective of their children, and are therefore not allowed to venture much beyond the boundaries of the house. Indeed one can ask bluntly, does every child have a special place? Or is place-making a result of the growing up in safe environments. What are the results of children not developing attachments to special places? As proposed in a previous section, more studies need to be done on childhood's special places in areas of conflict, and a long-term analysis of how such places can help overcome stress and anxiety in later years of life.

2.3.4 Memory, narrative, loss of place

Memory has an integral part in forming and maintaining attachments. In her exploration of place attachment and memory; Lewicka (2013) shows how different types of memory contribute to the creation of place attachments. First, memory can be described as *procedural*; relating to life-rhythms and routines. Actions in place involve bodily movement that is in congruence with the physical environment, like place-ballets. The attachment coming from this type of memory, therefore usually takes extended periods of time to develop. The second type of memory is *episodic*, which relates to more complex constructs like the life events and conditions which shape one's identity and biography. These also take time to form, and in case of disrupted attachments and up-rootedness can be used as a reference, experienced as nostalgia, that gives a sense of self-esteem. Research also shows that attachments are formed to places of origin, and that having knowledge of family history and lineage contribute in forming attachments. Lewicka remarks that in the face of globalization and the homogenizing of cultures, these types of *vicarious* memories are harder to encounter (Lewicka, 2013).

The role of memory is especially evident in cases where certain conditions cause a noticeable and sometimes abrupt transformation in any or all of the dimensions of place attachments, people, process and place. Disruptions in place attachments can occur for a range of reasons, like burglaries, voluntary relocation, displacement due

to wars, conflicts or natural disasters. The most impactful form of place loss for example is losing a home; it can have serious psychological strain on individuals that affect their well-being. While attachments to places provide stability and change, disruptions are abrupt changes that can overwhelm people's resilience. In conditions of disruptions, people experience *a sense of discontinuity*; routines and actions are halted or transformed, demanding adaptation and coping in new environments. Brown and Perkins (1992) argue that this is because people have to look for assertions and navigate their self-identities without the physical anchor of place, which constitutes to varying degrees a significant component of identity. As mentioned before, the physical settings of life become incorporated into people's identities, and a threat to them is in parallel a questioning of self-definitions.

Examinations of place attachment disruptions can be tricky, especially in the light of considering place attachments as holistic experiences of the environment, or part of other interdependent system of place processes. In cases of disruptions especially due to unforeseen disasters, the profound ties to place and the values of place become fully recognized only after the disruption. Researchers on place attachment disruption use data obtained from people who articulate their experience in retrospect, i.e. looking back at past situations and reflecting on their consequences in the present or future. This data is navigated in a framework which represents phases of disruption often identified from a temporal dimension: 1) pre-disruption conditions which paint the experience of attachment and its intensity as realized in retrospect, 2) the disruption period, explains the events, conditions and reasons for the transformation of place, and finally; 3) post-disruption phase, is a period marked by the psychological strain, and attempts to cope, as well as form new attachments. These three phases are interdependent; conditions in each phase affect outcomes in other phases, for example, intensity of place attachment in pre-disruption phase affects how people deal with grief and cope in post-disruption phase (Brown & Perkins, 1992).

Understanding the experience of disruption is important in studying post-war environments, where a lot of settings and places suffer destruction and transformation. These consideration as well as precedent research about disruption of place attachment has lead this research to look into environmental experiences of war from people's retrospective accounts. Past experiences have the potential of

revealing long-term conceptions of well-being and healing. Current relationship and patterns of interaction with environments can be analyzed and interpreted based on past experiences. While autobiographical accounts relay impressions and attitudes rather than actual observed experiences, their significance lies in uncovering the dynamics of attachment which; according to prevalent research, takes relatively long time to form (Chawla, 1992). Examples of retrospective research include Claire Cooper Marcus's work with environmental biographies as a means for uncovering the deep meanings of home (Cooper Marcus, 1992, 2006). Her methodology represents an "applied phenomenology" which seeks a wholeness between subject and home. Her interviewing techniques aims at bridging a dichotomy between subject and home, by allowing participant to directly address their most intimate places. Other examples include Louise Chawla's study of environmental autobiographies; which show that childhood interaction and encounter with natural environments relates to future environmental attitudes (Chawla, 1999), Edith Cobb's Biographical study and child creativity (Cobb, 1998), and Francis Downing's exploration of place memory and the design of place (Downing, 2000, 2003).

Many researchers have attempted to examine environmental attachments and attitudes through people's memory of places, and place experience. For example, Claire Cooper Marcus (1992) identifies important issues in understanding environmental memory. First, remembering places is linked to an individual's sense of having control over space, as a mechanism for asserting positive sense of identity. This is reflected, for example, in how people decorate their significant spaces, to achieve psychological comfort and personal well-being, when places reflect the person's identity, they become an extension to that identity. When disruption to place attachment occurs, many people experience a sense of losing a part of their identities. Secondly, people derive a sense of well-being from the continuity with past experience of place and people especially childhood places, and use them as a "psychological anchor" in changing circumstances and settings and in relation to their developing identities (Cooper Marcus, 1992).

Environmental biographies are those past encounters with places, people and environments, which not only act as backdrop settings for life events, but are actively engrained with how are identities are shaped, and narratives are formed. In her research on memory and the making of place, Francis Downing defines memorable

places are significant “realms” that exist in everyone’s life stories regardless of their cultures and backgrounds (Downing, 2003). Knowledge of these places is significant to a person “emotionally, experientially and objectively”. According to Downing, Memorable places are significant for a myriad of reasons. Some are remembered with a sense of well-being and comfort, fear or distress, dependence or interdependence. For those working in environmental design disciplines, memory of past encounter and childhood places provide a ‘bank of images’ and emotions that can be unlocked, consciously or unconsciously, as a source of creativity (Downing 2003, Bastea, 2004). However, less known is the effect of user’s place memories on designer’s approach to place meanings and how, for example, it could feed into rebuilding affected zones. The first step in addressing this issue is giving war-affected people a voice, and a chance to relay their life narratives, to not only get a deep understanding of attachments to place, but to contribute to the envisioning of restorative post-war environments.

In post conflict environments memory plays an integral part of people’s adjustment and adaptation to new realities. In the critical period that follows war, people are navigating their lives and livelihoods, between the desire of continuity with pre-war past, and a hopeful outlook that sees destruction as a chance for planting a stronger more desirable seed in the healing landscape. Whether places of attachment have suffered destruction, or left behind in the rush of its dwellers seeking safer zones, people’s memories of those places keeps an invisible thread that is not easily severed. People carry the frozen images of their ruined or abandoned houses in their memories as a baggage wherever they go. Syrian architect and artist Mohamed Hafez’s work represents this idea very vividly. He creates miniature visual models of the war narratives represented in damaged spaces, streets, houses and rooms placed within a refugee’s suitcase (Figure 2.5).

Children absorb these attitudes from their social context, as well as the values reflected in the physical settings, whether neglected, renewed or rehabilitated. It is concluded that using biographical accounts as a methodology of testing psychological well-being and environment theories, has a potential for post-conflict contexts and children’s adaptation and resilience.



Figure 2.5: From the Baggage Series, Mohamed Hafez (Url-1).

2.4 Design and the Natural Place

This section explores the commonalities between the theoretical constructs of Biophilia and place attachments that make up the conceptual framework of this explorative study. This understanding leads to considering the role of design as social activism, how it can be used by environmental design professionals to help solve issues of disaster struck zones and displaced communities.

2.4.1 Integrating Biophilia and Topophilia

In their investigation of greening in disaster affected zones, Stedman and Ingalls (2014) refer to ‘the natural place’, as a concept that integrates both Biophilia and Topophilia (Figure 2.6). This understanding covers the intersection between people-nature and people-place interactions. Biophilia is biologically and genetically based, which means it “transcends the particularity of place”. Place attachment develops from the symbolic meanings and values people attach to lived places (Stedman and Ingalls, 2014). As mentioned before, a desire to be affiliated with nature can be a mechanism by which people are drawn to certain places, which precedes or is part of the process of developing place attachments. In this sense, Biophilia is considered to

be “a crucial aspect” of Topophilia. Interaction with nature is in most cases bound by place, and makes one component of the many layers that make up place meanings. While many studies of place attachment show that social relations are the most important in forming attachment to places (e.g. Brown et al. 2003), the quality of the physical environment is important to consider in light of the symbolic meanings that mediate emotional attachments (Stedman, 2003). Rather than outweighing social learned values of place to biological inclinations, which are already intermingled, it is safe to posit that attachment to places is a complex phenomenon involving a nexus of relations to social and biophysical elements in the environment. Sack (1997) summarizes this in his statement;

Any place draws together nature, meaning, and social relations. The character of that place depends on this mix, which is always in contention and changing. As geographical beings, we negotiate the interconnections among the three on a daily basis in each and every place. (Sack, 1997)

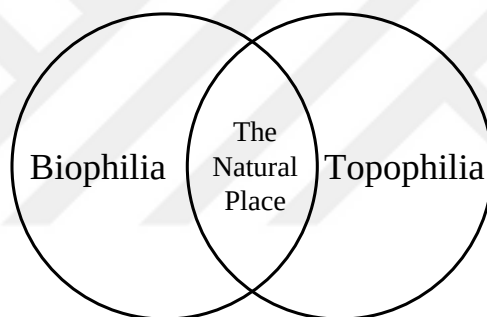


Figure 2.6: The intersection between Biophilia and Topophilia. (Steadman & Ingalls, 2014)

What Biophilia and Topophilia have in common is hypothesizing the existence of emotional bonds and ties directed towards certain aspects of the environment, whether natural or social. How people experience these ties, the dynamics of those bonds across a temporal extent, and with the presence of transformative life events, like displacement or conflict, is a key concern of this thesis.

The natural place fuses nature and symbolic meanings. The presence of nature itself can be actual, analogous or symbolic. Recent studies from environmental design fields which advocate the Biophilic design paradigm have already shown how the built environment can be designed to work towards achieving meaningful nature-infused places. In their study of Biophilic design patterns, Browning et al. (2014) identify 14 patterns of Biophilic environments distributed across three categories. 1) *Nature in place*, includes any actual bio-physical elements of the natural

environment, like the presence of vegetation or water. 2) *Nature analogous*, are elements or forms in the built environment that resemble forms found in nature like the use of fractal geometry. 3) *Nature of place*, describes experiences found in natural environments, like refuge, prospect and mystery, emulated into spatial experience of the built environment (Figure 2.7). Calls for creating restorative environments are often concerned with the first category, and more research is needed to conclude the benefit of emulating the symbolism of nature experiences.

The conception of the natural place, looks at not only at the nature in place, but move beyond that to symbolic and indirect experiences of healing nature. Besides participating in greening activities, *urgent Biophilia* as Tidball (2014) terms it, can be a driver for designers to look at the spaces they create, whether in how present is nature, or how space can emulate experiences in nature that lends a sense of refuge and well-being to vulnerable children. Symbolic meanings of places although relatively slow in forming, dynamic and shifting with the passing of time can be cultivated especially in post-conflict environments. this can be done with a combination of approaches; preserving old meanings to provide a sense of continuity, getting rid of old meanings that are obsolete and judged by communities to be no longer desirable or the creation of new meanings that help in the healing process, like places of hope.

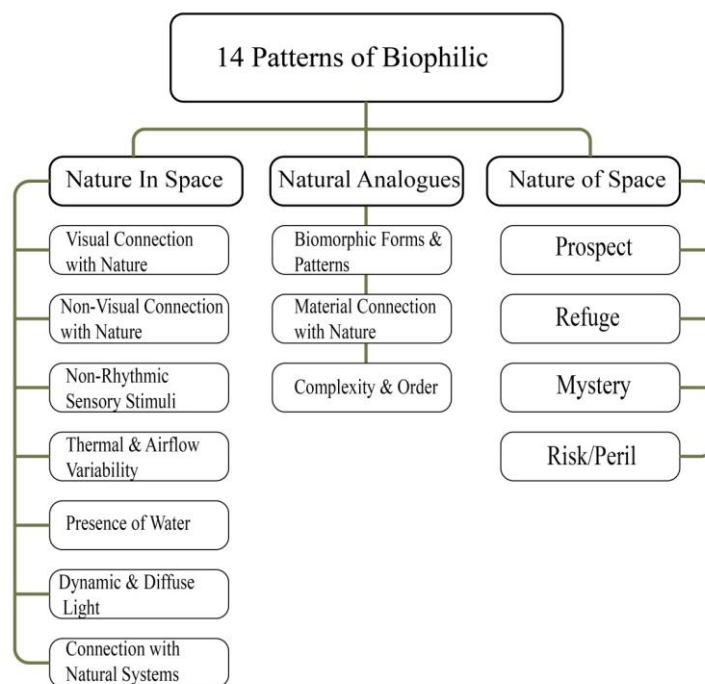


Figure 2.7: 14 Patterns of Biophilic design adapted from (Browning et al, 2014).

To summarize, rebuilding environments in war-affected zones in light of Biophilia and place attachment, leads to considering actual natural components or symbolic nature in the place as a source of restoration, and the possibility to participate in greening activities as a healing practice. Values, meanings, and place identities are crucial to understanding why and how people attach to certain environments, which could have serious implication on how these environments are rebuilt. Reaffirming attachment to places should consider what people view as important in their context, what values and cultural meanings are imbued in places, and what desirable future hopes and visions. And finally, designing post-conflict environments should be attentive to the habitual experiences, day to day life, which are a significant aspect of forming attachment to places and necessarily a part of the sense of place (Figure 2.8).

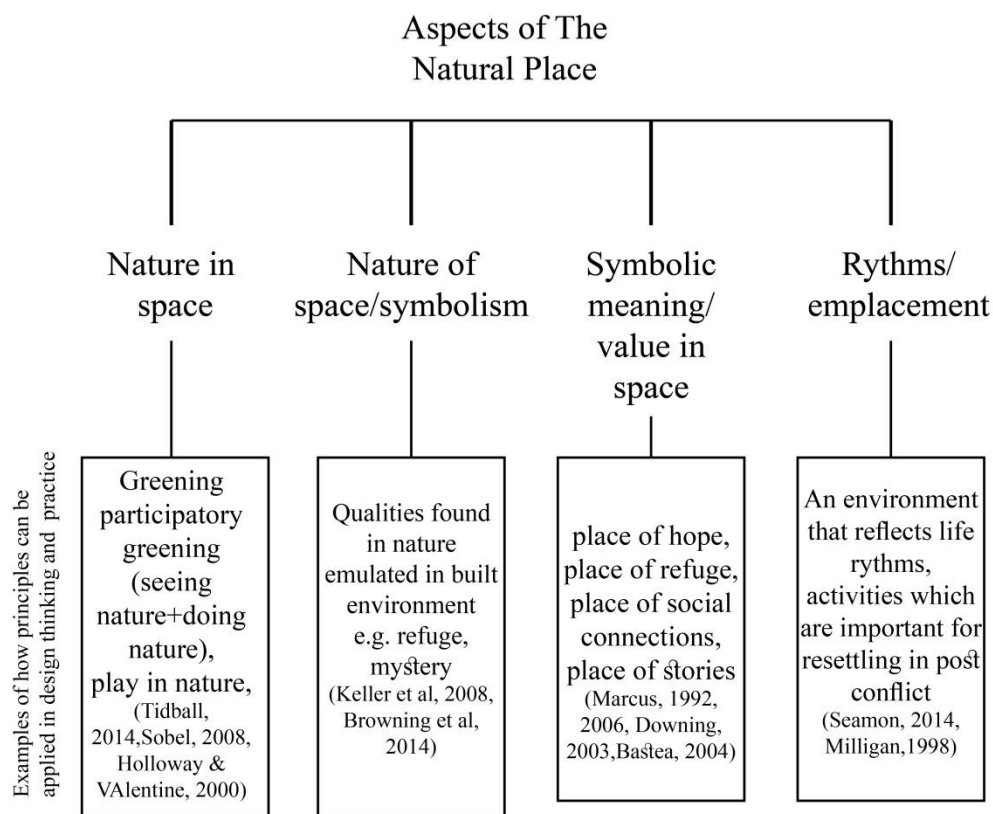


Figure 2.8: Aspects of natural place in post-conflict rebuilding.

