A CHILDREN FRIENDLY DESIGN: MAKING "*KONGRESI I* LUSHNJES" A PLAYABLE STREET

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Approval sheet of the Thesis

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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ABSTRACT

A CHILDREN FRIENDLY DESIGN: MAKING "*KONGRESI I LUSHNJES* "A PLAYABLE STREET

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Designing and turning streets into playable areas for children is the primary focus of this study. The main objective of this research is to create streets in Tirana that are secure, autonomous, and pleasurable for children. It aims to examine the factors and principles that lead to the development of functional streets in urban design, utilizing knowledge gained from relevant case studies. The research endeavors to employ thorough analysis in order to devise solutions for the conversion of specific streets in Tirana into environments that are more conducive to the well-being and safety of children. This undertaking will entail the examination of multiple facets, including safety precautions, ease of access, and the deliberate incorporation of recreational components across the urban environment. A particular street in Tirana will undergo a thorough examination, and, using the results, will be converted into a street that can be used for recreational activities. Engaging in collaboration with the Albanian government will be crucial in order to fight for policy changes that give priority to the well-being of children in urban development decisions.

Keywords: Playable streets, Tactical design, independent mobility, Safety measures.

ABSTRAKT

DIZENJIMI I RRUGEVE TE LUAJTSHME PER FEMIJET: KTHIMI I RRUGES "KONGRESI I LUSHNJES ", NE NJE RRUGE TE LUAJTSHME PER FEMIJET

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Projektimi dhe kthimi i rrugëve në zona të luajtshme për fëmijët është fokusi kryesor i këtij studimi. Objektivi kryesor i këtij hulumtimi është krijimi i rrugëve në Tiranë që të jenë të sigurta, autonome dhe të këndshme për fëmijët. Ai synon të shqyrtojë faktorët dhe parimet që çojnë në zhvillimin e rrugëve funksionale në projektimin urban, duke shfrytëzuar njohuritë e marra nga studimet e rasteve përkatëse. Hulumtimi synon të përdorë një analizë të plotë për të gjetur zgjidhje për shndërrimin e rrugëve të veçanta në Tiranë në mjedise që janë më të favorshme për mirëqenien dhe sigurinë e fëmijëve. Kjo ndërmarrje do të përfshijë ekzaminimin e shumë aspekteve, duke përfshirë masat paraprake të sigurisë, lehtësinë e aksesit dhe përfshirjen e qëllimshme të komponentëve rekreativë në të gjithë mjedisin urban. Një rrugë e caktuar në Tiranë do t'i nënshtrohet një ekzaminimi të plotë dhe, duke përdorur rezultatet, do të shndërrohet në një rrugë që mund të përdoret për aktivitete rekreative. Angazhimi në bashkëpunim me qeverinë shqiptare do të jetë vendimtar për të luftuar për ndryshime politikash që i japin përparësi mirëqenies së fëmijëve në vendimet e zhvillimit urban.

Fjalët kyçe: Rrugët e luajtshme, Dizajni taktik, Lëvizshmëria e pavarur, Masat e sigurisë.

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This work is dedicated to children of Tirana and their desire for a healthy, safe, happy and playful future urban environment.

TABLE OF CONTENTS

ABSTRACT	iv
ABSTRAKT	v
ACKNOWLEDGEMENTS	vi
TABLE OF CONTENTS	vii
LIST OF FIGURES	xi
LIST OF TABLES	xiii
LIST OFABBREVIATIONS	xiii
CHAPTER 1	
1.1 Motivation	1
1.2 Thesis Objective	2
1.3 Research Questions	
1.4 Scope of works	
1.5 Organization of the thesis	
CHAPTER 2	7
LITERATURE REVIEW	7
2.1 Introduction	7
2.2 Understanding Children friendly Design	
2.3 Importance of Children friendly design	
2.4 The main focus of Children Friendly Design	
2.5 Playfulness, A central element in children friendly Design	
2.6. The role of tactical design and urbanism in street design	
CHAPTER 3	
METHODOLOGY	16

3.1 Literature Review:	16
3.2 Case Study Observations:	16
3.3 Questionnaires:	17
3.4 Map Observation and City Analysis:	17
3.5 Site selection and current condition analysis:	18
CHAPTER 4	19
INTERNATIONAL PLAY AND URBAN STANDARDS AND CASE STUDIES	19
4.1 INTERNATIONAL PLAY AND URBAN STANDARDS	19
4.1.1 Introduction to International Standards	19
4.1.2 UN Convention on the Right of The Child (CRC)	19
4.1.3 UNICEF's Child Friendly Cities Initiative	20
4.1.4 The Child Friendly Cities European Network (ENCFC)	21
4.1.5 The NACTO Global Designing Cities Initiative	22
4.2 CASE STUDIES	23
4.2.1 Case Study 1: Antwerp, Belgium - Play Spaces and Play Streets	23
4.2.2 Case Study 3: The Playing Out Program in the UK	25
4.2.3 Case Study 3: Freiburg, Germany - Vauban District	27
4.2.4 Case Studies Comparative Table:	30
4.2.5 Key findings	31
CHAPTER 5	32
DESIGN PRINCIPLES AND ELEMENTS	32
5.1 PRINCIPLES SELECTION	32
5.1.1 Analysis of Key Authors and Books Leading to Key Principles in Child-Friendly Urba	n
Design	34
5.1.2 Core Principles and Sub-elements in Child-Friendly Urban Design	35

5.1.3 Principles as an Independence Fostering Element
5.2.1 SAFETY
5.2.1.1 Wayfinding:
5.2.1.2 Secure Boundaries:
5.2.1.3 Traffic management53
5.2.1.4 Color Coding
5.2.1.5 Clear Visual Signage:
5.2.2 INCLUSICITY
5.2.2.1 Age Appropriateness:
5.2.2.1 Sensory Engagement:
5.2.2.3 Sensory Inclusive Design:60
5.2.2.4 Community Engagement:
5.2.2.5 Accessibility of Disabled Children:
5.2.3 PLAYABILITY
5.2.3.1 Natural Elements:
5.2.3.2 Playful Lighting:67
5.2.3.3 Play Zones and Installations:
5.2.3.4 Colorful and Creative Street Art:70
5.2.3.5 Child Centric Landmarks:
5.2.3.5 Flexibility:
CHAPTER 6
SITE ANALYSIS
6.1 ANALYSIS OF CITY LEVEL
6.1.1 Location of Tirana
6.1.2 Population of Tirana
6.1.3 Concept of Playability in Tirana
6.1.4 Parks near the selected street

6.1.5 Building Heights and Year of Construction	
6.2 ANALYSIS OF STREET LEVEL	68
6.2.1 Location of Selected Street in relation with important Landmarks of Tirana	68
6.2.2 Area Selection Reason	69
6.2.3 Building Heights	
6.2.4 Building Use	
6.2.5 Parking as a Circulation Barrier	
6.2.6 The Hotspot areas along the street	
6.2.7 Circulation Analysis	
6.2.8 The most potential zones for proposal along the street	
6.3 ANALYSIS OF PPROPOSAL AREA	
6.3.1 Area Selection	
6.3.2 Site Pictures	
6.4 FINDINGS	
6.4.1 Parents Questionnaire	
6.4.2 Children Questionnaire	
6.5 IMPLEMENTATION COMPONENTS FOR PROPOSAL	
6.5.1 Proposal of the new Masterplan	
6.5.2 3D Pictures from Proposal	
CHAPTER 7	
7.1 Discussions	
7.2 Recommandations	
7.3 Conclusion	
REFERENCES	

LIST OF FIGURES

Figure 1. Context (n.d). Toward Child Friendly Community, Banani Envisioned AIUB	9
Figure 2. Behance (2019). Festivalnyj Goodok.	
Figure 3. Schafbuch B, (n,d).	13
Figure 4. Zick K. (n.d), TActical Urbanism	15
Figure 5. TeraViva Competitions. September 2020, Tactical Urbanism Now, Bustler	15
Figure 6. Mooool, Children Zoo by Wowhaus. (n.d)	15
Figure 7. Sump - Plus News. (n.d)	
Figure 8. Neighborhoods Play Web. (n.d)	24
Figure 9. Jones C. 15 Things to do with Children in Belgium City Break, May 17,2023	25
Figure 10. Stationion Road Harrow. (n.d)	
Figure 11. Play Streets, (n.d)	27
Figure 12. Grove R. June 28, 2019. Fatkin PAtrick Mcevoy, Deezen	27
Figure 13 and Figure 14. Germany Streets, Mittwachs.	29
Figure 15. Strong Towns July 5, 2022. What is the first Sign of a Safe Street?	
Figure 16. Behance, 2021, Parklets in an Urban Environment	40
Figure 17. VICE, April 20.2021. Asi Sera la nueva infrastructura para bicicletas en Colombia	41
Figure 18. Global Designig Cities Initiative (n.d)	42
Figure 19. Groundplay SF. (n.d).	
Figure 20. HArbour Town Premium Outlet Floor PLay. Art + Work (n.d)	43
Figure 21. Morrison, M.K (n,d).	44
Figure 22. Storybook Murals. (n.d).	
Figure 23. Uniplay Trails, (n.d).	45
Figure 24. Abouebeid. January. Inclusive Design of Urban Spaces, 2019	46
Figure 25. Playable Street (n.d).	
Figure 26. Costarangos, A. April 14,2018. Giant Participatoru Stret Art in London	51
Figure 27. Creative Together, Reclaiming Playfulness in Irish Towns and Cities, (n.d)	
Figure 28. Playable Streets (n.d)	53
Figure 29. Melbourne Recital Centre, The Plant, (n.d)	54
Figure 30. Million Ideas, (n.d).	
Figure 31. MAtkawariatka, (n.d).	55

Figure 32. Perfect Parties USA, Archdaily (n.d)	
Figure 33. D+H Lab, BridgeLife, 2019.	56
Figure 34. Isnt that spatial? Tactical Urbanism Interview, MAy 9, 2019	57
Figure 35. Fatkin. A, McEvoy. P, City PArklets London Festival Architect, June 28, 2019	57
Figure 36. LAndscape Architecture MAgazine, 2022.	
Figure 37. PhilPhil Studio (n.d).	59
Figure 38. Tirana Map From AKPT	62
Figure 39. Population of Tirana Children, INSTAT 2021	64
Figure 40. Playability- web Proposal from Governments of Albania	65
Figure 41. Parks near the selected street, Generated by Author.	66
Figure 42. Selected Street Location in Reference with important landmarks, Generated by Author	68
Figure 43. Building Height map, Generated by Author	70
Figure 44. Building Use map, Generated by Author.	71
Figure 45. Parking as a Circulation Barrier, Generated by Author	72
Figure 46. Hotspot Areas Along the Street, Generated by Author.	73
Figure 47. Circulation Analysis, Generated by Author	74
Figure 48. Potential Zones for Proposal, Generated by Authors.	75
Figure 49. Area Selection for Proposal, Generated by Author.	76
Figure 50. Proposal Masterplan, Generated by Author	84
Figure 51. 3D View from proposal.	85
Figure 52. 3D View from proposal.	85
Figure 53. 3D View from Proposal	
Figure 54. 3D View from Proposal	
Figure 55. 3D View from Proposal	
Figure 56. 3D View from proposal.	

LIST OF TABLES

Table 1. Case Studies Comparative Table, Generated by Author	30
Table 2. Key Authors and Books Leading to Key Principles of Children Friendly Streets	34
Table 3. Core Principles and Sub – Elements in Child Friendly Urban Design.	35

LIST OF ABBREVIATIONS

CRC	Convention on The Right of The Child.
SUMP	Sustainable Urban Mobility Plan
UNICEF	United Nations International Children's Emergency Fund
INSTAT	Institute of Statistics (Albania)
WHO	World Health Organization.
ENCFC	European Network of Child-Friendly Cities
NACTO	National Association of City Transportation Officials

CHAPTER 1

INTRODUCTION

1.1 Motivation

The modern urban environment frequently fails to provide for the special demands and developmental requirements of children, which results in a lack of areas that are favorable for play, social contact, and general wellbeing. Long-term effects of this deficiency on children's overall development include reduced play chances, fewer social interactions, and possibly even worse general wellbeing. By exploring the crucial area of urban design and emphasizing the creation of places that prioritize children's experiences and well-being, our research aims to solve this urgent topic.

This study intends to uncover the complex layers of design that can change streets from being only passable routes to areas that are not only welcoming and accommodating, but also able to adapt to the various needs and activities of kids. The fundamental problem lies in the current lack of child-friendly urban spaces, particularly streets, which frequently fall short of meeting the requirements necessary for the overall growth and involvement of the younger population.

The study's importance stems from its commitment to closing the current gap in urban planning and design where children are frequently disregarded or given inadequate attention. Through a detailed analysis of the limitations and difficulties present in the current urban environments, this research hopes to provide novel design ideas that emphasize streets as lively and enjoyable spaces. These suggested changes are intended to improve children's urban experiences more broadly in addition to improving the physical environment. This study essentially aims to introduce a new way of thinking about urban planning by promoting the inclusion of child-centric design principles that go beyond traditional considerations.

1.2 Thesis Objective

Given the significant effects that child-friendly urban environments have on kids' development, this study attempts to clarify the challenges connected with creating and implementing child-friendly urban environments, with a specific focus on Tirana, Albania, in light of the substantial influence that these surroundings have on children's overall development. Even though cities are the epicenters of a wide range of activities, streets are crucial in determining how children experience their urban environment, a fact that is sometimes overlooked in urban design. Lack of child-friendly design features affects kids' physical health as well as their ability to play, explore creatively, and engage in meaningful social interactions. By exploring the unique world of "playable streets," the main aim of this study is to rectify the existing shortcomings in urban planning, with a particular focus on street design, which fall short of sufficiently satisfying the unique needs and experiences of children. This research investigates the idea of "playable streets" in an effort to find creative design ideas that turn congested city streets like Kongresi i Lushnjes into lively, safe, and interesting areas catered to the interests and requirements of youth, specifically children. The final goal is to offer insights and suggestions for creating inclusive, kidcentered urban environments that foster kids' independence, creativity, and healthy social interactions in Tirana and elsewhere. Furthermore, this study will survey Kongresi i Lushnjes and carry out interventions to turn it into a playable street, therefore adding to the body of knowledge about workable ways to improve urban environments for kids.

1.3 Research Questions

1. How can the integration of playability, safety, and inclusivity in urban street design enhance the overall well-being and development of children in Tirana?

2. What lessons can be drawn from international case studies on child-friendly urban design, and how can these best practices be adapted and implemented in the context of Tirana to create more playable and safer streets?

