



Proximity of Care
DESIGN GUIDE

SITE PROFILE & DESIGN REPORT:

El Mina, Tripoli, Lebanon



Acknowledgements

This document is a product of the partnership between Arup and the Bernard van Leer Foundation as part of the project “Proximity of Care – Designing for Early Childhood in Vulnerable Urban Context”, which saw the collaboration of Catalytic Action for the work undertaken in El Mina, Tripoli (Lebanon). Main contributors to this document are Joana Dabaj and Riccardo Luca Conti of Catalytic Action; Sara Candiracci, Spencer Robinson and William Isaac Newton of Arup; and Irina Ivan of Bernard van Leer Foundation.

ARUP

Arup is an independent multi-disciplinary firm with more than 14,000 specialists working across every aspect of today’s built environment. Our mission to Shape a Better World is driven by our commitment to make a real difference, stretch the boundaries of what is possible, help our partners solve their most complex challenges and achieve socially valuable outcomes.

The Arup International Development group partners with organisations operating in the humanitarian and development sector, to contribute to safer, more resilient and inclusive communities and urban settings in emerging economies and fragile contexts around the globe.



URBAN95

The Bernard van Leer Foundation is an independent foundation working worldwide to inspire and inform large-scale action to improve the health and well-being of babies, toddlers, and the people who care for them.

The Urban95 Initiative aims to improve, through urban planning, policy, and design, the way babies, toddlers, and the people who care for them live, play, interact with and travel through cities. It asks a bold but simple question:

“If you could experience the city from 95cm - the height of a 3-year-old - what would you change?”



Catalytic Action (CA) is a charity and design studio that works to empower communities through strategic and innovative community-led interventions. CA adopts a participatory approach to enhancing community resilience, where the users are at the centre of an empowering co-creation process. Their work focuses on the co-design process as much as on the quality of the final product; combining design and architecture with sociology and child development. CA works with the most vulnerable communities in the Middle-East, Africa and Europe to improve and shape together the quality of the built environment.



Source: Catalytic Action

CONTENTS

Executive Summary	4
1. Introduction	8
2. El Mina, Tripoli Profile	16
3. Key Challenges	22
4. Opportunities	32
5. Recommended Intervention	42

Executive Summary

Arup and the Bernard van Leer Foundation have partnered to combine their design expertise and knowledge of early childhood development, to support urban practitioners, city authorities and development and humanitarian actors working in vulnerable urban contexts to design and build healthy, protective, supportive and stimulating environments where young children can thrive.

The Proximity of Care approach was developed to better frame the correlation and interdependencies between the built environment and early childhood development in informal and refugee settlements.

It provides a framework to assess how various urban systems and social factors observable at different levels of the built environment relate to the needs, strengths and challenges facing young children, their caregivers and pregnant women, and ultimately influence early childhood development. The framework is also intended as a tool to support the identification and design of child- and family-friendly interventions in a given urban context, and to measure their long-term impact.

Proximity of Care is at the core of a Design Guide we are developing for professionals and decisionmakers operating in vulnerable urban contexts, such as informal and refugee settlements, to help them profile their work as child- and family-friendly. The Guide incorporates design principles, tools and policy



Source: Catalytic Action



recommendations, to support the assessment, design and implementation of interventions aiming at improving the conditions and well-being of young children, their caregivers and pregnant women in the environment where they live.

To optimise the Proximity of Care approach and develop a practical and useful Design Guide, Arup and the Bernard van Leer Foundation have partnered with experienced organisations operating in vulnerable urban contexts and piloted our approach in four sites. In El Mina, Lebanon we are working with Catalytic Action; in Azraq, Jordan with Civic; in Kibera, Kenya with Kounkuey Design Initiative (KDI); and in Khayelitsha, South Africa with Violence Prevention through Urban Upgrading (VPUU).

This report presents insights from the research study undertaken in El Mina in Tripoli, a coastal city in Northern Lebanon, in collaboration with Catalytic Action. The Proximity of Care Framework was used to frame and inform the research and understand the challenges and opportunities for early childhood development across the city. The report also identifies opportunities for enhancing the living conditions of young children, their caregivers and pregnant women, and for empowering communities through innovative and strategic spatial interventions.



The research identifies core challenges and opportunities for early childhood development at all four dimensions of the Proximity of Care approach.

In relation to **health**, disparate access to child-sensitive, reliable and safe basic services in some neighbourhoods leaves vulnerable urban dwellers – including displaced Syrians – dependent upon unsafe and unsanitary shadow systems. Streets where children play are polluted with garbage, which some children collect and repurpose to their play ambitions. This makes them vulnerable to highly concentrated microbial, chemical and physical hazards. ‘Hygiene weeks’ in school, together with good hygienic practice inside the household and NGO-led interventions, present an opportunity to create a more enriching and healthy environment for optimal early childhood development.

In relation to **protection**, exposure to violence and an absence of municipal grievance mechanisms leaves vulnerable residents, and refugees in particular, without any official recourse to turn to

in their defence. For matters relating to children in particular, there is no municipal helpline that can account for, manage and refer matters threatening their safety. Exposure to violence, coupled with an absence of recognised protection mechanisms, can cause long-term mental and physical health problems in children and increase the likelihood that they will be violent in their future relationships. The prominence of NGOs like Abaad and Himaya as non-governmental mechanisms for protection presents an opportunity to create a safer and more secure environment for vulnerable groups and individuals, particularly young children.

For **stimulation**, there is a distinct absence of accessible, designated and nurturing safe play spaces for children in their immediate neighbourhoods. The most popular and child-friendly sites are too far away for many and accessing them can be dangerous when traffic flows are high. Play deprivation can have long-term impacts including depression, isolation, poor resilience and reduced emotional learning. There are opportunities for quality interaction



between children and their caregivers, peers and teachers: play is a prominent feature of home life while several primary schools embed playful learning in their curricula. Together, these can contribute to a nurturing and stimulating environment for young children.

Lastly, for **support**, El Mina municipality seems to give little attention to child-centred work in its budgeting or programming. Other priorities detract from a concerted effort to consider children in public space, and non-state actors usually operate to plug the gap. This may confine children to the improvised and less stimulating areas in their immediate surroundings, depriving them of accessible play opportunities to explore and learn from. The Lebanon Higher Council for Childhood might offer an entry point to more child-focused programming at the city level; and interventions by War Child Holland Lebanon present an opportunity at the neighbourhood level to ease the burden on caregivers and create a more supportive environment for optimal early childhood development.

This report includes key recommendations for enhancing early childhood development opportunities in El Mina. It also presents a recommended intervention targeting a specific area of the city, the Corniche, with a particular focus on the areas near vulnerable neighbourhoods, outlining how, through minimal adaptations, this area can be transformed into an accessible and safe space for children and their caregivers.

1. Introduction

DESIGNING FOR EARLY CHILDHOOD IN VULNERABLE URBAN CONTEXTS



Vulnerable urban areas such as refugee and informal settlements house a growing population in critical need, and the number and size of these areas will only increase in the coming decades. While the specifics of these vulnerable areas vary, they consistently pose major challenges for children’s optimal development.¹ Living in these contexts has particularly significant negative impacts on young children aged 0 to 5.²

At present, the specific needs, vulnerabilities and demands of young children, their caregivers and pregnant women living in informal and refugee settlements are frequently ill-considered and unaccounted for by government, development and humanitarian organisations, and urban practitioners. The 0-5 age group’s needs are different than those of older children, but are often ‘lumped in’ with them from a planning and policy perspective, or worse, go entirely unrecognised.

Arup and the Bernard van Leer Foundation have partnered to help bridge this gap, by combining their design expertise and knowledge of early childhood development. The Proximity of Care approach was developed to better understand the needs and constraints faced by young children, their caregivers, and pregnant women in vulnerable urban contexts, such as informal and refugee settlements; and to ultimately help improve their living conditions and well-being.

The Proximity of Care approach is at the core of a Design Guide that we are developing to help urban practitioners, city authorities and development and humanitarian actors working in vulnerable urban contexts, mainstream in their projects child- and family-friendly design principles, processes and policy recommendations.

The Design Guide is intended to provide practical tools to enable users to thoroughly assess and design interventions in vulnerable urban contexts, such as informal and refugee settlements, whilst considering the needs and demands of young children, their caregivers and pregnant women, to ultimately build healthy, protective, supportive and stimulating environments where young children can thrive.

The Guide builds upon the Bernard van Leer Foundation’s Urban95 Initiative, which asks a bold but simple question: “If you could experience the city from 95cm – the height of a 3-year-old – what would you change?”. Urban95 leverages urban planning, policy and design to improve the very youngest children and their caregivers experience, play in, interact with and travel through cities.

To ensure the needs of the Design Guide’s end users are properly met, we are working closely with urban practitioners operating in vulnerable urban contexts, such as informal and refugee settlements, and with development and humanitarian organisations. In particular, we are partnering with Civic, Catalytic Action, Konkuey Design Initiative (KDI), and Violence Prevention through Urban Upgrading (VPUU), who are operating in vulnerable urban contexts in various sites across Jordan, Lebanon, Kenya, and South Africa respectively.

WHY AN EARLY CHILDHOOD DEVELOPMENT FOCUS IN VULNERABLE URBAN CONTEXTS

The early years of a child's life are crucial for healthy physical and mental development.³ Neuroscience research demonstrates that a child's experiences with family, caregivers and their environment provides the foundation for lifelong learning and behaviour.⁴

Cognitive evolution from birth to age five is a 'golden period' during which the stage is set for all future development, including core skills acquisition, establishment of healthy attitudes and behaviours, and flourishing of mature relationships.⁵ Without effective early childhood support, developmental deficits can become a cycle of lost human capital. Developmental

inhibition in the first two years of life has harmful effects on adult performance, including lower educational attainment and reduced earning.⁶ Improving early childhood development, on the other hand, acts as a social and economic engine for communities and societies.

To develop to their full potential, babies and toddlers require not only the minimum basics of good nutrition and healthcare, clean air and water and a safe environment; they also need plenty of opportunities to explore, to play, and to experience warm, responsive human interactions.⁷ To a large degree, the establishment of healthy patterns in human relationships depends upon the physical environment children inhabit in their very first years.⁸

The characteristics of physical space impact learning and memory formation;⁹ chronic noise exposure can result in lower cognitive functioning and unresponsive parenting;¹⁰ crowding can elevate physiological stress in parents and cause aggressive behaviour in young children. For young children to make the most of their surrounding built environment, those places need to cater to age-relevant developmental needs, while providing affordances and barrier-free access for caregivers.¹¹

Children, caregivers and expectant mothers living in rapidly urbanising informal and refugee contexts are a particularly vulnerable population, among the most severely affected by a lack of basic services, inadequate living conditions, and limited opportunities for individual and community growth. In addition, these populations are often on the front line of climate change impacts, compounding the difficulty of their situation.



While the typologies of vulnerable urban contexts can vary, living in these environments is consistently demonstrated to have significant negative impacts on the optimal development of very young children, as well as their support networks.¹²

With cities growing exponentially and population displacement on the rise globally, more and more children are likely to find themselves living in informal, resource-restricted, and otherwise vulnerable urban areas. In the coming decades, children's health, lives and futures will be increasingly determined by the shape of cities and urban settlements.

Investing in early childhood development has been proven to be the single most effective method for poor and vulnerable societies to break out of poverty and vulnerability cycles.¹³ For urban planners, development actors, and government authorities alike, there is no greater chance to reap long-term, society-wide benefits than by improving early childhood development for the generations being raised in vulnerable urban contexts around the globe.



THE PROXIMITY OF CARE APPROACH



The Proximity of Care Approach was developed to better understand the relationship between the built environment and early childhood development in vulnerable urban contexts, whose interdependencies are not always fully appreciated and addressed.

It is a tool that provides a structured, granular and holistic approach to assess how various urban systems relate to a child's developmental needs in a given context; and to help support, prioritise and design child- and family friendly interventions. The Approach is also intended for ongoing outcome assessment, to measure the long-term impact of specific interventions.

This Approach considers **four primary Dimensions** foundational to optimal early childhood development: **Health, Protection, Stimulation and Support**. Each dimension is assessed against a range of key factor areas, which are both hard and soft assets – physical space and infrastructure, human interactions and behaviours, economic, policy and planning elements, that individually and collectively contribute to enable optimal early childhood development in a given urban context.

To gain a holistic understanding of the needs and demands of young children, their caregivers, and pregnant women in their settlement, these factor areas are assessed at different urban scales of human interactions – **the Household, Neighbourhood and City levels**, whose boundaries are highly context-dependent.

Dimension: Health

This dimension considers those factors that contribute to a healthy and enriching environment for optimal early childhood development, examining how to improve physical, mental, and emotional health and support cognitive development among young children, their caregivers, and pregnant women.

Dimension: Protection

This dimension considers those factors that contribute to a safe and secure environment for optimal early childhood development, determining how to reduce risks, mitigate hazards and increase safety for children, and improve caregivers' perception and experience of safety and security.