2.4.2 Design as Activism

Design enjoys a significant spot in the consumerist culture. However, among all economically driven forces, there are a group of designers whose intentions are to contribute to solving societal problems, which are not lacking in our day and age. In Design for the real world, Victor Papanek (1984) calls this *socially conscious*

design. In Bell and Wakeford's (2008) *Expanding architecture: design as activism*, numerous architects designers, landscape and urban designers share their projects and experiences on how they used design in mobilizing social change and improving lives of communities affected by poverty, climate change, social injustice or other risk factors. Common features in humanitarian design is the cultivation of local resources, materials, and the participation of end users and communities.

Esther Charlesworth notes, that although disaster stricken areas are large across the globe, the number of architects and designers equipped to deal with post-disaster rebuilding is alarmingly small (Charlesworth, 2014). The political economy of the design profession is placed way beyond the reach of vulnerable populations, good design is hard to afford, and so governmental plans resort to hasty reconstruction solutions often led by engineers, which are often lacking in spatial awareness, and relating social and psychological needs to the built environment. The rise of a humanitarian architecture movement is aiming at bridging this gap, and making a case for governments and organizations to invest in good design (Charlesworth, 2014). Kirtee Shah, describes humanitarian architecture as the "profession's healing gesture: a growing frontier in architecture that increasingly inclusive (Charlesworth, 2014). Although the 'humane' role of architecture is seen by some as a part of every architect's manifesto, it is only recently that fully non-profit architecture agencies have started forming a sector, examples of which are Architecture for Humanity, Architects Without Frontiers, Architects for Peace, and Emergency Architects.

Post-disaster rebuilding is rife with complexities, and context-specific problems that are increasingly on the rise. Conventional work process seems to be obsolete. Architects are sometimes drawn to post-disaster environments, because they have the illusion of a tabula rasa, a blank stone where they can engrave their names. However the reality is far from that. Architects are not only required to work with all involved parties, envision efficient rebuilding processes, make their way through the various complexities of power relations, but also work on the eye level of disaster affected people, their resettling and needs. In this regard, many case studies prove the benefits gained from participatory design. Allowing people to express their concerns and needs can contribute to the creation of hope and healing environments.

Theories from environmental psychology, like restorative environments and place attachments, can help architects and designers in dealing with social problems and its

relation to space and place. These theories have contributed in rethinking children's environment and its impact on the child development, reshaping many institutions and settings to respond to children's developmental needs. In chaotic environments these needs become specific, brought into focus through social activism. Disaster affected populations are often treated as passive victims, which is not only reflected in social and political reforms, but also in the transformation of the physical environment. Humanitarian architects are by necessity individuals who are attentive to people's experiences, hopes, fears, suffering and joy. They act as mediators to the rebuilding process.

2.4.3 Summary of literature review

How we view childhood and its relation with the natural world affects the way we approach children and environment discourse. On the one hand, it is recognized as a right for children to live in safe, health-giving environments; that not only supports their immediate physical and psychological health, but provide nourishment for spirituality and positive emotions necessary for their long-term well-being. On the other hand, children's environment should act on building empathy and care, guided by the social context, in order to build an environmental attitude for future generations, able to face the ecological crises with strength and compassion. Having an attitude of care towards the environment builds an emotional sustainability, which have become necessary in face of a weakening relationship between people and environments.

These two aims are only possible to envision in a relationship of reciprocity between children and the places they occupy. In times of conflict, this relationship is threatened. Environments become dangerous, unable to withstand constant damage and neglect, they become an impediment, not a facilitator for children's healthy development. Interventions for displaced people or for people struggling to resettle in war-torn environments are often superficial and momentary, they rebuild foundations and walls, but they do not rebuild connections. Connections and attachments are what keep people operating in a social context, within an environment that reflects, and respects, their cultural dynamics and life rhythms. In a war environment, the very concept of place, with its diverse spatial, social and cultural connotations, is constantly on the threat of being wiped out. The question here is: how is this change

experienced in the eyes of children? It is difficult to tell. Children possess little in the way of reflecting on their feelings in certain situations, especially if they come as sudden interfering and unfamiliar event. This issue could be tackled with a retrospective look, with an aim to dissect the phenomena of war, childhood and place. Although biographical accounts of childhood are coated with the meanings we make, and with the ideologies we develop within ourselves, it gives us a chance to take a peek through a window of the past, to attempt an interpretation of past experiences. Children live in different places from home to school to neighborhood. War and conflict cause changes to those places, whether in terms of their physical milieu or the lived-in experience of place. It can be said to undergo place evolution, seen from across a temporal perspective, of pre-conflict, conflict and post conflict. Our aim is to find out, form an environmental lens, and a perspective of place and its evolution, what contributes to children's resilience, hope and healing and what on the other hand impede them, how is the child-place relationship affected by distressful events, and how can it be reconciled and reversed in the aim of promoting well-being.

The interpretation of war narratives is informed by a knowledge of the context, and the previous theoretical framework which finds its origins in diverse disciplines like environmental psychology, geography and architecture. Theories have been reviewed that have a potential for a discourse on healing and well-being, like restorative environments, Biophilia, place attachment and Topophilia, which have contributed to the discourse of children's environment. A theoretical model is suggested, where by these concepts are integrated to form what some researchers have termed as 'the natural place'. This conception includes not only the necessity of encountering nature in place, but also the possibility of emulating nature experiences as restorative. Life rhythms and symbolic meanings of place also play a crucial role in how people form and maintain positive attachments, and should be considered in post-conflict environmental design.



3. RESEARCH METHODOLOGY

The previous review of literature has shown that studies in place attachment are best tackled with qualitative methodologies due to the complexity of the phenomena and the richness of subjective experiences and meanings that are a crucial part of forming attachments to places. The main goal of a qualitative research is to, “draw accurate descriptions, discover unnoticed interconnections, and identify practical understandings that might be of human and environmental benefit” (Seamon, 2015). The review has also shown that studying attachments in conditions that cause disruption are analyzed within a framework of three disruption phases; pre-disruption, disruption and post-disruption. Components within each phase are affected by the others. People’s well-being and resilience in post-disaster phase is affected by the intensity and type of attachment pre-disaster as well as the intensity of transformation in disruption period.

Based on these considerations, this thesis explores children and youth resilience in post-war environments, by adopting a retrospective approach. The problem is dealt with through traditions within qualitative research. This allows for the cultivation of the rich experiences of war-affected people and uncover deep connections among the different environmental experience constructs and theories like place attachment, Biophilia and sense of place with healing and resilience. It is also worthwhile to mention that dealing with minorities or vulnerable groups in research, like war-affected children has brought about the conception of research and design as advocacy, which aims at bringing out the voices of participants, and opening the door for making their lives better (Creswell, 2007). Qualitative research as advocacy/participation is a worldview that professionals within environmental design fields have been less keen to adopt. However, with the recent cases that promote design as activism, this framework can also be transformed into research. With the myriad of theoretical facets, a qualitative approach has the potential of exploring deep connection between place, healing and resilience. Furthermore, a qualitative

approach allows the researcher to cultivate their insider knowledge, feeding into an interpretive process that navigates back and forth between contextual issues, theoretical constructs, and people's experiences (Creswell, 2007).

This chapter outlines the methodological strategies and procedures that have been used for this study.

3.1 Research Strategies

The literature review has established a connection between Biophilia and Topophilia from an environmental experiential basis. *Experience* is therefore a keyword in this inquiry. It is the aim of this study to examine how knowledge from children's experiences of war environments can be cultivated for environmental design concerns of post-war rebuilding, by focusing on *the essence* of place-based experience in war and conflict environments. One of ways in which human experiences can be explored is through the collection of narratives, life histories or biographies (Creswell, 2007), which relates memories to current examination of attachments and environmental attitudes and value relations. This qualitative approach of narrative inquiry focuses on the holistic account of life experience. (Clandinin & Connely, 2000) According to Clandinin and Connely; narrative inquiry; which can be said to be both a method and an inquiry, derives from Dewey's educational philosophy that centralizes experience in human beings' development and knowledge building. Narrative inquiry is usually carried out with a small number of individuals, whose life stories and experiences showcase the bases for learning and development, on the individual and the social level. (Clandinin & Connely, 2000). Narrative inquiry is "a way of understanding experience. It is a collaboration between researcher and participant, over time, in a place or series of places, and in social interaction with milieus" (Clandinin & Connely, 2000, p.20).

In a narrative inquiry the researcher attempts to get a chronological account of life events, restructured and understood in light of perceptions and meanings derived from these experiences. Narratives are both holistic, in the sense that all events amalgamate in the examination of a certain phenomenon, and detailed, providing specific insights to keystone experiences along the way. The researcher attends to three commonplaces between the researcher and the participant- Temporality is related to the dynamics of time, how identity, place and time is changed and

constantly revised with the tension between past, present and future. The second dimension is sociality, or the social conditions that surround and influence the narrative, which can be understood by the collaboration between researcher and participant, this will be explored more in detail in the role of the researcher, and finally, place; which is the physical concrete environment where stories unfold. Settings where life stories take place, can be explored directly, or as reflections and mental images from participant's descriptions and impressions (Clandinin & Connelly, 2000) (Figure 3.1).

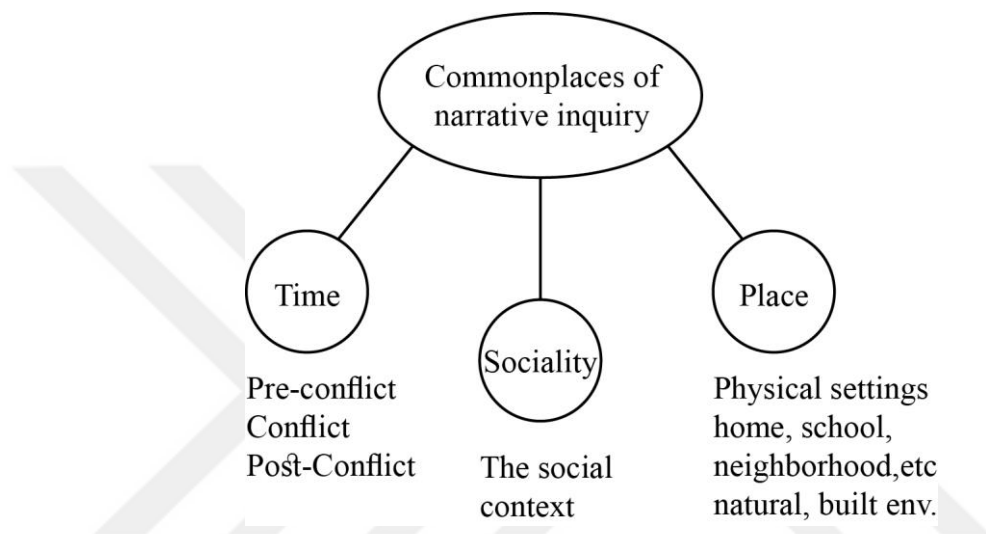


Figure 3.1: The three commonplaces that should be attended to in narrative inquiry adapted from (Clandinin & Connelly, 2000).

The focus of this study was shown to be the socio-spatial concept of place, as physical settings that are saturated with meanings and emotions, and how it figures in studies of childhood resilience. This conception of place was shown to have phenomenological resonance (refer to chapter 2), meaning; understanding human experience by providing descriptions of how individuals make sense of their social and spatial world. A phenomenological approach ultimately seeks to arrive at the ‘essence’ of those experiences. (Creswell, 2007) In this case what does it really mean to experience intimate places, and living spaces in the impinging presence of war, post-war environments, and its relation to a child's resilience. The collection of war narratives are therefore examined with a phenomenological lens, and the utilization of *interpretive phenomenological analysis* (Smith et al, 2013). The Phenomenological approach is an attempt to access to participant's meaning, to provide an “insider” look into their life-worlds. The interpretive process is therefore

necessarily controlled by the researcher's own conception of the phenomena under study (Smith & Osborn, 2013).

3.2 Design Strategies

Following the narrative inquiry approach, this research is designed to collect data from war-affected people, who can relay childhood memories of war and conflict. In this structure, war experiences are organized and interpreted in the framework of attachment disruption phases. The data is analyzed thematically, each cluster of themes are related to certain attachment phases. The research is mainly based on collecting data through open-ended semi structured interviews. Participants in this qualitative study have been chosen according to the following criteria:

1. Participant has spent part of their childhood years (anywhere between 6-15 years old) going through war or conflict events.
2. Most of memories are vivid and can be easily remembered, so it is important that not a very long time has passed since events of war.
3. All participants have lived through the same war, or conflict events. This allows for better consistency and comparison in the backdrop of contextual issues.

Following this criteria, as well as considerations of the role of researcher; which will be discussed in more detail, as an insider who has knowledge of the physical and social context, and the war events, seven participants are chosen from Iraq, who have gone through the 2003 war, known as the American invasion of Iraq, as well as the following events of sectarian conflict which spanned a period of 4 to 5 years. The number of participants was arrived at according to the principle of saturation; meaning, getting response from more participants would have yielded what is judged to be minimal theoretical contribution to the thematic analysis.

Data collection is carried out through in-depth interviews with research participants. Interviews are open-ended and semi-structured. Narrative research requires constant navigation between interviewing and analysis, follow up face-to-face interviews or indirect correspondence is carried out whenever possible. Initial interviews are usually set up to allow comfortable space for participants to share their stories, and establish trust with researcher. Subsequent correspondence focuses on questions derived from the theoretical framework, and focuses more on environmental and

place issues, which advances the narratives into the intended phenomenological interpretive analysis approach (Figure 3.2). All interviews are conducted in the Arabic language, of the local dialect of the participants, and are translated to English by the researcher during transcription.