1.4 Scope of works

The scope of work outlined in this section underscores the overarching aim of the research, which is to comprehensively address the unique needs and preferences of children within urban environments, particularly in the context of Tirana. By delving into the theoretical framework of children's design and tactical urbanism, the research endeavors to gain a deep understanding of the principles that underpin child-friendly urban planning. The primary objective of the research is to identify and analyze valuable insights and best practices gleaned from design principles and case studies in other cities. These insights will serve as foundational knowledge for proposing practical strategies and interventions tailored to the specific context of Tirana. Central to the research is the exploration of play as a focal point, encompassing both streets and outdoor spaces, given its critical role in promoting children's well-being and development. The research seeks to bridge the gap between theory and practice by emphasizing the practical implementation of child-friendly design strategies. Collaboration with local stakeholders, policymakers, and community members will be integral to the research process, ensuring that proposed interventions align with the needs and aspirations of Tirana's residents. At its core, the research aims to contribute to the creation of inclusive and child-friendly cities by making streets more playable and safer for children. By drawing insights from comparative case studies and synthesizing findings into actionable recommendations, the research aspires to offer tangible solutions that enhance the urban environment and promote the well-being of Tirana's youngest residents.

1.5 Organization of the thesis

The first chapter of the thesis sets the groundwork by delineating the pressing issues in urban planning, with a particular focus on designing streets to meet the needs of children. It articulates the overarching goal of the research, which is to propose actionable solutions for creating vibrant, safe, and dynamic urban environments conducive to children's well-being and development. This chapter provides context for the subsequent discussions and outlines the research questions, scope, and organization of the thesis.

Chapter 2 delves into a comprehensive review of relevant literature, offering insights into theoretical frameworks and concepts underpinning child-friendly design and tactical urbanism. It explores the significance of prioritizing children's needs in urban planning and elucidates fundamental principles guiding future analysis and recommendations. The literature review critically evaluates existing research and theoretical perspectives, providing a solid foundation for subsequent chapters.

Chapter 3 meticulously describes the methodology employed in the study, outlining the systematic processes involved in data collection, analysis, and interpretation. It elucidates the research approach, including literature review methods, case study observations, questionnaires, and site selection criteria. By transparently detailing the research methodology, this chapter enhances the credibility and rigor of the findings and recommendations presented in the thesis.

This chapter examines international play and urban standards, analyzing initiatives such as the UN Convention on the Rights of the Child and UNICEF's Child Friendly Cities Initiative. It supplements this exploration with insightful case studies from diverse urban contexts to distill best practices and identify transferable lessons applicable to the research context. The chapter critically evaluates international standards and case studies to inform the development of child-friendly urban design solutions.

Chapter 5 focuses on design principles and elements essential for creating child-friendly urban environments. It emphasizes safety, independence, playability, and inclusivity, providing practical insights and ideas for transforming urban spaces. By synthesizing theoretical insights with empirical data and practical considerations, this chapter aims to offer a blueprint for designing vibrant, engaging environments that promote children's well-being and development.

Chapter 6 conducts a comprehensive analysis of the selected site, examining both city-level and street-level factors. It investigates the demographic profile of the city, analyzes the existing urban fabric, and assesses the proposed site's suitability for child-friendly interventions. Through detailed site analysis, this chapter identifies opportunities and challenges for implementing design proposals aimed at enhancing the urban environment for children.

The final chapter of the thesis synthesizes the findings from previous chapters, providing a comprehensive overview of the research outcomes. It discusses key insights, implications, and recommendations derived from the study, reflecting on the contributions to urban planning and architecture. The conclusion offers reflections on the systematic and comprehensive approach adopted in the thesis and outlines avenues for future research and practice in creating inclusive, child-centered cities.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The absence of child-friendly environments impedes children's development, limits opportunities for play and social interaction, and, as a result, has an impact on their general wellbeing. Recognizing this critical issue, this study looks into the necessity of building cities with children in mind. Understanding the influence of child-friendly urban places is critical for building inclusive environments that encourage independence, creativity, and social interaction in children. This study dives into the topic of making cities more child-friendly, with an emphasis on Tirana, Albania's capital city. We hope to gain a better understanding of children's particular needs and preferences in urban contexts by investigating the theoretical frameworks of children's and tactical urban design.

Valuable insights and best practices from design principles and case studies in other cities will be investigated for potential applicability in Tirana. The actual application of child-friendly design methods in conjunction with local stakeholders, policymakers, and community members will be a critical component of this study. The primary focus of this study is on play, which includes streets and outdoor places. Drawing on comparative case studies, the research intends to provide recommendations on how to make streets more playable and safer, so helping to the development of inclusive and child-friendly cities. As writer George Monbiot rightly observes, *"If children are not designed into our cities, they are designed out."*

This indicates that they have lost contact with the material world, nature, civic life, and their own abilities." This remark emphasizes the need of including children's opinions into design. An environment focused solely on the needs of adults has negative implications for children, whereas an environment focused on the needs of children has a favorable impact on the lives of adults. Spatial organization that incorporates children's needs is not only child-friendly, but also user-friendly.

2.2 Understanding Children friendly Design

The concept of a child-friendly metropolis is gaining popularity as an increasing number of families choose to live in cities. This is because it recognizes the need of creating communities that are safe, livable, and entertaining for both children and their parents. The underlying concept is that "a city that is good for children is good for everyone."

(Danenberg et al., 2018)

"Child-friendly design" refers to the process of creating sustainable physical environments that promote children's health, wellness, and development in densely populated areas and cities. Architects, landscape architects, and city planners have always focused on the demands of adults.

Even though cities have been around for thousands of years, children's needs were not given any consideration when they were being developed. However, there is a tiny historical precedent for child-friendly architecture, and modern planners and designers are paying more attention to the requirements of young people. Urban design encompasses the collaborative and multidisciplinary process of shaping the physical setting for life. Within this framework, the concept of "child-friendly design" emerges as a crucial aspect, particularly in crowded neighborhoods and cities. (Accola, n.d)

The contemporary urban landscape is undergoing a transformative paradigm shift with the burgeoning recognition and embracement of the child-friendly metropolis concept. This evolving trend mirrors the increasing preference for urban living among families and is underscored by a profound understanding of the imperative to cultivate communities that are not merely habitable but are also inherently safe, engaging, and enriching for both children and their parents. At the core of this conceptual revolution lies the fundamental philosophy articulated by *(Danenberg et al, 2018)*, encapsulating the profound idea that "a city that is good for children is good for everyone." This tenet resonates with a holistic approach to urban design, acknowledging the interconnectedness of city planning with the well-being of families and promoting an ethos of inclusivity and cohesion within urban spaces. The term "child-friendly design" embodies a transformative ethos, denoting the deliberate process of crafting sustainable physical environments expressly designed to foster the health, wellness, and comprehensive development of children within the intricate tapestry of densely populated urban areas. Delving into the historical annals of urban planning reveals an inherent bias towards the preferences and

exigencies of the adult population, with architects, landscape architects, and city planners traditionally sidelining the unique needs of children in the intricate developmental fabric of cities that have endured for millennia. However, contemporary urban development is witnessing a pivotal reevaluation as architects and planners increasingly recognize the historical oversight and redirect their focus towards child-friendly architecture. This transformative shift underscores a critical juncture in the evolution of urban design, recognizing the collaborative and multidisciplinary nature inherent in shaping the physical setting for life. Within this dynamic framework, the emergent concept of "child-friendly design" stands as a pivotal facet, particularly in the context of bustling neighborhoods and cities where the convergence of diverse demographics necessitates nuanced urban planning strategies. The scholarly contributions of (Accola n.d.) further amplify the significance of this burgeoning paradigm, shedding light on its potential to contribute substantially to the overarching well-being of communities. As urban spaces evolve, the seamless integration of child-friendly elements into the very fabric of urban design not only addresses the specific needs of the burgeoning younger demographic but also augments the safety, livability, and recreational allure for families at large. In essence, this paradigmatic shift heralds the cultivation of positive community dynamics, echoing the resounding realization that a city conscientiously designed with children in mind invariably bequeaths benefits to the entire urban populace. This transformative ethos, encapsulated within the child-friendly design paradigm, forms an integral cornerstone in the ongoing discourse of urban planning and development, heralding a future where urban spaces are not only functional but also inherently nurturing and enriching for the diverse demographic tapestry they encompass.



Figure 1. Context (n.d). Toward Child Friendly Community, Banani Envisioned AIUB

2.3 Importance of Children friendly design

Children, due to their limited experience, underdeveloped awareness of risks, and often immature behavior, stand out as one of the most vulnerable groups of road users. The severity of consequences in accidents involving children is particularly high, underscoring the pressing need for continuous efforts to enhance their safety. As *(Klinke, 2017)* highlights, the global trends in child road traffic fatalities present a complex scenario, with some regions witnessing a steady decline in the number of children under the age of 15 losing their lives in road accidents, while in other parts of the world, the figures remain persistently high or are even on the rise. This stark reality emphasizes the formidable challenge faced universally in implementing and sustaining effective measures to safeguard children on the roads.

The gravity of the situation is further underscored by the World Health Organization's *(WHO)* alarming statistics, revealing that annually, approximately 1.35 million lives are lost in road accidents globally, with an additional 20 to 50 million individuals suffering serious injuries. Of particular concern is the age group between 5 to 29 years, where traffic crashes have become the leading cause of death. *(Mohn, 2019)* draws attention to the distressing trend of frequent fatalities among school-aged children, highlighting the hazardous journey to school in certain regions. In response to this alarming global public health crisis, initiatives vary from relatively low-tech and cost-effective measures, such as distributing backpacks with reflector strips to schoolchildren, to more substantial interventions like road improvements. Implementing speed bumps, bollards, and clearly marked zebra crossings near school crosswalks represents critical steps in enhancing child safety and reducing the incidence of accidents.

The multifaceted challenge of ensuring child safety on roads demands a comprehensive approach that combines awareness campaigns, policy changes, and infrastructural enhancements. With road accidents remaining a significant threat to children's well-being, the importance of child-friendly design cannot be overstated. The emphasis on creating urban environments that prioritize the safety and well-being of children becomes paramount, addressing not only immediate concerns about road safety but also contributing to the broader goal of nurturing communities where children can thrive and develop positively.

2.4 The main focus of Children Friendly Design

Child-friendly design places a significant emphasis on fostering independence in children and young individuals. This perspective challenges the conventional notion that children should always be under the watchful eye of adults. Research and advocates such as Tim Gill stress the importance of allowing children the freedom to explore and play autonomously. This principle acknowledges the critical role independence plays in shaping a child's future success, self-assurance, and mental well-being. Children's reliance on adults for constant supervision limits their opportunities to develop essential life skills. The lack of independence inhibits their ability to navigate challenges, identify internal motivations, and gain a sense of control over their lives. Gill's research suggests that children who experience greater daily freedom are more likely to grow into successful, self-assured individuals less prone to mental health issues and better equipped to handle the pressures of adulthood (*Gill*, 2007)

Child-friendly design principles, when applied to urban planning, challenge the conventional organization of streets primarily designed for automobiles. These principles advocate for streets as multifunctional spaces that accommodate children's needs for play and exploration. In designing urban environments that prioritize safety, inclusivity, and playfulness, child-friendly design creates opportunities for children to develop independence by interacting with their surroundings without excessive adult intervention (*Bishop & Corkery, 2017*). This shift in perspective encourages the reimagining of streets as more than just conduits for traffic but as integral components of a child's daily environment. The main principles that guide child-friendly design include safety, inclusivity, creativity, and social interaction. Streets designed with these principles in mind become spaces where children can engage in independent play without unnecessary risks or hazards. Safety, as a primary concern, ensures that children can explore their environment without compromising their well-being. Inclusivity ensures that all children, regardless of abilities, can actively participate in play activities, fostering a sense of belonging. Creativity and social interaction are encouraged, contributing to healthy development and enjoyment. (*Bishop & Corkery, 2017*).

In conclusion, child-friendly design, with a focus on fostering independence, is pivotal for the holistic development of children. As these principles are applied to urban planning, streets cease to be mere conduits for traffic and transform into vibrant, inclusive spaces that empower

children to navigate their environments independently. This shift not only enhances the immediate well-being of children but also lays the groundwork for their future success and resilience in the face of life's challenges.

2.5 Playfulness, A central element in children friendly Design

In the realm of children-friendly design, where safety, inclusivity, creativity, and social interaction take precedence, playfulness emerges as a central and transformative element. While adults may prioritize safety and inclusion for children in society, it is crucial to recognize that, from the children's perspective, play becomes the paramount concept. The right of children to engage in play is not merely a recreational preference but is underscored as a fundamental human right, as articulated in *(UNICEF, 1989)*. The Convention on the Rights of the Child explicitly recognizes and emphasizes the importance of play in a child's life. Play is not only a source of joy and recreation but a critical component of a child's development. Allowing children, the freedom to play is not just about providing them with leisure; it is a profound investment in their ability to confront and navigate challenges, identify internal motivations, and ultimately develop confidence and control over their lives. This perspective aligns with the research findings of advocates like Tim Gill, who, in his work, *(Gill, 2007)* highlights the positive correlation between children's daily freedom, play, and their future success and mental well-being.

From a child's perspective, the world is a playground, and every space holds the potential for exploration, imagination, and play. Recognizing playfulness as a central element in childrenfriendly design transcends the traditional understanding of urban spaces. It calls for environments that not only accommodate structured play areas but integrate playful elements throughout, turning streets and public spaces into dynamic, engaging landscapes. In conclusion, playfulness in children-friendly design is not a mere afterthought but a fundamental principle that shapes the very essence of urban spaces. It acknowledges the intrinsic right of children to play and, in doing so, not only contributes to their immediate joy but lays the foundation for a future generation that is adept at facing life's challenges with resilience, creativity, and a sense of control.



Figure 2. Behance (2019). Festivalnyj Goodok.

Figure 3. Schafbuch B, (n,d).

2.6. The role of tactical design and urbanism in street design

Tactical design and urbanism, in the context of playable streets and children-friendly urban design, refer to the temporary and strategic change of public areas to improve their usefulness and attractiveness, particularly for the well-being and enjoyment of children. This method prioritizes short, low-cost initiatives to test and improve urban surroundings before making permanent improvements. Tactical urbanism frequently incorporates temporary amenities such as pop-up playgrounds, street art, and interactive installations that encourage community participation. When applied to playable streets and child-friendly urban design, tactical interventions can help to create safer and more participatory streetscapes. For example, temporary traffic closures for play streets, as well as the installation of colored crosswalks and street murals, can help to create visually appealing and safer surroundings for children.

Tactical design, particularly in the context of creating playable streets and nurturing a childfriendly urban environment, is a comprehensive and dynamic strategy that involves the intentional, temporary, and strategic reconfiguration of public places. This transformative approach aims to improve the functionality and appeal of these places, with a particular emphasis on boosting children's well-being and enjoyment. The primary principle of this methodology is to carry out rapid, low-cost interventions that act as experimental prototypes, allowing for the testing and refinement of urban settings before committing to permanent changes.

Additionally, tapping on studies by specialists like Tim Gill, focuses on the delicate balance between guaranteeing children's safety and giving them the freedom to explore and play in urban surroundings. Understanding these principles is critical for developing environments that meet the needs and experiences of children.

The Bernard van Leer Foundation adds to this discussion by emphasizing the importance of early childhood development and fighting for inclusive, accessible, and playful public spaces. Their materials and views offer a broader perspective on designing spaces that promote children's well-being in the urban landscape.

