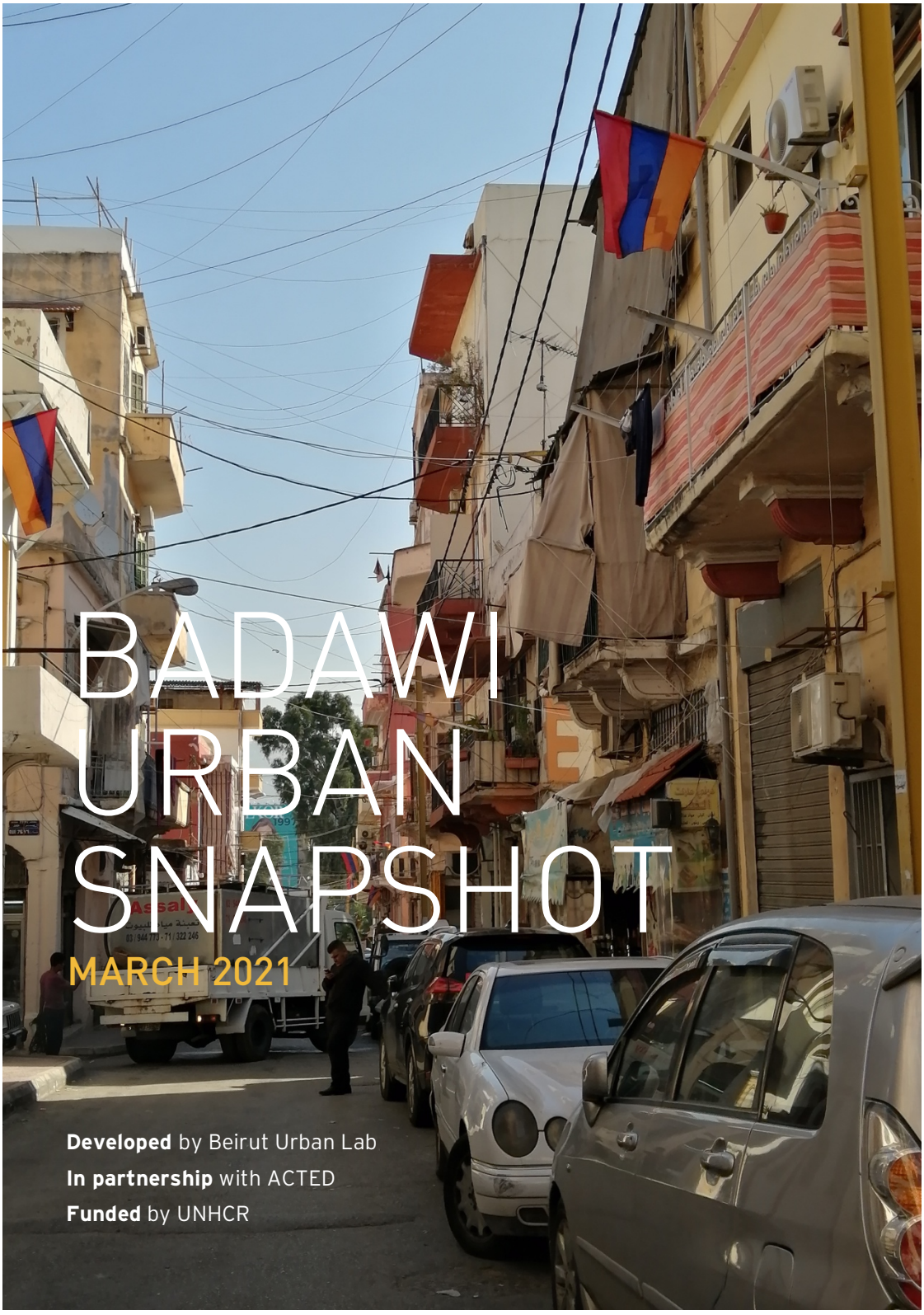
AUB American University of Beirut
Maroun Semaan Faculty of Engineering and Architecture

ACTED

UNHCR The UN Refugee Agency

beirut urban lab مختبر المدن بيروت



BADAWI URBAN SNAPSHOT

MARCH 2021

Developed by Beirut Urban Lab
In partnership with ACTED
Funded by UNHCR

TABLE OF CONTENTS

INTRODUCTION

On August 4th, 2020, the Port area of Beirut was rocked by two massive explosions, killing over 200 people and wounding more than 6,000[1]. Buildings were destroyed or damaged within a 10 km area around the port, including an estimated 70,000 apartments and nearly 40,000 residential or commercial spaces.