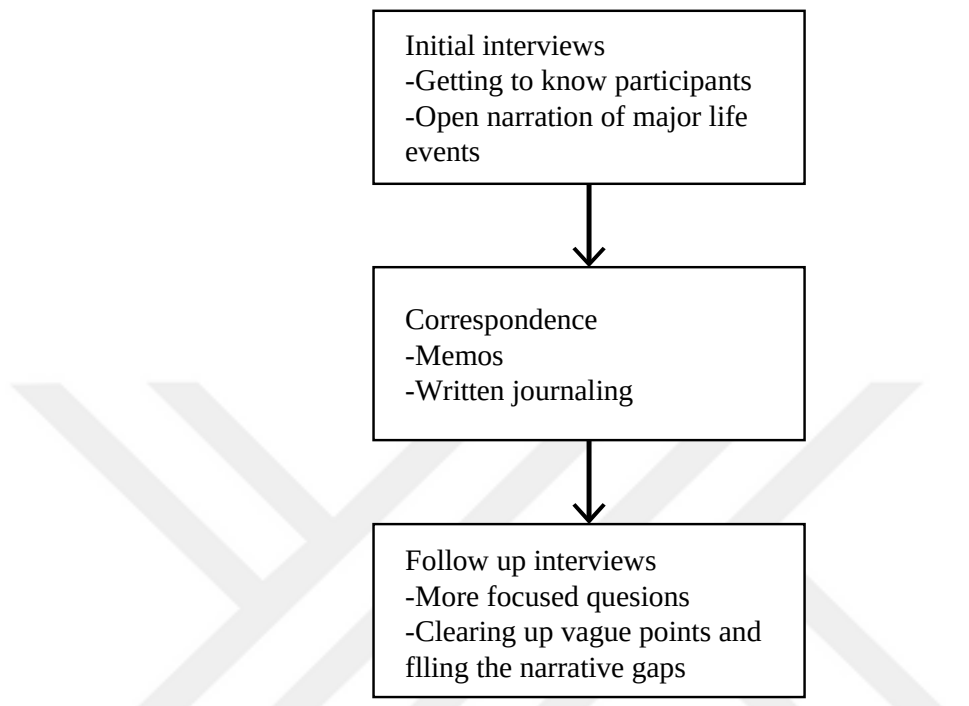


Figure 3.2: Stages of establishing correspondence with research participants.

Follow up interviews were conducted on the base of exploring theoretical connections with narrated experiences. Questions are assigned to each phase to explore disruption of attachment. Knowledge on pre-conflict attachment is obtained by asking participants to reflect on their childhood places prior to the start of war. These descriptions include the physical characteristics as well as the activities and social relations, who these children played with for example and where. In the period that starts with the approach of war until relative stability has been felt, participants are asked to narrate the major events that have left an impact on their memory. How did they and their families react to these events? Moreover, how were the physical as well as the social components of place transform during the war/conflict period? Finally, post-conflict conditions are explored with a focus on what these individuals felt and acted in order to cope with changing atmospheres and environments. These changes can either be due to displacement, by adapting to environments in new countries, or dealing with the same settings after they are transformed because of the war. How did these conditions affect the participants' ability to form new

attachments, and what are the environmental qualities that could be thought to contribute to their resilience and psychological healing (Table 3.1).

Questions are focused on exploring connections between narratives and theoretical considerations that regard both theories of place attachment, or Topophilia, (Table 3.2) and the child's connection with nature, or Biophilia (Table 3.2). The answer to some of these questions is sometimes implied within the participants' narratives, and thus not as directly approached. It is also worthwhile to note that different kinds of questions arise according to the flow of the narratives. The tables below represent categories within the two main theoretical constructs, and a sample of questions asked in the interviews. Questions on place attachment were designed to allow participant to reflect on both physical qualities as well as meaning attached to places, and their role in supporting or hindering resilience in war. Some questions determine attitudes and values attached to childhood places, and how these evaluations undergo transformations in war and conflict, as well as the role of nostalgia and special places in adaptation and resilience, which has been shown to have a potential as a self-regulation mechanism according to existent research. A set of questions determines what participants had in the way of exposure to direct or indirect nature as children, and reflect on how that connection played a role in the overall narrative.

Table 3.1: Interview questions related to three phases of conflict.

Three phases of conflict	Phase	Topic	Sample questions from interviews
	Pre-conflict	*Perceptons of home *Actons/ routnes in place.	-Describe your home. -What sort of actvites did you engage as a child? -Describe your school, neighborhood.
	Confict	*Intensity of war events *Changes to environment	-What are the major war events that lef a mark on your memory? -How were familiar setngs changed in the confict period?
	Post-confict	*Coping in displacement *Resilience in post-war environment	-Have you lef your home due to war? -What are the feelings you had when you were forced to leave? -Describe the new environment/ home afer displacement? -How did you adapt to new places?

Table 3.2: Interview questions related to place attachment theory.

Place attachment	Category	Sample questions from interviews
	Characteristics of physical/social environments	-Could you describe your childhood home? School, neighborhood? -What sort of activities did you engage in home,school, neighborhood? -How has the war events affected those places?
	Place nostalgia	-Do you often have a feeling of longing for childhood places? What are the feelings associated with remembrances? -What do you miss most about your childhood places
	Attachment to special places:	-Do you have a childhood place which you associate special attachment to? A favorite place? -At what times/ situations did you often stay in this place? -What does this place represent to you now?
	Place transformation	-Has your childhood home been affected in the war? -As a child, how did you react to/leaf about those experiences -Could you reflect on how you felt about having to leave your childhood home?
	Adapting to new/changed places:	-What are the main changes you felt in settling to new places after the war? -Did you face any difficulty in new environments?

Table 3.3: Interview questions related to Biophilia.

Biophilia/ restorative environments	Category	Sample questions from interviews
	Childhood interaction with nature	-Did you often spend time within natural setting? -What sort of activities did you have in the home garden? -How significant would you say time spent in natural places was to the families everyday life? -Did you engage in any gardening activities as a child?
	Disruption of attachment to nature	-What happened to natural places after or during the war and conflict? -Did you engage in any greening activities after conflict receded?
	Restorative nature	-Do you find yourself drawn to natural places, or views of nature when in times of distress? -Could you describe how war affected the time you spent outdoors? How did that change affect you personally?

It should be noted that limitations to data collection could be ascribed to the participants' willingness to share war stories. Most of them are not used to talk about painful experiences that they would rather forget, or reflect on emotional events especially to a stranger. These difficulties were carefully navigated and considered as part of the interpretation process, as the role of culture in expressing traumatic experiences, conceptions of childhood and resilience. All seven participants who have agreed to this study are young women between the ages of 20-25. Variance of findings in gender differences, or how the response of young boys can be is also a limitation and can be addressed in future studies.

3.3 The Role of the Researcher

In this type of qualitative research, the researcher has a role that mediates the data and interpretation (Denizen & Lincolns, 2003). In this study, the interpretation process is built on the conceptual framework and the contextual knowledge. My role as an insider gave me access to contextual knowledge, which helped in the interpretive process. As an Iraqi myself, and having lived through the events of war and conflict between 2003 and 2006, I share with the participants the same phenomena, context and cultural issues, not to mention the language and dialect which facilitated direct and easy communication.

I was 10 when the war started. The first few months were a period filled with fear, uncertainty of the present and the future. Although surrounded by adults that seem to have gotten used to trouble, in a country which seems to be in and out of conflict every few years, for a child, this was the first time I, and many of my age, have experienced anything like that. However, almost all who have witnessed this war will confirm that the first few months were nothing compared to the horrors that came in the following years. The country was torn, sectarian conflict took the lives of thousands, while thousands others often disappeared and have not been heard of again. This was a time when fear for life has driven many families out of their homes, either relocated within Iraq, or in most cases, migrated to other countries for refuge, especially Jordan, where my family has moved in 2006. Despite the many years that have passed since the war, the instability of the country, the poor conditions, the decaying environment and infrastructure which still suffers due to governmental corruption and poor post-conflict rebuilding plans, and the more recent

battles with ISIS have stood in the way of many people going back to their homes and instead settling and establishing a life in other countries. Whether people lingered in their homes or settled in new places, all of them have had to find ways to cope and adapt to the changing landscape.

As I have lived all my childhood years in Iraq's capital, Baghdad, description of places and living spaces become more meaningful to me. I use the phenomenology of place memory, as well as general research into the qualities and typologies of the physical environment, as a way of solidifying the relation of place and narrative. For example, participant's description of house environment, such as the strong relationship between family activities or children play activities with the house garden, and the meanings associated with indoor and outdoor. Understanding children's school environment is also informed by my experience and knowledge of how the educational system work, and how that is reflected in daily life experiences.

To sum up, I take up an *emic* role, and an insider. This has enabled me to navigate the narratives within their appropriate context and culture.

3.4 Ethics

Conducting qualitative research with the collaboration of participants who have gone through certain adversities in their lives is a matter of great concern to the researcher. Getting data from participant's stories is considered first and foremost a way to deepen our knowledge of human experience. Participants are considered autonomous individuals who make the decision of what part of their narratives and life details should be shared with the researcher. In order to protect their identities, participants are referred to by code names, and any information relating to family, names and addresses are eliminated from the interview transcripts. Ahead of interviews, participants are informed of the purpose of study, how and provided data is going to be used in the study. It is verbally agreed that interviews will be digitally recorded and later transcribed. Interpretive research is ethically bound to be true to the participant's narratives, and is therefore shared with them whenever possible.



4. DATA ANALYSIS AND DISCUSSION

This chapter examines the participants' narratives in light of the methodological strategies that have been introduced in the previous chapter, and illustrate the findings from the interpretive analysis process. The first section will introduce the context of the case that has been chosen, by giving a brief historical account of the major events of war and subsequent conflict. While each case of war or period of armed conflict can have its unique variables and events, the focus is directed to shared experiences which tend to be similar on the ground level.

The organization of the thematic analysis findings stays true to the narrative form. The account starts at the beginning of war and ends with the aftermath. However, what transpires from the participants' interviews could lead to a more organic form. Whenever necessary to the theoretical discussion, such as the role of nostalgia or changing perspectives, the linearity is interrupted in favor of displaying perceived continuity.

The organization of themes is clustered around the period preceding the war, especially in understanding the events and experience of the approach of war [pre-conflict], the period which is characterized by the most risky events of the war itself [conflict] and the period following these events, while not separated by a clear line, it is usually when people start experiencing a return to normality and relative stability, or in some cases when people have moved to new environments outside the area of conflict. [post-conflict] (Figure 4.1).

The interpretive analysis is based on finding themes that explain the connections between the theoretical concepts explored in this research, such as place attachment, resilience and Biophilia. To achieve this, the analysis is focused on understanding the complexity of meanings formed of place experiences on one hand, as well as the frequency or recurrence of meanings on the other. The themes are outlined, and discussed with significant statements from participants' interviews. The emerging findings are then related with findings from the theoretical framework.

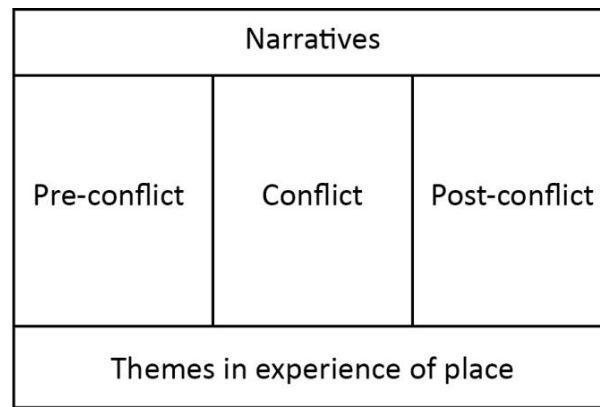


Figure 4.1: Framework of thematic analysis based on three narrative phases.

4.1 The Context of the Field Study: Historical Background

As mentioned before, participants in this study have experienced the 2003 Iraq war. Prior to that and following up to the war events, Iraq was a country not stranger to instabilities; having the legacy of two wars, the Iraq-Iran war and the Gulf War. After the 9/11 events, the then president of the united states George W. Bush stood in front of the public and made a vow to defeat terrorism. A few months later, the Iraqi people, who as it turned out had nothing to do with the attack nor indeed possess the alleged Weapons of Mass Destruction, were suffering the disastrous effects of a falsely justified war. In March 19, 2003, the US along with its coalition forces declared a military operation to rid the country of its WMDs and topple its regime led by Saddam Hussein. The military operation lasted for about three weeks in which the second objective was indeed achieved. In this period people experienced what is expected to be experienced from an invasion, everybody stayed behind closed doors, waiting out the inevitable and hoping their lives, and their livelihoods would emerge unscathed. However, the first month of the invasion had been the most bloody period with civilian casualties counted to be around 4000 in one month. By 2010, the number has according to some estimations exceeded 500,000 civilian deaths, while 1.6 million were displaced, making up 5.5% of the population. (BBC,2011). By 2014 there were 3.4 million displaced people (UNICEF, 2017).

In late 2003, insurgents in Iraq began targeting US forces and their allies represented by the new government and their militias backed by the US. Subsequently a conflict between Shia militias and mostly Arab-Sunni insurgents ensues. The flame of sectarianism is ignited and constantly fed with heinous acts of violent killing, kidnap,

torture and suicide bombing. By 2006, it becomes a full throttle civil war. This period represented greater horrors, as many people lived under threats, fearing cold-blooded murders even in their own homes. This was by far worse than expecting an air raid, many would admit.

The sectarian conflict has naturally extended its poisonous influence to children's lives, who were even labeled in government laws against war crimes with sectarian terms, as Sunni Arabs, Shia Arabs and Kurds. While many a human rights endeavors campaigned for red lining children and not stigmatizing them, mistrust and sectarianism was blind to such calls. Many a witness stories show the horrors that children had to witness, because of that they suffered severe psychological strain and violations to human rights, just because they or their families belonged to a certain group or the other.

I could almost choke and die from fear, when I recall what had happened to my family.” 9 year old Hind, starts to tell her experience of the sectarian conflict that started after the 2003 invasion of Iraq. She continues with great difficulty, “I did not understand what was happening, all my memories are filled with killings, kidnap and displacement”. She adds, while holding her mother's hand “I was four years old when a group of armed men barged into the mosque where we were hiding, after my father and uncles were murdered”, “my heart stopped as I saw my grandfather beaten in front of us”, “What we went through was too much for a five year old” her mother intercedes with tears in her eyes, holding Hind closely “since this incident at the mosque, Hind has been suffering from physical and psychological health problem, that took its toll on her heart problems, which she had since birth. (Yunus, 2016)

Children in Iraq are trapped in a vicious cycle of violence, in a country that seems to move from one conflict to another. The recent battles with ISIS in Falluja, Ramadi and finally Mosul saw the increase of violence against children. Between January 2014 and May 2017, 1075 children were killed, 1300 kidnapped, 1130 injured or maimed and 231 recruited into fighting according to UNICEF's estimations (UNICEF, 2017).