By adopting tactical design and urbanism, urban planners and designers may traverse the intricacies of creating dynamic, safe, and pleasurable urban environments for children. This approach not only improves the immediate quality of life for young residents, but it also contributes to the long-term positive change of urban settings by creating inclusive, accessible, and playful public areas that benefit the entire community.

Integrating tactical design and urbanism into the development of playable streets and child-friendly urban environments offers a comprehensive and dynamic approach to transforming public spaces. This method, deeply rooted in the principles of tactical urbanism, encompasses both temporary and strategic interventions aimed at enhancing the well-being, safety, and enjoyment of children in urban settings. By implementing quick, cost-effective modifications, cities can experiment with and refine their designs, allowing for real-time feedback and adjustments before making permanent changes. This adaptive and flexible approach not only fosters creativity and innovation in urban design but also ensures that the needs and desires of children are prioritized, leading to more vibrant, inclusive, and resilient urban spaces. Ultimately, this method encourages a participatory process where communities, including the youngest members, can engage in shaping the environments in which they live, learn, and play.



Figure 4. Zick K. (n.d), TActical Urbanism



Figure 5. TeraViva Competitions. September 2020, Tactical Urbanism Now, Bustler



Figure 6. Mooool, Children Zoo by Wowhaus. (n.d)

CHAPTER 3

METHODOLOGY

3.1 Literature Review

The study began with an extensive literature review encompassing books, academic journals, reports, and reliable websites to establish a solid theoretical foundation for understanding the interplay between urban environments and children's needs. This review focused on key areas such as urban design, child development, and urban planning. The process involved identifying core literature, including seminal works like "Designing Cities with Children and Young People" by Kate Bishop and Linda Corkery, and "City Planning for Children and Youth" by Naomi G. Alpern, as well as key authors such as Tim Gill and Roger Hart. Academic journals like "Journal of Urban Design" and "Children, Youth and Environments" provided empirical research and case studies highlighting best practices. Additionally, reports from international guidelines like UNICEF's Child Friendly Cities Initiative and the UN Convention on the Rights of the Child were analyzed for successful models and best practices. Reliable websites from reputable organizations such as UNICEF and the World Health Organization offered valuable case studies and examples. Synthesizing these insights allowed the study to integrate theoretical frameworks and identify critical components like safety, accessibility, inclusivity, and playability, as well as innovative approaches like tactical urbanism. This comprehensive review formed the basis for developing actionable solutions tailored to transforming Rruga Kongresi i Lushnjë into a playful, safe, and engaging street for children in Tirana, Albania.

3.2 Case Study Observations

Building upon the literature review, case study observations were conducted to gather firsthand insights into the dynamics of child-friendly urban spaces. The process began by researching and identifying cities renowned for their success in creating play-friendly environments, such as Antwerp, Belgium; Freiburg, Germany; and Bristol, UK. Detailed observations of these cities were made through available documentation, including urban planning reports, city council publications, and academic articles. Virtual tours and video walkthroughs were also utilized where possible to gain a deeper understanding of the spaces. Key aspects such as street design, accessibility, safety measures, and community engagement were analyzed. These observations provided valuable real-world examples, highlighting common challenges and successful strategies, and guided the formulation of tailored approaches suited to the specific needs of children in urban environments like *Kongresi i Lushnjes* street in Tirana, Albania

3.3 Questionnaires

The research methodology involved developing and distributing questionnaires to gather perceptions and experiences related to children's activities in urban settings. A total of 120 questionnaires were created: 20 for children aged 8 to 12 and 100 for parents.

The child questionnaire consisted of 7 questions and was administered in person to ensure accurate understanding and responses. It included a mix of closed-ended and open-ended questions focusing on playability, safety, and inclusivity in urban spaces.

The parent questionnaire, with 15 questions, was mostly conducted online (80 responses) and partially in person (20 responses). It used multiple-choice and Likert scale questions to gather data on safety, comfort, and their children's urban experiences.

This inclusive approach captured comprehensive viewpoints from both children and parents, enriching the research findings on transforming *Kongresi i Lushnjes* street into a child-friendly street.

3.4 Map Observation and City Analysis

The selection of *Kongresi i Lushnjes* street street as the study area was informed by a meticulous map observation and city analysis. The process involved examining various factors such as accessibility, existing amenities, and community engagement potential to ensure alignment with broader urban development objectives. Specifically, the street was chosen for its strategic location within Tirana and its suitability for implementing child-friendly initiatives. Through map observation and city analysis, it was determined that *Kongresi i Lushnjs* Street possesses characteristics conducive to fostering a vibrant and inclusive urban environment for children. This active street is surrounded by residential areas, schools, and recreational facilities, making it an ideal location for promoting playability, safety, and inclusivity. The process of selection provided

valuable insights into the street's existing infrastructure and the potential for enhancing its childfriendliness, contributing to the development of targeted interventions and recommendations.

3.5 Site selection and current condition analysis

Several convincing considerations led to the selection of *Kongresi i Lushnjes* street as the study area. For starters, it has a distinctly residential feel to it, with a large stream of families and children arriving every day. This residential orientation is reinforced by the existence of nearby schools and preschools, making the route a primary highway for children's daily trips. Furthermore, the lack of nearby parks forces youngsters to repurpose their everyday transit patterns, transforming the street into an improvised playground. Thus, this street serves as an ideal study site, capturing the intertwining dynamics of home life, educational institutions, and a lack of recreational places, all of which highlight the importance of addressing the street's child-friendliness and playability.

CHAPTER 4

INTERNATIONAL PLAY AND URBAN STANDARDS AND CASE STUDIES

4.1 INTERNATIONAL PLAY AND URBAN STANDARDS

4.1.1 Introduction to International Standards

Investigating global best practices for creating kid-friendly play areas is essential to creating a thorough and broadly applicable method of urban planning. These guidelines work as a global point of reference, offering information on tried-and-true tactics and best practices that put kids' health and playtime first. Recognizing global standards guarantees that practitioners, politicians, and designers have a common understanding and commitment to building inclusive settings that cut across geographic barriers and promote informed decision-making. It essentially emphasizes our shared need to provide children's rights and needs in metropolitan areas around the world top priority.

4.1.2 UN Convention on the Right of The Child (CRC)

The United Nations Convention on the Rights of the Child (CRC), signed in 1989, is a historic international treaty that defines the fundamental rights and safeguards owed to children worldwide. At its core, the CRC represents a progressive approach to children's rights, emphasizing their inherent right to a full and rewarding childhood experience. One critical facet of this entitlement, as outlined in Article 31, addresses children's inalienable right to play, rest, and actively participate in leisure activities.

Article 31 of the CRC is a cornerstone of the convention, providing a sophisticated understanding of the role of play in children's lives. It specifically affirms children's freedom to freely participate in cultural and artistic life, to enjoy age-appropriate recreational activities, and to fully participate in communal and social life. Within the urban setting, this translates into a convincing recognition

of the vital role that public spaces, especially streets and playgrounds, play in promoting children's well-being and development.

The affirmation of children's right to play inside the CRC has far-reaching ramifications for urban planning and design. It emphasizes the importance of designing places that prioritize safety while simultaneously actively encouraging and facilitating play. Urban areas, as described in the CRC, should be intelligently constructed to provide for leisure activities acceptable for people of all ages. This includes designing accessible and inclusive play places that cater to a wide range of needs and abilities.

Article 31

1. States Parties recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.

2. States Parties shall respect and promote the right of the child to participate fully in cultural and artistic life and shall encourage the provision of appropriate and equal opportunities for cultural, artistic, recreational and leisure activity.

(UNICEF, 1989)

This article is one example to show these guidelines approach on children friendly design and how important playability is in the lens of children and that we should take it in consideration in the process of designing.

4.1.3 UNICEF's Child Friendly Cities Initiative

The Child-Friendly Cities Initiative by UNICEF presents a comprehensive framework for the integration and prioritizing of children's rights within urban development. It was created to empower local governments. This UNICEF-initiated program is an example of a forward-thinking approach to urban planning, highlighting the importance of creating safe, inclusive, and accessible public spaces, including streets, to foster children's play and active engagement in community life. The program emphasizes how much urban environments affect children's growth, well-being, and general quality of life. It acts as a beacon of guidance for local governments, providing them with useful tactics and ideas to design urban environments that are sensitive to the special requirements of children.

According to the Child-Friendly Cities Initiative, urban planning needs to break free from conventional thinking and embrace a child-centric viewpoint that actively includes kids in decision-making. Local governments can learn how to create kid-friendly environments that also support safety, inclusivity, and community involvement by consulting this effort.

This strategy is in line with the general tenets of the United Nations Convention on the Rights of the Child, with a focus on Article 12, which upholds children's right to voice their opinions on issues that impact them. Thus, the Child-Friendly Cities Initiative represents a concrete example of the larger global commitment to protecting children's rights and well-being in urban environments.

(UNICEF, 1989)

4.1.4 The Child Friendly Cities European Network (ENCFC)

The goal of the Child Friendly Cities European Network (ENCFC) is to advance urban design that gives children's needs and rights top priority. The "Child Friendly Cities Toolkit," an extensive resource created to assist stakeholders, local governments, and urban planners in building places that are naturally child-friendly, is at the center of the organization's aim. This toolbox is proof of ENCFC's dedication to making sure urban streets actively promote children's play, safety, and enjoyment rather than just being there for them.

The "Child Friendly Cities Toolkit" provides a plethora of particular guidelines and suggestions designed to meet the particular needs of kids living in cities.

Through the use of this toolkit, urban planners can acquire a sophisticated comprehension of how to convert streets into areas that are not just secure and comfortable but also conducive to play. This entails taking into account factors like creating play spaces that are age-appropriate, making sure they are easily accessible, and adding components that enhance kids' experiences in general. This toolkit is an invaluable resource that provides helpful advice based on a child-centric viewpoint. It supports the notion that urban design should actively support children's rights, particularly the right to play, and is in line with international accords like the United Nations Convention on the Rights of the Child.

(ENCFC, 2017)

4.1.5 The NACTO Global Designing Cities Initiative

National Association of City Transportation Officials (NACTO), stands as a significant global influence in the realms of transportation and urban design. Central to this initiative is the "Global Street Design Guide", a comprehensive and forward-thinking manual that transcends traditional urban design methods. This guide places a special emphasis on the safety and inclusiveness of streets for a diverse range of users, including, but not limited to, children. This aligns seamlessly with the overarching objective of creating streets that are both naturally playable and practical, fostering environments where safety and enjoyment are paramount.

The "Global Street Design Guide" embodies NACTO's progressive vision for urban streets. It integrates innovative ideas and approaches intended to enhance roadway safety and inclusivity for all users. By focusing on evidence-based recommendations and best practices, the guide equips urban planners and policymakers with the tools needed to design streets that not only meet the current demands of urban living but also anticipate and accommodate future needs. One of the standout features of the "Global Street Design Guide" is its holistic approach to urban design. The guide promotes a multi-faceted perspective that considers various factors such as traffic flow, pedestrian safety, accessibility, and environmental impact. By doing so, it encourages the creation of streets that serve multiple purposes and cater to a wide range of activities and users. This multiuse approach is crucial in urban environments where space is often limited, and the needs of the community are diverse. At the heart of the guide is the principle of safety and inclusivity. NACTO emphasizes that streets should be safe for all users, regardless of age, ability, or mode of transportation. This includes designing streets that are accessible to children, the elderly, and people with disabilities. By implementing measures such as wider sidewalks, safer crosswalks, and traffic calming techniques, urban planners can create environments that minimize the risk of accidents and encourage more people to use the streets. The guide recognizes the unique needs of children and incorporates design elements that make streets more welcoming and secure for young users. This includes creating safe routes to schools, play areas, and community spaces where children can engage in physical activities without the risk of traffic accidents. By prioritizing the needs of children, the guide supports the development of healthier and more active communities.

4.2 CASE STUDIES

4.2.1 Case Study 1: Antwerp, Belgium - Play Spaces and Play Streets

Context

The Belgian city of Antwerp has undertaken significant urban redesign efforts with a focus on creating kid-friendly play areas and ensuring security. Central to this transformation is the Play Streets project, led by the city's play space officer, Wim Seghers.

Background

Antwerp's strategy emphasizes accessibility, safety, and participation, seamlessly integrating kidfriendly areas into the urban landscape. The city has turned several streets into vibrant play spaces where children can play outside safely, nurturing their creativity and sense of freedom. By temporarily closing these routes to traffic and designating no-parking zones, Antwerp promotes physical activity and fosters community relationships.

Methodology

Antwerp's commitment to developing innovative and inclusive play spaces is evident in its approach. The city actively involves children and local communities in the planning process to ensure that these play areas cater to the needs and preferences of young users of all ages and abilities. This participatory planning process guarantees that the play spaces genuinely reflect the desires of the community.

Implementation

The Play Streets project involves temporarily closing selected streets to traffic, transforming them into safe and lively play areas. This initiative not only provides immediate play opportunities for children but also serves as a gathering place for residents, enhancing social interactions and community cohesion.

Practice and Activities

In these play spaces, children engage in various physical activities, fostering their development and well-being. The areas are designed to be accessible and stimulating for children of all abilities, ensuring inclusivity. These spaces act as catalysts for community formation, encouraging interaction among residents of all ages.

Lessons Learned

The impact of Antwerp's initiatives extends beyond the immediate benefits of increased play areas and safer streets for children. By prioritizing child-friendly urban development, Antwerp has fostered a more inclusive, dynamic, and cohesive community atmosphere. This approach contributes to the city's overall vibrancy and livability, improving the well-being of its youngest citizens. Antwerp's model demonstrates that when children's needs and play are prioritized in urban planning, the entire society benefits, resulting in more dynamic, inclusive, and livable metropolitan areas.



Figure 7. Sump - Plus News. (n.d)

Figure 8. Neighborhoods Play Web. (n.d)



Figure 9. Jones C. 15 Things to do with Children in Belgium City Break, May 17,2023

4.2.2 Case Study 3: The Playing Out Program in the UK

Context

The Playing Out program, launched informally in June 2009 by two parents in Bristol, UK, is a resident-led play street model that has spread to hundreds of local streets within the UK, including Bristol and London, and internationally to countries like Australia. The program involves temporary but regular street closures, allowing children to play and move around freely.

Background

The program is built on several key principles: it is managed by citizens, operates at a modest cost using existing spaces, and aims to be sustainable, legal, and inclusive. The main objectives are to encourage communities to regularly close their streets for free play, improve children's health and well-being, increase community cohesion, involve citizens in urban issues, and promote inexpensive changes in public space usage.

Methodology

The process for implementing a play street takes approximately two to three months from the initial request to the city to the street closure. It involves consultation with local residents and assigning specific roles to ensure the project's success.

Implementation

Project Leaders: The organizer, who must be enthusiastic and fully committed, coordinates the free play periods on the street.

Stewards: Responsible for street security, with two reliable people stationed at each vehicle entry point during free play periods.

Supporters: Provide essential support for all tasks related to the project, including publicizing the initiative, preparing pamphlets, disseminating information, setting up signage, and documenting the project with photographs.