UNHCR partnered with four international organizations (MEDAIR, ACTED, Save the Children, and Intersos) to rehabilitate shelters, restore shared spaces, and introduce the upgrading of selected neighborhood-level communal spaces, in six neighborhoods severely affected by the blast: Karantina, Mar Mikhael, Geitawi, Badawi, Bachoura, and Karm el-Zeitoun. In this framework, ACTED and Beirut Urban Lab at the Maroun Semaan Faculty of Engineering and Architecture (MSFEA) at the American University of Beirut (AUB), partnered to develop an assessment meant to support the effort of locating the recovery efforts within an urban-scale approach in each of the above-mentioned neighborhoods.

This report is one of the six Urban Snapshots conceived by the Beirut Urban Lab (BUL) in partnership with ACTED and funded by UNHCR in Fall/Winter 2020-2021.
The reports are designed to a) Inform the understanding of each of the four INGOs and UNHCR about the urban processes underway in each of the neighborhood prior to the blast, focusing on those processes that are likely to slow-down or threaten the return of residents and the recovery of the neighborhood, and b) Whenever possible, point the INGOs in each of the neighborhood towards potential communal projects of important social relevance.

Further, the Urban Snapshots have the potential to support the work of the community of social workers, city planners, urban designers, researchers, activists, and others who are intervening with relief, repair, and recovery in short, medium, or long term development in Beirut in response to the August 4th, 2020 port blast.

The assessment built on the knowledge and research of the Beirut Urban Lab about each of the six neighborhood's history and urban conditions. Additional fieldwork was conducted by a team of field researchers to gather the needed information from neighborhood-level interviews and discussions with residents, NGOs, etc.

Each of the reports locates the effects of the explosion within the larger urban trends that have influenced the studied neighborhood over the past three decades. It does so by providing a preliminary urban documentation and analysis of the neighborhood conditions, including a brief historical overview, insights about contextual urban trends, profiles of influential stakeholders, and a brief review of socio-spatial conditions. To the extent possible, the reports thus cover both urban trends and recovery efforts at the household (e.g., resident, business-owner), building, and neighborhood scales (e.g., shared space, road, recycling).

Each report further unravels some of the critical threats that are likely to undermine the recovery of each neighborhood, including dwellers' return, the rehabilitation of shared spaces and amenities, the reignition of economic activities, and the restoration of tangible and intangible heritage.

The reports are not conceived as exhaustive surveys. Rather, they are snapshots, taken at a specific moment (i.e. November-December 2020), yet located within a solid understanding of the economic, social, and political forces that influence Beirut's ongoing urbanization. Indeed, they build, as outlined thoroughly in the methodological section, on pre-existing knowledge of the neighborhood developed at the BUL and complemented by data gathered during November and December 2020 directly in the neighborhoods.

[1] Lebanon Reform, Recovery and Reconstruction Framework 3RF

METHODOLOGY

The selection of neighborhoods and the delineation of their boundaries were proposed by UNHCR, reflecting its areas of intervention. In order to improve the coherence of the study and its recommendations, the BUL research team introduced mild modifications in delineating neighborhoods to account for the internal characteristics of the neighborhood, particularly lot morphologies, building typologies, and population profiles. Neighborhood boundaries do not coincide to official administrative boundaries.

The reports are the result of the work of six field researchers, one reporting officer and one research team coordinator hired by ACTED who were trained by the Beirut Urban Lab (BUL) team and worked under its supervision from October to December 2020. The positions were filled through a transparent and competitive process putting the emphasis on previous experience and methodological trainings; three of the six fieldworkers had worked for the Beirut Urban Lab before, and another was a recent graduate of the Master in Urban Design program at AUB.