When the fighters came to our village, they asked to speak to the police. They said it was to give them their salary. I didn't have any reason not to believe them, so I took them to the police station. They beheaded my father and killed the others as well. When my mother and I fled, I was injured by a landmine and lost parts of my fingers. Abdullah, 11 years old. (UNICEF, 2017)

Besides the violence that is directed to children's lives, in conflict areas 90% of children do not attend school, they are separated from families, exploited as human shields, or recruited by fighters. Children suffer post traumatic syndromes and are need of psychological rehabilitation. With the help of some human rights organizations and groups, many displaced people have returned to the city of Mosul. However there is long way for people to reestablish their lives and livelihoods, as they return to a city which not only hold the memories of human loss, but whose stones and buildings still bear the mark of war. Infrastructure, facilities, services, homes and schools are all unable to meet the needs of returning families and communities (Figures 4.2, 4.3, 4.4).

When we look at images in the media portraying war children, and look at the numbers, it often conveys a mental image of a damaged society that is beyond repair, of children who all suffer from post-traumatic conditions. And yet the truth is, despite the numerous tragic cases, 'war children' do not all grow up to be angry morally deformed individuals who have nothing to offer societies. In his narrative research with children from the Bosnian war, Lynne Jones (2013) iterates this point. He found that even when children felt anger, grief and sadness, they were not "psychologically disturbed", despite what the media would have us believe. He concludes that "the most significant factors affecting their mental health seemed to be rooted in *the immediate environment* in which they lived, rather than in any traumatic events they had experienced." (Jones, 2013) He also points out that clinical approaches to rehabilitating children assume that their psychological suffering is separate from the surrounding political and social atmosphere and the war events, that perceptions and subjective experiences have no place on a psychiatrist's list of symptoms to be checked.



Figure 4.2: People returning home, Mosul, Iraq. (Url-2)

It is therefore the role of a qualitative research to explore those perceptions, the environmental conditions in light of an understanding of the social and political context and the war events. This aim is carried into the discourse on children's physical environments, in hope of elevating the discussion from providing shelter for war-affected children, to providing rich meaningful places that restore and heal.



Figure 4.3: After the war, Mosul, Iraq. (Url-2)



Figure 4.4: A home in ruins, Mosul, Iraq. (Url-2)

The participant's in this study have all experienced the 2003 war and the following sectarian conflict period. However, four of the seven have left their home country due to increasingly difficult conditions that the country faced. Most have left in the years 2006-2007, to the capital of Jourdan, Amman. the three who have stayed in Iraq wither stayed in their childhood home, or moved elsewhere in the same city. Table 4.1 illustrates some descriptions of the participants who are given code names.

Table 4.1: General information of research participants

Code Name	Age	living place (Post-conflict)	Age when war started
Aisha	26	Amman	11
Dimah	24	Amman	9
Noor	26	Amman	11
Farah	24	Baghdad	9
Zainab	26	Baghdad	11
Sarah	25	Baghdad	10
Leena	26	Amman	11

4.2 Pre-Conflict

In the section participants' interviews are analyzed and the interpretive process will explore themes relating to the experience of place prior to the war events. This is meant to inform the inquiry with knowledge on the types of attachment that children had with their daily places, as well as their connection to natural places, and how these were disrupted due to the war and following conflict.

4.2.1 Place history

"What was life like before the war", one participant; 24 year old Dimah wonders, repeating the question that was put forth.

Normal?.. I suppose there was a degree of normality to it, we didn't wake up every day wondering if a rocket will fall on our heads, or a group of armed men barge into our house, wreaking havoc and killing everyone, and yet, the way I see children live in the world today and how our parents lived, I mean children in normal places, I think about how we were deprived of things that make a child.. well.. normal. (Dimah, 24 years old, lives in Amman)

Dimah; like many other children who were born in the nineties in the capital of Iraq, opened their eyes to a world that they now, reflecting much later on it, was not actually a rosy picture of life. Up until the 60s and 70s Iraq was a fast developing and modernizing country and Baghdad was one of the most developed capitals among its neighbors in the region. It was a magnet for tourists and students, and its people enjoyed better quality services, public life, and freedoms than did the following generations (Figures 4.4, 4.5). Already opening their eyes to the remnants of the Iraq-Iran war in the 80s and the Gulf War in 1990, children and their families were now feeling the effect of the economic sanctions that were placed by the international law and the UN. The embargo deprived the people of the country's main income sources, especially petroleum. The Iraqi currency was affected by a great depression which made for a difficult economic climate where people working in both public sector and private trade had a hard time earning a living. The Sanctions remained in place long after the US military operation ousted the Iraqi army from the occupied Kuwait, as a means of forcing disarmament and putting greater pressure on the regime led by Saddam Hussein and his ruthless Baath party. People often experienced shortages of basic needs like food and medical supplies, and in some regions, this has caused humanitarian crisis. In addition to the great economic difficulties, the Iraqi society in

the 90s was cut off from the rest of the world. Living under the embargo meant that there was no air-flight, no internet, no dishes/satellite receivers, no fax and no international phone calls. Also, due to great electric power shortage, a six-hour blackout was a normal daily affair.



Figure 4.5: Baghdad in the 1950s. (Url-3)



Figure 4.6: Basra in the 1950s. (Url-3)

Suad Mahdi, an architecture professor in the University of Baghdad, argues that all these factors naturally lead to a climate that does not breed good architecture, after all, who cares about good architecture in such circumstances. Architectural education was not exposed to new theories, participation in international events, competitions, seminars and conferences. The majority of the clientele could not afford good architecture, and those who could, mainly doctors, merchants and businessmen, would rather spend their fortune on grand exteriors, especially in the residential

sectors. The construction of these houses and mansions used expensive materials like marble, decoration like chandeliers and statues or icons and were usually “shaped by an array of complex massing -especially masses projecting into double volumes- abundant detailing, and molded in a mixture of styles for the sheer display of wealth”. (Mahdi, t.y.) This has indeed become a design trend that could only be described as a display of illusory wealth, with a background of a constantly declining economy and environment. (Figure 4.6) But what is good architecture anyway?

If it is the production of grand structures and monuments for the rich and powerful, then the condition of architecture in Baghdad is more than fine. But if it is to provide an appropriate environment for the people in general, then it is definitely in crisis, as is everything else under the embargo. (Mahdi, t.y.)



Figure 4.7: Typical house architecture in Baghdad. (Url-4)

While “good healthy environments” were hard to be found, children’s environments, schools for example, did not suffer any less than pretty much all public facilities. Education was of extreme importance. However, like other sectors, educational facilities suffered the stagnation of traditional methods, and poorly kept buildings and equipment. The environment of the public school were also a reflection of the social and political conditions, and their buildings were usually harsh, with little or no access to green areas.

Children who were born in the midst of these troubled times often heard stories from their parents and grandparents about times when things were much better. One participant, Zainab, a 26 year old young woman who now pursues her post graduate studies in Istanbul, talked about those stories she heard from her parents and uncles. They would sometimes talk of a colorful public life, recreational places, cinemas, and the best universities in the region. She admits that much of life after the 2003

war, the deprivation that war brought did not make a difference for her from the previous times, it seemed like it has neither become better or worse.

When I grew up and heard all the stories, I found out that they lived a different life than us. They could enjoy themselves and participate in social events, go to exhibitions and shopping centers, and new things were always on the market. [in our time] there was always a shortage of things, and many things were a luxury. (Zainab, 24 years old, lives in Baghdad)

Dimah, now living in Amman with her family still loves to look at her mother's album. It was showing various pictures from her university, trips and holidays her family used to take. She also liked to listen to stories from her mother and how she spent her university's year.

In those photographs, everywhere is clean and green, it hasn't been a decade but it seems like they were born and lived their youth in another country. (Dimah, 24 years old, lives in Amman)

As was shown from previous research, attachment to places can be developed not only with interactions over a long period of time, but also through vicarious memories that are formed from place histories and stories passed down from parents and grandparents. (Lewicka, 2013) knowledge of places of origin, saturated with family narratives, appear in most participant's accounts, when asked about their childhood. It represents a past time which they identified with as having the rightful claim on place identity, in an environment which otherwise seemed to be affected from a temporary decline, meaning "how our city should have been if it wasn't for." vs "how our city is actually like..", this of course becomes more solid of a perception when a person becomes older. Especially, when these individuals have moved to different environments, which relatively enjoyed better quality of living conditions. In retrospect their childhood environments suffered from "deprivation" as one participant; Noor, described in her story. In her childhood, she would often listen to relatives who have traveled outside the country and brought back presents and photographs. As a child, she remembers treasuring a picture of McDonald's restaurant. She had heard of this place where you could eat in a colorful place and be given a present with your meal, and had imagined that she would visit it one day.

People take these silly luxuries for granted, but imagine the feeling that you couldn't find these silly things, McDonalds and those fancy chocolates bars the brought back, it is a painful feeling to be deprived of all that. (Noor, 26 years old, lives in Amman)

Place histories play an important role in understanding the collective mental images that communities form about their homeland, cities and neighborhoods. These perceptions are passed down to children through family narratives and photographs, and can as a result brew awareness of place identity transformation, and/or, discontent about current situation. From there influence on place attachment can go either way, some like Dimah and Aisha, express greater attachment to homeland and city, expressed in childhood both in long-term interactions and through internalizing the mental image of a greater past. As they grow older this is fed into patriotic and loyalist emotions, which lends way to greater sadness when both have had to migrate to another country. Others, like Noor show less propensity to be attached to historical images of place, but rather to future places that possess better lifestyle, quality, opportunities and life conditions and are more inclined to future oriented conceptions of place attachment.

4.2.2 Intimate places, the meanings of home

The big outside world we saw in glimpses, in special occasions, we would go to a park, a restaurant on the banks of Dijla, that far relative's house in a nice neighborhood which was a total wonder. Our world was our home, and the things that repeated themselves every day within its walls, somehow in the midst of all the ruckus it held us together. (Aisha, 26, lives in Amman)

Being aware of the dominating life conditions, the economic and social dynamics of an environment surrounding children is not enough to uncover the connections that exist in the depth between places, meanings, attachment and resilience. Similarly, as Pallasmaa argues, in envisioning dwellings and houses, environmental designers are often concerned with issues of space and order, or as noted before the grandeur of form and façade. However less importance is given to “the more subtle, emotional and diffuse aspects of home” (Pallasmaa, 1992). we therefore turn to the phenomenology and psychoanalysis of home, to understand what truly matters to a dweller, and the spaces that are the realms of subjective experiences. In order to understand the lifeworlds of the participant, and the physical environment that embodies those lifeworlds, as well as the chaos that is brought to these lifeworlds, the enquiry had to delve deep into how those children lived their day to day lives, the memories they had hidden in, as Bachelard puts it, the corners of daydreaming, attics and oneiric spaces (Bachelard, 1994). When asked to describe their childhood

homes, being, in their answers, as thorough and as detailed as they could, the first expressions were a plethora of meanings of the most memorable attributes that can be related with people, nature and activities, such as; my house was immediately next to my grandmother's, my house was normal, but I loved it, my house had many rooms and a large garden, or my house was large and cold.

Aisha expresses a deep connection and nostalgia to her childhood home. She starts with *"I miss my home very much, I still have a lot of dreams where I'm in it, roaming it's now empty rooms"*

It was a house not so big, and not so small, just big enough to make you feel at home. It consisted of two floors. The second floor had balconies looking towards the garden which fronted the house. My family would often sit there for the afternoon tea time, just before the sun starts setting. I shared a bedroom with my two sisters in the second floor. I was the youngest and my sisters made me sleep on the top bed. I liked that, closer to the ceiling it felt like my secret little space. Many a summer night we also slept on the roof. The heat inside is often unbearable in the summer, and with the constant electricity blackouts we sought the coolness of the roof. You could ask all Iraqi families in the nineties and they would tell you they did the same. (Aisha, 26, lives in Amman)

The descriptions of houses had many physical characteristics in common resembling Aisha's description. For example, all houses are surrounded by front and sometimes back garden areas, while single-family houses are pushed to the depth away from streets, creating more privacy. Houses were either one or two story with an access to usable roofs. These physical characteristics allowed those children to have roaming spaces within their houses. Some participants described activities that were shared with many families in this context, like sleeping on roofs in summer nights. Personal attitudes render descriptions of the same event in different manner. While Zainab mentions this as a practical solution to the heat inside, Leena draws on memorable experience that make this place and activity special. In describing this it gives vivid sense of place that engaged not only the senses but also the imagination, even to a child, a sense of spirituality.

It was very peaceful, in the quiet night, only the sounds of crickets, the air was cool and I would lie there next to my siblings on the house roof, gazing at the stars imagining all sorts of things. I don't know why, but I remember these things clearly, and when I do it feels peaceful again. (Leena, 26 years old, lives in Amman)

Four important recurring themes emerge from descriptions of home: a) Children's mobility and freedom to roam, b) places that engage the power of the imagination and inventive play for children. c) places of sociability and family gatherings and the c)Exposure and affiliation with nature.

Children's mobility is a key aspect in child development studies. While children, and especially girls did not have that much access to play activities outside the house and school, both the indoor and the outdoor spaces, as well as the transitional spaces within the boundary of the house; usually surrounded by high trees and fences, provided opportunities for roaming , inventing games, and sharing family times and gatherings. Sarah's account of her house exemplifies those spaces, and the activities that take place. In her narrative, she also compares her current situations, and her general observation of children in different environments, to those times she spent in her childhood home.

Our play activities were often inventive and spontaneous. We would just walk out into the garden, collect pebbles, play hide and seek or pretend games. The house had many crooks and hidden corners, some spaces clearly unused since a long time. That was the most exciting thing when playing hide and seek, you could hide there for an hour and no one would find you.

Now I live in an apartment, I can see the difference, kids now days don't have that freedom of movement, no garden to play in. if you take the kids to those shared public spaces you have to keep an eye on them, and eventually you get bored. Our houses had that natural protection, when we went out to play, our parents didn't have to worry too much, they just told us to stay away from the street. We spent all the day outside playing in the house garden. Our generation, kids didn't have smart phones and tablets, no unlimited kids shows on TV, if you think about it, it is unfair to deprive people of technology, but in some way that has made us more healthy and lively. Despite all the difficulties, I think we were the lucky ones. (Sarah, 25 years old, lives in Baghdad)

Places of daydreaming and imagination appears in some of the participant's accounts as they talk about favorite spots and places where they like to retreat and be away from others. These places usually have a degree of privacy, hidden among tress, in private children's rooms, or in unused attics. Leena, talks about such a place from her childhood home. She uses these places and times, usually after dark, to not only engage her mind, but also her emotions and bodily movement, in a sort of choreography.