Practice and Activities

The program mobilizes stakeholders and implements projects through a well-structured approach. Community members take active roles in organizing and ensuring the safety of the play streets. The regular closures allow children to engage in free play, promoting physical activity and social interaction in a safe environment.

Lessons Learned

The Playing Out program demonstrates that resident-led initiatives can successfully transform public spaces into child-friendly areas. By involving citizens directly in the planning and execution process, the program fosters a sense of community and encourages residents to rethink urban space usage. The emphasis on low-cost, sustainable actions shows that significant positive changes in public domain use can be achieved through simple and inexpensive measures. This model provides a scalable and replicable approach for enhancing children's play opportunities and community cohesion in urban areas worldwide.





Figure 10. Stationion Road Harrow. (n.d)

Figure 11. Play Streets, (n.d)



Figure 12. Grove R. June 28, 2019. Fatkin PAtrick Mcevoy, Deezen.

4.2.3 Case Study 3: Freiburg, Germany - Vauban District

Context

The Vauban district in Freiburg, Germany, stands as a leading example of sustainable urban living, emphasizing the creation of a child-friendly environment with playful streets. This community has been meticulously designed to reduce car traffic, enhancing children's safety and enjoyment.

Background

Vauban's streets serve as more than mere transportation routes; they are vibrant venues for community engagement, play, and pedestrian movement. The district features car-free zones and traffic-calmed streets, allowing children to walk, play, and explore their surroundings safely.

Green spaces, common areas, and playgrounds are seamlessly integrated into the urban landscape, fostering a connection to nature and the community.

Methodology

Vauban's urban design philosophy goes beyond merely establishing play areas. It reimagines the urban environment as a cohesive, inclusive playground that supports the well-being and development of its youngest residents. This holistic approach ensures that play is an integral part of daily life and urban functionality.

Implementation

The implementation of Vauban's child-friendly urban design involves creating extensive car-free zones and traffic-calmed streets. Green spaces and playgrounds are interwoven throughout the district, providing safe and accessible areas for children to play. The community's layout encourages pedestrian movement and outdoor activities, supporting an active lifestyle from an early age.

Practice and Activities

Residents in Vauban benefit from a thoughtfully designed urban environment where children can safely engage in outdoor play and exploration. The district's green spaces and common areas promote interaction among residents, enhancing the sense of community. These spaces are designed to be inclusive, catering to the needs of children and fostering their development and well-being.

Lessons Learned

Vauban's success in creating playable streets for children highlights the importance of incorporating children's needs into urban planning. By prioritizing child-friendly design, Vauban has improved the quality of life for its youngest residents while also enhancing the district's overall sustainability and livability. This model demonstrates that thoughtful urban design can create healthy, lively, and inclusive communities. Vauban's achievements underscore the necessity of considering children's needs in urban development, offering a pathway to building cities that promote the growth and happiness of all residents.



Figure 13 and Figure 14. Germany Streets, Mittwachs.

4.2.4 Case Studies Comparative Table:

Table 1. Case Studies Comparative Table, Generated by Author.

Case Study	Location	Initiative Origin	Main Objectives	Key Features	Impact
1.	Antwerp, Belgium	Play Streets Initiative	Create safe play spaces on streets; Encourage community engagement.	Temporary car-free zones; Inclusive playgrounds; Community involvement in design.	Enhanced urban play areas; Strengthened neighborhood ties; Increased awareness of child-friendly urban planning.
2.	Freiburg, Germany	Sustainable Urban Planning	Minimize car usage to enhance safety and playability for children; Foster sustainable urban living.	Car-free and traffic- calmed streets; Integrated green spaces; Community participation in urban planning.	Safe, vibrant spaces for children; Enhanced community livability; Promotion of active, outdoor lifestyles.
3.	UK London	Temporary Street Closures	Encourage free play by temporarily closing streets; Improve children's health; Increase community cohesion.	Temporary but consistent street closures; Managed by citizens; Sustainable and inclusive projects.	Regular opportunities for child play in streets; Improved health and well-being; Strengthened community bonds.

4.2.5 Key findings

1. Antwerp, Belgium:

Temporary car-free zones and inclusive playgrounds enhance urban play areas. Community involvement in design contributes to strengthened neighborhood ties. Increased awareness of child-friendly urban planning positively impacts the community.

2. Freiburg, Germany:

Car-free and traffic-calmed streets create safe and vibrant spaces for children. Integrated green spaces and community participation foster enhanced livability. The initiative promotes active, outdoor lifestyles in a sustainable urban setting.

3. UK London:

Temporary street closures, managed by citizens, provide regular opportunities for child play. Sustainable and inclusive projects contribute to improved health and well-being. Increased community cohesion is a notable impact of the initiative.

These case studies demonstrate several techniques to developing child-friendly urban environments. Antwerp focuses on temporary car-free zones and inclusive playgrounds, which are pushed by city initiatives. Freiburg's Vauban district prioritizes sustainable urban planning, including car-free living and integrated natural spaces, with backing from both the city and the community. The Playing Out program in the United Kingdom is unique in that it is led by residents and focuses on brief street closures to allow children to play, showing a grassroots approach to urban playability. Each model teaches vital lessons about improving children's play possibilities and promoting community cohesion through innovative urban design and planning initiatives.

CHAPTER 5

DESIGN PRINCIPLES AND ELEMENTS

5.1 PRINCIPLES SELECTION

To better grasp the fundamental concepts of constructing playable streets for children, an exhaustive review of literature covering multiple publications was conducted. Throughout this process, a wide range of sources were explored, each addressing different facets of child-friendly urban design. From this extensive body of material, six authors and their major works emerged as crucial to the discussion. These include Jan Gehl's "Cities for People," Tim Gill's "No Fear: Growing Up in a Risk-Averse Society," William H. Whyte's "The Social Life of Small Urban Spaces," Roger Hart's "Children's Participation: From Tokenism to Citizenship," Richard Louv's "Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder," and Kevin Lynch's "The Image of the City." These writers and their publications were chosen because they provide comprehensive discussions of the principles required for developing urban spaces that promote children's play and well-being.

Jan Gehl's "Cities for People" is a seminal work that emphasizes the human dimension in urban design. Gehl advocates for designing cities that prioritize pedestrian experiences and social interactions, creating environments that are not only functional but also enjoyable and inclusive. His principles are centered around human-scale design, active and lively public spaces, and ensuring safety and comfort for all users. Gehl's insights are instrumental in understanding how urban spaces can be tailored to enhance children's play by making streets and public areas more accessible and inviting.

Tim Gill's "No Fear: Growing Up in a Risk-Averse Society" addresses the impact of overly protective environments on children's development. Gill argues for allowing children to experience and manage risk, which is essential for their growth and learning. His principles for urban design focus on incorporating elements that allow for risk and resilience, promoting free play and exploration, and ensuring inclusivity and accessibility. Gill's work is crucial in highlighting the

importance of unstructured play and the need for children to engage with their environment in ways that challenge and stimulate them.

William H. Whyte's "The Social Life of Small Urban Spaces" examines how small urban spaces can be designed to promote social interaction and community engagement. Whyte's principles are essential for creating child-friendly urban environments that foster social play and community bonds. His approach involves observation-based design, creating flexible and adaptable spaces, and encouraging social interaction. Whyte's insights help in understanding how to design urban spaces that facilitate social interactions and communal activities, making them more engaging and beneficial for children.

Roger Hart's "Children's Participation: From Tokenism to Citizenship" explores the importance of involving children in the planning and design process of urban spaces. Hart emphasizes inclusivity, community engagement, and promoting children's independence. His work underscores the value of actively involving children in decision-making, ensuring their voices are heard, and their needs are met. This approach not only creates more relevant and effective play spaces but also empowers children as active participants in their communities.

Richard Louv's "Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder" highlights the critical need for integrating natural elements into urban spaces to combat the growing disconnect between children and nature. Louv advocates for the inclusion of natural elements, ensuring safety, and promoting independence through nature-based play. His principles stress the importance of creating safe, nature-rich environments where children can explore and interact with the natural world, fostering physical and mental well-being.

Kevin Lynch's "The Image of the City" provides insights into how urban design can enhance wayfinding and spatial understanding, which are crucial for children's safety and independence. Lynch's principles focus on creating clear and navigable urban spaces that help children understand their environment and move around safely. His emphasis on safety, independence, and wayfinding contributes to creating child-friendly urban areas where children can confidently explore and navigate.

By selecting these six authors and their influential works, this study aims to distill the core principles that combine common elements found in a variety of sources. These principles include human-scale design, active and lively public spaces, safety and comfort, risk and resilience, free play and exploration, inclusivity and accessibility, observation-based design, flexible and adaptable spaces, encouraging social interaction, community engagement, natural elements, wayfinding, and promoting independence.

5.1.1 Analysis of Key Authors and Books Leading to Key Principles in Child-Friendly Urban Design

Author	Most Important Books	Principles Most Mentioned	Most Important Common Principle	
Jan Gehl	Cities for People	Safety, Independence, Inclusivity, Playfulness	Inclusivity	
Tim Gill	No Fear: Growing Up in a Risk- Averse Society	Playfulness, Safety, Independence, Community Engagement	Playfulness	
William H. Whyte	The Social Life of Small Urban Spaces	Safety, Flexibility, Age Appropriateness		
Roger Hart	Children's Participation: From Tokenism to Citizenship	Inclusivity, Community Engagement, Independence	Inclusivity	
Richard Louv	Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder	Natural Elements, Safety, Independence	Safety	
Kevin Lynch	The Image of the City	Wayfinding, Safety, Independence	Safety	

Following an in-depth examination of numerous books and writers in the subject of child-friendly urban design, several fundamental ideas emerged as essential for building environments that promote children's well-being and development. Safety, inclusivity, and playability emerged as the most frequently mentioned and crucial characteristics, each covering specific factors required for their implementation.

To define these concepts and their respective elements, the following table was created:

5.1.2 Core Principles and Sub-elements in Child-Friendly Urban Design

Table 3. Core Principles and Sub – Elements in Child Friendly Urban Design.

	Safety	Inclusivity	Playability
Elements	Wayfinding	Age Appropriateness	Nature
	Secure Boundaries	Sensory Engagement	Flexibility
	Traffic management	Community Engagement	Playful Lighting
	Color Coding	Sensory Inclusive Design	Play Zones and Installations
	Clear Visual Signage	Accessibility of Disabled Children	Storytelling and Narrative

This table's underlying ideas are safety, inclusivity, and playability, which capture the key qualities required for developing urban spaces that accommodate children's needs and experiences. Specific sub-elements are defined for each principle to help understand the varied nature of child-friendly urban design and the various considerations required for its implementation.

The incorporation of these fundamental concepts and sub-elements creates a comprehensive framework for comprehending the complexity involved in developing urban environments that promote children's safety, inclusiveness, and playability. By addressing these fundamental characteristics, urban planners and designers can work to create surroundings that encourage children's autonomy, well-being, and active engagement in the urban fabric.

5.1.3 Principles as an Independence Fostering Element

Following the presentation of the table detailing the key principles and sub-elements of child-friendly urban design, it is appropriate to explore the concept of independence in the context of safety, inclusivity, and playability. Independence, as a vital feature of child development and well-being, is inextricably tied to the application of these core principles in the urban setting. When discussing independence, it is critical to emphasize how safety, inclusivity, and playability work together to promote children's autonomy and agency. Safety features, such as clear wayfinding signage, well-maintained paths, and traffic calming measures, provide children the confidence to explore urban areas alone. These elements ensure that children can move about their environment securely, reducing the risk of accidents and fostering a sense of trust in their surroundings. For instance, safe pedestrian crossings and child-friendly public transport systems empower children to navigate the city more freely and independently. Similarly, programs that prioritize inclusivity, such as building age-appropriate play areas, ensuring accessibility for children of all abilities, and encouraging community involvement, foster situations in which children feel empowered to navigate and communicate. Inclusivity initiatives ensure that every child, regardless of their physical, cognitive, or social abilities, can engage with and benefit from urban spaces. By incorporating universal design principles and creating spaces that cater to diverse needs, urban planners can support children's independence and social inclusion. Furthermore, incorporating natural materials and adaptable design features helps children to take control of their play experiences, which fosters creativity, decision-making abilities, and selfreliance. Playability, through elements like interactive playgrounds, flexible play zones, and natural play spaces, encourages children to engage in self-directed play. This type of play is crucial for developing problem-solving skills, enhancing physical fitness, and nurturing imaginative thinking. By expanding on the interrelated ties between safety, inclusivity, playability, and independence, the discussion emphasizes the necessity of considering these key concepts holistically when designing and planning urban environments. Emphasizing the function of independence within the larger framework of child-friendly urban design highlights the importance of creating environments that promote children's overall well-being. When urban spaces are designed with these interconnected principles in mind, they not only support

children's growth and independence but also contribute to the creation of healthier, more vibrant communities where children can thrive. (Alexander et al., 1977,)

5.2 DESIGN ELEMENTS OF EACH PRINCIPLE

For the purpose of constructing playable urban streets, the table lists the essential aspects and components for inclusivity, playability, and safety. In order to make sure that streets are accessible to a wide range of people, including children, inclusivity places a strong emphasis on components including accessibility, universal design principles, and sensory inclusive design. To improve navigation for both adults and children, wayfinding adds child-centric landmarks, color coding, and clear visual signage. Safe borders, efficient traffic segregation, entertaining lighting, and captivating play areas and installations are the main goals of street design.

Urban designers may create streets that favor play and exploration while simultaneously prioritizing safety and accessibility by incorporating these characteristics, especially for younger users. Wayfinding improves navigation in a way that is child-friendly, inclusive design makes sure that a variety of requirements are taken into account, and street design blends safe infrastructure with bright, play areas. The comprehensive strategy shown in the table seeks to develop lively, welcoming, and enjoyable urban environments that enhance communities' general well-being.

5.2.1 Safety

Safety in children-friendly playable streets encompasses various aspects to ensure the well-being of children as they engage in play and navigate urban environments. The design of these streets involves considerations such as traffic separation, which designates areas where children can play safely, clear visual signage to indicate play areas and potential hazards, and the establishment of secure boundaries to prevent accidental entry of vehicles. Infrastructure elements include child-centric landmarks and interactive street furniture, fostering visibility and recognition for children while promoting a sense of community. Adequate lighting, especially in the evenings, is crucial to enhance visibility and create a safer environment. Accessibility features include designing clear and obstacle-free pathways, incorporating flexible seating and gathering spaces for different age groups, and ensuring that play areas are strategically located for natural surveillance by parents and caregivers. Traffic calming measures, such as speed bumps and traffic islands, contribute to slowing down vehicular traffic and creating safer conditions for children. Inclusivity is addressed through sensory-inclusive design, minimizing noise, and utilizing vibrant colors for visual stimulation.



Figure 15. Strong Towns July 5, 2022. What is the first Sign of a Safe Street?