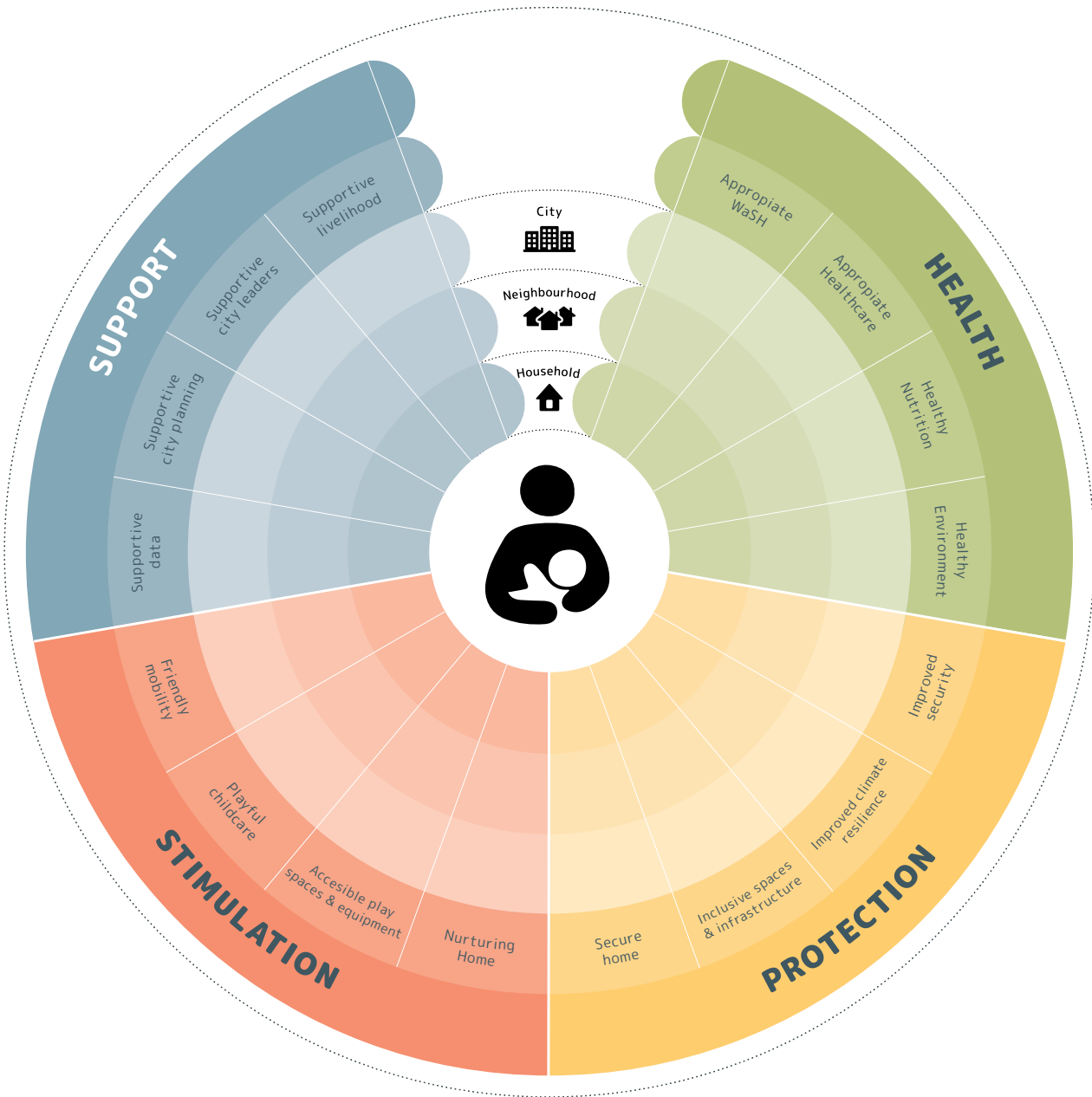
Dimension: Stimulation

This dimension considers those factors that contribute to a nurturing and stimulating environment for optimal early childhood development, addressing how to enhance the quality of children's interaction with caregivers, peers, other adults, and the physical space around them.

Dimension: Support

This dimension considers those factors that contribute to a knowledgeable and supportive environment for optimal early childhood development, looking at how to enhance knowledge, support from city authorities and community members, and include beneficiaries' voices in decision-making and planning.

**Figure 1:
Visualisation of the Proximity of Care Approach**



This cross-cutting assessment allows a nuanced understanding of the specific areas most critical to improving early childhood development in a given context. The knowledge and evidence generated through the application of the framework can be used to

support planners, authorities and built environment professionals to create a healthy, stimulating, safe and supportive environment that contributes to young children’s optimal development, and enhances caregivers’ and pregnant women’s living conditions and wellbeing.

THE TOOLKIT

The application of the Proximity of Care Approach is supported by a toolkit for conducting a participatory assessment. The toolkit includes methods and tools for the following activities:

Desk-based Analysis of secondary socio-economic and spatial data on the selected neighbourhood.

Transect Walks to map and assess site materiality and accessibility, social conditions, availability and conditions of child-friendly spaces, child-friendliness and child-specific hazards manifested by local infrastructure, pedestrian and vehicular traffic flows, and potential barriers to play access.

Key Informant Interviews with different stakeholders including academic experts, built environment professionals, NGO staff, city authorities, youth groups, educators and community leaders to better understand early childhood challenges and opportunities in the selected neighbourhood.

Focus Group Discussions with children, educators, and community members to examine local opportunities and challenges surrounding early childhood development.

Assessment Workshops with children (0-5 and 6-12), caregivers, local educators, community leaders and community members to map and understand early childhood challenges and opportunities in the selected neighbourhood, experienced by children and carers in the local community.

Co-creation Workshops with children (0-5 and 6-12), caregivers, local educators, and community members to identify early childhood development opportunities in the selected neighbourhood, and come up with tangible ideas for intervention in key hot-spots, using participatory solution development exercises.

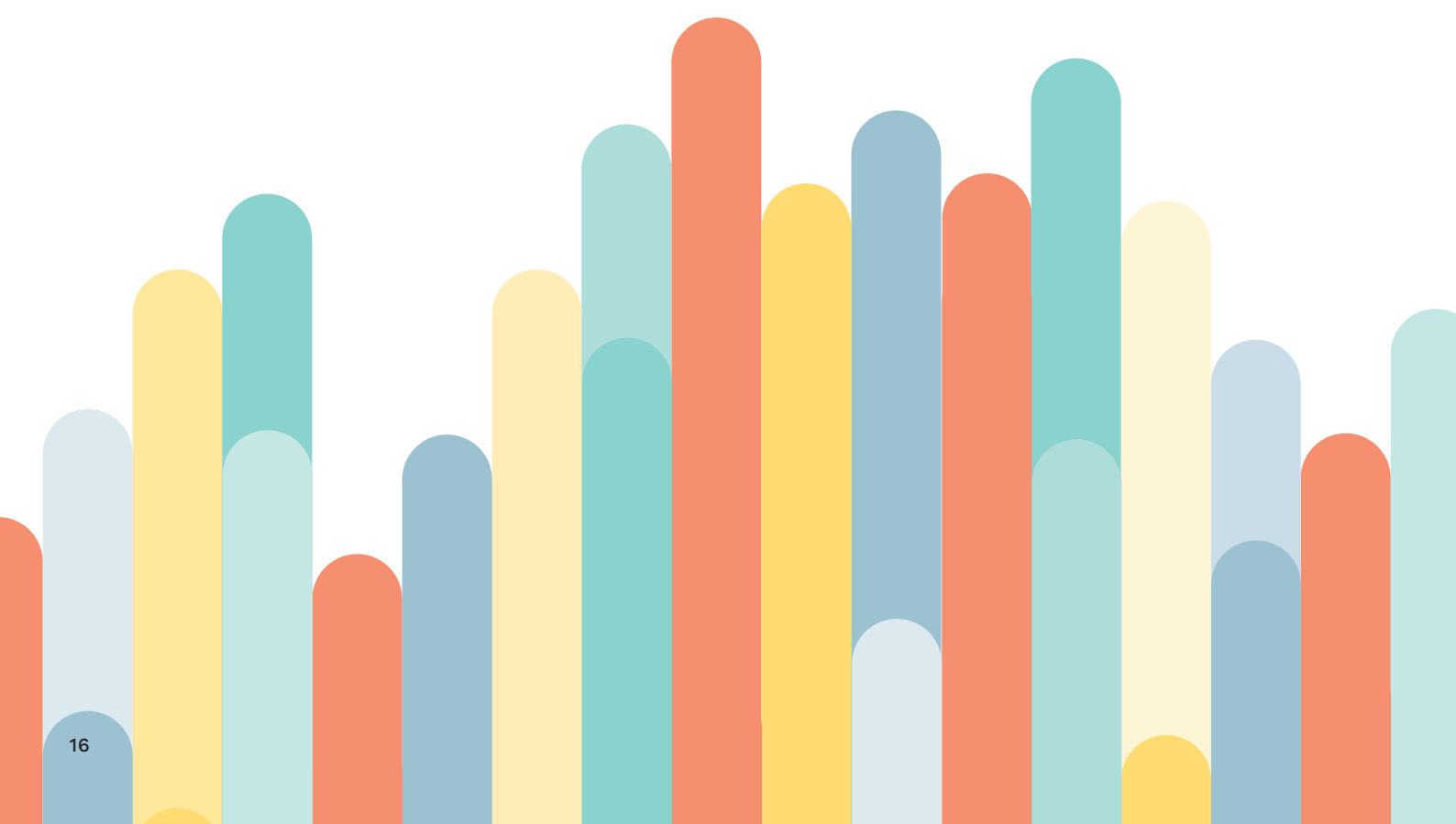




Source: Catalytic Action

2.

El Mina, Tripoli Profile



METHODOLOGY



The Proximity of Care Framework was used in El Mina in Tripoli, a coastal city in Northern Lebanon, to understand the challenges and opportunities for early childhood development across the city, and identify opportunities for enhancing the living conditions of young children, their caregivers and pregnant women. The field research was conducted in collaboration with Catalytic Action, and focused on the neighbourhoods of Hay Al Tanak, Hay Al Marjan, Al Masaken and the Old City centre, taking into account the overall of El Mina territory.

The field research enabled Arup and the Bernard van Leer Foundation to field test and refine the Proximity of Care Framework and associated toolkit, and to establish a baseline for site conditions, including challenges and opportunities, to inform the design of context-sensitive interventions.

The following methods were used in the elaboration of the research and production of the report:

- **Desk based review** and gap analysis of secondary data including demographic, geographic, socio-economic, health and education facilities, and census data.
- **Key Stakeholder mapping** to develop a database of key local stakeholders, sorted by specialisation and mapped against the Proximity of Care Dimensions and Goals, to engage for research activities including interviews, focus groups, and workshops.
- **Semi-structured interviews (40)** conducted remotely using phone calls, ZOOM and when possible face to face while respecting physical

distancing and safety precaution measures. Semi-structured interviews were conducted with representatives from national and international non-governmental organisations (NGOs and INGOs), El Mina municipality, local health providers, schools, universities, as well as caregivers and pregnant women. Of the caregivers and pregnant women, 12 were Syrian and 8 were Lebanese.

- **Transect walks** conducted in the four neighborhoods and along the corniche to observe built and social environments, gather photos and videos, interact with community members, and gain a good understanding of how people use public spaces in El Mina. Observations of existing amenities, land-use and services were collected.

Due to movement and proximity restrictions required by the 2020 Covid-19 pandemic, some research activities were performed remotely to ensure the safety of staff and participants. An envisioned workshop with children and caregivers was scoped out due to the government mandated social distance guidelines introduced during the project period.

The El Mina Profile Report is structured around the four Dimensions of the Proximity of Care Framework – Health, Protection, Stimulation and Support, with an introductory section presenting a general overview of the site, with geographic, demographic and socio-economic conditions.

Key challenges and opportunities to early childhood development are assessed for each Dimension at different urban scales – the Household, Neighbourhood and City levels. Recommendations on the type of interventions to be implemented to address these challenges and enhance these opportunities are provided.

OVERVIEW



El Mina – Arabic for ‘seaport’ – is a coastal city in the North Governorate of Lebanon. Its positioning on the eastern shores of the Mediterranean coast saw it become over the centuries the commercial anchoring connection between Mediterranean countries and Tripoli, the second largest city in Lebanon.