I was a child who loved playing in the garden. I could spend hours in the garden even if I was alone. Sometimes I would stay long after sunset, and my mum would start telling me to go in or I'll catch a cold or something. I don't know, I just was able to stay a long time especially when I had ideas or imaginary stories in my head that I had to play out. so I have to live this story, whether with moving around, dancing or acting out, yes preferably in the garden, better after it got a bit dark, so I feel no one would see me. I carry this habit of moving about when I'm thinking to this day I guess. Imagining scenarios, emotional encounters, playing with ideas. This pacing around helps. Or sometimes I would go into a sort of attic room no one used, even though it was really hot in there in the summer, but I have to get this bounciness out of my system. (Leena, 26 years old, lives in Amman)

These are patterns that have been shown to be common of children's experience of place. Research suggests that children have more opportunities to engage in imaginative play in natural settings. Edith Cobb (1998) finds this pattern in her biographical research which connects adult's creativity and genius with childhoods' engagement in imagination. This also coincides with research concluding that middle childhood is a period where children seek places of their own, away from parental observation as a means of establishing control, asserting identity and as an emotional regulation means (Marcus Cooper, 2006, Derr, 2005 Korpela et al. 2002). Even though most research finds that these places are usually away from home, children in this study show that propensity even when their mobility is limited to the boundaries of the home. What seems to support that is every house's possession of often large garden and multiple rooms and spaces.

Children not only had memorable places and activities within their houses, but also in grandparents houses and relatives' houses, which often lived in close proximity, 4 of the 7 participants lived in direct adjacency to their grandparent or uncle's houses, the rest within close walking distances. Cousins and extended families usually congregate in the garden for playing games. Social gatherings were an important part of life rhythms, and the layout of houses supported those patterns. Farah identifies with home as the place that brought together family members and extended family and relatives. Playing with children and helping with gardening activities were also a significant part of these social gatherings.

The thing I miss most about my childhood house, is how everyone was around us, we lived directly next to my grandparents' house, where my uncle and his family also lived. We children made quite the lot, gathering every day, playing all sorts of games, and helping the adults with gardening. My grandparents grew all sorts of things in their garden. I can't forget

that delicious grapefruit we helped pick, there were lemons and peaches, and dates were a delight. We helped grandfather prepare juices, pickles, and all sorts of delights and store them. (Farah, 24 years old, lives in Baghdad)

The images of home that emerge from participants' show in most cases that children's connection with people and nature was nourished. The identity of place and the meanings of home were often related with this quality. All of these children had a direct exposure to nature, and indeed a daily dose of it. Children also could participate in gardening and fruit collecting activities. In the nineties, families in Iraq, of middle and high income, often gave a lot of time and effort in maintaining their gardens, they were considered places that have a cooling effect in the harsh weather, nodes of activities, play for the children, and family gatherings as well as a source of fruits, dates and other edible vegetables. They had a high degree of privacy due to the often high fences and/or high vegetation separating the house and garden from the street. Noor's family had spent lots of time and effort on their house garden, as she shared her house's photographs, she explained the diverse activities they created in and around the house, like areas of dense vegetation for cooling effect, a swimming pool, a children's slide, and sitting area where the family spent time in the cool afternoon hours.

These patterns can also be found in memories of neighborhoods. Farah remembers playing in the street with neighbors. These streets were often safe and quiet. Children congregated and played games, chatted or visited nearby markets, which gave their neighborhood a liveliness she recalls missing after the war.



Figure 4.8: Children's slide in Noor's house garden.



Figure 4.9: Noor's house garden.

But even home, whose attachment conveys that metaphor of a close protective person, can become saturated with undesirable memories that contaminate the attachment. Zainab's father had died when she was only six years old. She lived with her mother and three sisters. Her mother was often volatile and easily aroused. Zainab had some difficulty mixing with school peers. "In school I don't remember I was ever happy. I was a sad child. My family would tell me to study, that's it." She explains. She expresses a sense of detachment with both people and places, and it is reflected in any thought of future residence.

I am not attached to any place- home is where I am-where I am content- I don't care if it's next to the sea, in a tall building, have a nice view or not. (Zainab, 26 years old, lives in Baghdad)

It appears that remembrance of home, and indeed future concept of being-at-home is tainted by the tragic event of losing a parent, and the following disturbing war events. Any notions of nostalgia are repressed, places are mainly recalled in relation to tragic events. When asked to describe the house she lived in, she begins by saying that it was "large and cold". Her mother used to repeat these words after her father's death, that it was as a constant nuisance for her father's sickness, eventually causing him to lose his life. The lush jungle-like garden surrounding the house is recalled in relation to two unfortunate incidents, a burglar, and a fire that caused the death of an electrician. Since the loss of her father and the accumulation of unfortunate events surrounding the natural feeling of safety attached to home, the threads of cherishing the place is replaced with a sense of detachment, and unlike most other participant's descriptions, it becomes the realm of sad memories. This attitude is also directed to

other settings and people, like having difficulty of making friends in school or university.

A sense of deriving hope, well-being and a positive adaptation to new post-conflict reality can be explored from how children develop meanings and attachments to home, and how these meanings contribute to their resilience. Zainab finds a sense of strength in severing emotional ties, with both people and places, focusing on an individual independence, and a stress on practicality of someone veiling the vulnerability of past burdens, while other participants, like Leena and Noore maintain a positive memory of home and what it offered as a shelter in times of distress. Others, like Aisha and Dimah express stronger nostalgic feelings, by constantly referring to how much they missed their home, their desire to go back and remembrances of their day to day life and social relationships. The process of reconsiliation is in part a coming to terms with, 'who and where I was', and 'who and where I am now', the sense of continuity that is provided by being attached to places. memories and meanings exist between a 'before' and an 'after', a "conflict between two spaces that never ceases to exist" as Catherine Hamel describes her homeland after the war (Hamel, 2004). This suggests the healing process must touch upon the development of meanings associated with a state of being-at-home, the role of nostalgia, histories of place and place identity.

We get glimpses of life histories and place attachments formed to childhood places through the life rhythms. These houses that appeared in the participants' narratives are open to the inside, settings of daily life that are inwardly drawn, having little interaction with the outside world. They are kept alive by the dwellers' willingness to make life and liveliness despite the constant reminders of abnormality. Families do that with the practical concern of solving daily problems, such as sleeping on roofs to escape the heat, planting trees for shade and privacy and edible gardens for times of shortage, these were families who were dependent on their homes to provide that flexibility, to provide healthy development for their children, who would otherwise grow up different from other children, and their homes were dependent on their constant care. The interdependence between home and dweller is therefore a necessity beyond that of functionality, and its strength is tested to the extreme in times of war and displacement. Intertwined with that relationship is an affiliation

with nature, seen in the small comforts and restorative family time in gardens which have unconsciously become a part of their perception of being-at-home.

These experiences of home represent that intersection between Topophilia and Biophilia, which is also connected with the social relationships, and family ties. In this case it is hard to separate the symbolic experience of nature from place attachment. Nature becomes an element of being-at-home. This attachment has also clearly been supportive of people's resilience in troubled times. However, what the war has brought about was not only the threat to life, but a threat to take apart those interdependent relationships, thereby adding the risk of contaminating the meanings of home.

4.2.3 Place atmosphere

War has a dramatic impact on a sense of place. "Everyone felt the approach of war" is an observation repeated in all participants' stories. In 2003, a few days before the first air raid, people were preparing themselves for yet another difficult period. They would stock on provisions and store water in case of shortages. For fear of houses being damaged from the impact of bombs, they boarded up windows and hid precious things. A few hours before the first wave of attack, the atmosphere was ominous, streets empty, children already stopped going to school. And yet, most parents, not being a stranger to times of conflict, were facing the upcoming calamity with a sense of resilience, giving children assurance and providing comfort, and a sense of normality as much as they can. This was also a time when rumors brew, predictions mixed and images of underground shelters fed through the local news channels.

There is no way we could have chosen to hide in a shelter" recalls Nour, "the picture in your head of a shelter is horrible. A place of death. Thankfully my father always had this idea of, wherever you might go, death will come in the end, so we would linger in our house and whatever may come, so be it. (Noor, 26 years old, lives in Amman)

People had little communication with the outside world; some of them barely had any news besides that being broadcasted in official local news outlets and radio. Others however took the risk of buying banned satellite dishes to follow the news, mostly from Aljazeera channel, which unlike local news channels were presenting the true disturbing image, of inevitable invasion to a country whose military power

was unable to resist, promising the start of events that will not only change the country but the entire region.

What happened these few days before the war actually started? It was as if we could feel something big was going to happen. It was in the air. That acid smell of danger. Something that will perhaps change our lives. While we children continued to go about our daily affairs, our world seemed to shrink. There was no going to school, no going outside the house. Our parents were pinned in front of the news listening to every new development. (Sarah, 25 years old, lives in Baghdad)

Not only was movement crippled, some neighborhoods were emptying of their residents. Some families had decided to escape the air raids by temporarily moving out of the capital, usually to relative's houses outside the city. One of the most atmospheric descriptions of the approaching war appears in Leena's story of the journey she and her family took to a place of refuge outside the city. The stark images were, according to her, imprinted in her memory. The journey was planned hastily, family members packed in a car and venturing into an unknown place for a temporary stay. Leena was sitting in the backseat closely packed with her mother and two siblings. Her father was in the front seat next to the driver. They drove on the verge of sunset; slowly everything was fading into darkness. She remembers that "Passing through the streets of Baghdad, electricity was cut, many cars leaving the city, streets seemed abandoned and dusty". (Leena, 26 years old, lives in Amman)

Beyond the last remnants of the city borders they were driving in a harsh landscape of dusty roads and rocky hills. They tried to avoid the highway, fearing to get targeted. On the highway, cars didn't even have their headlights on sometimes; they didn't want to be picked up from above. Many times they avoided driving on asphalt roads. On that road the encounters are vivid, from the small car window, the 10-year old witnesses the dark night sky burn, flashes in the sky and the instruments of war.

These moments come to mind. A dark night sky, and in the distance a great fire. I later knew that these were oil fields being burned for some sort of camouflage or something.. And then, three or four flashes in the night sky, which I think were anti missiles. Huge trucks on the road, passing next to them we could see the heads of missiles and rockets peeking from under the thick beige cloth covering them. (Leena, 26 years old, lives in Amman)

A charged atmosphere does not only leave visual impressions on the memory, but the sounds associated with planes, the impact of rockets, and the shaking of the ground are elements that rise to the surface of remembrance. Farah was 8 years old when the

war started; she recalls the constant expectation of noises, and the way it caused life to pause, waiting for the worst.

At first there were sirens, two or three times a day, whenever we heard them we all ran to one room. There we sat silent waiting for it to pass. Then comes the sound of explosions. One, two, three. Sometimes the house shakes when a plane flies over. We lived in horror because our house was close to governmental buildings. Then after a few days the sirens came no more. There were the sudden explosions that gave you a jump, that broke your house's windows. After a while there were sounds of bullets, like there was fighting in your backyard. I will never forget these sounds. (Farah, 24 years old, lives in Baghdad)

The impact on a sense of place is not only felt in these moments before the first impact, the scars of places remain for a long time to come. In this long and exhaustive war, even after the worst of the sectarian conflict has receded after the period of 2006-2007, people could still witness remnants of the war, in the streets, in public places, damaged shop fronts, decaying buildings, checkpoints and blast walls. (Figure 4.10) "After the war, our Baghdad was no longer itself, it was a city of blast walls and checkpoints" remarks Farah, as she recalls her daily trip to the school, years after the war has officially ended.

Changes in sense of place are associated with emotions that range from disturbance, shock and grief. The constant presence of barbed wires, restricted areas, checkpoints and blast walls, as well as the presence of military supports these coming-of-age children's view that as places have become under the control of invaders and militias, so has everyone living in those places. The physical damage done to places is a feature of all wars, their lingering presence leaves off an impression of an unhealed wounded body. In *Architecture and memory*, Architect Catherine Hamel uses this metaphor throughout her reflection of post-war Lebanon where she was born and spent her childhood. She describes the alien presence of things in the streetscape that were left after the bloody civil war.

Outside, where once there were memories of happiness now lingered the smell of death. Driving through the ruins, I felt like the late arrival at a murder scene. The body had been cleared away, yet the blood still flowed. Driving up to a checkpoint was a normal occurrence of this war. Your arteries, your veins, each possible path of circulation pinched to control the flow. (Hamel, 2004)

Why is understanding a sense of place important for thinking post-war environments? Sense of place, is simply what makes the place itself, the London-

ness of London and the Paris-ness of Paris, in the subjective experiences of their dwellers and visitors (Relph, 1997).



Figure 4.10: Blast walls in the streets of Baghdad. (Url-5)

All places undergo certain changes with the passing of time, the history of a place imprints visual images, sounds and smells that become associated with a sense of familiarity. Yet the changes that are experienced in a war and conflict ridden places are abnormal deformations in the images and fabrics of the city and the neighborhoods, whether as a result of destruction and decay, or new structures that spring out with little consciousness to place histories. Sense of place does not necessarily advocate for replicating old forms, rebuild perfect copies, indeed, post-conflict environments have that attractive appeal to designers and planners, to work on a tabula rasa, imposing new values and atmospheres. And yet war-affected environments are hardly blank canvases, and what matters in a sense of place, is actually the heightened awareness of those changes that are extrapolated from people's narratives and experiences. This will be the focus of discussion in the following section, where it explores the dynamics of place experiences in the midst of war and conflict, and how that affected children's attachments and resilience.

4.3 Conflict

The following part of the narrative focuses on participants experience in the beginning of war in 2003, and the subsequent events of conflict.

4.3.1 Places of fear, places of refuge

How can home become a place where you are in constant fear for your life? The most primitive meanings associated with the elements of dwelling turn upside down. The ceiling, once the provider of enclosure and safety, is suddenly a dangerous block of heavy concrete you imagine crashing on your head every time you hear the whizz of a plane above. The windows, once small openings to the outside world, the breeze, the sounds of daily life, become a dangerous zone you stay clear out of; sources of danger, crashing and turning to fatal shards any moment.

I remember the first few days when the air raids started. It was like holding your breath underwater. We would all sit in one room, windows boarded with wooden planks, heavy curtains shut but for a small crack that allows some light in, electricity was cut, it was like night in the middle of day. (Dimah, 24 years old, lives in Amman)

How is this fear overcome? And how do children find resilience even when home no longer feels safe? The bombing had started. Noor could hear the sirens, the missiles firing, feel the shaking of the ground beneath. All they could do was wait it out, they had nowhere else to go, and their father did not want to leave. In some small space within their house, they all would sit together and listen to war raging outside. There are those places, where in the midst of the surrounding dangers, become a shelter, albeit in the psychological sense of the term. Do these places come to have a special meaning to them, and what are in these circumstances those meanings? The spaces of home can be arguably the most protective of the child, among familiar objects and walls, a child feels most safe. This feeling of safety can be compromised though, and the once freely navigated places within the house realm are reduced to small spaces enveloping its occupants with a small sense of refuge. The endangered house turns its occupants from a state of mobility and liveliness to that of stillness and apprehension.