5.2.1.1 Wayfinding

Wayfinding is a key idea in children-friendly design, with a focus on promoting safe exploration and navigation in urban areas. This fundamental guideline recognizes the importance of giving navigational advice adapted to children's specific requirements, emphasizing the use of clear signage and visual clues to improve their spatial awareness. At its foundation, the notion of wayfinding strives to provide children with the skills they need for autonomous exploration, cultivating a growing sense of freedom and confidence as they navigate the complex tapestry of the urban environment. The practical use of successful wayfinding involves various purposeful tactics. Clear and visually appealing signage strategically placed at crucial places acts as a beacon, providing specific direction to children and assisting them in discriminating between different areas. Furthermore, the use of visual cues, whether in the form of vivid signs, graphics, or iconic landmarks, serves as a visual language that youngsters understand, supporting them in recognizing and remembering specific areas. Another useful aspect is the construction of entertaining maps or exhibits, which turn the act of exploring urban places into an interactive and instructive experience that builds a sophisticated awareness of play areas and streets *(Lynch, 1960)*.

Wayfinding strategies involve storytelling and narrative elements integrated into the street design, creating an engaging and educational experience. Community engagement plays a key role, involving local residents and parents in the planning process to ensure that the street reflects the specific needs and concerns of the community. This holistic approach to safety in children-friendly playable streets integrates urban design, infrastructure, and community engagement to create environments that promote both safety and play.

(Holden, 2003,)

5.2.1.2 Secure boundaries

The idea of safe, well-defined limits becomes even more important when it comes to playable streets since it integrates accessibility, safety, and user experience in one cohesive whole. According to (*Jeffery, C. R.1977*) in "Crime Prevention Through Environmental Design," defining public and private spaces is a fundamental idea in efficient urban space management. In order to create playable streets, locations must be intentionally designed to promote inclusive and positive behavior in addition to having physical boundaries.

By creating distinct boundaries that separate safe play spaces from oncoming traffic or other possible hazards, secure boundaries help maintain playable streets. This promotes a sense of security for parents and caregivers by guaranteeing that kids can play without taking unneeded risks.

These boundaries should be designed to create an aesthetically pleasing space that promotes play and exploration while striking a balance between safety concerns and the requirement for open, welcoming areas.

Furthermore, playable streets with well-defined borders are essential for regulating the cohabitation of various activities in one area. Through distinct zones for pedestrians, play, and other uses, the design reduces conflicts and improves the street's general usability. This deliberate organization helps to foster a peaceful, welcoming environment where people of all ages and from the community can live in harmony with one another.

Essentially, the integration of clearly defined and safe limits is consistent with the ideas of designing streets that are conducive to play and that put safety, inclusivity, and user satisfaction first. It makes sure that the design actively reduces potential dangers while also encouraging playfulness, creating streets that are not only aesthetically pleasing but also functionally sound and friendly to a wide range of users. (*Jefferson, C. R. "Crime Prevention Through Environmental Design.",1977*)



Figure 16. Behance, 2021, Parklets in an Urban Environment

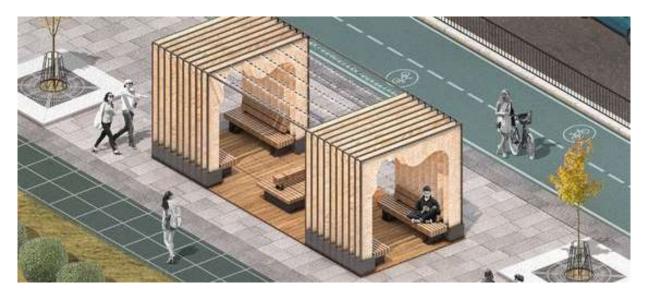


Figure 17. VICE, April 20.2021. Asi Sera la nueva infrastructura para bicicletas en Colombia.

5.2.1.3 Traffic Management

According to Elvik, R. (2001) in "Area-wide urban traffic calming schemes: A meta-analysis of safety effects," the idea of traffic separation has a big impact on how playable streets and kid-friendly urban designs are made. Through the implementation of traffic flow segregation, specifically the marking of pedestrian routes from vehicle traffic, this design concept becomes evident as a critical component of improving road user safety for vulnerable groups, such as youngsters participating in outdoor activities. Effective traffic separation strategies are essential for reducing possible hazards and guaranteeing a safe play area when it comes to designing kid-friendly streets.

In addition to reducing the chance of accidents, well-planned traffic separation actively promotes a pedestrian-friendly environment. Playable streets which prioritize promoting outdoor activities gain a great deal from clearly defining the boundaries between areas meant for play and those meant for traffic flow. This deliberate division contributes to an atmosphere that puts children's safety and wellbeing first by providing them with designated spaces where they can play without worrying about traffic.

Furthermore, by establishing areas that encourage active play and exploration, traffic separation supports the larger objectives of kid-friendly design. Families find streets with thoughtfully separated traffic flows to be more welcoming, as they promote outside play and social contact. Thus, this safety-focused design strategy plays a crucial role in making kid-friendly, playable streets a reality that strike a balance between the necessity of recreational areas and the crucial component of traffic safety. (*Elvik, R.,2001*).

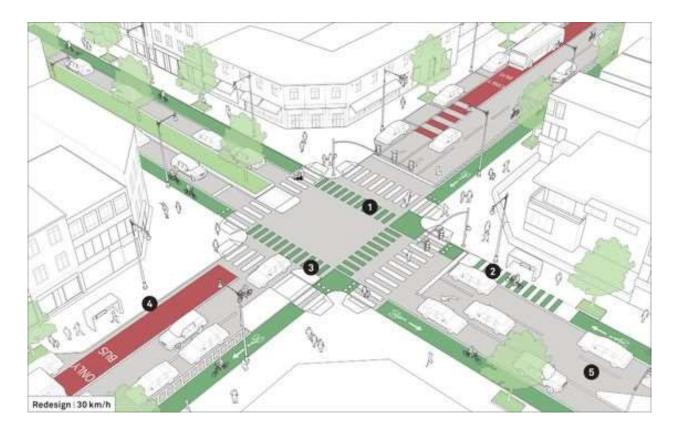


Figure 18. Global Designig Cities Initiative (n.d).

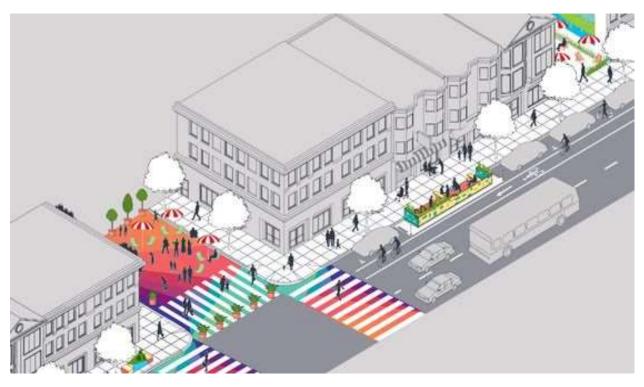


Figure 19. Groundplay SF. (n.d).

5.2.1.4 Color Coding

In the dynamic context of building playable streets, the incorporation of color-coded navigation features, as evidenced by insights from Schilder, D., et al. (2015) in their field study on wayfinding performance, is a strategically beneficial and engaging approach. Color coding can be used to create an understandable and effective navigation system on playable streets, which are frequently marked by multipurpose spaces and varied activity zones. This design method is especially useful in big or complex metropolitan areas, where clear and visually distinct indications are required to guide people, including children and their caregivers, through the complexities of the space.

Color-coded components, whether manifested as signs or defined paths, help to improve the intelligibility of the playable street and the entire wayfinding experience. Children, in particular, respond positively to colorful and unique visual stimuli. By linking specific colors with distinct play themes, places, or activities, the design not only makes navigation easier but also adds a playful and memorable component to the cityscape. This method is consistent with the underlying principle of playable streets, which seeks to create places that promote exploration, discovery, and spontaneous play. (*Schilder, D., et al, 2015*).



Figure 20. HArbour Town Premium Outlet Floor PLay. Art + Work (n.d).



Figure 21. Morrison, M.K (n,d).

5.2.1.5 Clear Visual Signage

The importance of clear visual signage cannot be emphasized when constructing playable streets, as articulated by Marchant, E., et al. (2017) in their comprehensive analysis of pedestrian navigation signage. In the realm of playable streets, well-designed signage is an essential component of creating an inviting and navigable environment. These clear visual cues play an important role in directing both children and adults to various play spaces and activity zones, improving the overall wayfinding experience. The use of humorous designs and symbols on the signage gives a sense of engagement and pleasure, in keeping with the street's lively spirit.

Clear visual signage not only makes navigating easier, but it also improves the safety and organization of playable roadways. Signage helps to provide a safe environment for children to play by offering clear directions and information about designated play zones, potential dangers, and facilities. Well-placed signage provides insights into the layout of the street, allowing parents and caregivers to supervise and support their children's play activities. In summary, effective visual signage in playable streets is a critical tool that not only improves wayfinding but also elevates the whole user experience by creating an environment that is both manageable and pleasurable. *(Marchant, E., 2017)*.



Figure 22. Storybook Murals. (n.d).



Figure 23. Uniplay Trails, (n.d).

5.2.2 INCLUSIVITY

In child-friendly design, inclusion emerges as a guiding principle, emphasizing the importance of creating spaces that accommodate the diversity of children's skills, backgrounds, and needs. This principle represents a dedication to ensuring that every kid, regardless of individual features, can actively participate in the delights of play. The quest of inclusion is realized through thoughtful design methods. To begin, the integration of accessible play equipment becomes crucial, with an emphasis on including features that cater to a spectrum of physical abilities, encouraging an inclusive and equitable play experience for all children. Universal design principles prioritize inviting and accessible urban areas, with a focus on the unique needs of children with disabilities (Iwarsson & Ståhl, 2003). This overarching design concept is realized through active community engagement, which is critical to ensuring that the voices of the community, particularly children and their families, are heard during the design process. By thoroughly understanding varied preferences and requirements, child-friendly places transform into bright tapestries of inclusivity, demonstrating a commitment to providing situations in which every kid feels at home.

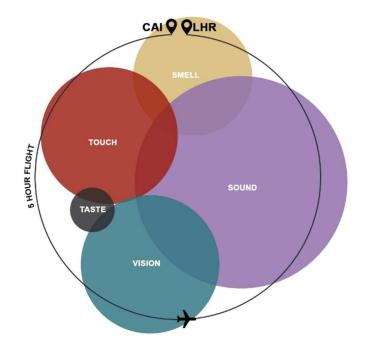


Figure 24. Abouebeid. January. Inclusive Design of Urban Spaces, 2019.

5.2.2.1 Age Appropriateness

Age appropriateness emerges as a key tenet in children-friendly design, demonstrating a fundamental knowledge of the importance of tailoring urban settings to the many developmental stages and requirements of children of various ages. This guiding principle is fundamentally directed toward the establishment of inclusive environments, in which activities and amenities are carefully curated to resonate with and cater to the distinct qualities of each age cohort within the community. The application of age appropriateness in design takes place through purposeful tactics. A key concern is the creation of distinct play zones or sections inside a given space, each precisely designed to correspond to the varied interests and abilities of specific age groups. Another important aspect is the supply of diverse play equipment, which ensures that the array accommodates a wide range of physical and cognitive growth, from toddlers to pre-teens. Furthermore, meticulous attention is paid to the infrastructure, which includes pathways, seating arrangements, and amenities, with a conscious effort to align these elements with the diverse heights, sizes, and mobility levels that distinguish children of different ages (Hart, R., 1979). By

instead transform into dynamic landscapes that evolve in unison with the ever-changing needs and capacities of the children they are intended to serve.

5.2.2.2 Sensory Engagement

Sensory engagement develops as a fundamental idea in the field of children's design, emphasizing the critical need of creating spaces that not only stimulate the senses but also enrich overall experiences for children. This fundamental guideline identifies the critical importance of sensory engagement in cognitive growth, well-being, and the enjoyment of urban areas by the younger generation. At its core, the idea acknowledges that a multisensory approach has a significant impact on how children interact with and understand their surroundings. The promotion of sensory engagement includes a variety of deliberate tactics, with textured surfaces being a notable example. The use of various textures in play surfaces and structures acts as a tactile stimulus, encouraging children to explore and experience new sensations. Aural elements, such as whimsical chimes, musical installations, and the use of natural sounds, help to engage children's aural senses, resulting in a dynamic and immersive environment. Visual stimulation, achieved via the purposeful use of brilliant colors, patterns, and visually appealing components, creates a visual feast that piques children's interest and motivates them to explore the environment. Ulrich's (1986) study highlights the significant human responses to many sensory cues in landscapes and urban environments, which echoes this principle. In essence, the notion of sensory engagement extends beyond the surface, into the domain of designing situations that become sensorial canvases, increasing children's holistic experiences in urban landscapes.

5.2.2.3 Sensory Inclusive Design

For children with sensory processing disorders, such as those on the autistic spectrum, sensory inclusive design is especially important since it makes sure that the urban environment is not only physically accessible but also supportive of their individual sensory preferences and sensitivity. By using this strategy, designers actively advance inclusion as a cornerstone of kid-friendly urban street design. Beyond only making spaces physically accessible, the goal of this design concept is to create environments that speak to the various needs of kids, giving them a feeling of community

and promoting play, imagination, and exploration for all. It shows a dedication to building lively, engaging, and pleasurable streets that are accessible to kids of all skill levels.

In the context of kid-friendly streets, sensory inclusive design is a comprehensive and deliberate strategy meant to create urban settings that are hospitable and interesting for everybody, including people with various disabilities. Within the field of kid-friendly urban street design, this design approach considers the varied sensory requirements of kids, acknowledging that people engage and perceive their environment through several senses. To encourage investigation and touch, this may entail incorporating tactile materials like interactive sculptures or textured pavements. Sound components like wind chimes or ambient noises can enhance a multisensory encounter. Vibrant colors and eye-catching patterns are examples of visual stimuli that improve the entire sensory experience.

It is essential to take into account the integration of sensory elements that stimulate children's senses and improve their general interactions with the urban environment while creating playable streets that meet their requirements and experiences. The five senses such as taste, hearing, vision, smell, and touch, all have a significant influence on how youngsters experience and perceive their environment. Vibrant, dynamic, and stimulating urban settings can be created by carefully integrating tactile, auditory, visual, olfactory, and even gustatory sensations into street design. These elements encourage children's inventiveness, curiosity, and exploration. In the paragraphs that follow, we'll look at how each of these senses might be used to make inclusive, entertaining streetscapes that encourage young people's holistic development and sensory engagement. Touch

Playable streets must include tactile components in order to stimulate the sense of touch. Using a range of pavement materials with varied textures such as soft rubber surfaces, rough cobblestones, or smooth tiles allows kids to walk around an urban setting and feel various sensations beneath their feet. Incorporating interactive tactile elements, such as braille signage or textured sculptures, also enables kids to engage hands-on with their environment, encouraging investigation and sensory learning.