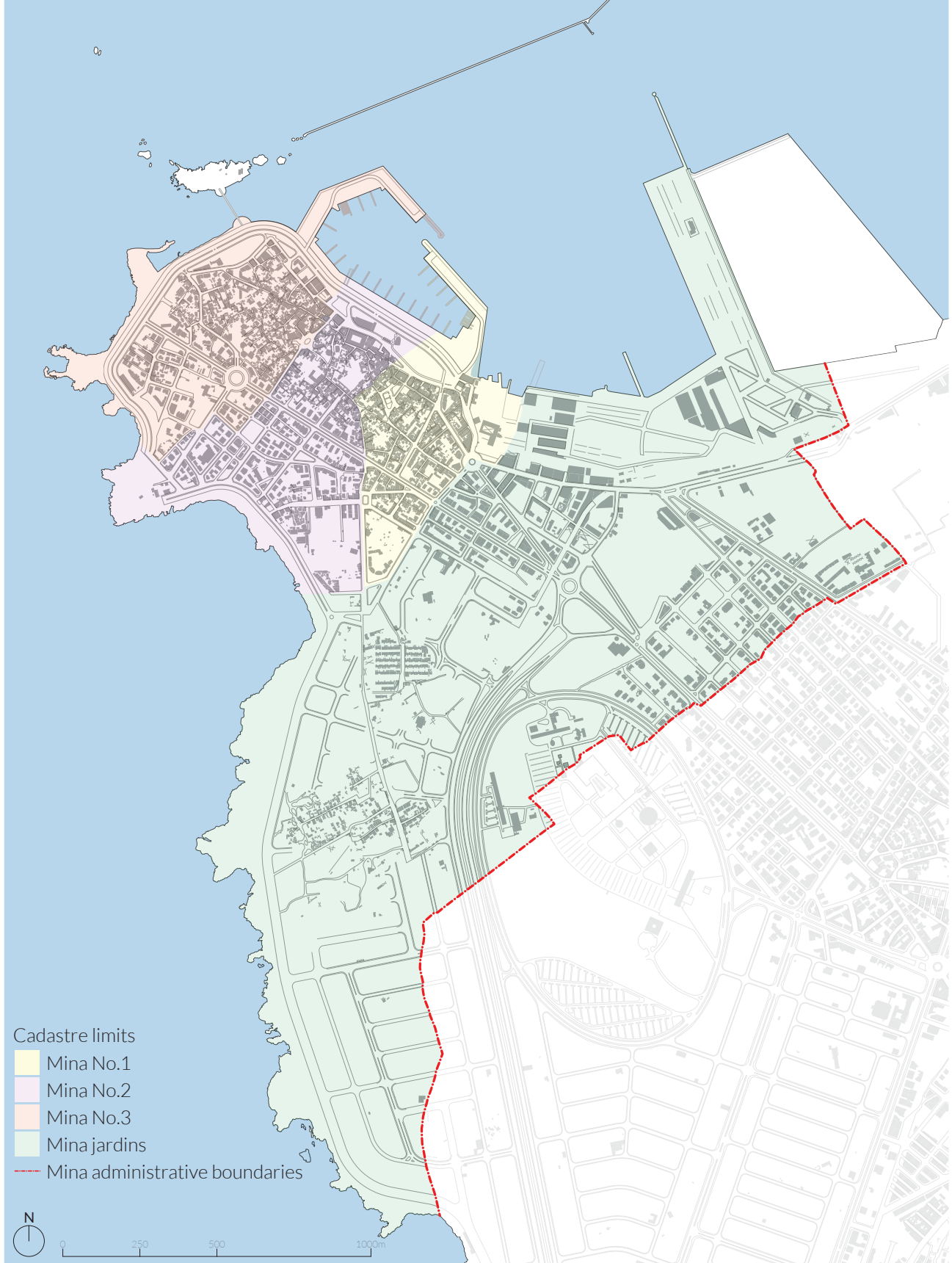
El Mina is the site of the ancient city of Tripoli, which in 1289 was demolished and its centre rebuilt 5-kilometres inland. At the beginning of the 20th century, El Mina became an extension of the harbour district of Tripoli, eventually becoming a separate city within greater Tripoli with its own municipality. Between the 1920s to the 1960s, El Mina saw connections between the historical core in old Tripoli and El Mina developed and extended.

The port grew considerably during the first half of the 20th Century, serving the city as a major ship building, trade and commercial centre for silk and agricultural produce, especially citrus and sugar cane.¹⁴ El Mina’s coastal location continues to shape the economic activities its inhabitants participate in: boat building, fishing and net maintenance employ large shares of El Mina’s workforce. El Mina remains a focal point for cargo ships and merchants, especially those trading between North Africa and Europe.

Administrative boundary

El Mina’s administrative boundary encompasses 3.82km² of land, with an estimated population density of 20,459 persons per square kilometre.¹⁵ The city comprises a peninsula surrounded by several small islands, some of which have been declared protected natural reserves. The peninsula is bordered by the Mediterranean Sea and is connected to Tripoli in the south-east. For this reason, urban development and growth has concentrated along the southern corridor between El Mina and the old historic core of Tripoli, which is retrofitted with new architectures and a modern urban fabric. The eastern part of the town maintains a historic fabric characterised by an old architectural style of cross-vaults.

City administrative boundaries (0.8)
Property boundaries / cadastral map (0.9)
Major watercourses (rivers, streams, canals) and water bodies (lakes, reservoirs, etc.) (0.31)



Source: Catalytic Action

Demography

El Mina has a population of 82,084,¹⁶ which is ethnically and religiously diverse, with Palestinian and Syrian refugees living alongside high numbers of vulnerable Lebanese residents.

In 2017, 72,133 (87%) of the population were Lebanese, 4,741 (5%) were registered Syrian refugees, 5,014 (6%) were Palestinian refugees from Lebanon and less than 1% were Palestinian refugees from Syria. The population is almost half female and half male, and 30% of residents are younger than ten years old.

El Mina's diverse vulnerable population is reflected in the built environment, which comprises several types of shelter including informal shacks, 1950s social housing and deprived households in the historical city centre.

Socio-Economic Conditions

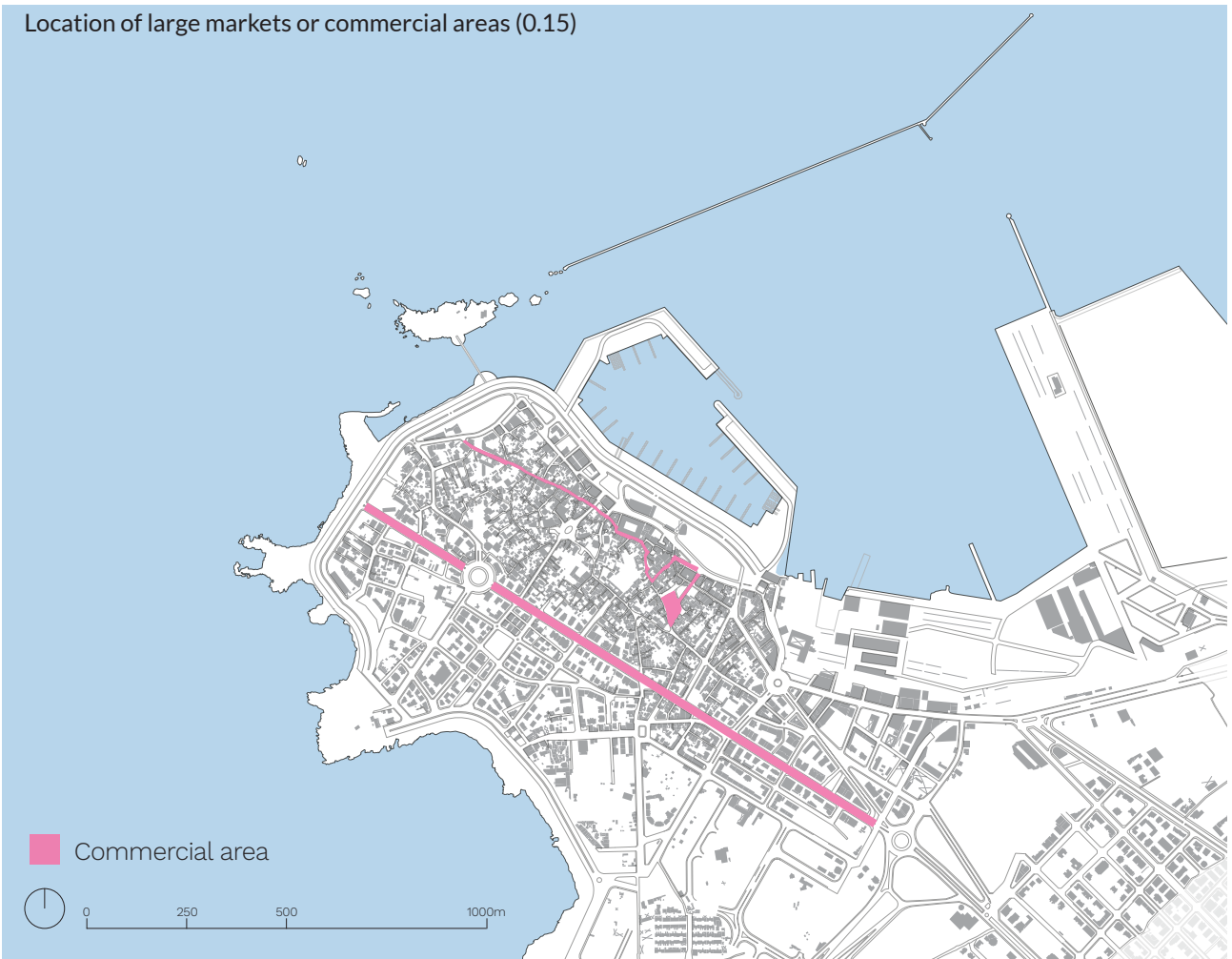
El Mina is predominantly a services-oriented city. Residents work in a range of sectors including fishery, furniture, handicrafts, maritime navigation, public education, trade and other forms of business.

In the North of Lebanon, the fishery sector encompasses a large group of workers, of which 65% are estimated to be from El Mina and Akkar. El Mina has a small harbour for fishing boats, and the city's fish market is well-known across most of Lebanon. Despite the prominence of fishing, slow mechanisation and a lack of economically robust companies has stunted its contribution to economic growth. Cafes, coffee shops and restaurants line the coastal front and contribute significantly to the city economy, especially along the new and old corniche that is a popular visit site for families.

In Old Mina, female participation in economic and social life is curtailed by patriarchal social traditions. Usually, activities for women in the city are limited to cooking and housekeeping, while a low percentage work in the region's social sector.¹⁷

A study conducted by the United Nations Economic and Social Commission for Western Asia (UNESCWA, 2014), found that levels of deprivation in certain neighbourhoods reached 63% of all families surveyed. 28% of families were extremely deprived and 15% of Tripoli's most deprived households were in El Mina. Overall economic deprivation was 86% in El Mina, as compared with 77% in Tripoli.¹⁸

Location of large markets or commercial areas (0.15)



Source: Catalytic Action



Source: Catalytic Action

3.

Key Challenges

This section outlines key challenges identified in El Mina, using the Proximity of Care Approach. Opportunities and recommendations on type of interventions to be implemented in the neighbourhood to address the challenges identified within the Health, Protection, Stimulation and Support Dimension are provided in Section 4.

Source of images: Catalytic Action



HEALTH CHALLENGES

The Health Dimension of the Proximity of Care Approach assesses those factors that contribute to a healthy and enriching environment for optimal early childhood development, examining how to improve physical, mental, and emotional health, and support cognitive development among young children, their caregivers, and pregnant women.



Household level

In Hay Al Tanak and the Old City Centre, houses are “clustered” close together. Where houses have windows, direct sunlight might therefore be blocked by neighbouring houses. This threatens to reduce circulation and ventilation in the home, which over time will affect the respiratory systems and mental faculties of both caregiver and child. Furthermore, households with tin roofs leak during the winter and become “very hot” during the summer. This can create damp and mould, the latter of which produces hazardous toxins with harmful effects on children. Symptoms associated with mould and poor ventilation are particularly difficult to spot in young children and babies; their harmful effects might therefore go unnoticed until they become increasingly serious.

Overcrowding exacerbates conditions in some households. Syrian households in EL Mina usually have the highest numbers of household members and dwellings are usually shared by more than one family. In Hay Al Tanak, one interviewee explained that Lebanese and Syrian residents often live in similar sized housing, but the average Syrian family has two more household members than Lebanese families. This erodes space for young children to play in while increasing the risk of caregiver stress and the spread of infectious disease.

Residents in Hay Al Tanak build their own toilets or rely on those provided by UN agencies and NGOs. The latter are infrequently maintained and some households have repurposed them “for their own use”. Crucially, **public latrines are built to a standard adult size, excluding small children from using them unless accompanied by a caregiver.** Hence, when caregivers’ assistance is absent, children may be forced to stool-hold for long periods or to defacate and urinate in exposed and unsafe latrine pits.



Neighbourhood level

The lack of greenery deprives children of explorative mobility and play experiences where they can interact with nature. Instead of tree cover and other play equipment, low-hanging electricity lines in Hay Al Tanak and Al Masaken – which sometimes hang within an arm’s length – constitute a significant threat to young children in search of urban artefacts that they can interact with. Established community gardens are few in number, and are some distance from the Hay Al Tanak neighbourhood in particular.

Unkept garbage attracts rats and leaves discarded elements for children to collect and repurpose to their play ambitions, especially in Hay Al Tanak. Dumpsters are usually overflowing; this is particularly problematic in Al Masaken where the dumpsters sit next to the pre-school and are therefore likely to emit unhealthy stench into the classrooms.

In some neighbourhoods, children are tasked with dragging heavy trash bags to dumpsters, which are either too far away or not low enough for them to deposit the trash in. This leads to a build-up of waste in the street or around the designated bins and possibly exposes children to highly-concentrated microbial, chemical or physical hazards.



City level

Informal neighbourhoods are not connected to the municipal waste or water networks.

Alternate systems – like well digging or using community water trucks – operate instead, but these are usually mixed with sea water or they come from “unknown sources”. In winter, the tap water in Hay Al Marjan is “muddy” and may expose users to water-borne disease.

There is one medical centre in El Mina which is currently under construction. The communities rely on health dispensaries instead, such as the Al Iman facility in Al Masaken. There is no birth delivery service at the dispensary, forcing expectant mothers to travel longer distances to reach an appropriate facility. Furthermore, nearby hospitals reportedly offer no form of assessment to monitor postpartum depression. The closest facilities to Hay Al Tanak and Hay Al Marjan are community health centres; the capacity of these was not discussed in interviews, but it is likely that they are not as well equipped as the public dispensaries.

Currently, no efforts are being made to monitor or reduce air pollution in El Mina, threatening the neurodevelopment and cognitive ability of young children in the most severe cases.

While the Ministry of Health launches occasional vaccination schemes through dispensaries and schools, an employee at the Al Iman dispensary was unaware of any programmes for reducing the occurrence or spread of infectious diseases.

PROTECTION CHALLENGES

The Protection Dimension of the Proximity of Care Approach assesses those factors that contribute to a safe and secure environment for optimal early childhood development, determining how to reduce risks, mitigate hazards and increase safety for children, and improve caregivers' perception and experience of safety and security.



Household level

Increased reports of domestic violence during the coronavirus pandemic suggest that abusive behaviours are difficult to influence, and that the home environment is dangerous for some caregivers. There is no municipal mechanism for reporting domestic violence in El Mina, as evidenced by respondent's answers when asked who they would go to if they knew someone was being abused. For instance, one respondent said that she would speak with the husband's parents, while another said that encouraging the wife to divorce her husband was more effective than confronting him. Problematically, another respondent explained that it is the woman's choice whether or not she lets her husband strike her; this suggests that there is no social agreement on the harmfulness of spousal violence among some residents of El Mina.