When a potential danger is sensed, all family members, for example 'retreat' into the deepest space within the house. This sounds very much like a strategic move; born out of practical considerations, but it also resonates with a psychological tendency to remain as far away as possible from the dangerous outside world.

We just leave the kitchen and go to the sitting room.. we were also scared if anyone got into the house, the sitting room is deeper into the house, we could lock the door, keeping a sort of

extra line of defense, whereas the kitchen is immediately to the outside. (Noor, 26 years old, lives in Amman)

Noor remembers another space where she and her family huddled together in times of high risk. The reasoning behind it; stay away from large windows, keep a line of sight to the entrance, keep the children occupied, have all family present there, and you have a myriad of unforgettable state of passing time in the intimacy of that space. while she could hear the sound of rockets and feel the shaking of the ground, while she is always anticipating something to occur, she finds space to be resilient; absorbing it primarily from her parents, and even hopeful, joyful and content with the closeness of her family.

Between that [the main hall] and the entrance patio there is a small corridor, and that is the only spot in the house where there are no windows. [in that corridor] we had put chairs there, we would just sit and wait, sometimes silent, sometimes we would read books, recite Quran and mutter some prayers, sometimes we would chat. Actually in times like these, even if we were in a war, this close getting together with all the family members, sometimes brought on moments of humor and laughter, we would tell jokes, laugh at things, play board games, so we did some strange things at those times. (Noor, 26 years old, lives in Amman)

Being together with all family members is essential to the child's resilience in times of high risk and threat, a place of refuge is often that intimate space holding together the family. In these times of fear, many families spent their nights not each sleeping in their room, but they would all sleep closely together, on mattress spread on the ground in a common large room. It provided a feeling of familial bond, the most powerful in the face of danger.

Sarah reflects on her neighborhood, when the war started. Even when her parents didn't allow it, she and her sister would go to the roof of the house and watch the neighborhood. The emptiness of the streets struck her.

If home no longer feels like a safe haven in times of danger, can such place be found outside? After leena's family left their home temporarily to stay with relatives outside the capital city. Their reasoning was that they should stay out of the city for the period of thick bombing, whose targets often carelessly veered off from military and governmental to civilian. They stayed in a countryside house for about a month. The environment was very different from what she was used to. It was quieter, but busy with people going about their daily affairs of minding the kitchen, farm and animals. Out here, there were no signs of the approaching war, except in that small

TV screen, sitting always turned on, on one side of the room, her mother and father's eyes always fixed on it.

As a child who lived all her life in a city, this was a novel experience, she saw a cow for the first time, she saw how bread is prepared everyday in the traditional way. In that novelty, along with some restoration of life rhythms, things were starting to feel normal again. It was indeed, romantic though it sounds, a refuge in nature, and within the simple rhythms of country life.

She remembers this small country house she stayed in for a while. It was one story beige building shaped like an L, and surrounding a large inner courtyard. This reminded her of the school she went to, it had this same system. It was the picture of simplicity. She and her family were lent a large room, with a door to the courtyard. The courtyard is where she spent most her time playing with her sister. She found comfort in that field opened to the sky, much like she was used to playing in her house garden. The room however always felt strange and 'unlike' her home.

At first of course there was the apprehension in being somewhere unfamiliar. But after a few days actually I began to feel comfortable, and everything was back to normal. I guess it's because I was a child, and a child easily forgets. I would spend most of the day playing in the courtyard with my sister. In our room the television was always open on the news channel, adults watching for every development on the war, we couldn't even turn to cartoon channel. But to us, my sister and I, even the news were a source of imaginative play, we once made a pretend game of one of us being the news anchor interviewing the guest.

But still, there were some strange things that you could never get used to I guess. I remember that the room we stayed in always felt somehow alien, especially its smell, the smell of the walls. They just didn't smell like home. And the smell of the kitchen, I hated it, I didn't want to go near it. It had a distinct smell that just wasn't home. Playing outdoors was fun but the indoors always felt alien. (Leena, 26 years old, lives in Amman)

In seeking places of refuge away from home, this child experiences the feeling of alienation, represented in the unfamiliar smells of the rooms, and she finds comfort in the small playing area she is allowed. Safely away from conflict, the outdoor is no longer a source of danger and fear.

The perceived reality of pre-conflict and post-conflict places is mediated by vivid recollection of war events, through which an experience of place evolution can be traced. The period of conflict cripple life rhythms. Children perceive much constriction on their mobility, they stop going to school and all around they can feel

an impending presence and signs of war in the atmosphere. The conflict dilates the danger related to the outside world. There is also a sense of a new encounter with places that were not long ago the embodiment of familiarity. This is more often noted when the civil war started. The conflict extenuates the risks associated with the outside world. Children now have to be driven to their nearby schools instead of walking. At home the security is tightened, for fear of strangers barging in. When fear tramples on day to day places, the child's world shrinks. Places that give a sense of refuge and protection are first and foremost those that bring family members together.

4.3.2 Deterioration/damage of place

The most devastating war experiences for a child can be related to losing a close family member or friends. Less obvious in its impact is the loss of the wholeness of a place, or the sense of place, once experienced prior to disrupting events. The changes that occur to familiar places may be varied in nature; they not only mean the destruction or damage of its physical components, but also the presence of signs that indicate an alien presence, and a remnant and reminder of the unnatural presence of war. This theme occurs quite often in the description of places of participants' narration, and uncover feelings of threat, fear, alienation, and loss of familiarity.

The presence of the military vehicles and soldiers violates on the privacy and normality of the neighborhoods. Sometimes, these envoys are not only passing, but take bases in the neighborhoods, to monitor and keep an eye out for any potential 'hiding' adversaries. Sometimes combat erupts. With this new presence, neighborhoods become less lively as people are afraid to go out. A once busy street with children playing football, or youth congregating around the local market, becomes almost abandoned. Children witness this new reality as they usually walk, or are driven to school.

Sometimes in our way to school we would see military vehicles and soldiers sleeping on top, like it's so normal - but after that the Americans would put signs that a vehicle should remain 100 m away from their vehicles. They were alert, weapons pointing, pointing at you as you passed by. (Dimah, 24 years old, lives in Amman)

There was a road intersection close to our house, close to it was an important governmental center. This intersection would normally be always very busy and crowded. On that day I

have never before seen it so abandoned, not a single soul, nothing, just seeing this intersection, empty, in the darkness, it was terrifying. (Sarah, 25 years old, lives in Baghdad)

Zainab heard that many people in the neighborhood were starting to leave. The family next door almost lost their infant child when a stray bullet went through their house. The house facing them was occupied by a man in the government, he too left of course. His house became a military base. These men in the army would sometimes come and tell her mother to do certain things, like put some more exterior lights for better surveillance. People were starting to feel under close watch, their houses and gardens potentially hiding some combatant insurgents or weapons.

But that was not the worst she's seen in her neighborhoods. When the sectarian conflict started, something new and horrific was starting to appear around the neighborhood; dead bodies. Not only were people being kidnapped, killed and dumped on the streets, but there were all sorts of threats for those who might think about emerging from their house and removing the bodies to bury them. They were supposed to wait for officials to come and remove them, and they often stayed in the streets for a long time. Zainab was going to her exam when she saw them, later when she went home, she went to cry by herself, she didn't understand why anyone would do that to a human being.

I remember one time, we had an exam in school. Before the war, my mother would let us go to school walking. But after the war she was frightened for us, and she would walk with us. I remember I had the course book in my hand, I walked into one of the streets, and I saw dead bodies, thrown in the street like that. We kept walking. What can we do? And I even vividly remember that my mother said to me 'look' every time I remember I'm surprised at her, I remember one of the bodies was burned.. I looked at them, holding my book. Walking. (Zainab, 26 years old, lives in Baghdad)

One time, when my sister was pregnant, we were just coming home, the moment we shut the door we started hearing shooting, a car stopped right next to our house, they opened the door and threw a body on the street and went. All these things made me think how these dead people, their human dignity was lost, they treated them like toys, not human beings, this period of time was disturbing.

The trauma of seeing death and humiliation like that engulfing the life around the child has no doubt traumatic effects. These images never fade from memory. Sometimes they only serve to feed hatred in a divided social environment. Zainab's feeling of detachment towards any particular place can be partly associated with

these traumatic events. Her lack of expressing fondness to childhood places is reflected in her view that she considers her childhood sad. This was amplified by the experience of war and sectarian conflict, but especially is due to her losing her father when she was only six year old. For her, that event has changed the whole concept of home

The contamination of the neighborhood may have psychological resonance, but Sarah even perceives it in the city, its weather and in the signs of neglect. The identity of the place is changed. She remembers a few times in the war where there were fierce sand storms, with many people having left their houses empty, the facades took a yellowish color. Gardens were no longer cared for, and the whole neighborhood looked less green.

So many trees were burnt in the war. It's like Baghdad became very dusty ever since, whenever I look down from a plane I feel like there is a dust cloud covering it, but if you cross towards the north [of the country] the atmosphere looks clear. It's strange, I don't know, is it from the burning, all those generators. (Sarah, 25 years old, lives in Baghdad)

She also explains that this neglect towards the house garden, which was an integral part of the traditional residence, led to building new houses that had large interior areas and a small garage. All these people going and coming were not able to maintain a garden, and the increased temperatures was merciless to many plants and vegetation.

The neighborhood was full of trees, very green. Now, no one wanted to mind a garden anymore. The heat was unbearable, whatever you planted dies. it needed effort and people were no longer able to give it the care it needed. A lot of people left their homes, and their gardens died.. the new houses that you saw getting built, they just made garages, they increased the area of the house, the rooms. so now you walk in the neighborhood and you only see building, block after block. (Sarah, 25 years old, lives in Baghdad)

As mentioned previously, many people left their homes temporarily to stay with relatives outside the city. They only took a few of their possessions, leaving their houses locked and bordered in the hope that they will come back and find them intact. Leena and her family left their house temporarily for a safer place when the shelling started, after a month or so they returned to find they were met with images of their house and garden that were, more than once, described by her as strange and cold.

At the time of our leaving, I pictured that I would go back and find grandma and aunt, but we only found our grandfather at the entrance and no sign of the others. He then told us that they too have left temporarily - . Even they, who had said that they would not leave like us, had to ,because of how badly things were going. My aunt and our cousins- whom we spent a lot of time playing with- and who lived nearby were also gone.

The view I was met with upon entering home was devastating. First moment when we entered the garden, it was shocking; the lush green ground [of the garden] had turned white. I asked myself has snow fallen, but we all know it does not snow in Iraq. It turned out this was salt, accumulating from being abandoned.

The house itself - was affected as well. The windows were plastered and some of them broken. You can't imagine the amount of dust on everything, you can practically make drawings on it. The place is abandoned. The smell of the house was strange and cold. Whatever containers were in the house like pans and bowls were pulled out and filled with water and covered. People were afraid that water would be cut during the war. All these utensils made quite the strange view spread out across the floor of the house. We were hungry and all we could eat at that moment was cold boiled potato with some salt which grandpa has made for us, it was quite strange to eat that cold meal in the cold room. (Leena, 26 years old, lives in Amman)

In this description, the feeling of relief associated with a home-return is impaired by the loss of familiarity resulting from an encounter of immediately perceived signs of abandonment and neglect. The garden, the place of life, of play, of spontaneity has lost its green-ness. The house, with its broken windows, loses a degree of providing protection. The signs of neglect show in the accumulating dust and the strange smell. The striking signs of abandonment and damage left impressions of strange and cold atmosphere, which are not only attributed to visual images but also to the smell of place, which was also described as being cold. The life nourishing qualities of home are even heightened with the scarcity of food, which made up a 'cold meal in the cold room'.

Where families and relatives live close by, such as in the case of Leena's neighborhood, a child is immediately aware of the 'empty spaces' that are left by relatives and family members who have decided to move to other safer areas. As she returns home, her expectation is to find her grandmother and her aunt. They represent a reassuring presence that things are as they used to be; the image of the house is strikingly different when that presence is no longer felt. To a child's lived world the two- places and people- are inseparable. The absence of people and even the smallest

changes in the environment produce a feeling of estrangement in a child's most intimate and familiar living spaces, and the feeling of discomfort associated with that clearly lingers in the memory. After a few years her grandmother had died. This loss left its mark on the memory of home, which exists in her mind as a frozen image from when she last saw it. In later years, I asked her if she wanted to go see her home. She had said that she misses seeing the place, but knew the experience would be painful because it had changed and no longer the same, especially after her grandmother died. She dreads walking by or into her grandmother's room, unoccupied now, when it was only filled with the warmth of sitting, reading and talking with her grandmother.

Places; like people, can be wounded, and they can bear a mark of the wound and its healing for long time to come. A metaphorical stance of place damage and a body malady allows for an understanding of this phenomena. It could be argued that this metaphor is strengthened from children's mimetic and animistic capabilities, which assign agency to their surrounding objects. In *Memory and Architecture*, Catherine Hamel takes up this metaphor in her autobiographical description of her home country Lebanon after years of destructive civil war, and the transformation of places and her experience of them between past and future (Hamel, 2004). Places are likened to a body, its material facets and structures like skin and bone, and the memories clinging to it like the immaterial form underlying it. The places of familiar life, are always torn between a before and an after state, Hamel sees it as "a conflict between two spaces that never ceases". Struggling to be as it once was, but realizing it will have a forced sense of newness when the dust settles.

After the first few years, rummaging through war-torn areas, one saw abandoned buildings furtively clinging to themselves. Glass was shattered, metal bent, but traces remained of the lives they held before the destruction began. With the passage of time, even buildings lost their flesh. Repeatedly broken, glass returned to its origin and blended with the sand; wood was burned; metal sold. Only the defiant stone remained. (Hamel, 2004)

In the mind of an adult perhaps, a war-torn geography unfolds on multiple layers of meaning as the new reality settles in, their minds always grappling with a nostalgia of the past, and the ambiguity of the future. For a child, the contamination of places is more imagistic, more immediate in its presence, and the feelings of fear and anxiety are most felt in the damage of intimate places. The childhood home is the safest haven in times of fear, when a child's home is damaged, broken, and wounded,

it is opened up to the dangerous outside, the wound invites harmful infestations, becomes weaker and more vulnerable. When the house is weaker, so is the resilience for the souls that dwell within it. While a child cannot describe why it is sad to lose a piece of furniture, or a part of a wall, she deeply feels that a part of the whole has been removed, and this feels like a threat to its stability and continuity. In later life, damage to physical places might be recalled as a trivial life event, compared to remembrances of human loss, but the detailed images of a contamination indicates its emotional significance to a child. A child derives courage from her parents, they are in most cases her model in dealing with difficulties, and they are the adults who probably know how to behave in face of uncertainties. But she also, softly and subtly, absorbs it from the resilience of walls, ceilings, windows and doors. These meanings are mostly evident in Noor's account of the damage her house suffered during the civil war.