Hearing

Playable neighborhoods that are immersive and exciting for kids are greatly enhanced by soundscapes. Children's auditory senses can be stimulated by placing interactive sound sculptures,

whimsical chimes, or musical installations throughout metropolitan areas. This will encourage kids to listen to and participate with the sounds they hear. The auditory experience can be further enhanced by natural noises, such birdsong or flowing water, which harmonize urban and natural aspects and pique children's curiosity and creativity.

Vision

Playable streets must stimulate children's eyes in order to pique their interest and curiosity. An engaging and visually exciting environment can be created in the streetscape by incorporating bold patterns, colorful materials, and visually striking accents. In addition to adding aesthetic value, street art, murals, and vibrant signage act as markers and sites of interest for kids to find and explore. Furthermore, creating streetscapes with distinct sightlines and visual clues encourages independence and autonomy by assisting kids in safely and confidently navigating their environment.

Smell

Playable streets that appeal to children's sense of scent can arouse strong associations and memories, enriching their sensory experiences in general. By adding pleasant scents to the urban landscape, streetscapes can be enhanced by planting fragrant flowers, herbs, and shrubs that will appeal to children's sense of smell. Furthermore, allowing kids to actively interact with various smells through interactive scent gardens or aromatic play elements like scratch-and-sniff panels or scented sensory pathways promotes sensory inquiry.

5.2.2.4 Community Engagement

Community participation is a key tenet in children-friendly design, emphasizing the significance of actively including the local community, including children and their families, in the complex process of developing urban areas. This collaborative and inclusive approach acts as a cornerstone, ensuring that the resulting spaces not only meet practical needs but also connect with the nuanced preferences of the diverse community they are meant to serve. The importance of community interaction becomes visible through a variety of channels. Stakeholder workshops emerge as dynamic platforms, coordinating interactive sessions with community people, including children, to gather valuable thoughts, preferences, and creative ideas that shape urban space design. Simultaneously, the use of surveys and the solicitation of input from residents become essential instruments for gaining a full understanding of expectations and wants for play areas and public spaces. This methodical approach allows urban planners and designers to tailor spaces that resonate with the unique cultural and social dynamics of the community. A co-design method, in which community members actively participate in decision-making processes, fosters a sense of ownership while also instilling pride in the built places. By involving children directly in these processes, designers can gain insights into the specific features and elements that are most meaningful to younger users, ensuring that the final designs are not only functional but also engaging and delightful for children. Moreover, the inclusion of various community stakeholders in the design process promotes transparency and builds trust between residents and planners. It ensures that the development of urban spaces is a democratic process, reflecting a wide array of voices and ensuring equitable access to quality play areas. This participatory approach can lead to more sustainable and resilient urban spaces, as community members who feel invested in their environment are more likely to take care of and advocate for these spaces in the long term. By prioritizing community engagement, child-friendly streets transform from plain infrastructure to lively manifestations of the collective identities, desires, and aspirations of the communities they serve. The active involvement of the community in the design and planning processes helps to create urban spaces that are vibrant, safe, and reflective of the community's unique character. This holistic approach to urban design not only enhances the quality of life for children but also strengthens community bonds and fosters a sense of belonging among all residents. (Arnstein, S. R., 1969).



Figure 25. Playable Street (n.d).



Figure 26. Costarangos, A. April 14,2018. Giant Participatoru Stret Art in London

5.2.2.5 Accessibility of Disabled children

The notion of an accessible environment beyond the realm of physical infrastructure and involves a holistic strategy to guarantee that public areas are inclusive and functional for all individuals, irrespective of their physical capabilities. Important elements that promote mobility and inclusion are tactile paving, ramps, and other characteristics, as noted by Iwarsson, S., & Ståhl, A. (2003) in their work on accessibility, usability, and universal design. For example, ramps remove obstacles that could impede the mobility of people with mobility issues and offer an alternate way for them to move through environments. For those who are visually impaired, tactile pavement acts as a tactile guide, improving their independence when navigating public spaces.

Together, these components support the development of an atmosphere that fosters equality and a sense of community while also meeting the requirements of a wide range of individuals. In order to create truly accessible and globally designed public places, it is important to have clear definitions and positioning of concepts connected to person-environment relationships. This is why Iwarsson and Ståhl are included. (*Iwarsson, S., and Ståhl, A., 2003*)

5.2.3 Playability

Playfulness is a pivotal principle in children-friendly design, acknowledging the intrinsic nature of play in children's development. This principle recognizes the importance of cultivating creativity, imagination, and social interaction through the design of urban spaces.

Incorporating playfulness in design includes:

Innovative Play Structures: Integrating engaging and age-appropriate play structures in public spaces, encouraging children to explore and interact with their surroundings creatively. Artistic Elements: Incorporating colorful and artistic elements, such as street art or interactive installations, to create visually appealing environments that stimulate children's imagination. Flexible Design: Allowing for

flexibility in the use of spaces, encouraging spontaneous and unstructured play activities that contribute to the overall playfulness of the environment. Encourages creativity, imagination, and social interaction, promoting healthy development and enjoyment. *(Frost, 2010)*.



Figure 27. Creative Together, Reclaiming Playfulness in Irish Towns and Cities, (n.d).



Figure 28. Playable Streets (n.d).

5.2.3.1 Natural Elements

Natural features emerge as key pillars in children's design, arranging sensory-rich experiences that foster a deep connection to the natural world. This guiding concept is based on a fundamental understanding of the transforming impact that green spaces, trees, plants, and water features have on children's well-being, cognitive development, and overall appreciation of urban environments. The deliberate inclusion of natural aspects into design occurs through deliberate tactics. Designing play areas with vegetation not only enhances the aesthetic appeal, but also helps children to interact with nature during their playtime. Trees planted along streets serve a dual purpose, offering shade as well as chances for spontaneous, natural play, thus improving the urban landscape (Louv, R., 2005). Additionally, the infusion of water features, such as fountains or small streams, into the urban fabric introduces elements that stimulate the senses and provide unique play opportunities, further enhancing the overall play experience for children. The intentional inclusion of natural elements within child-friendly design transcends mere aesthetics, becoming a transformative force that not only augments the physical environment but also nurtures the holistic well-being and development of the children who inhabit these spaces.



Figure 29. *Melbourne Recital Centre, The Plant, (n.d).*

In the area of child-friendly streets, the intentional emphasis on natural features goes beyond basic visual aesthetics, functioning as a deliberate strategy to construct an environment that not only captivates the eyes but also actively helps to the well-being and development of young people. This technique entails creating green spaces and water elements that serve more than just decorative purposes, transforming them into engaging and dynamic play environments. The natural environment can be transformed into an interesting playground for exploration by thoughtfully landscaping it with characteristics such as climbable boulders, soft grassy zones, and strategically placed plants. The sensory-rich experience is meticulously managed, from the textures of different plant life to the relaxing sounds of rustling leaves and flowing water in elements such as fountains.

These places transform into living classrooms, stimulating curiosity and environmental awareness with explanatory signage and interactive vegetation. Aligned with biophilic design principles, the introduction of natural elements provides loving and inviting places that prioritize children's wellbeing, fostering not only physical play but also creativity, imagination, and a deeper connection to the natural world. This child-centered perspective parallels a broader appreciation of nature's critical role in fostering healthy children's development. (*Kweon, B.S., 2017*).



Figure 30. Million Ideas, (n.d).



Figure 31. MAtkawariatka, (n.d).

5.2.3.2 Playful Lighting

The significance of proper lighting in the context of child-friendly streets goes beyond mere visibility; it plays a critical role in improving urban safety and generating a sense of security. Well-lit streets, as emphasized by Bowers, K. J., et al. (2005) in their thorough analysis of the impacts of street lighting on crime, improve general visibility while simultaneously acting as a disincentive to criminal activity. Proper lighting becomes an important component in ensuring the safety of children and their caregivers during the evening hours on children-friendly streets. The illumination of streets creates a climate in which public places are functional and inviting long after dark, allowing for extended play and community interaction.

This purposeful emphasis on proper lighting is consistent with the overarching goal of constructing streets that are not only child-friendly in terms of play opportunities, but also planned with a dedication to the overall well-being and safety of the neighborhood.

Bowers, (K.J, 2005).

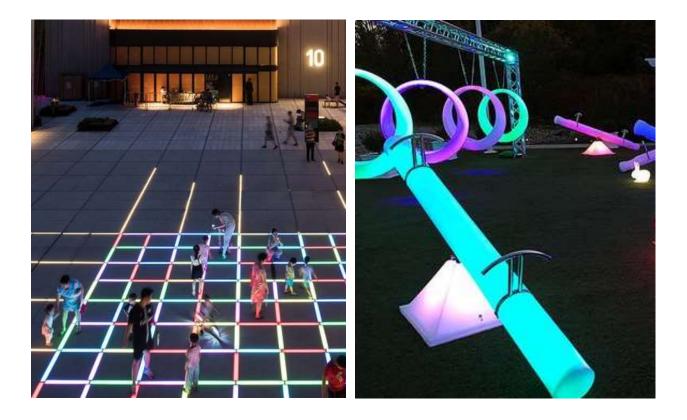


Figure 32. Perfect Parties USA, Archdaily (n.d) Figure 33. D+H Lab, BridgeLife, 2019.

5.2.3.3 Play Zones and Installations

The planned inclusion of interactive street furniture, which includes items such as benches, swings, and public art pieces, emerges as a strategic approach to designing child-friendly streets. This design philosophy goes beyond functionality, striving to create interesting and communal settings for children. By strategically putting interactive components like swings that inspire fun interaction or seats built for communal gathering, the streetscape becomes an extension of the public realm that actively encourages social engagement. The introduction of such components is based on the premise that encouraging social interaction builds a feeling of community, making public places more appealing to both children and adults.

This technique is consistent with the study findings provided by Loukaitou-Sideris, A., and Sideris, A. (2010), notably their analysis and measurement of variables influencing children's use of parks. The reference emphasizes the need for smart urban design in creating spaces that not only accommodate children's play but also contribute to overall perceptions of safety and community well-being. The intentional incorporation of interactive street furniture becomes a critical

component of creating urban places in which children can not only play freely but also actively engage in a lively and socially connected community. (*Loukaitou-Sideris, A., & Sideris, A., 2010*).



Figure 34. Isnt that spatial? Tactical Urbanism Interview, MAy 9, 2019.



Figure 35. Fatkin. A, McEvoy. P, City PArklets London Festival Architect, June 28, 2019.

5.2.3.4 Colorful and creative street art

Colorful and innovative street art, as a design element in urban environments, serves a variety of essential functions in enhancing the overall visual and experiential qualities of the cityscape. This strategy involves the thoughtful incorporation of visually appealing and emotionally resonant art installations, murals, and other forms of artistic expression into the fabric of streetscapes. The vibrant and diverse palette of colors not only transforms the physical appearance of the surroundings but also contributes to creating a cheerful, uplifting, and inviting atmosphere that can positively influence the mood and behavior of those who experience it.

The integration of bright and innovative street art goes beyond mere adornment; it evolves into a powerful form of cultural expression that nurtures the community's distinct sense of place and identity. These creative interventions often reflect local culture, history, or issues relevant to the community, weaving a visual narrative that resonates with both residents and visitors alike. This cultural significance enhances the emotional connection people have with their surroundings, fostering a stronger sense of communal belonging and pride

Moreover, vibrant and innovative street art has the unique ability to stimulate social interaction. It acts as a shared point of interest, drawing people together to explore, discuss, and engage with the artwork and with one another. This interactive aspect of street art strengthens community bonds, creating opportunities for dialogue and collaboration among diverse groups. The sense of unity and connectivity fostered by such art contributes significantly to the overall well-being of the neighborhood, making public spaces livelier and more inclusive.

In summary, the incorporation of colorful and creative street art serves as a dynamic and inclusive design strategy that not only adds visual vibrancy to urban environments but also plays a pivotal role in shaping community identity, fostering a positive atmosphere, and promoting social interaction. By doing so, it transforms urban spaces into more engaging, culturally rich, and socially connected environments, ultimately contributing to the enhancement of urban life. (Vlahogianni, E. I., 2014)



Figure 36. LAndscape Architecture MAgazine, 2022. *Figure 37.* PhilPhil Studio (n.d).

5.2.3.5 Child Centric Landmarks

Child-centric landmarks provide visual clues that appeal to the interests and imaginations of young users, assisting them in navigating and orienting themselves inside the playing street. These landmarks can take many forms, including interactive sculptures, colorful installations, and thematic play structures, all of which are designed to pique children's interest and curiosity. By including aspects that appeal to children's senses and creativity, the design improves the street's overall playfulness and readability.

Furthermore, child-centric monuments contribute to a healthy urban experience by instilling a sense of belonging and identity in youngsters. Recognisable landmarks serve as reference points, assisting children in developing a mental map of their environment while also instilling a sense of

autonomy and independence. In terms of wayfinding, these landmarks not only serve a practical purpose but also contribute to the street's overall ambiance as a welcoming and child-friendly environment.

Incorporating child-centric landmarks into the wayfinding strategy of playable streets not only improves navigation but also plays a critical role in creating an environment tailored to children's unique needs and perspectives, enhancing their overall experience of the urban landscape. *Kytta*, *M. (2004).*"

5.2.3.6 Flexibility

Flexibility emerges as a guiding principle in child-friendly design, highlighting the inherent importance of creating environments that are naturally adaptable to a variety of play activities. This principle acknowledges the dynamic and ever-changing character of children's play, and seeks to create surroundings that encourage variation, spontaneity, and creativity. The incorporation of flexibility into design is accomplished through purposeful tactics, beginning with the creation of multipurpose zones. These places are strategically planned to serve a variety of purposes, providing a backdrop for a wide range of recreational activities and events. Embracing modularity in play equipment becomes another critical aspect, as the introduction of moveable and flexible pieces allows for space rearrangement to accommodate diverse play scenarios. Furthermore, the principle broadens its scope to include seasonal adaptations, recognizing the effect of changing weather conditions on play choices. Child-friendly surroundings create places that may be easily modified to changing climatic circumstances, ensuring a year-round invitation to play. This design philosophy, defined by Hester (1984), not only addresses children's urgent needs, but also anticipates and welcomes the fluidity inherent in their play experiences, resulting in spaces that are as dynamic and vivid as the children themselves.

CHAPTER 6

SITE ANALYSIS

6.1 ANALYSIS OF CITY LEVEL

6.1.1 Location of Tirana

The city of Tirana is strategically situated in Albania's central-western region, nestled within the Tirana Plain and flanked by the Adriatic Sea to the west and the Dajti Mountain to the east. Founded by the Ottoman Empire in the early 17th century, Tirana began as a modest town. However, with Albania's independence, the city underwent rapid urbanization and modernization in the late 19th and early 20th centuries. This period marked a significant shift from traditional Albanian communities with interconnecting streets and communal spaces to a modern urban landscape characterized by automobile roadways and concrete structures.

In recent years, new urban development plans, such as "Tirana 2030," have emphasized the importance of integrating green spaces, pedestrian-friendly roadways, and recreational areas. This shift reflects a growing recognition of the need to reclaim urban areas for pedestrian use and leisure. Incorporating playful elements into Tirana's streets and public spaces is increasingly seen as essential. Such elements not only enhance recreational opportunities but also help the city reconnect with its traditional urban fabric, encourage community engagement, and promote social interaction. By integrating these features, Tirana aims to create a more vibrant, inclusive, and interactive urban environment.