Neighbourhood level

Due to the lack of a legal protection framework for Syrian refugees, many are forced to remain in the country illegally and some are pushed into interstitial spaces beyond the purview of municipal police forces. This has exposed them to informal means of security characterised by coercion, and, in some cases, violence. In Hay Al Tanak, perceptions of safety are shaped by experiences of blackmail and theft, as well as beatings. In Al Masaken, “foreigners” are reportedly the target of attacks by bullies or thugs.

Reporting mechanisms for criminal activity at the neighbourhood level are ineffective.

For matters relating to children in particular, there is no municipal helpline that can account for, manage and refer matters threatening their safety. This suggests that problems and threats must be mediated informally and internally, and can lead to a retreat from the public realm.

A lack of road signs and heavy traffic flows at peak hours exposes children to numerous risks in their neighbourhoods. Reports of near-misses where a vehicle has almost hit a child are common, especially after school when traffic flows are highest and when children play in the street. Alleyways and “secondary streets”, which are also popular sites for child’s play, are considered to be unsafe. In these alleys, visibility of the child – if not to their caregiver, to the public – is limited, and some respondents explain how easy it is for children to be kidnapped when isolated.



City level

Underlying tension between Lebanese and Syrian residents in vulnerable neighbourhoods of El Mina is a source of insecurity, violence and diminished play opportunities for both young and old children. Some Lebanese children refuse to participate in NGO sessions with Syrian children and many will fight each other after class. Parents usually refuse to report fighting; instead, they will simply forbid their child from leaving the house, confining their learning and play experience to what is often a one-roomed space with little natural lighting and at least four other family members.

Refugees have minimal official recourse for protection. Reporting a crime, especially if you are Syrian, is futile because you may not have legal papers: “no-one can protect us as refugees, even from a small child” . Other protection services, like international organisations, are insufficient as an alternate mechanism. One respondent recounts trying to report her husband’s attacker to an NGO, only for nothing to be done about it.

There are no road safety programmes in El Mina; the municipal police have no defined plan and coordination on this issue is weak. Compounding this, the municipality does not run any educational programmes on violence prevention in the city. While it does support those run by NGOs, these are not enough or they are not fully accepted by communities. If the challenges discussed above are to be mediated, the municipality’s diminished presence on these issues must be addressed.

STIMULATION CHALLENGES

The Stimulation Dimension of the Proximity of Care Approach assesses those factors that contribute to a nurturing and stimulating environment for optimal early childhood development, addressing how to enhance the quality of children's interaction with caregivers, peers, other adults, and the physical space around them.



Household level

Childcare duties fall predominantly on women, and, whilst the repercussions of this were not expressed in interviews, the burden of imbalanced unpaid care duties may be present and this might affect female caregivers over time. Constant responsibility for their children prevents some women from going outside to meet friends; instead, they congregate at each other's homes, where access to stimulating and stress-alleviating activities is minimal.

Some educational stakeholders are concerned that parents do not have the time to plan truly age-appropriate activities for their children, and that, despite intending for homework to be an interactive and fun exercise, many parents see it as a burden and stress-inducing. In addition, pregnant women who tire easily can quickly become frustrated and strike their child if they are too demanding.

Perceived insecurity and dirtiness in their neighbourhood leads some caregivers to restrict their child's mobility to within the sightlines of the home, where opportunities for explorative, meaningful and stimulating play experiences are likely to be unavailable. This restricts a child's ability to explore their surroundings and to develop their creative thinking skills. It also denies them the opportunity to interact with other children beyond the bounds of their household and street.



Neighbourhood level

There is a shortage of immediately accessible play space for children in all neighbourhoods.

In Hay Al Tanak, most neighbourhood streets are muddy and without asphalt or pavement. While this does not prohibit play entirely, it exposes children to dangerous surfaces on which they could fall. In Hay Al Marjan, despite the street being paved, designated space for sidewalks is lacking and children therefore share their outdoor play space with cars and other vehicles. Main roads in Al Masaken are also without pavements for children and pedestrians to use.

Several respondents are distrustful of other children and parents in their neighbourhoods, and worry that those who use offensive language will negatively influence their own children.

One respondent recalls children being aggressive and physically attacking others; another describes how some children threw stones at her and her family whilst returning from a day out. It is this threat that leads caregivers to steer clear of the few 'play' spaces in the neighbourhood, "to avoid conflict".

The absence of public street furniture in all neighbourhoods leaves elderly caregivers without rest places that they can supervise children from. It also deprives children of high value play space that they can interact with and build games around. Where benches were built by the IOCC in Al Masaken, these were either stolen or vandalised. In Hay Al Marjan, the only street seating is that which shopkeepers bring out to sit on in front of their store. Even the old Corniche has a lack of seating to match the large numbers of people that visit – benches are quickly filled whilst coffee stand owners charge people money to use their seating.



City level

At the 'new' Corniche – a widely cited and frequented place for many respondents – motorcycles drive at dangerous speeds along the sidewalks, regardless of bicycles, pedestrians or children. This detracts from both the caregiver and child's ability to enjoy and independently navigate the space. Furthermore, there is no play equipment; children must take their own toys or pay to rent a bicycle. In addition, the available services are expensive and unaffordable for some families.

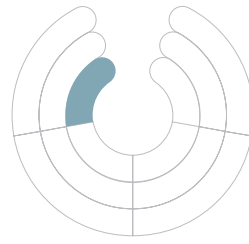
The Abdel Wahab Island, another focal play space for children in El Mina, is dilapidated and its play equipment is "unsafe, old and rusty".

Furthermore, respondents explain that they must cross two main roads when visiting the Island; this generates anxiety, especially for those with really young children. For other respondents, the island is simply too far away to visit frequently.

The likelihood that more stimulating physical space will be created is low. The municipality seems not to have capacity for a consistent maintenance plan for public spaces. Similarly to the refurbishment of the 'new' corniche, the widespread hope is that investments from international NGOs and donors will bring new public spaces to the city. The municipality therefore plays mostly an advisory role for those non-governmental organisations that do have a budget to allocate to public spaces. The only way for organisations that focus on creating better public space to get financial support is to submit a proposal to the Municipal board with a primary funding source. It seems that approved grants are rare.

SUPPORT CHALLENGES

The Support Dimension of the Proximity of Care Approach assesses those factors that contribute to a knowledgeable and supportive environment for optimal early childhood development, looking at how to enhance knowledge, support from city authorities and community members, and include beneficiaries' voices in decision-making and planning.



Household level

Some respondents have struggled to hold full-time and secure employment opportunities because of their caregiving duties. Training courses in computer technology, fashion and tailoring run by two NGOs – DRC and Sobol el Aysh – offer learning opportunities, but a trainee can attend only one course per organisation and some caregivers only hear of these courses after they have reached maximum capacity.

Some respondents report being forbidden by their husbands to work or to engage in cultural and leisure activities. One interviewee does not consider engaging in cultural or leisure activities, to respect her husband's "wishes". This impedes both personal and professional development and feeds the isolation that some caregivers feel, especially when it confines them to their household.

Several respondents are without reliable and supportive social networks, especially if they have migrated to El Mina. Some must leave children as young as four or five years old at home alone because they have no family or friends to take care of them. This is despite threats to their children's safety in the household, such as "electrocution or kitchen hazards". One respondent recalls her neighbours beating her child for being too noisy when left home alone. For some, the feeling of isolation from support networks makes them reminisce about their homeland: "I can't wait to go back to Syria".



Neighbourhood level

Excursions beyond the home or to see friends are rare for caregivers, and usually happen once per week on Sundays when the husband is not at work. In addition, many respondents are deterred from visiting social hubs because they are unable to afford anything that they or their children want. As one interviewee said, “I don’t go anywhere because we cannot afford anything” .

One respondent feels unsupported because she is often unable to access or find the medicine that she needs at the health dispensary. This adds to other accounts that visit health dispensaries and that are characterised by bullying, judgement and long waiting times, even in emergencies.

One interviewee from the Old City centre explains that inequity between men and women is ingrained within the neighbourhood. This may be linked to the increased rates of domestic violence in El Mina during quarantine, as well as the exclusion of some women from employment and leisure activities, as discussed above.



City level

There is an overriding sense of isolation from institutional and municipal agencies in El Mina.

This is expressed in relation to continued and unreasonable rent demands during the coronavirus pandemic, the costs associated with living in Lebanon, the availability of medical resources and a limited sense of community spirit or togetherness.

City leaders neither consider nor understand the **importance of budgeting or programming for early childhood development in El Mina.**

The municipality allocates none of its annual budget to child-focused projects and the city masterplan makes no provisions for child-appropriate facilities such as daycare centres, libraries or community halls. Furthermore, while there are designated areas for public spaces and public gardens, these often sit beyond municipal priorities and their development is sidelined.

The likelihood that early childhood development will be integrated in future city planning is low considering that two architecture universities do not offer specific courses relating to child-centred design. Where child-friendly interventions are considered, this is usually optional and encompassed within broader subject matters.

4.

Opportunities

Applying the Proximity of Change approach has enabled a diverse set of opportunities to be identified in El Mina across the Health, Protection, Stimulation and Support dimensions, and at different urban scales – the Household, Neighbourhood and City levels.



Source of images: Catalytic Action



HEALTH OPPORTUNITIES

The built environment bears a strong influence on public health, especially for children. The design and quality of a child's physical environment can boost their emotional, mental and physical wellbeing while supporting their behavioural and cognitive development. Integrating large- or small-scale greening can minimise the prevalence of mental distress, among other things. Interspersing greenery with housing and other land-use typologies may increase a sense of ownership and togetherness among residents . In turn, rubbish tipping might become less likely and pressure to move from pit latrines to more hygienic and safer sanitary facilities could mount . Greenery and other natural elements in the built environment can provide inquisitive spaces for children to explore, reducing their dependence on using pieces of litter as play aids.



Household level

In the household, children are well versed in washing their hands frequently with soap; some children do so once every hour. This is complemented by 'hygiene weeks' at the beginning of the school year, when children are taught how to wash their hands, shower, and use cold and hot water. **Harnessing the educational curriculum and embedding this in the household presents an opportunity to encourage widespread hygienic practice among young and old children, especially for those who play in dirty and muddy spaces throughout their neighbourhoods.**



Neighbourhood level

The municipality regularly maintains greenery at road intersections and roundabouts, and plants flowers, grass and shrubbery. In addition, there is evidence of NGO-led greening interventions that have proven successful. The International Orthodox Christian Charities (IOCC), for example, organised a community greening project in Al Masaken whereby twenty jacaranda trees were planted and maintained by local shop keepers. Eighteen trees remain and shop keepers have grown vegetation, such as basil and mint, around them and in the designated space that was created along the sidewalk. The initiative indicates the sustainability of interventions that will encourage a green and healthy environment in El Mina. **If other approaches can leverage and mobilise this, there is an opportunity to redress the distinct lack of greenery and natural play space for children in the municipality.**



City level

Health dispensaries in El Mina offer postnatal check-ups within two months of delivery; the newborn is vaccinated and assessed by a paediatrician. New mothers are taught about contraceptive methods and briefly about breastfeeding. Some pregnant women also receive guidance and support; for example some respondents recall being told what to eat to remain healthy during their pregnancy, especially when they have certain health problems. There is both a need and an opportunity to scale this up to ensure that all pregnant women and caregivers in El Mina are healthy and prepared to raise young children. **The help and support offered now is not enough, and it is not tailored to the limited capacities of the most vulnerable groups.**

PROTECTION OPPORTUNITIES

The built environment can play an influential role in protecting vulnerable urban residents in El Mina. By clearly separating private and public space and enhancing sightlines across frequently used areas, opportunities for criminal activity and violence can be reduced. Safer sidewalks can result in increased footfall and thus ‘eyes on the street’, which, in turn, would increase the likelihood of ad-hoc and continual surveillance of people traversing the space. In addition, a focus on the interface between housing and public space can shed light on unsafe mobility pathways that residents must navigate daily, and subsequently summon measures to mediate this challenge. Ultimately, physical restructuring can complement awareness-raising campaigns in schools and NGO centres, and contribute to a more holistic and protective environment that integrates design with residents’ experiences of crime.



Household level

Several respondents acknowledge that physically disciplining their children is ineffective and may make the child more stubborn. Where discipline is exerted, it often serves to warn the child of danger or to assert authority over them when they are disobedient. In cases of continued abuse at home, schools provide a mechanism for enhancing protection. More specifically, **principals and teachers will consult a child’s parents if they notice extensive signs of abuse; and where this is insufficient, the Ministry of Social Affairs centre can intervene to protect children and refer parents to selected NGOs for consultation.**



Neighbourhood level

The NGO “Restart Centre” works in El Mina to provide awareness programmes for parents of children with aggressive tendencies. Restart also enrolls abused children in therapy and creates a safety plan depending on their individual needs. In addition, schools have “embedded” safety training into the educational curriculum. Facilitators utilise games and videos to educate younger children on personal safety and to make instructions more relatable. **These trainings offer a mechanism for enhanced protection that centres on educating children from a young age about safety threats and how to overcome them.**



City level

The NGO “Abaad”, is prominent in raising awareness about intimate partner violence and violence against children in Tripoli. Individuals that are in immediate danger can seek refuge in its emergency shelter; a respondent claims that many do so for longer than three months. Crucially, **the centre is open to all nationalities and does not discriminate on the basis of migrant status.** Abaad convenes classes where abusive men are invited to join their partners, and are educated on the importance of contributing to childcare and household duties. Abaad’s operations – together with the “positive parenting” sessions coordinated by Insan and KAFA – provide an opportunity to scale-up crime prevention messaging and training in El Mina.