Noor was in sixth grade, she was in school when she heard the explosion. This was according to her, "one of the most memorable" events in the war. It was in the neighborhood that an ambulance was loaded with explosives and blown right next to a medical center. Her friend's house, which was very close to hers, was heavily affected as they later found out. "You go and look at the house and there are only the concrete columns standing" the people had thankfully left to Amman previously. She and the students were told to go home. Upon arriving, she is met with a shocking spectacle.

I got home, I found my mother and father sitting outside, fans in hand, it was the first day of Ramadan, the previous night my dad had taken me to buy a new pair of shoes, and I wore it for the first time on that day. My father looked at me and said, don't go into the house with your new shoes, because the house was covered with shattered glass, the floor can't be seen, just shattered glass everywhere, the scene, my parents sitting like that and the shattered house behind them. They looked like they literally froze and didn't know what to do, like there was a choke in their faces and didn't want to turn their heads to look.

The problem with glass falling, it doesn't just fall and break into shards on the ground, it falls on the furniture, on couch or a chair and it rips it very violently, like someone held a knife and stabbed with all their might, so the furniture set in the kitchen and the hall, all ruined, you stand there and you look at them, do you cry? You don't know what to do, it was very bad. Parts of the secondary ceiling also fell and a few wall hangings and frames. (Noor, 26 years old, lives in Amman)

Not only does this anecdote paint a picture of a damaged home, but in such state as this the house has become harmful to its self, a picture of nihilism. The child perceives a state of shock in her parents and incapacity of dealing with the matter. Like the metaphor of the wound, parts of the house become like violent stabbing of the knife, affecting not only the shell, but the state of the interior. Exposed to the outside the house is turned inside out. The event is recalled in relation to spoiling a simple joy of wearing a new shoe for the first time. Noor's previous description of her house imparts a sense of pride in all the things they have built over the years. The devastating damage gives a feeling of bitterness that years and years of spending that effort can be pulled down in a matter of seconds. After all, this damage not only affects the materials but also the symbolic meanings, and the memories held in those spaces.

Whether on the city or neighborhood level, or to the smallest parts of a house, everyone remembers how the war changed the existing fabric and sense of place. This is felt either from abandonment, neglect, physical damage causing emotions of grief, and alienation. If these places are not mended, they remain like open wounds, leaving scars in the memory. And when people are on the move they are carrying the images of those damaged places in their memory, like the dusty refugee baggage depicted by Mohamed Hafez (See p.50). When asking a lot of people about why they didn't return home after the war ended, their answers are not only related to political and security issues, but it also points towards a sense of hopelessness that the city, the services, the infrastructure, and the environment are still in many parts suffering the decay caused by wars and conflicts.

4.3.3 Displacement

By the end of 2003, the dust of bombing may have settled in the next two or three years, but something worse was looming on the horizon. The start of period characterized by sectarian conflict, gave rise to blind violence, kidnap, theft and cold blooded murder. For many people who have lingered through the thick of fighting, this new reality was impossible to live with. The sectarian conflict that peaked in 2006-2007 was a point where a lot of people made the decision to leave the country, some with the hope of return, others with a certainty that the near future was not going to bring any stability. Because of the escalating events that threatened people's

life, many of them had to embark on journeys without much planning ahead. Many of these decisions were made after shocking incidents like the death or kidnap of a family member, a relative a neighbor or an acquaintance, houses were barged into, searched, its occupants terrorized and maimed, families were sent death threats by unknown militias and armed gangs.

One of our relatives suffered a crippling medical condition, he couldn't move or talk or do anything, [in 2006], his son was standing in the garden watering the plants, a motorcycle passed by, the men on it shot him with three bullets. Killed on his own land. Inside the house his father felt something, he could hear and see of course he was aware of what's around him, he soon died after that, of grief over his son. (Noor, 26 years old, lives in Amman)

Four of the seven participants left with their families to the capital of Jordan, Amman. How does a child experience these journeys? Leaving a childhood's home even for temporary time is characterized with a myriad of feelings and impressions imprinted in memory for many years to come. The journeys themselves are unforgettable. These thresholds in time, are bridges crossed between two states, always separating a before and an after. A child experiences them sometimes with fear, sometimes with hope, or the uncertainty of what the future holds and a feeling of rejection from their most familiar intimate zones of life.

I was sad, but I was also glad that we were leaving. This is how mixed up my feelings were at that time. I would cherish those years I spent in my childhood home, but I would never forget the image of that young man's body lying in our street. I did not to end up like that, I did not want my father to disappear like the fathers of many children I knew. (Farah, 24 years old, lives in Baghdad)

Some of their relatives killed and kidnapped for ransom, Noor's family decided that they could no longer live in these conditions, in constant fear. They, like many others, packed their bags and left for the capital of Jordan Amman. Although their father was already there, undergoing a medical operation, having rented an apartment and was pondering the decision to move his family, the leaving itself came as sudden. This is often the case with displacement due to conflict. Some shocking event, or a series of events and signs, led to the decision, and in many cases the family members are not psychologically prepared for the journey.

Leaving home, added to the mixed emotions of leaving a history and a childhood place behind, Noor felt the bitterness, fear and anger of a homeland usurped by strangers. As she and her family drove on the highway leading to the country's

borders, military vehicles appeared in the middle of the road, warning any vehicle to approach and forcing them to spill sideways, and drag their way through the muddy sides. As they took the middle of the road with their large war machines., the people who once belonged to this place, had to forage in muddy ground, fear and humiliation gripping their chests.

At the borders we went into a queue for 12 hours, the line of the cars and they searched every bit, it was miserable. On the highway, when a military envoy was passing it drove in the middle of the road, and all cars had to make a way, they drove on the muddy sides of the street, there was mud and something like quicksand, if you stopped in the mud for a second, the car would sink and there is no way for escape. In this state, we saw two four-wheeler cars in front of us that flipped over. I remember my mother telling my uncle to slow down, but he was saying to her; slow down? If I slow down, we will sink, we will all die here in the desert without anyone knowing about it. The sons of- walking in the middle of the road and we are dumped on the muddy sides. (Noor, 26 years old, lives in Amman)

This was the last time she ever saw her homeland. For this to be the last imprinted image of leaving a home no doubt speaks volumes, of bitterly severed relationships and the feel of rejection. The typically three to four hour journey took them 24 hours to reach the capital of Jordan. Driving in secondary routes and waiting in a seemingly infinite queue at the border. A difficult harsh exit into an unknown future.

We sometimes blame displaced people, why do they stay in exile even when circumstances in their countries of origin seem to have gotten better. We do not realize how these experiences of not only pure fear, but of seemingly bitter rejection, affect their place attachment, it weakens it and sometimes sever it altogether. Having affections for a childhood place is not enough to reconcile them with an environment that has lost its ability to give them shelter, that even at the threshold fails to say a hopeful farewell.

4.4 Post-Conflict

The phase of post-conflict is characterized by a relative return to stability. For those who remain in their country this return to stability is experienced in the increasing of mobility, return to schools, change of political landscape and other factors. However, people who leave their countries during the conflict the change is more abrupt and they have to start adapting and coping to new environments. These differences are explored among the participants, four of which, Leena, Noor, Dima and Aisha,

moved with their families to Amman, the capital of Jordan, while Zainab, Farah and Sarah, have went on living in Iraq after the war.

4.4.1 Mending place

After the end of the “first wave” of war, the damage has already reached many facilities and residential areas, including schools and hospitals. As Aisha returned to her school after about a month and a half, she and her school peers had to be moved temporarily to other classrooms, in the part of the school that wasn’t damaged by the air raid. Still, they had to take classes in dusty rooms packed with more kids than usual. Parts of the shattered window glass was hastily cleared away, but other than that, the room stood as a witness to the previous month.

Before we started the classes, our teachers gave us some pieces of cloth to clean our desks. In the break time we moved out all the desks and washed the floor. Even though this was not our classroom, we felt proud to make it clean again. (Aisha, 26, lives in Amman)

In the following few months, the rubble was being cleared out, the classrooms and corridor walls repainted, and the broken glass replaced. Aisha recalls that she and her friends would often participate in fixing and cleaning this with the teachers’ guidance.

I didn’t know how much I was valued my school. School was just.. school, but in those days, a tragedy though it may seem and even when the danger was always looming outside, I had the most memorable moments when we participated in the rehabilitation work, and when we sat in our classroom, there was a sense of pride and accomplishment (Aisha, 26, lives in Amman)

Place attachments, especially in childhood, can exist somewhere under the surface of awareness. Feelings of fondness are brought into focus when places themselves become in need of care. Stronger emotions are associated with houses that become damaged, and the participation of the child in bringing it back to its livable state.

The healing of a wounded house is at once a healing of its dwellers, once damage to certain aspects of the house are left, they will be always there as a reminder of unattended wound and witness to neglect. The participation of children in bringing the house back to its previous state seems to contribute to their resilience and hope. Both Leena and Farah express the memory of feeling positive when they were allowed to participate. A regenerative reciprocal process imparts the dependency of places on their occupants, just as people depend on their homes for sheltering and

protection, and this case is heightened in times of danger and threat. The role of the parents is key in involving the children and giving them a sense of hope in rebuilding. After the explosion affected Noor's house, it took a long time to put it back and buy new furniture. At the time her mother insisted on getting new things and rebuild everything but her father tried to persuade her that it doesn't matter because they will leave everything and go. Eventually, they did restore the house to a good condition. Leena's abandoned house was a companion to the interruption of life rhythms caused by the crux of war. The period following that saw the participation of her and her siblings in cleaning and bringing the house to "its old self". However, the house garden suffered neglect for many years following the war and was always nostalgically remembered for all the play and family activities.

After that of course we started cleaning the house and all our belongings. It was a lot of cleaning but it felt good to be able to participate in making it livable again. Dishes and pans we brought out into the house yard and washed them. I think I made up a song in the long time I spent washing all those pans in the yard. Little by little the house was starting to look like its old self. The garden was never the same. No one had the time and resources to take care of it. It was sad. We used to spend so much time playing in it. (Leena, 26 years old, lives in Amman)

The most notable injustices of war is that destroying the environment happens in a matter of seconds, its rebuilding takes weeks, months and years. And yet the slow rebuilding process is reflected in the dweller's psychological healing and building of hope. Even when families leave their country, leaving their houses in a fixed and mended state contributes to a sense of closure, and is evident of a stronger attachment, as was evident in Noor's narrative. Still, some people leave their houses with no hope in the near horizon of any rebuilding, their ruined houses remain as frozen images in their memories and they carry it with them as a baggage wherever they go.

As the analysis shows, the momentary encounter with the damage of intimate places constitutes imprinted images and can be associated with emotions ranging from shock, fear, estrangement and alienation. The regenerative process of places emphasizes a sort of emotional sustainability which , is key to maintain a health-giving relationship between people and environments that become a source of threat in time of conflict. When places are abandoned and neglected, attachments are weakened resulting in many displaced people 'not wanting to go back' to their homes

even when the conflict has receded. They lose faith in what their home environments can offer them. The participation of children in rehabilitating their houses, their schools and neighborhoods, guided by caring family members and the community is a healing process on its own. It gives them a sense of power and control and protects them from victimhood and developing a victim mentality that is arguably one of the main setbacks in their future quest for meaning and well-being.

4.4.2 Place nostalgia, new attachments

Whether people choose to stay in their home countries or migrate to other places, they are constantly undergoing a process of adapting to new realities. The post-war reality often force a set of conditions. These can be either extreme, in cases where the social and physical environments undergo great damage or transformation. While place attachment studies focus on cases of displacement, cases where transformed environments are less explored. In either case, nostalgia, and place memories play a significant role in post-conflict adaptation and resilience. Taking up the participants' descriptions and the meanings associated with childhood homes as a backdrop, I asked them about life after the war, the new places they became associated with. As mentioned before, 4 of our 7 participants have left with their families to Amman. They describe how this new environment was like at first, whether neighborhood, school, or house, and how with time they came to feel the differences between place meanings.

Dimah was 14 when she moved to her new house after leaving Iraq. She, a child who has never traveled before, remembers a sense of excitement at seeing these different looking streets and buildings. The system in Amman was slightly different from that in Baghdad. Instead of single family houses usually spread on large pieces of land, here there was the 5-6 story apartment building archetype with little breathing space between the blocks. They kept moving between different apartment houses, until a couple of years later, they chose one to stay in.

At first, it was exciting. We lived in higher up floor than what we were used to. Here, everyone lived in apartment buildings. The balcony with a panoramic view. But after you got used to it you could see why it was not as homely. (Dimah, 24 years old, lives in Amman)

When I asked her to explain that further, she said that in addition to the house being smaller, there was no garden here, so it didn't have that breathing space, a space where you could escape to.

At that moment when you wanted to sit with family members, with the time nearing dusk, surrounded by trees and shrubs, the sounds of crickets and children's shouts from the street was when you missed home the most. (Dimah, 24 years old, lives in Amman)

Like Dimah, most participants felt like their new environments were physically restricting. In addition to that, the previous social interactions, mainly in family and extended family gatherings where not possible, as relatives and neighbors were often displaced to different countries or areas. In comparison to their childhood homes, most participants agree that there was now less mobility within the house spaces, less exposure to the outdoors and to nature and less family-based social gatherings. The ability to form new attachment is therefore related to how individuals experience their current environment in comparison to their past places. This understanding of attachment depends on interactions in place. In her research on place attachment, Melinda Milligan proposes that place attachment can be explained through two modes of interactional symbolism. Attachment to a place depends on the interactional past, which are the patterns developing overtime from meaningful interactions in past places, that is memories, and the interactional future, which is related to what is expected from future places (Milligan, 1998). In light of this understanding, the narratives show that in this coming of age story, as children grow up, spending years in new environments brings to surface the differences in patterns and life rhythms, which due to the role of memory, can affect, positively or negatively the ability to adapt and form attachments to new places.

Differences in individual traits and perception of the war seem to have a connection with the participants' ability to form new attachment to places. These perceptions are also highly influenced by parents' views and attitudes. Farah and Dimah both describe their moving out of their home city and living in a different one as a state of temporariness, even if their return seems highly unlikely. New places become settings that the psyche does not seem to be able to take roots in, at least not for some time to come. With these attitudes, nostalgic expression towards childhood homes and places is evidently stronger. "I wish I had never left" "I wish the war hadn't happened" "I wish I was in my home" are statements that often appear in their

interviews. This does not imply that this impedes adaptation to places, the restoration of life rhythms or even forming attachments, it might simply mean, that the individual is unable to draw pleasure, cherishment, from new places. Their sense of control and choices of the environment is also affected by this outlook, since these are all temporary places, they don't feel the need to change, or customize places to their references.