Figure 38. Tirana Map From AKPT

6.1.2 Population of Tirana

As of the most recent year available, 2021, Tirana, the capital and largest city of Albania, has an estimated population of about 900,000 residents. This bustling metropolis, situated in the central part of the country, is not only the political and economic hub but also a vibrant cultural center.

Demographic Breakdown

Among the population of Tirana, children constitute a significant portion, with 20.5% of the residents being under the age of 18. This demographic translates to approximately 184,500 children living in the city. The substantial percentage of young residents underscores the importance of creating urban environments that cater to the needs of this younger population.

Urban Growth and Development

Tirana has experienced rapid urban growth and development in recent decades. This expansion is driven by both internal migration from rural areas and international migration, making the city a melting pot of cultures and demographics. The city's infrastructure has been evolving to accommodate this growing population, with significant investments in transportation, housing, and public spaces.

Child-Friendly Initiatives

Given that a fifth of Tirana's population consists of children, the city has prioritized child-friendly urban planning initiatives. These efforts are aimed at enhancing the quality of life for young residents through improved play areas, safer streets, and inclusive public spaces. The local government, in collaboration with international organizations, has been working on projects that ensure children can safely navigate and enjoy their urban environment.

Socioeconomic Factors

The socioeconomic landscape of Tirana is diverse. While the city has seen economic growth, there are still areas where poverty and social challenges persist. Addressing these issues is crucial for ensuring that all children, regardless of their background, have access to safe and engaging environments. Efforts to improve educational facilities, healthcare services, and recreational spaces are essential in supporting the overall development and well-being of Tirana's young population.

Cultural and Recreational Opportunities

Tirana is rich in cultural and recreational opportunities, with numerous parks, museums, theaters, and sports facilities. These amenities play a vital role in the lives of the city's children, offering them spaces to learn, play, and grow. The city's commitment to expanding and enhancing these resources is evident in ongoing urban development plans that prioritize the inclusion of green spaces and child-centric facilities.

Conclusion

In summary, Tirana's population dynamics highlight the critical need for child-friendly urban planning. With children making up over 20% of its population, the city faces both challenges and opportunities in ensuring that its youngest residents can thrive in a safe, inclusive, and stimulating environment. Through continued investment in infrastructure and community engagement, Tirana is working towards becoming a city that not only accommodates but also celebrates its diverse and youthful demographic.

	2017	2018	2019	2020	2021
Total	22.7%	22.0%	21.3%	21.0%	20.5%
Total Male	23.2%	22.6%	21.9%	21.5%	21.0%
Female	22.1%	21.4%	20.8%	20.4%	19.9%

Figure 39. Population of Tirana Children, INSTAT 2021.

6.1.3 Concept of Playability in Tirana

Playability and Children Friendly Design is not a well- known concept in Albania, but lately the government is becoming aware of its importance and a lot of initiatives are to be implemented in the upcoming years.

In order to improve accessibility, appeal, and safety for youth, Tirana's urban areas are being designed with kids in mind. This methodology incorporates programs such as NACTO-Streets for Kids and Urban95 into the Sustainable Urban Mobility Plan (SUMP). Important actions include creating traffic calming interventions, pedestrianizing some street sections, and enhancing bicycle and pedestrian safety. In order to limit car access in certain urban cells, the design also includes play streets inside communities and new pedestrian spaces. It also employs the Superblock idea. Along with improving walkability with roundabouts and split-level junctions, it also gives priority to safe upgrades along hazardous roads and home-to-school routes. Accessibility features like

elevated markings for the visually impaired and sound signaling systems at crossings are also included.

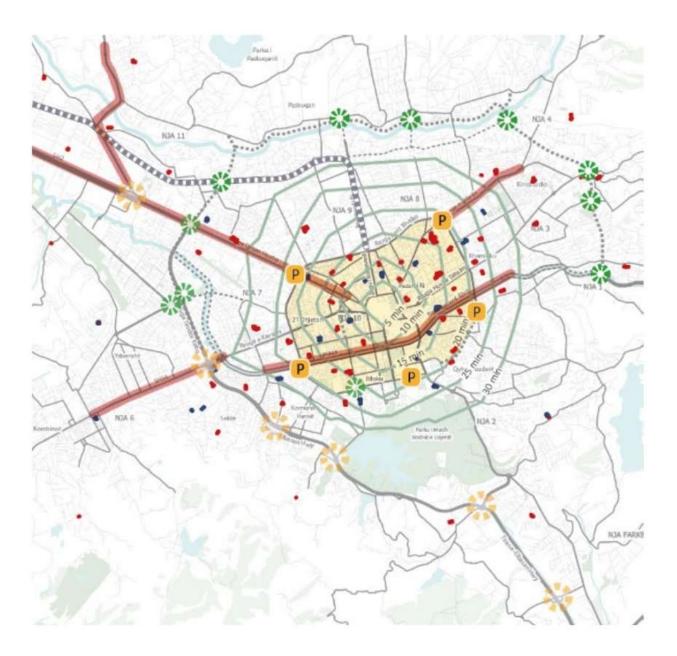


Figure 40. Playability- web Proposal from Governments of Albania.

6.1.4 Parks near the selected street

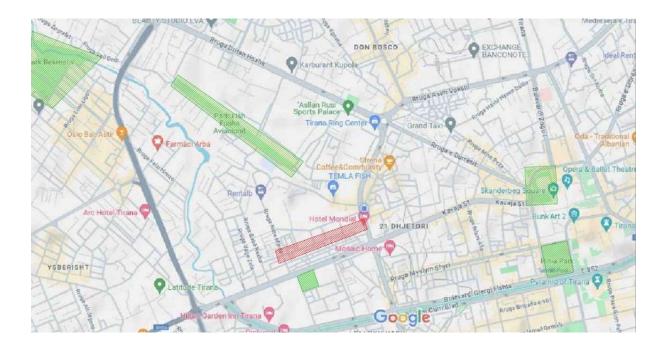


Figure 41. Parks near the selected street, Generated by Author.

As the map illustrates, the neighborhood selected for the study is not in close proximity to the closest parks which are Parku Rekreativ, Parku Rinia, Parku Ish Fusha e Aviacionit, Sheshi Skenderbej.

This presents a significant issue for the establishment of a playable and child-friendly environment. This arrangement of space raises the possibility of a barrier in terms of offering kid-friendly and easily accessible outdoor areas to residents of the chosen street. In the absence of parks in the vicinity, kids could have trouble getting to play and socializing spots, which are vital for their physical and mental growth. This finding emphasizes the importance of streetscape interventions in urban planning that incorporate playable components and improve the accessibility of green spaces in residential neighborhoods.

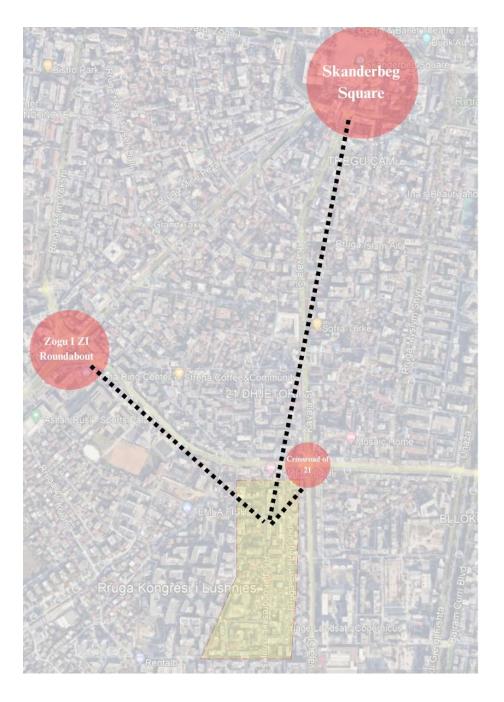
6.1.5 Building Heights and Year of Construction

Tirana's architectural landscape vividly reflects its historical evolution, particularly evident during the mid-20th century under Enver Hoxha's regime. This era marked a significant construction boom, during which many of the city's characteristic buildings were erected. Most of these structures were modest five- to six-story residential buildings, constructed in a style that became emblematic of the time. These mid-rise buildings, often functional and unadorned, contribute to Tirana's unique urban fabric and embody the dominant architectural movements of Hoxha's era. They stand as historical markers, representing the period's emphasis on utilitarian design and the rapid urban development that shaped the city's early 20th-century identity.

As Tirana has progressed into the 21st century, the city's skyline is undergoing a dramatic transformation. The rapid pace of industrialization and urbanization has introduced a wave of modern high-rise buildings that contrast sharply with the older, more modest structures. This influx of contemporary architecture is reshaping the city's character, bringing new dimensions to Tirana's architectural profile. The juxtaposition of sleek, glass-faced towers with the older mid-rise buildings highlights the dynamic nature of Tirana's urban landscape. It reflects a broader trend of integrating cutting-edge design ideas with the city's historical architectural features.

The emergence of these high-rise buildings not only signifies Tirana's economic growth and modernization but also illustrates the city's aspirations for expansion and advancement. This evolving cityscape reveals a narrative of transition, where historic elements coexist with new architectural innovations. The blend of old and new offers a visual representation of Tirana's ongoing transformation, showcasing its commitment to both preserving its heritage and embracing future development. As the city continues to evolve, its diverse architectural styles will remain a its testament to rich history and ambitious vision for the future.

6.2 ANALYSIS OF STREET LEVEL



6.2.1 Location of Selected Street in relation with important Landmarks of Tirana

Figure 42. Selected Street Location in Reference with important landmarks, Generated by *Author*

6.2.2 Area Selection Reason

The decision to focus on Kongresi i Lushnjës Street and its surrounding streets Frosina Plaku, Emil Le Grand, Ndre Mjeda, and Muhamet Gjollesha in Tirana was prompted by several serious issues concerning playability and kid-friendliness in this area.

Heavy Traffic: The streets experience heavy traffic flow, posing significant safety risks to children who may use them as makeshift playgrounds.

Narrow Pedestrian Pathways: Insufficient space for pedestrians, particularly children, exacerbates safety concerns, as they may be forced to share pathways with vehicles.

Unauthorized Parkings: Illegal parking along the streets further reduces available space for pedestrians and exacerbates congestion, potentially leading to accidents.

Lack of Recreational Areas: The absence of nearby parks or recreational spaces deprives children of safe and designated areas for play and leisure activities, forcing them to utilize the streets instead.

Proximity to Educational Institutions: The area is primarily residential and hosts educational institutions such as schools and preschools, increasing the need for safe pedestrian infrastructure and designated play areas.

These issues collectively contribute to a lack of child-friendly environments and expose children to safety risks associated with traffic and inadequate pedestrian infrastructure. Addressing these challenges is essential to creating a safer and more conducive urban environment for children in the area.

6.2.3 Building Heights

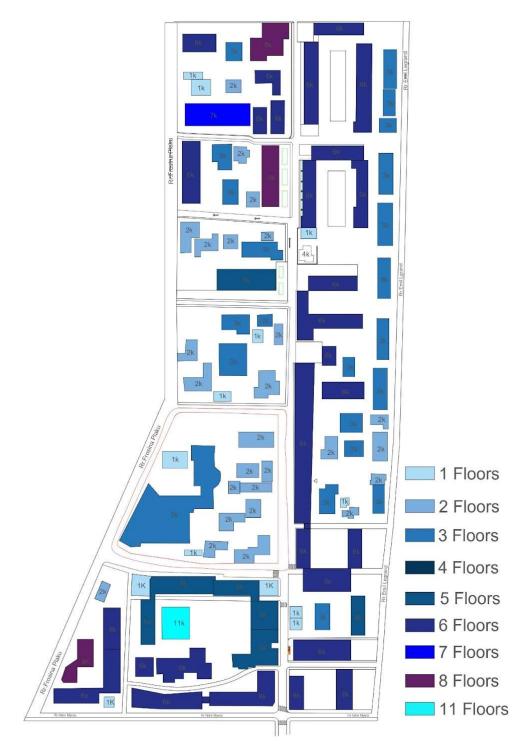


Figure 43. Building Height map, Generated by Author.

6.2.4 Building Use



Figure 44. Building Use map, Generated by Author.

6.2.5 Parking as a Circulation Barrier



Figure 45. Parking as a Circulation Barrier, Generated by Author.

6.2.6 The Hotspot areas along the street



Figure 46. Hotspot Areas Along the Street, Generated by Author.

6.2.7 Circulation Analysis



Figure 47. Circulation Analysis, Generated by Author.

6.2.8 The most potential zones for proposal along the street



Figure 48. Potential Zones for Proposal, Generated by Authors.

6.3 ANALYSIS OF PPROPOSAL AREA

6.3.1 Area Selection

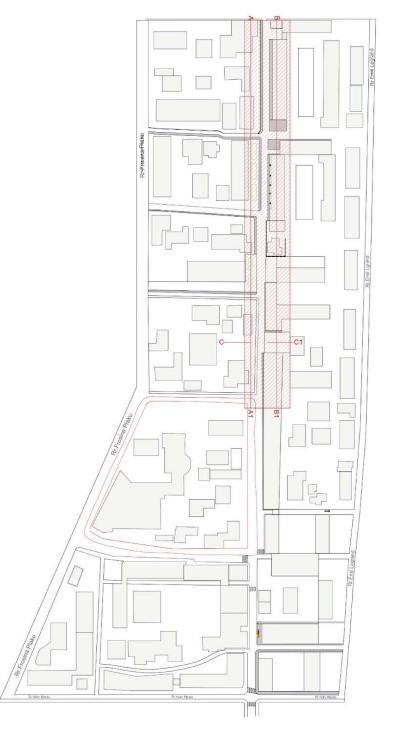


Figure 49. Area Selection for Proposal, Generated by Author.

6.3.2 Site Pictures



Figure 50. Collage with site pictures, Taken By Author.

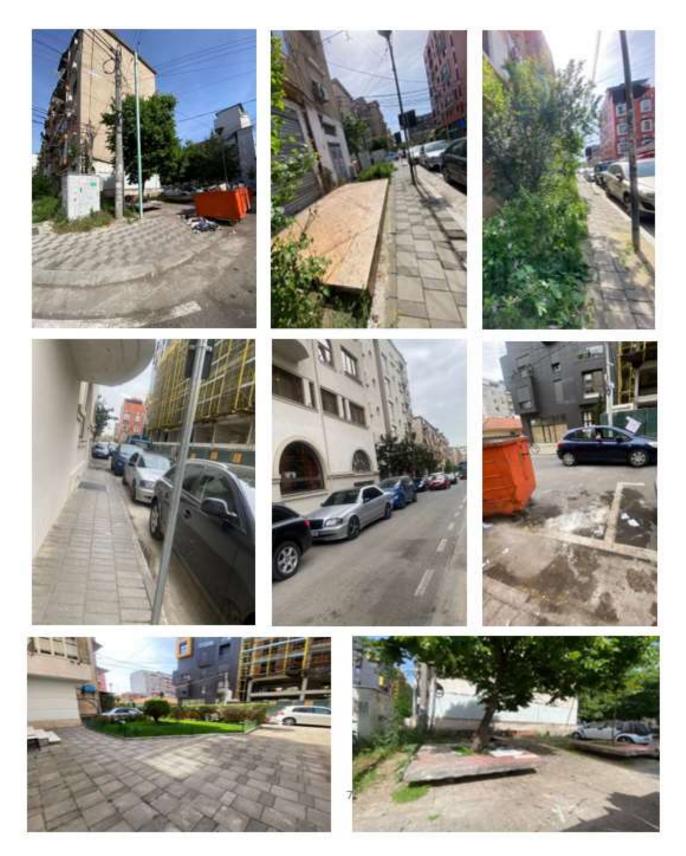


Figure 51. Collage with site pictures, Taken By Author.