STIMULATION OPPORTUNITIES

A more stimulating built environment will provide caregivers and children with accessories that they can tailor to their play needs. Street furnitures can be designed to promote equal opportunities for children to utilise a space. Bringing children together around an urban feature can boost sociability and create common purpose when moving through the space. Furnitures and other built environment interventions also offer resting spaces for caregivers, who can watch over their child. This might bring more families out of their (typically) one-roomed houses and into their neighbourhoods, where they can experience more collaborative and holistic social experiences. Equally, creating more stimulating and sociable built environments within respondents' neighbourhoods will make it less likely that children play in potentially dangerous alleyways and arterial networks because their immediate surroundings would become more amenable to play.



Household level

Play is a central feature of home life in El Mina; numerous respondents understand its importance and actively look to integrate it in their child's daily routine. This is complemented by ongoing efforts in local schools to not only embed playful learning in their curricula, but also to educate children on the importance of hygiene and safety.

Play is considered a means of cooperation whereby creativity and resourcefulness dictate the rules of the game. Interviewees recite stories from their own childhood or homelands, or use role-playing methods like "house" and "cooking" with cushion fortresses and kitchen utensils. Others encourage their eldest to teach their younger siblings Arabic and French. **Possibilities for frequent play are enhanced by the considerable time that most caregivers spend with their children daily. Many have no other commitments and their day therefore revolves around the child's needs.**



Neighbourhood level

The Al Nour primary school in Al Masaken, the Al Thanya Public School and the SEED preschool are all free to attend and welcome Lebanese, Palestinian, Syrian and stateless Lebanese children. Play and psychomotricity activities are embedded in the curriculum, providing children with an opportunity to develop their behavioural, cognitive and learning abilities up to five days per week. Children engage in games with educational purposes using a variety of aids including craft materials, hoops, Lego, playdough and puzzles. Children may also participate in physical activities involving dance, basketball and other sports. Ultimately, these affordable and explorative play experiences reduce the burden on caregivers and present stimulating opportunities for children to interact with their peers, older role models and learning devices.



City level

The ‘new’ Corniche is a family-friendly space that integrates the needs of different user types. Respondents mention benches, bins, lighting and plants and trees as particular features that they enjoy and wish there were more of on the more proximal ‘old’ Corniche. Furthermore, the fact that municipality forbids vehicles from driving on the sidewalk contributes to feelings of accessibility and safety among respondents. Yet, no municipal authority monitors this and many motorcyclists disregard the law. The larger crowds that often gather at the new Corniche also enhance perceptions of safety: “you feel safe when there are so many people”. The new Corniche provides an opportunity for children to engage and play with others; this is something they may not have the chance to do in their neighbourhoods.

SUPPORT OPPORTUNITIES



A child-friendly built environment offers multi-level benefits to all elements of society, including unsupported caregivers. Stimulating spaces that build in consideration of children are often green, playful and without traffic, and they can become havens for individuals to spend time in.

Moreover, an inclusive built environment that caters to the needs of young children can reduce the burden on caregivers to watch their child or to find an alternate carer everytime they wouldn't be able to do so themselves. It also provides shared space that they can visit with their friends without needing to constantly attend to or monitor their children.

Also, multi-purpose land use could see safe play spaces established near employment nodes, supporting unemployed caregivers to enhance their professional development within immediate reach of their children. This will support those caregivers in particular who cannot find secure employment opportunities because of their caregiving duties.



Household level

For some Lebanese respondents who have grown up in El Mina, the proximity of close-knit family networks are an important support system that aids them in childcare. One respondent explains that her husband and sister are supportive and will babysit her children while she runs errands; another respondent's parents live nearby and so she regularly leaves her children there when she needs to go into town. This suggests that, for those who live in close proximity to other family members, caregivers are surrounded by the necessary support to ease the burden of their caregiving duties.



Neighbourhood level

The NGO War Child Holland is piloting a research project that attends to caregivers' mental wellbeing. The Caregivers Support Intervention supports Syrian refugee caregivers and parents – some Lebanese families are involved, but convincing more to enrol proved to be difficult – to manage anxiety and stress.

It seems the project was not actually trialled in Tripoli, but War Child Holland are considering including beneficiaries from El Mina. If the programme proves successful and scalable, it can become a supportive mechanism for parents. The intervention's focus on caregivers' mental health represents an important aid to individuals that receive no support of this kind currently.



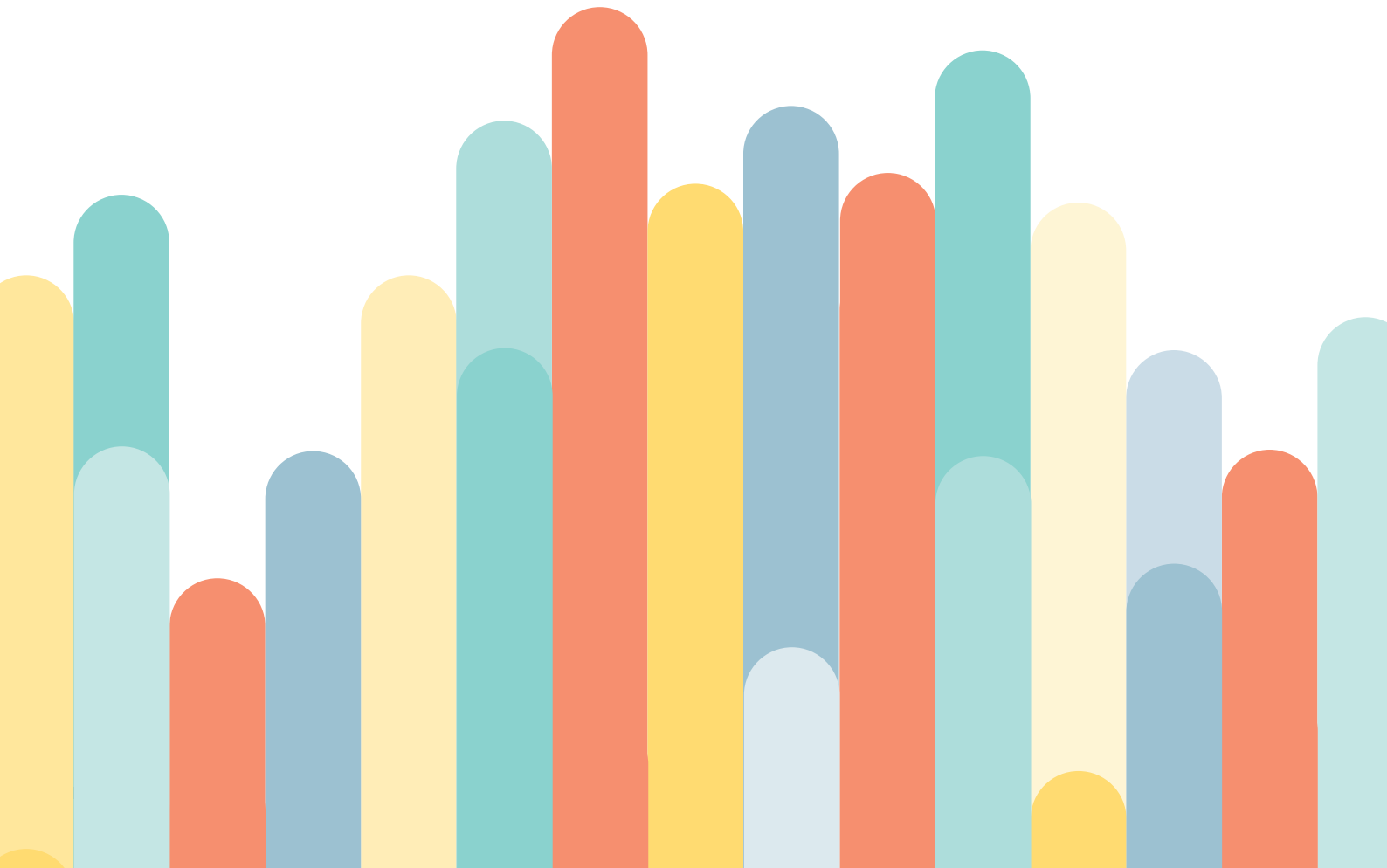
City level

While the municipality places little emphasis on targeted early-childhood development programmes, however, a support system of non-governmental organisations is present and provides a solid foundation from which to continue advocating for a child-centred approach and, in turn, create more playful environments in El Mina.

Lebanon's Higher Council for Childhood may provide an entry-point to redressing the lack of child-centred development in municipal plans. The Council bears responsibility for all matters pertaining to children in Lebanon, and, whilst it does not have an office in El Mina, a respondent claims that the Council can run pilot projects through the Ministry of Social Affairs in the municipality. The Council typically operates through local partners and NGOs, and every five years it produces a report on the situation of Lebanon's child population. The Council could become an influential advocate for child-centred programming, especially in El Mina where municipal attention to this subject is limited.

5.

Recommended Intervention



The research undertaken in El Mina pointed out clearly that access to affordable, nurturing and secure public space, especially for young children, is relational and conditioned by numerous factors including perceptions of safety, past experiences with neighbours, physical proximity and networks of social support.

The popularity of both the old and new Corniche illustrates the desire of most respondents to visit accessible and safe places, and for their children to experience stimulating learning and play. Currently, however, there is no designated space for children to play in within the immediate vicinities of the vulnerable neighbourhoods of El Mina.

In cases when children cannot visit the Corniche or Abdul Wahab Island, they filter out into the streets and play amongst garbage, sewage and in some cases, traffic. Accounts of violent confrontations, near-misses with cars, together with reports of children searching dumpsites for alcohol bottles , underline how problematic playing on the street can be. Perceived insecurity leads some caregivers to restrict their child's mobility to within the sightlines of the home, where stimulating play experiences are likely to be diminished. At the same time, popular references to green, pedestrianised and multi-featured spaces demonstrate what the respondents consider to be important in their surroundings.

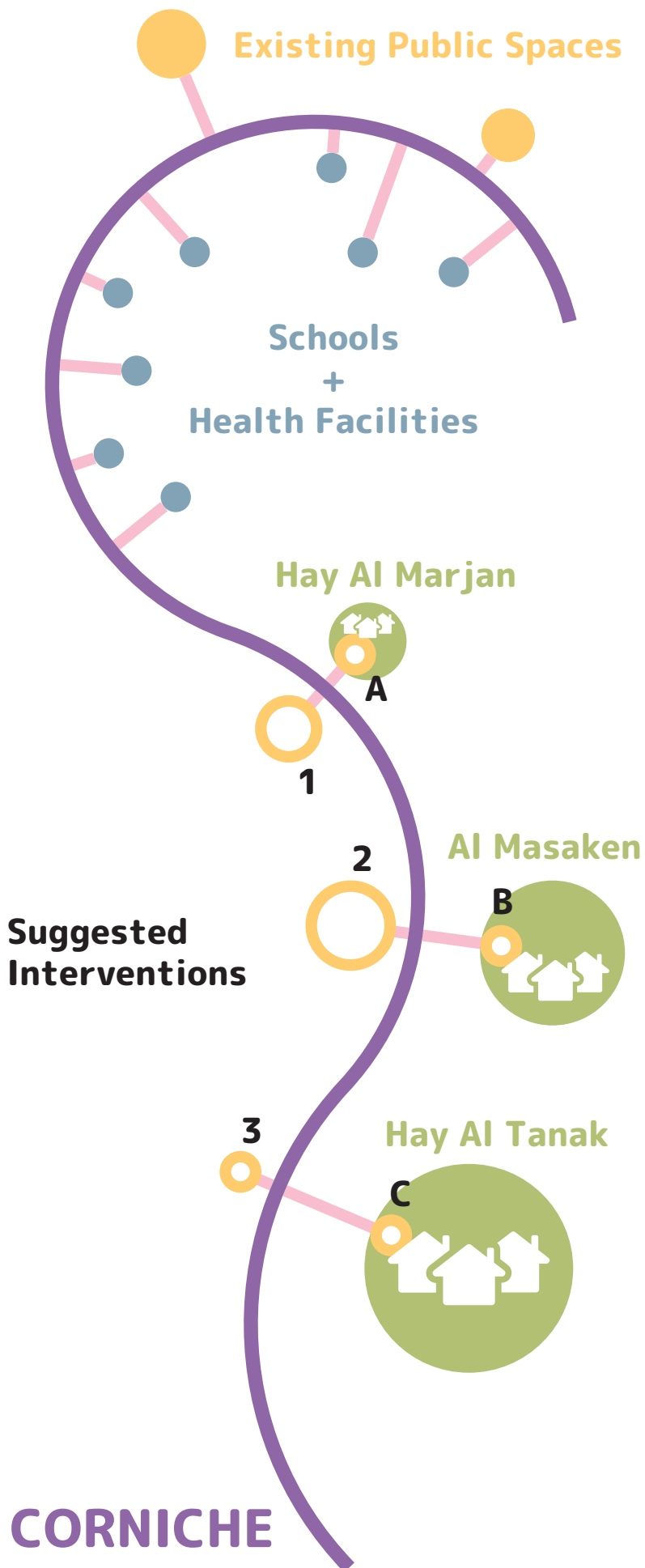
The corniche of El Mina is the only public space in which families from different nationalities and social classes meet. The corniche extends for 7-kilometres and its proximity to many vulnerable neighbourhoods

makes it a space where children and families can easily hang out, play and enjoy the sea view.

However, the corniche currently is lacking needed infrastructure, such as paved areas, ramps, benches, shades and greenery. Only a small section of the corniche was refurbished in 2019, and this area is a long distance from the most vulnerable neighbourhoods. Furthermore, this section often becomes overcrowded and some users cannot afford the recreational services (for example, bicycle hire) on site.