Back in our home in Iraq, my room had all sorts of nice things. Things we made ourselves, posters, toys, it was truly a child's dream room. I know I have grown up now, and I don't need a room like that anymore. But still, that room was me. The room I sleep in now is more like a hotel room. (Dimah, 24 years old, lives in Amman)

On the other hand, Leena's and Noor's account of their post-war prospect, emphasizes future oriented outlook, and an expressed belief that the difficulties have taught them to be content and appreciative of what they have. They do not express a desire to return to pre-war conditions, but even as Noor declares feel that the changing of tides brought about a hopeful beginning. Current and future environments are those that offer opportunities, freedom a degree of control that was lacking in her childhood's context.

We used to be people who lived for our day for the 24 hours and wake up the other day being thankful for still being alive. That's the major problem with war, it takes away from the child the desire to dream about their future, they only think about their present day, but when you live in a safe place, you start thinking about what you will do in your life, where you want to be in 10 years, in 20. (Noor, 26 years old, lives in Amman)

Having a strong purposeful desire to prove ones competence, advance one's career, choices, lifestyle and well-being gave young people like Nour and Leena a chance to quickly from attachment to new places and start new social relationships. As they moved from one school to another, from one house to another, and from one neighborhood to another, their lives before the war, the places where this life unfolded was not a hindrance, the nostalgic memories here are part of an identity which embraces the richness of environments. Despite the cause, the outcome is navigated with the flexibility that resilience imparts.

5. CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

5.1 Introduction

The core of this thesis has sought to present an argument for exploring ways in which environmental design can be considered as a impactful resource for promoting children's healing and resilience in war and conflict affected zones. The myriad of psychological states, emotions and struggles which people go through in a war presents a challenge for all involved in humanitarian intervention and post-conflict rebuilding. The qualitative approach of this study aimed at opening up a window into unpacking and presenting this complexity, by the examination of war narratives. These narratives were analyzed in light of current knowledge of how the physical environment relates to the well-being and resilience of people in general, and children in particular.

The literature review presented diverse theories and research within different fields. The review on the theory of resilience shows a movement towards adapting ecological models whereby different systems co-act in influencing children's development. In this regard, the role of the physical environment has not been researched thoroughly. To fill this gap the inquiry is initiated by exploring research that relates children's well-being with the physical environment. This has resulted in mainly the consideration of child-nature connection, through the Biophilia hypothesis and restorative environment theory, and child-place connection, through Topophilia and place attachment. Generating and maintaining positive affective ties and emotions towards physical settings is key to both constructs. This research's contribution lies in the examination of these attachments and their dynamics in a war and conflict context for children.

These aims have resulted in an experience-based inquiry which look at the problem from a retrospective angle. This had the advantage of interpreting experiences within the frame of long-term well-being, as well as the depth of meanings associated with

life events, otherwise harder to tap into when working with children. The research design borrows tools and strategies from qualitative traditions of narrative inquiry and interpretive phenomenology. War narratives are collected through open-ended interviews, documented and analyzed for emergent themes and patterns.

5.2 Summary of major findings

The thematic analysis of the data obtained from the interviews, was organized according to the narrative flow and within the framework of place attachment disruption phases. The dominant themes are therefore explored in the period preceding the war, the events of the war and conflict, and finally the experiences that are related to post-conflict situations. Table 5.1 summarizes these themes, and the main findings associated with each theme.

Table 5.1: The major themes and significant findings of place experience.

Phase	Extracted Themes	Notes on findings
Pre-conflict	Place history	Family stories, photographs, place perceptions.
	Intimate places/ The meanings of home	The home as the locus of activities and life rhythms, child's mobility, special places, connection with nature.
	Place atmosphere	Signs of the approaching war felt impinging on familiar spaces.
Conflict	Places of fear/ refuge	The effect on mobility. Refuge within the house, and outside the house.
	The deterioration of place	Physical damage, contamination, neglect and destruction engenders feelings of alienation. Lasting damage related to feelings of hopelessness.
	Displacement	The impact of journeys of displacement on place attachment.
Post-conflict	Mending places	Children's participation in rebuilding as a healing process.
	Nostalgia/ New attachments	Past and future interactions in places explanation for adapting to and creating new attachments to place.

In the short period preceding the declaration of war, participants remember perceiving signs, a charged atmosphere, and a change to the sense of places they live in. Houses were boarded. Resources were stored. These environmental signs give off a feeling of being on the alert and preparing for the conflict to ensue. In this period

parents either decide to wait out the thick bombing or chose to relocate temporarily to avoid the danger.

When war starts there are several environmental signs of danger, like constantly hearing sounds of missiles, bombing and shaking. In these times, certain places become a refuge for the child, provided their family are close together. These could become places of intimacy, or places away from the conflict, with a sense of temporary sanctuary, where life can presume. The children's homes are their most protective shelters. As the conflict continues and prolongs over an extended period of time violence and conflict sometimes become normalized. A new reality slowly settles in, and most times, children are hindered their mobility, whether in house or neighborhood. Due to many unfortunate incidents, children either witness violence or military presence in their neighborhoods. Sometimes their house are damaged, or suffer from neglect and abandonment. The experience of damaged, wounded and contaminated places is common to almost all accounts of war. When left unresolved, these changes impede the process of healing, and normalize unhealthy dangerous environments; this is interpreted as a process of negative adaptation. The restoration and mending of damaged places, with the participation or awareness of children is hope giving process and is psychologically healing. Even when children leave their homes, a sense of closure is perceived when the places they left have healed from their wounds. It is worthwhile to mention the experience of journeying between two places. When families leave, some of the most vivid memories are in those thresholds, with mixed feelings of fear and sometimes rejection.

After the conflict recedes, a new normality settle in. This is especially evident in environments where war caused a drastic change to the political and economic atmosphere. It is the transformation of perceptions, environments, traditions, interpretations which exist between a 'before' and an 'after' that make all the difference. War changes people's priorities. Sometimes aspirations for better post-conflict conditions make people paint the past with pure negative colors. This view leads to a desire to wipe out the past identity of places, intentionally or not. Sometimes it is the opposite case, in light of degrading conditions the past is seen always as a better time, and all changes are rejected even if silently and internally. The changes of perspectives in a war is crucial in determining people's relationship with their environments. In this case, the war was followed by a severe sectarian

division and conflict. The perception of the cities geography shifted, now there were neighborhoods for that group and others for the other group, and there was a mentality of lines of defense, and blocking strangers. Children reflect these perspectives first and foremost from their parents, and from their surrounding community and school. For example, the participants felt like the sudden change of tone adopted by the teachers in their schools was hypocritical. Whether children remain in their home country, or are forced to move elsewhere they are in the process of adapting to lived-in places that have evolved. Adaptation doesn't always mean that children are receiving healing, there are many other factors that affect that. Sometimes adaptation comes with severing or weakening old attachments and creating new ones. The intensity of suffering in childhood places can also relate to a sense of detachment with any place and the person no longer cares where to settle as long as they are internally content, as was evident in Zainab's narrative. Some people consider a nostalgic connection to a childhood place, that they can no longer reach out to as a treasured memory, as a place that gave them shelter and protection and resilience. Others consider their source of strength from their ability to live anywhere, and not be tied up in emotional attachments to past places.

Going through a war in a coming-of-age phase of life has a crucial impact, not only on the developing personality and the social interactions, but also on how people view their relationship to places. With the advancing years perspectives may keep changing, but for a child, a healing place is needed. These narratives show, through experiences that support or impede resilience, that healing places are place of reconciliation; of giving shelter and intimacy when all sense of safety has gone, of supporting mobility and autonomy when conflict denies them that, of nurturing imagination and spontaneity when children feel they no longer have the right to them, of bringing people together when they have suffered separation, of connecting children to the natural world when nature has become a luxury.

The analysis shows that dynamics of place experience and place attachment relates not only to the events a child goes through during a war or conflict period but also to their surrounding environment. Perceptions of sense of place are transformed and structure the memory of place between the state of 'before' and 'after' the war especially when a degradation of the environment is experienced. What is evidently shared by all these experience is that war and subsequent conflict leave places

scarred and wounded in the perception of children, and damage to those places can become one of the most vividly remembered events of the war. Places are therefore an extension to the psyche. When they bear the scars of war for a long time to come, the result can be as psychologically damaging to a child as other experiences.

The narratives highlighted different responses and perception to place and home, ranging from deriving a sense of well-being from place nostalgia, quick adaptation to new environments, to a conscious detachment with past places which have become the setting for accumulated traumas. Going back in memory to pre-conflict places stresses the exploration of the concept of home. The accumulation of tragic and traumatic events could cause a repression of nostalgia and a sense of detachment to place, as was evident from some participant's stories. Nostalgic memories point to a child's search for a sense of normality of places unmarred by danger and fear, in corners of daydreaming, gardens where families congregate and roofs used for stargazing. Studies have found that children's special or favorite places have a role in children's self-regulation and restoration, with results often emphasize the mobility, autonomy and attachment to nature shown in these places. It is speculated that the theoretical corpus of attachment, special places and restoration by nature can have an important role to play in post-conflict rebuilding.

Having a connection to natural features and settings, for play, special places and participation in gardening is a shared childhood experience of all the participants, and is often included in the meanings of home. However, when conflict arrives environments become chaotic, gardens neglected and it is reflected in children's experience. Post-conflict rebuilding does not prioritize restoring the child-nature connection.

Children's mobility is a key concern when studying children's environment. It has been noted by many researchers that children in urban zones are becoming more delegated to the indoors. This is even more magnified in danger zones especially for the girls. It is evident that wars and conflict create restraints on children's movement, and even when the conflict recedes, concern for safety as well as other cultural factors prevent children from having a wider geographical sense than within the boundaries of home and school.

5.3 Importance of the Research

During or following a conflict, intervention often aims at creating safe zones to children for providing areas where children can play and resume their education in sanitary environments and with no risk to their lives. However, creating these safe havens is not enough, the larger context need to be considered as being restorative and contributing to children's resilience and healthy development on a long-term basis. This starts from their home, to their neighborhoods, schools and ultimately the cities where they live.

While post-conflict reconstruction plans focus on low cost and quick solutions to providing shelter and basic needs, people's resettling into their normal lives and livelihoods is often a long process that involves great psychological strain upon families, children and communities. The role of environmental design can extend beyond reconstruction plans into local and community focused activities that bring out the voices of affected people especially youth and children. Resilience research has recently stressed the need to include children in identifying and participating in rebuilding their homes and neighborhoods, to treat them as active agents rather than passive victims, as part of giving them opportunities to take control of their lives and well-being. As was shown in the literature review, this direction of active participation is a key concern for socially responsible design.

Design as activism can benefit from these findings as calls for victim's participation in thinking about space and place is perhaps best explained as a result of the attachment people have with places. Understanding how children experience place and the dynamics of place attachment in an environment of conflict, which is what this research has dealt with, has implications for addressing child needs in the design process, such as the need for a place of safety, place of hope, places that mend, places that bring people together and places that connects past present and future. In reconstruction plans, early inclusion of children and youth's needs provides better opportunities for making environments richer and safer for children and adults alike, instead of relegating spaces and zones that come as an afterthought in the design process.

Recognizing the importance of connecting children to nature as a powerful asset in children's healing and resilience entail strategies of greening design and community

greening activities which allow people to participate in building attachments and hope. In this context, Biophilic design discourse can further the cause of post-conflict rebuilding process. With the increasing awareness of the environmental degradation, sustainable and ecological approaches of design were not only geared towards lessening the damage, but also, with the advances in Biophilic design and restorative environments theory, it was shown that design has an effective role in promoting health and well-being, as well as keeping the cycle of people-place interdependence by promoting environmental stewardship. In this cycle, mechanisms of affective ties and attachments are especially significant. The existence of positive attachments to places can be a fundamental source of psychological comfort, having a sense of control, a sense of belonging and security.

Applying Biophilic strategies to post-conflict rebuilding is not enough, the affiliation with nature needs to be complimented and perhaps supported by the positive social relationships, and leading role of the caring adults surrounding the child's world. Places are saturated with social meanings and values which slowly develop in a person's life starting from childhood. Following a war, or extended conflict, meanings and values are shifted, contorted and sometimes radically transformed. Designers should be aware of these nuances when dealing with restoring place. Therefore, knowledge of technical and psychological mechanisms of environmental adaptation should be complimented with an awareness of local culture, communal rituals and life rhythms and symbolic meanings of place.

While post conflict rebuilding rightly prioritizes access to fundamental infrastructure and shelter for war affected populations and the process is restricted to economic factors, the movement of rebuilding can operate on both large and small local levels. A lot of the time facilities that support a child's healthy development, are destroyed or heavily damaged after a war. Designing children environments should not only look at repairing them to their original state, but aim at creating restorative environments that reconciles and heals. Participation in rebuilding process and listening to children and youth about their hopes for future places can also be a healing process in its own. By presenting people's war narratives, it is hoped that unpacking the complexity of relations to place and place rhythms and processes can contribute to architecture's mission of making healing places, where people thrive in hopeful environments.

5.4 Limitations of the Research and Recommendations for Further Studies

This research has focused on experience of war as a source of understanding healing environmental needs for children. As always with qualitative traditions, interpretation is limited by the richness of data and knowledge of theoretical corpus and study context. True to the qualitative paradigm, this study has aimed at exploring the depth of a certain phenomenon. This effort can further be complimented by quantitative studies which shed light on specific variables and outcomes when considering the role of the physical environment in childhood resilience and well-being. This study has utilized retrospective methodologies, which although a rich source of exploring people's past lives and experiences, is limited by what can be articulated, reflected on and remembered. Through longitudinal methodologies, future research can reveal more detailed themes that relate the physical environment in war and children's resilience especially within behavioral frameworks which are otherwise hard to observe in retrospective studies. Moreover, applying similar research to different contexts and geographies can consider the variations in contextual issues and cultural factors which in turn can make way to different responses, conceptions and experience of resilience as well as place attachment. The participant response was limited to young females. Response given by males may present some differences, and can be thus explored in future studies.

Tackling post-conflict rebuilding issues involves multiple parties and shareholders. These include policy-makers, designers and social workers among many others. Putting the physical environment at the center of this inquiry, this work is intended to benefit professionals in environmental design fields as well as social workers who deal with children in conflict. Linking this work with other shareholder's needs requires inter-disciplinary efforts. Furthermore, it should also be pointed that this work presents theoretical exploration rather than ready-given design solutions to post-conflict rebuilding issues. This theoretical knowledge can further be interpreted into practical strategies and policies in dealing with children in conflict and post-conflict rebuilding. While this research has focused on the voices of war-affected children and their environmental experience, the role of external parties involved in intervention, such as planners, policy makers and architects can be explored with the intention of uncovering practical post-conflict issues and how environmental psychological discourse figures into these plans.

In environmental design discourse, like every branch of human knowledge, the moral and ethical weight of human action should take a central role in advancing discoveries and finding out solutions to problems. A world without wars is a utopian dream that may never be realized. But a world that embraces a child in fear, rests on our ethical responsibility to provide shelter, hope and inspire resilience, as necessary threads in the very fabric of place.





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