6.4 FINDINGS

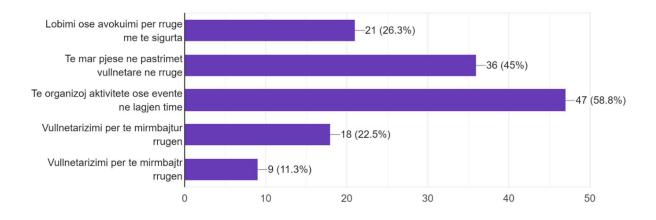
6.4.1 Parents Questionnaire

- 1. The interviewed People are mostly around 45-65 years old.
- 2. Gender is mostly Female

80 responses

- 3. Approximately 81% of interviewed parents do not have disabled children, 19% of them have disabled children with visual, hearing or moving impairments.
- 4. 68% of them are willing to collaborate on community engagement in order to create playable streets for their neighborhood.

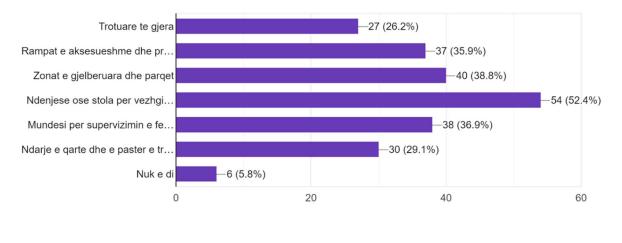
Nese po, Ne cilin nga rolet e meposhtme do te ishit te gatshem te mernit pjese? Nese jo kaloje kete pyetje.



5. They were asked if they would want to be included in creating more playable streets. Majority of parents are willing to collaborate on creating activities or events in the streets of their neighborhood, while plenty of them agree to participate in voluntary cleaning services. The others are willing to advocate for safer and more playable streets.

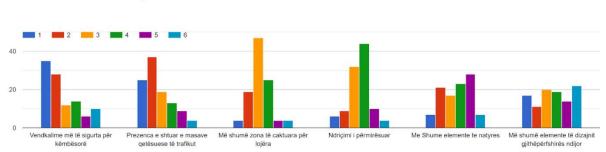
A ka ndonjë veçori specifike që besoni se janë thelbësore për krijimin e rrugëve miqësore për fëmijët?





6. In order to create playable streets, they chose the most important elements according to them. Majority of them consider safety as a main element in the streets and they don't feel safe in leaving their children alone, that is why most of them chose supervising possibilities while their children play like stools. Plenty of them also want more greenery areas and natural elements. The other parts which mostly includes parents that have children with disabilities, they put wide sidewalks or accessible ramps.

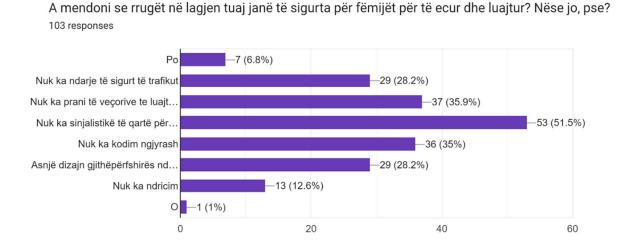
7. They were asked how street design impacts the physical activity and their social interactions, and most of them consider it as very important and that it has a big impact.



Çfarë ndryshimesh ose përmirësimesh do të dëshironit të shihnit në rrugë për t'i bërë ato më miqësore me fëmijët? Vendosini ato në rend sipas asaj që mendoni se është më e rëndësishmja.

8. They were asked to rank elements that could help make a street playable and children friendly and according to the majority of them, the most chosen one was more play spaces and also safe pathways for pedestrians.

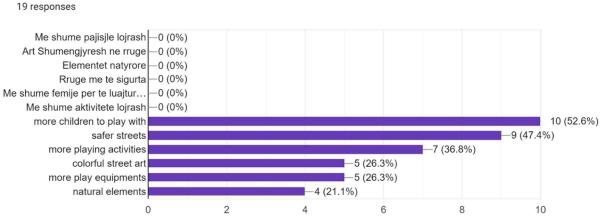
9. Majority of their kids use the street as a play area once a week, and plenty of them rarely use it as a play area, but around 15% of them use it to access their schools and other institutions or needs. 10. About their opinion on safety, they were asked if they find the street safe for their children and which are the elements that could make it safe and most of them consider adequate signage and wayfinding a very important element of safety since more than 50% of them chose street signage. Traffic separation with approximately 35% is also considered as a main element according to them.



12. Closest play park for their children differs from each of them also depending on their transportation way, but most of them find the play areas close but not ideal, or far but accessible, while the other half finds it very far away.

6.4.2 Children Questionnaire

- 1. The interviewed kids are from age 9-12, approximately all ages were included in the same amount.
- 2. Gender of them was also separated in the same amount.
- 3. Their most liked activity for 55% of them is playing sports and playing with friends. while the other half likes exploring nature or riding bikes or Scooters.
- 4. They were asked if they are afraid to play alone and 45% of them say no, 30% of them say yes and the other part are not very sure if they feel safe while playing.



Cfare do ta bente kohen tende ne rruge me interesante dhe te bukur per ty? ¹⁹ responses

- 5. They usually access their street by walking but also with public transportation. Only some of them use bikes or personal car transportation.
- 6. Activities that they would like the most to have in their street are Street activities such as drawing or dancing, mural games etc. Plenty of them would like sports too.

6.5 IMPLEMENTATION COMPONENTS FOR PROPOSAL

Following the area analysis of *Kongresi i Lushnjës* Street and its surrounding streets in Tirana, several components will be utilized to address the identified issues and improve the overall child-friendliness of the area. These components will be paired strategically to create a comprehensive solution that addresses the specific challenges faced by children and residents in the neighborhood.

- Traffic Management Measures: Implementing traffic calming measures such as speed bumps, traffic islands, and designated pedestrian crossings to reduce vehicle speeds and improve pedestrian safety.
- 2. Pedestrian Infrastructure Improvement: Widening pedestrian pathways, installing sidewalks with adequate lighting, and creating dedicated pedestrian zones to enhance safety and accessibility for pedestrians, especially children.
- 3. Creation of Play Spaces: Establishing new play areas, such as pocket parks or playgrounds, within the neighborhood to provide children with safe and stimulating environments for play and leisure activities.
- 4. Community Engagement Initiatives: Engaging residents, including parents, schools, and community organizations, in the planning and implementation process to ensure that the proposed solutions align with local needs and preferences.
- 5. Public Space Activation: Introducing temporary or permanent street closures for recreational activities, community events, and street markets to reclaim public space for children's play and social interaction.
- 6. Green Infrastructure Integration: Incorporating greenery, trees, and landscaping elements to enhance the aesthetic appeal of the streetscape, improve air quality, and provide shade and cooling effects for pedestrians.
- Color Usage. Color is the cheapest way of making a street playable. Children are very focused at coloring but despite of their preferences, color provides wayfinding, inclusivity, safety, playability and is easily implemented.

6.5.1 Proposal of the new Masterplan



Figure 52. Proposal Masterplan, Generated by Author.

6.5.2 3D Pictures from Proposal



Figure 53. 3D View from proposal.



Figure 54. 3D View from proposal.



Figure 55. 3D View from Proposal



Figure 56. 3D View from Proposal.



Figure 57. 3D View from Proposal.



Figure 58. 3D View from proposal.

CHAPTER 7

DISCUSSIONS AND CONCLUSION

7.1 Discussions

The findings from the site analysis offer invaluable insights into the context of Kongresi I Lushnjes Street and its suitability for transformation into a playable street for children. Understanding the site's intricacies is paramount in envisioning a design proposal that not only meets the needs of its immediate surroundings but also aligns with broader urban aspirations for a more inclusive and vibrant cityscape.

Kongresi I Lushnjes Street, nestled within the urban fabric of Tirana, holds immense potential as a catalyst for positive urban transformation. Its central location and connectivity to surrounding neighborhoods position it as a vital artery in the city's circulation network. Furthermore, its historical significance and cultural heritage add layers of complexity and richness to its identity, offering a unique canvas for creative interventions.

By delving into the demographic profile of Tirana, the site analysis sheds light on the diverse composition of its population. Understanding the demographic distribution, including age groups and socio-economic backgrounds, is crucial in tailoring design interventions that cater to the specific needs and preferences of the community. Moreover, recognizing the presence of children within the vicinity underscores the imperative of creating spaces that prioritize their safety, well-being, and enjoyment.

The concept of playability emerges as a central tenet in reimagining Kongresi I Lushnjes Street as a vibrant and dynamic urban space. Beyond its functional role as a thoroughfare, the street presents an opportunity to foster social interaction, encourage physical activity, and stimulate the imagination of its youngest residents. Embracing principles of child-friendly design not only enhances the livability of the immediate surroundings but also contributes to the overall quality of urban life in Tirana.

Moreover, the proximity of parks and recreational amenities adds layers of complexity to the site's potential. Leveraging existing green spaces and integrating them into the fabric of the street design can amplify opportunities for play and leisure, creating a seamless transition between indoor and outdoor activities. Furthermore, the adaptive reuse of underutilized spaces along the street corridor presents an avenue for innovation, allowing for the integration of playful elements and interactive installations that captivate the imagination of passersby.

In essence, the findings from the site analysis underscore the transformative potential of Kongresi I Lushnjes Street as a vibrant, inclusive, and child-friendly urban thoroughfare. By harnessing the site's inherent strengths and addressing its inherent challenges, the proposed design interventions aim to breathe new life into the heart of Tirana, fostering a sense of belonging, joy, and community among its residents.

7.1.1 Future Recommandations.

In light of the findings from the site analysis and discussions, the following recommendations are proposed to inform the design proposal for Kongresi I Lushnjes Street:

Incorporate Child-Centric Design Elements: Integrate interactive play installations, colorful street art, and child-scaled amenities to create an engaging environment for children of all ages, fostering a sense of wonder and exploration.

Enhance Safety Measures: Implement secure boundaries, traffic calming interventions, and clear visual signage to prioritize the safety and well-being of children and pedestrians using the street, ensuring a safe and welcoming environment for all.

Promote Inclusivity: Design for diverse needs and abilities by providing age-appropriate play areas, sensory engagement opportunities, and accessibility features for children with disabilities, fostering a sense of belonging and inclusion among all members of the community.

Activate Public Spaces: Activate underutilized public spaces along the street corridor through tactical urban interventions, pop-up events, and community programming, creating vibrant hubs of activity and social interaction for residents and visitors alike.

Integrate Green Infrastructure: Integrate green infrastructure elements, such as pocket parks, green walls, and street trees, to enhance the ecological resilience of the street and provide opportunities for nature-based play and exploration, promoting environmental sustainability and connection to nature.

Engage Stakeholders: Engage local residents, community organizations, and municipal authorities in the design process to ensure that the proposed interventions align with the aspirations and priorities of the community, fostering a sense of ownership and stewardship over the street. Prioritize Pedestrian Experience: Prioritize the pedestrian experience by reducing vehicular dominance, widening sidewalks, and enhancing walkability, creating a pedestrian-friendly environment that encourages active transportation and social interaction.

Implement Pilot Projects: Implement pilot projects and temporary interventions to test design ideas, gather feedback from users, and iteratively refine the design proposal before full-scale implementation, ensuring that the final design meets the needs and expectations of the community. Monitor and Evaluate: Establish a monitoring and evaluation framework to assess the effectiveness of the design interventions over time, gathering data on usage patterns and user satisfaction to inform future decision-making and refinement of the street design, ensuring its long-term success and sustainability.

Advocate for Policy Support: Advocate for policy support and institutional commitment to childfriendly urban design principles, including the adoption of guidelines, incentives, and regulations that prioritize the needs of children in urban planning and development processes, fostering a supportive policy environment for creating vibrant, inclusive, and playful streetscapes.

By implementing these recommendations, stakeholders can collaboratively work towards realizing the vision of Kongresi I Lushnjes Street as a vibrant, inclusive, and child-friendly urban space that enhances the quality of life for all residents and visitors.

7.3 Conclusion

In culmination, the exploration of Kongresi I Lushnjes Street and its potential metamorphosis into a playable thoroughfare for children encapsulates a journey marked by enlightenment and inspiration. Through meticulous site analysis, informed by a comprehensive review of literature, international standards, and case studies, profound insights have been gleaned into the distinctive context of Tirana and the latent prospects it offers for crafting vibrant, inclusive, and child-friendly urban precincts. The site analysis unveiled the intricate mosaic of demographics, urban morphology, and cultural heritage that epitomize Tirana, accentuating the imperative of context-sensitive design interventions. By discerning the needs, preferences, and aspirations of the populace, a design proposition has been meticulously curated to resonate harmoniously with the site's milieu while embodying the ethos of child-friendly urban design.

The recommendations posited herein furnish a strategic blueprint for materializing the vision of Kongresi I Lushnjes Street as an animated and hospitable public realm for children and families alike. By assimilating child-centric design elements, fortifying safety protocols, advancing inclusivity, activating communal spaces, and advocating for policy reinforcement, stakeholders can collaboratively endeavor towards cultivating a more habitable, sustainable, and equitable urban milieu.

Progressing henceforth, proactive engagement of stakeholders, cultivation of community involvement, and harnessing of interdisciplinary synergies are paramount to the efficacious implementation of the proposed initiatives. By methodically monitoring and evaluating the efficacy of the design proposition over time, iterative learning and adaptability can be fostered, ensuring a perpetually refined approach towards sculpting convivial and all-embracing urban habitats.

Ultimately, Kongresi I Lushnjes Street emerges not merely as a physical thoroughfare but as an emblem of aspiration, potential, and communal ingenuity. By harnessing the transmutative essence of urban design, we are afforded the opportunity to forge a future wherein streets transcend their pedestrian function to become vibrant nuclei of communal life, where children revel in the joy of play, exploration, and discovery, and where the essence of childhood is exalted and cherished. As we embark on this odyssey of urban renaissance, let us remain guided by the tenets of empathy, ingenuity, and collective endeavor. Together, we possess the capacity to erect cities that are not only resilient and sustainable but also resplendent and inclusive—where every child is bestowed with the liberty to dream, explore, and etch indelible memories that shall endure through the annals of time.

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