The proposed interventions are therefore spread along the corniche, with a particular focus on the areas near vulnerable neighbourhoods.

The overall aim is to provide multiple spaces that enable community interaction across the different nationalities and social classes living in El Mina. Furthermore, in accordance with the Proximity of Care approach, the design embraces elements of early childhood development. Through minimal adaptations (for example, installing access ramps), the corniche can be transformed into an accessible and safe space for children and their caregivers. This would enable safe access to key services (for example, schools).

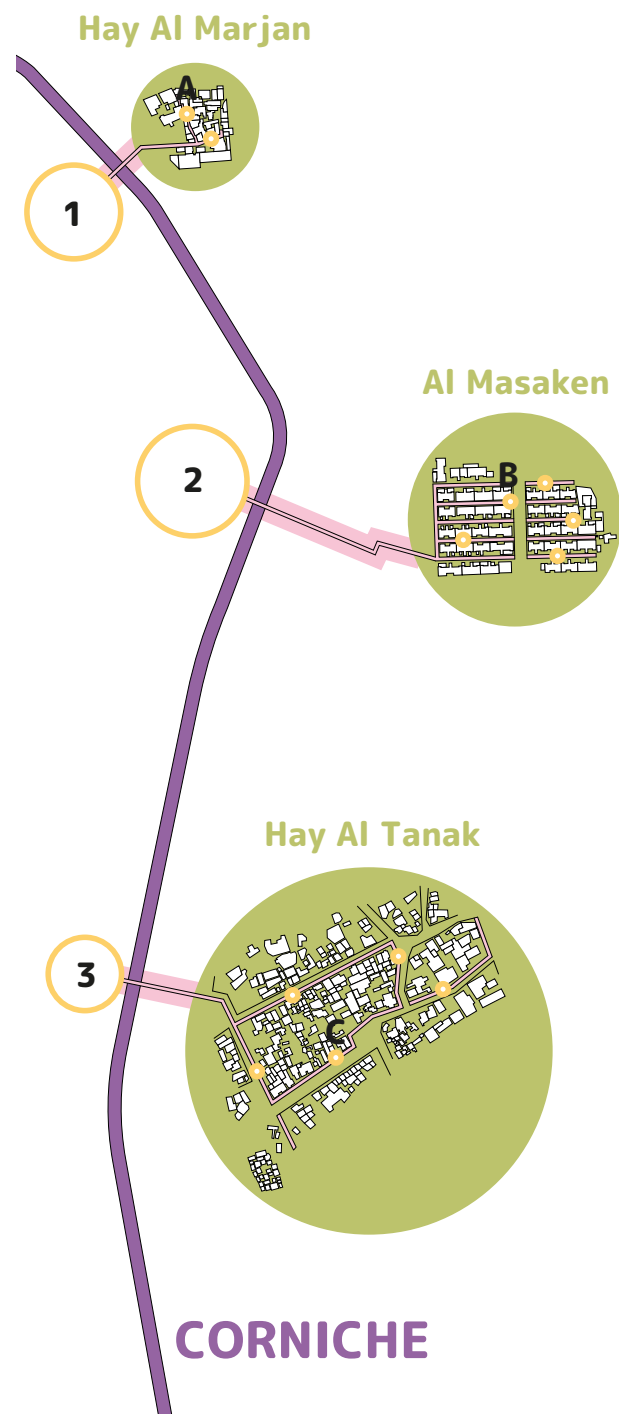


CONNECTING THE CORNICHE WITH VULNERABLE NEIGHBOURHOODS

To maximise the use of the proposed interventions along the corniche, safe links between each neighbourhood and the corniche must be established (see image below). Connections should also be extended to spaces within each neighbourhood, so as to create safe and stimulating mobility corridors for children and caregivers to access the corniche. In some cases, these interventions can become spaces where children spend time outside of their households.

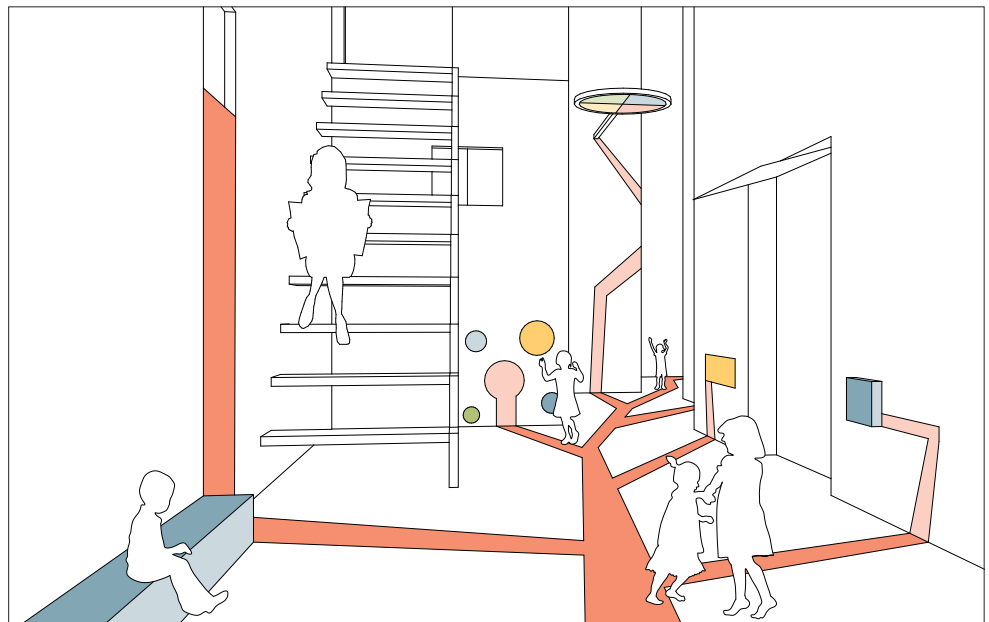
Currently, many children's play experience is confined to within a few metres of the home. It is therefore important to work within each neighbourhood to provide strategic interventions that, by using and adapting existing physical features (for example, sidewalks and walls), can offer positive outcomes for early childhood development. Furthermore, each neighbourhood has specific characteristics and legal frameworks; therefore design solutions must ultimately be identified with the local community and relevant authorities.

SAFE LINKS





Source: Catalytic Action



1

Hay Al Marjan

Hay Al Marjan (A) neighbourhood is characterised by very narrow alleyways inaccessible to cars. Children use these spaces on a daily basis mostly to move around because there is not enough available or designated space for play. The proposed intervention would work with the existing horizontal and vertical surfaces (floors and walls) to create stimulating wayfinding that leads to interactive elements. Tactile, visual and sound stimulation can be introduced through these punctual installations. Long narrow benches can be added where possible to provide outdoor seating for children and caregivers. Elements will be placed in a way not to obstruct any existing use of the street space.



Source: Catalytic Action



2

Al Masaken

Al Masaken (B) neighbourhood is built on a rigid grid that forms corridors in between buildings. This offers a great opportunity to create a safe space for children. By fully closing these corridors to cars and motorbikes, the space can be safely used by children with little supervision from adults. Several wall games can be installed on existing walls and, where possible, seating areas can be integrated together with greenery. Floor paint can be added to the existing pavement and be used for play and wayfinding.



Source: Catalytic Action



3

Hay Al Tanak

Al Masaken (B) neighbourhood is built on a rigid grid that forms corridors in between buildings. This offers a great opportunity to create a safe space for children. By fully closing these corridors to cars and motorbikes, the space can be safely used by children with little supervision from adults. Several wall games can be installed on existing walls and, where possible, seating areas can be integrated together with greenery. Floor paint can be added to the existing pavement and be used for play and wayfinding.



Source: Catalytic Action



Source: Catalytic Action

SECTION 1: MAXIMISING THE USE OF SIDEWALK SPACE



Current use

This section of the corniche offers a 15-metre-wide paved sidewalk. This space is currently used for mobility but also as a space to rest and enjoy the sea view. It is also home to several informal businesses offering services including bike hire, coffee and narghile shops, and chair and table hire. However, none of these services are free of charge, which prevents some people from using the public space. The only public feature is a short section of concrete wall (facing the sea) that people use for seating. Moreover, there are no designated bike lanes and caregivers are thus unable to let their children explore the space freely.

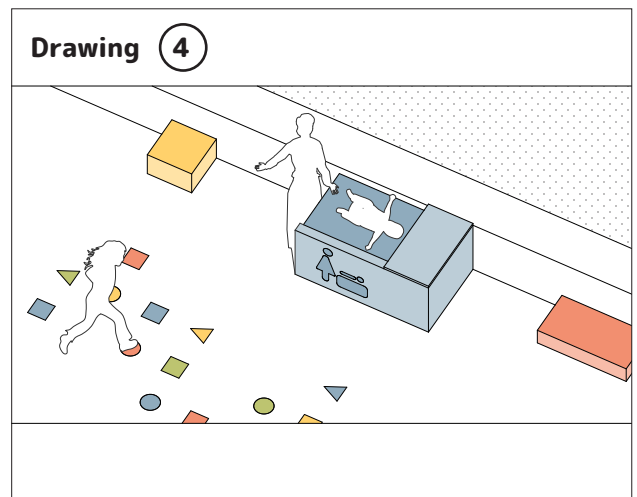
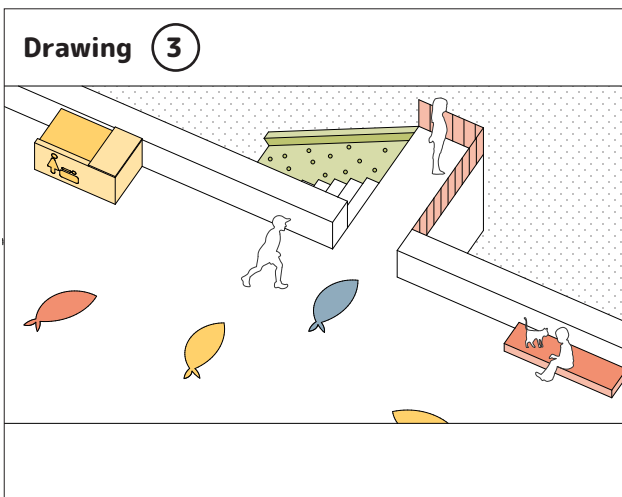
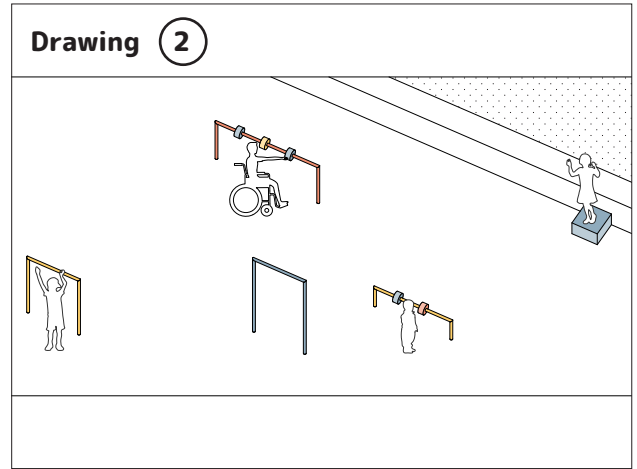
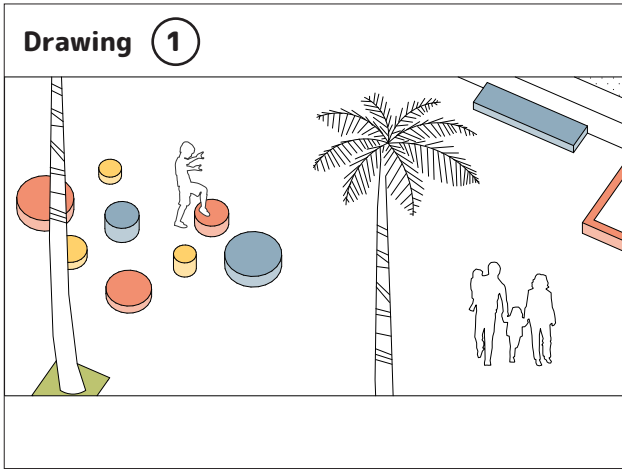
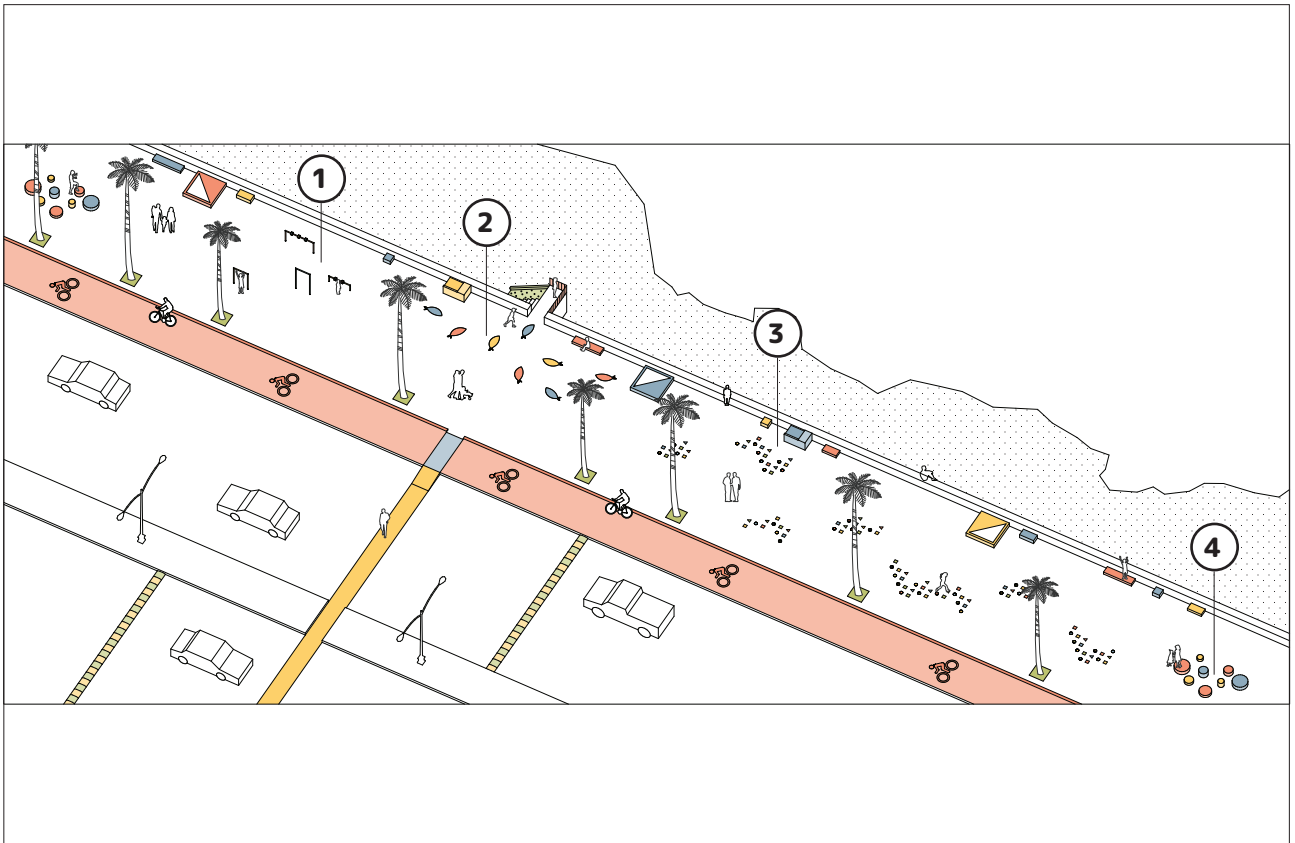
Concept design