The production of this report relied on case-study research methods of data collection as defined by Yin.[2] In essence, Yin sees the goal of case studies as understanding complex social phenomena, relating data to propositions and aiming at analytical generalization as if they were an experiment. By nature, case-study research is qualitative and typically uses multiple methods to collect different kinds of evidence (e.g. documents and archival records; interviews; direct and participant observation; physical artifacts; surveys), as this insures the triangulation and cross-checking of evidence, and hence more rigorous and valid data analysis.

For this report, BUL relied on five data sources collected through: (i) desk reviews of available publications, technical reports, records and other documents; (ii) field observations (direct and participant) using the guide available as annex C; (iii) qualitative semi-structured interviews with key informants (e.g. *mukhtar(a)*, NGOs' representatives) according to protocols described below and available as annex D, as well as informal conversations with residents and business-owners; (iv) data from the shelter technical assessment collected by INGOs intervening in the area between September and December 2020, and provided by UNHCR in December 2020; (v) surveys and maps compiled by the BUL's researchers about Beirut's built environment in the context of the Beirut Built Environment Database (BBED)[3].

(i) Documents and Records (Desk review)
Data analysis relies on the review of several gray reports[4], academic research, and references available about the neighborhood. They are listed as footnotes throughout each report whenever they were used as evidence for the documentation and analysis of some of the neighborhood's urban trends.

(ii) Field Observations
The researcher conducted fieldwork for about 12 full days in the neighborhood (1.5 day per week for a duration of 8 weeks, on the average), observing directly the built environment, documenting damaged constructions and processes of physical repair in residences and businesses, as well as noting the following: shops' activity/closure; buildings' quality and condition; abandoned/dilapidated buildings; clusters of impoverishment; construction activity; heritage buildings; the use of open/public spaces by the community and presence of greenery; infrastructure conditions (access to water and electricity, traffic congestion, conditions of streets, sidewalks and stairs); options for

[2] See Yin R.K, Case-Study Research: Design and Methods (2014) London: Sage.

[3] The Beirut Built Environment database is an online GIS platform developed by the Beirut Urban Lab at the American University of Beirut. The initiative brings together a collection of maps, documents, and surveyed indicators about actors as well as spatial and environmental characteristics that can inform ongoing research, public policy making, and advocacy about the city. It also relies on a database of building permits dating back to 1996.

[4] Gray literature is produced outside of the traditional commercial or academic publishing and distribution channels and typically includes reports, working papers, government documents, white papers and evaluations. Organizations that produce grey literature include government departments and agencies, civil society or non-governmental organizations, academic centres and departments, and private companies and consultants.

waste disposal. The researcher also observed social interactions in the neighborhood, when they occurred and documented them, including groups of migrant workers and refugees. They were tasked to also document key landmarks in the neighborhood (educational, religious, cultural, corporate), and to report visible political sites and signs (flags, icons, posters, markings on walls). These observations were recorded as field notes and mapped, serving as evidence that substantiates several claims made in this report, as indicated in the text.

(iii) Qualitative semi-structured Interviews and Conversations with key informants
Field researchers were trained to conduct semi-structured qualitative interviews with key actors in the neighborhood they were able to reach out to amidst the difficult working conditions posed by the COVID-19 pandemic. In each of the neighborhoods, researchers interviewed elected local representative (*mukhtar(a)*), NGOs' representatives, as well as dwellers and business-owners who stayed and are engaged in the repair process. The interviews' questions were organized in three broad categories: (a) Awareness about the actors in charge of repair (do they know who is in charge, who visited them, who returned, what support were they provided with thus far); (b) Respondent's tenure status (do they own or do they rent, do they pay in real or Lebanese dollars or in LBP, how precarious is their tenure situation, do they get any support from family abroad, what are their future plans: are they staying or leaving, and why?); (c) Processes of repair (did they receive support, for what, from who, where is the process at, what is still to be done, are damaged common spaces fixed?). In addition to formal interviews, researchers also held informal conversations with residents and business-owners, on selected sections of the interview guide. Overall, a total of 41 in-depth interviews were conducted in Badawi.

All interviews and conversations were conducted after securing verbal consent and according to ethical standards of social research. Cited interviews and conversations have been anonymized and personal identifiers removed to protect interlocutors.
Field observations and qualitative interviews were documented by field researchers through pictures and detailed notes, geo-referencing the location wherever possible. They then reported the interviews and developed fact sheets that were discussed with the rest of the team.