The suggested intervention offers public facilities that are free to use. Several elements are added to the space without compromising its current usage. For younger children, the experience of walking along this sidewalk is enhanced by the addition of different interactive elements, including floor games, floor wayfinding, treet stumps and other eye-coordination games. These elements are designed with the intention to maintain pedestrian flow (for example, jump on the red dots), rather than by using games that require prolonged engagement (for example, chess floor games). Similarly, playful wayfinding aids like large fish silhouettes on painted on the pavement can direct people to areas like the sea access steps. Greenery is incorporated to provide both shade and stimulation for young children.

A separate bike lane can also be fitted in the space, strengthening the idea of making the corniche a safe mobility infrastructure. As highlighted by caregivers during the research phase, it is important that the bike lane is well separated from the pedestrian area to provide a safe space for children to walk and run freely.

Drawing 2 shows an idea of a playful wayfinding, leading to the sea access by using large fish silhouette painted on the pavement. Changing tables are added and its function well marked.

The signage (visible in **drawing 3**, below) works as an awareness element towards the needs of mothers and young children. Bins are integrated with the changing tables. The added elements will not prevent the existing informal businesses from offering their services; in fact, some of the elements (such as seating areas) could increase the number of customers (those attending coffee shops, for instance). A safe crossing is added as a key element to create safe access to the corniche. Ramps are added to aid accessibility. Speed bumps and highly visible floor markings are used to slow traffic on the pedestrian crossing point. Seating volumes of different heights are added to provide a comfortable and accessible seating space for all children, including younger ones.



SECTION 2: ENHANCING EXISTING SPACES

Current use

The section of the corniche near Al Masaken offers a 2-metre-wide paved sidewalk and a wider unpaved area. The sidewalk is currently used for mobility purposes, while the unpaved area is used by children to play and by families to hang out. The space has no facilities so families must bring their own chairs and tables or pay to hire these where they are available; for families that bring their own, this does not encourage community interaction. There is no shade and most people therefore use the space in the late afternoon or evening. Few informal businesses offer coffee and narghile along the sidewalk. Crucially, the unpaved area has no access ramps nor paved surfaces, challenging accessibility for those using strollers or wheelchairs.

Concept design

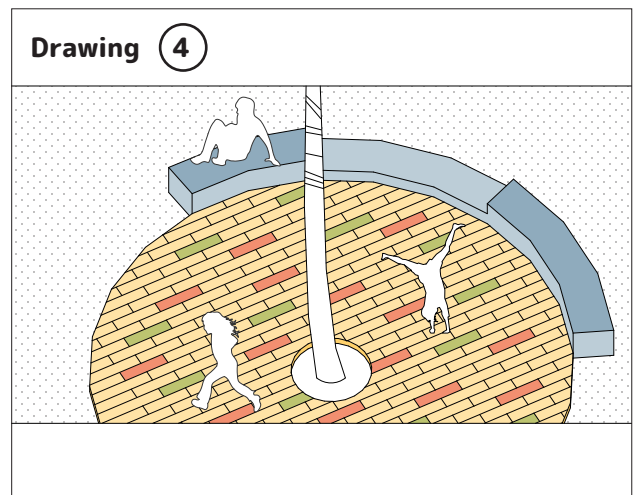
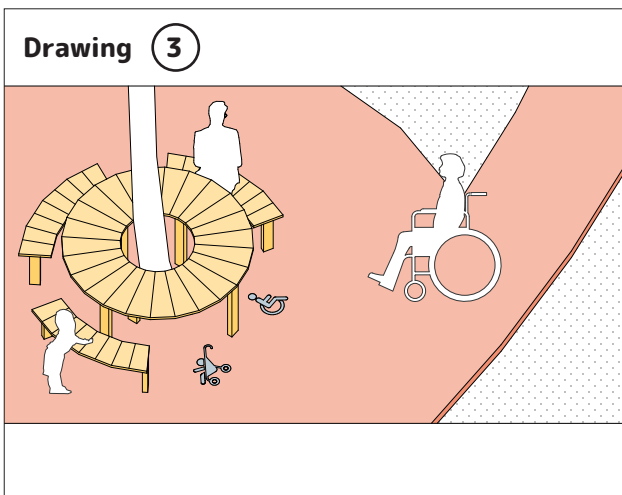
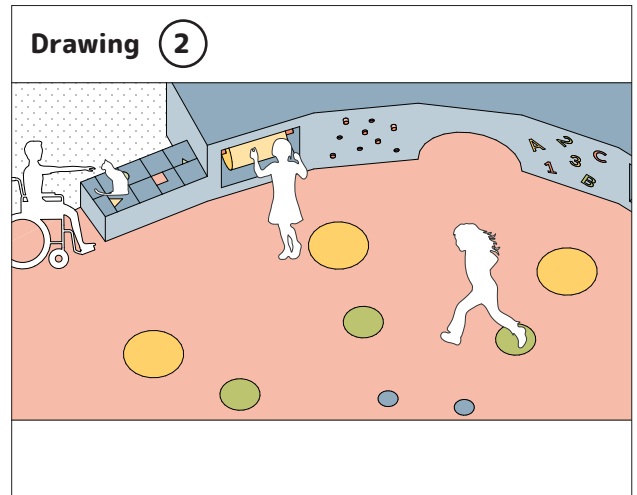
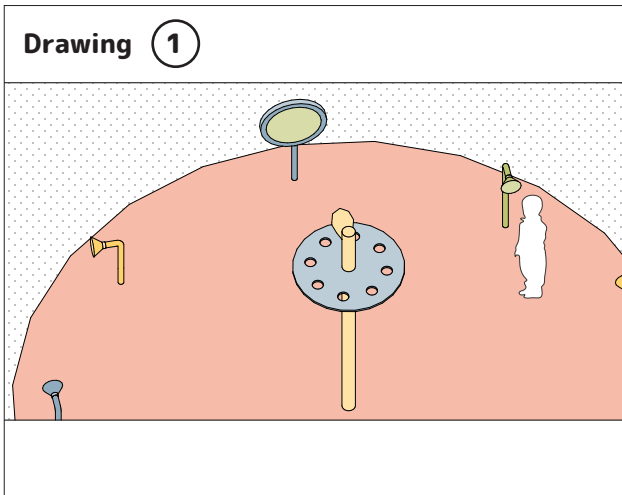
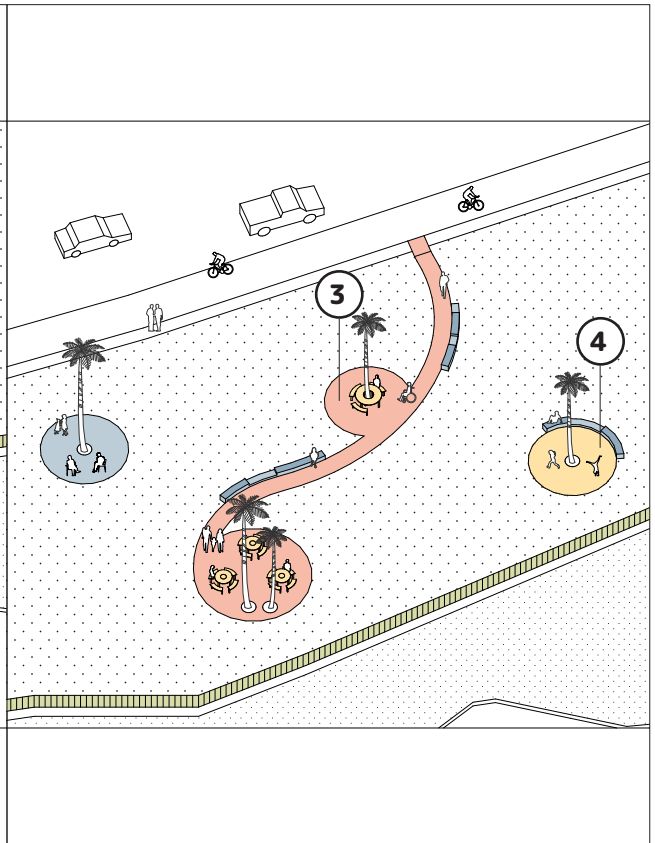
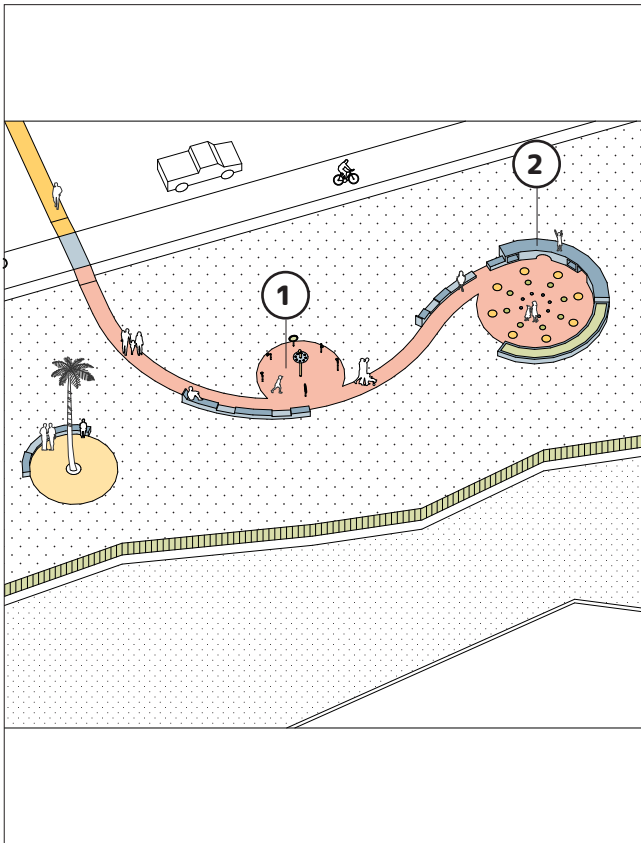
The suggested intervention enhances the use of the unpaved area. Several elements are added to the space to enhance existing practices, while introducing new features. Paved areas and paths are introduced to increase accessibility for everyone, including those with disabilities and those using strollers. In addition, key elements such as greenery, seating and stimulating aids, are introduced throughout the space. These elements can be combined and arranged in multiple ways throughout the space. Trees will provide shade so that people can use the space throughout the day, as well as in the evenings. Large benches will provide opportunities for multiple users to congregate simultaneously, promoting community interactions.

Drawing 1 shows a possible configuration of an added paved area, where sensorial stimulation (optical and acoustic) is offered through different elements: speaking pipes, coloured plexiglass 'totems' and an interactive light shadow pole.

Drawing 2 shows another configuration where a long bench is combined with interactive elements designed to offer play and learning opportunities for young children. A cylinder producing sounds when turned, a tactile wall, matching shapes game, are some examples of elements that can be integrated in the bench design. The bench offers a seating area so that caregivers can rest while watching their children play nearby.

Drawing 3 illustrates an example on how to integrate a table with chairs and greenery. This element enhances existing social practices as families already use this section of the corniche for picnics. Tables must be designed to allow easy access for a wheelchair or a stroller. This can be clearly marked on the pavement to raise awareness about inclusivity in design.

Drawing 4 shows another combination of a seating elements (long bench) with greenery and a paved playful flooring.



SECTION 3:

ACCESSING NATURAL FEATURES

Current use

The corniche in Hay Al Tanak neighbourhood is characterised by its relationship with the seaside and, in particular, a large tide pool through which people can walk in the sea, fish and swim safely. However, there are no available facilities and access to the sea is unpaved and quite steep in certain areas, challenging access for some users. Furthermore, while the 2-metre-sidewalk is still available on this section, there are no safe crossing points or access ramps. People bring plastic chairs and large towels to sit on, as well as beach parasols to shade from the sun.

Concept design

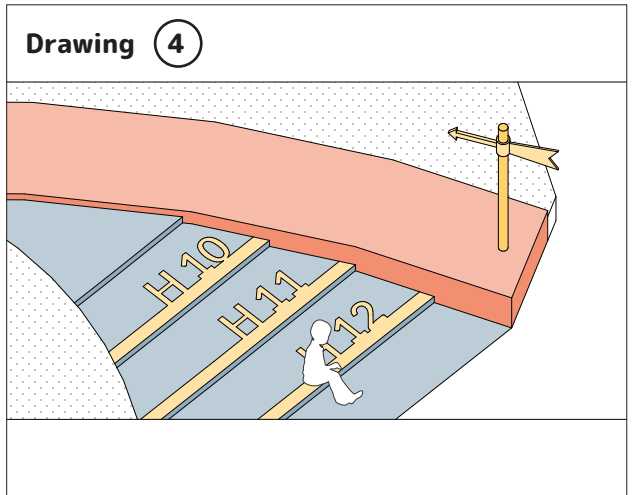
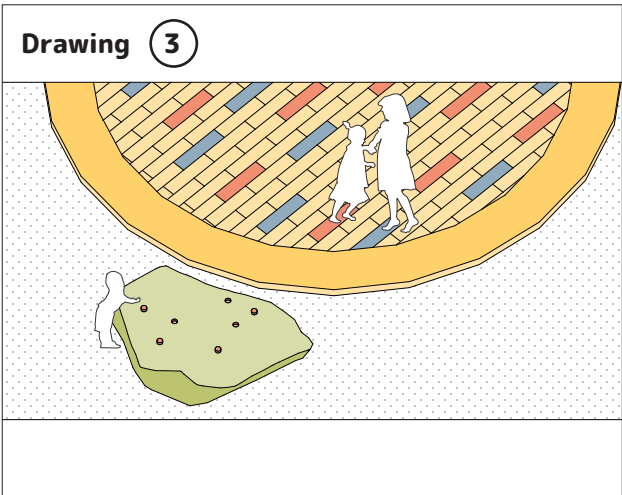
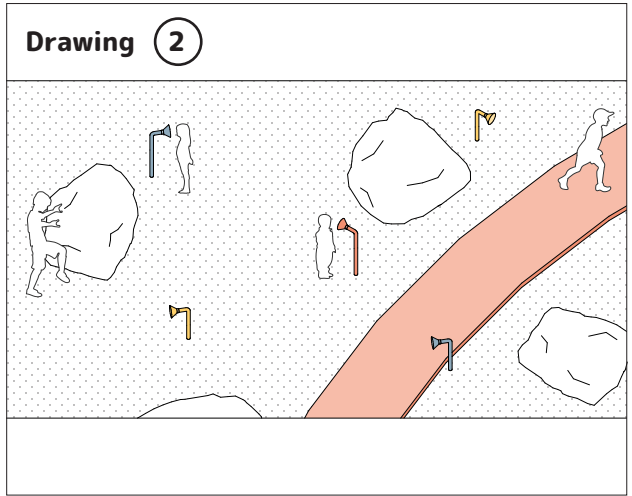
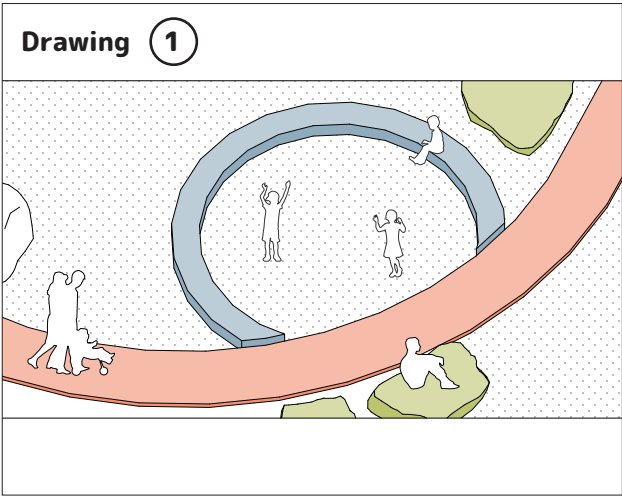
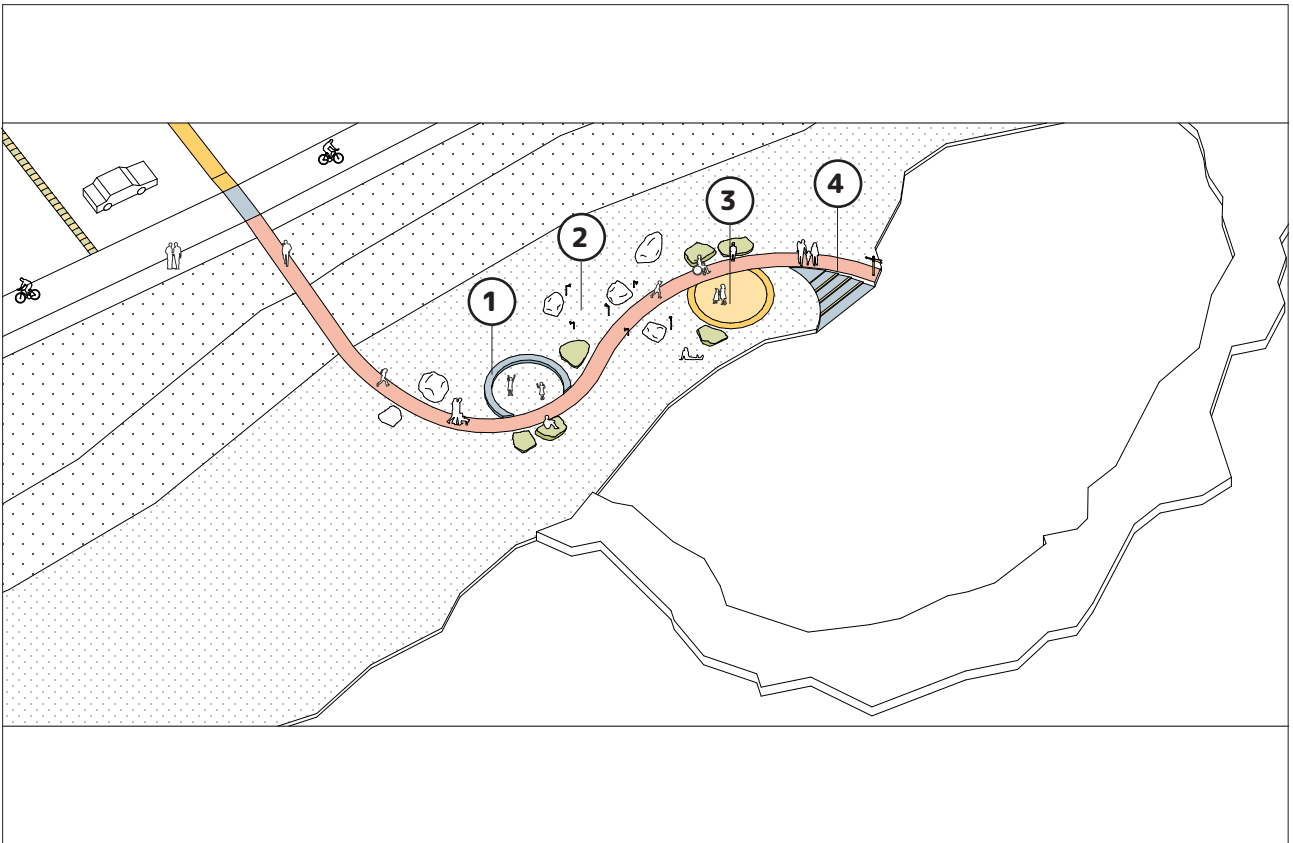
The suggested intervention improves access to the sea, while offering interactive elements for young children. A long paved ramp enables safer access for strollers and wheelchairs, without compromising the space's natural character. A safe crossing and an access ramp are added to link the corniche to the neighbourhood of Hay Al Tanak. Existing elements such as large boulders are integrated with the design; in fact, seating platforms are formed using the large boulders, which are cut to provide a flat seating surface. Parents would be able to sit on the boulders while their children can play and interact with the natural features of the site and the added ones.

Drawing 1 shows a sand pit bordered by a long bench. Parents would be able to supervise their children while sitting on the bench or on the boulders.

Drawing 2 illustrates how speaking pipes can be integrated in the design. Speaking pipes offer a fun way to learn about sound, while learning about collaboration. Both offer benefits to early childhood development.

Drawing 3 shows how the boulders can provide tactile experiences for young children. The granular surface of the rock, combined with some added elements (for example, seashells), offers a 'learning through senses' experience for young children. A large paved round area can also be equipped with different flooring materials to provide optical stimulation. This area would also provide a paved platform accessible to wheelchairs and strollers. This would allow a more inclusive use of this area.

Drawing 4 illustrates the end of the path and its relation with the sea. Two educational elements are incorporated: wind indicator mounted on a steel pole and tide marks (per hour) painted on the steps.



A COMMUNITY BASED APPROACH

All suggested interventions must be implemented following a community-based participatory approach. Before implementing, the ideas must be reviewed by the local community through Focus Group Discussions and public design consultations.

As the cornice is a public site, a close engagement with the municipality is also fundamental. All relevant stakeholders must be equally engaged, including NGOs, Community based organisations and the daily users of the cornice (including the multiple informal businesses). Building materials and labour must be sourced locally, prioritising vulnerable groups. Material choices can be made to support existing small businesses such as woodwork artisans. Similarly, employment opportunities must be offered on an equal basis to all groups living in El Mina, including Palestinian and Syrian refugees. Children can also participate in the construction through safe activities.





END NOTES

1. Jens Aerts and David Anthony, "Shaping Urbanization for Children: A Handbook on City-Responsive Urban Planning", *Cities & Health* (UNICEF, 2018).
2. Jens Aerts and David Anthony, "Shaping Urbanization for Children: A Handbook on Child-Responsive Urban Planning", *Cities & Health* (UNICEF, 2018).
3. Selina Lo, Pamela Das, and Richard Horton, "Early Childhood Development: The Foundation of Sustainable Development". *The Lancet*, 2016. [http://dx.doi.org/10.1016/S0140-6736\(16\)31659-2](http://dx.doi.org/10.1016/S0140-6736(16)31659-2).
4. UNESCO, "Strong Foundations: Early Childhood Care and Education", vol. 11, 2007: UNICEF, "Building Better Brains: New Frontiers in Early Childhood Development", 2014.
5. Gary W. Evans, "Child Development and the Physical Environment", *Annual Review of Psychology* 57, no. 1 (2006): 423-451; Claudia Cappa, "The Formative Years: UNICEF's work on Measuring Early Childhood Development", 2014.
6. Selina Lo, Pamela Das, and Richard Horton, "Early Childhood Development: The Foundation of Sustainable Development". *The Lancet*, 2016. [http://dx.doi.org/10.1016/S0140-6736\(16\)31659-2](http://dx.doi.org/10.1016/S0140-6736(16)31659-2).
7. Krishnamurthy, Steenhuis, and Reijnders, MIX & MATCH: Tools to Design Urban Play; Bernard van Leer Foundation, "Urban 95. An Urban Starter Kit, Ideas for Action", 2018; Lisa Karsten and Willem Van Vliet, "Children in the City: Reclaiming the Street", *Children, Youth and Environments* 16, no. 1 (2006): 151-167.
8. Theodore D Waches, "Celebrating Complexity: Conceptualization and Assessment of the Environment", in *Measuring Environment Across the Life Span: Emerging Methods and Concepts*, ed. Theodore D waches and S L Friedman (American Psychological Association, 1989), 357-392; Theodore D Wachs, "Developmental Perspectives on Designing for Development", in *Spaces for Children: The Built Environment and Child Development* (New York, Plenum Press, 1987), 291-307; Theodore D Waches, "Expanding Our View of Context: The Bio-Ecological Environment and Development", *Advanced Child Development* 31 (2003): 363-409.
9. Maria Montessori, *The Absorbant Mind* (New York, Dell Publishing, 1984); Teresa Strong-Wilson and Julia Ellis, "Children and Place: Reggio Emilia's Environment as Third Teacher", *Theory Into Practice* 46, no. 1 (2007): 40-47; Bruce P. Uhrmacher, "Uncommon Schooling: A Historical Look at Rudolph Steiner, Anthroposophy, and Waldorf Education", *Curriculum Inquiry* 25, no. 4 (1995): 381-406; Jean Piaget and Bärbel Inhelder, *The Child's Conception of Space* (London, Routledge and Kegan Paul, 1956).
10. Evans, G. W. (2006) Child development and the physical environment. *Annual Review of Psychology* 57: 423-51.
11. Sara Candiracci and William Isaac Newton (2020) Proximity of Care: A New Approach to Designing for Early Childhood in Vulnerable Urban Contexts. Arup and the Bernard van Leer Foundation.
12. Jens Aerts and David Anthony, "Shaping Urbanization for Children: A Handbook on Child-Responsive Urban Planning", *Cities & Health* (UNICEF, 2018).
13. Denboba et al., "Stepping up Early Childhood Development: Investing in Young Children for High Returns"; Heckman, "The Heckman Equation. *The Economics of Human Potential*".
14. UN-HABITAT (2016) Tripoli City Profile.
15. UN-HABITAT (2016) Tripoli City Profile.
16. UN-HABITAT (2017) Lebanon, City Profile.
17. CDR, 2006.
18. UNESCWA (2014) 'Urban Deprivation Index: The methodology and results of the fieldwork in Tripoli'.

ARUP

Ove Arup & Partners Ltd
13 Fitzroy Street
London
W1T 4BQ
United Kingdom

we shape a better world.
www.arup.com

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.