(iv) Quantitative Technical Assessment Data collected between September and December 2020 by an INGO operating in the area under UNHCR funding
Qualitative findings are complemented by an analysis of technical assessment data shared by UNHCR, providing technical assessment of a prioritized number of damaged houses in the six neighborhoods (according to criteria set by UNHCR)by its INGO implementing partners (one per neighborhood). BUL researchers analyzed this dataset and extracted statistical information from it, which is referred to in the report. It should be noted that the technical assessments were conducted in specific targeted areas of each neighbored as part of the shelter response implementation, therefore not resorting to any type of probability sampling. Furthermore, the data used as part of this research originates from UNHCR partners only, thereby not taking into account any other technical assessment data that may potentially have been collected by other actors in the area. As such, corresponding findings may not be extrapolated to the entire neighborhood, but rather interpreted as a useful triangulation source for the findings deriving from qualitative data sources. The total number of assessed housing units in the 6 neighborhoods amount to 5262, including 331 in Badawi. It is worth noting that the collected data includes a substantive number of "no entries" (reaching up to more than 90% for some questions and averaging 40% for the others) which means the data needs to be interpreted cautiously. Yet, the data is representative for several sets of assessment variables, and BUL used it to substantiate qualitative findings. This is notably the case for nationality of occupants; level of damage (level 1, 2 or 3); status of repair; mode of repair; type of assistance; reason for lack of repair; mode of occupancy in each neighborhood (old/new rent, hosting, ownership); and type of rental contract (written, oral). This set of evidence is mainly used in the "Socio-Demographic Profile," "Housing Conditions, and "Recovery Status" sections of the report.

(v) Spatial Data and Mapping
The report relies largely on spatial data compiled within the framework of the BUL's Beirut Built Environment Database (BBED), which has been made available thanks to the MoU agreed upon between ACTED and BUL. This includes data regarding: population size; density; blast damage assessment; building age; building height; real-estate developers' profiles; vacancy rates; number of loans acquired from the Public Corporation for Housing (PCH); open public spaces and unbuildable lots. Data listed in the BBED is based on official records of filed building permits at the Lebanese Order of Engineers and Architects, official property records from the Land Registry, comprehensive field surveys, and registration records. This information is reported within the text itself, in related

sections, as well as in maps compiled in Annex A. It is used as a main source of evidence in the "Urbanization Trends," "Socio-Demographic Profile," "Housing Conditions," and "Quality of Public Spaces" sections of the report.

Readers should acknowledge the fact that the Urban Snapshots were not designed following a Neighborhood Profile approach, which would have required more time and resources. The Urban Snapshots were developed in the aftermath of the Beirut explosions, during the Fall/winter 2020-2021. BUL relied on the most relevant and up-to-date available data from the sources listed above, while more generally coordinating with the Forward Emergency Room (FER). Figures that relate to emergency response actors' achievements reflect information as collected during the research period. As such, they are not meant to provide an up-to-date nor comprehensive overview of all achievements as of end of December 2020. No systematic and comprehensive surveys of damaged housing and business units, with detailed datasets regarding associated tenure, socio-economic, infrastructure and other variables, which would have allowed to derive more precise patterns and urban trends associated to the Blast.

The health situation in the country also constrained BUL from conducting a larger number of interviews with dwellers, business-owners, and stakeholders to profile in more depth and with more rigor the modalities of repair in the neighborhood, the governance of actors, and inscribe recommendations for community-based projects in a sound analysis of power groups and opportunities and challenges for intervention. Yet, BUL believes this report successfully point towards potential communal projects of important social relevance, paves the way for this work to be further developed out by actors working on the Port Blast recovery, and presents productive avenues for future research projects and community-level initiatives.

What is Unique about Badawi?

This report covers the neighborhood of Badawi. Of the six neighborhoods included in this project (Map 1), Badawi stands out for its location at the edge of the city, a position that has allowed the neighborhood opportunity for the development of affordable pockets in the form of small lot subdivisions and temporary camps. Despite this legacy, Badawi has undergone substantial transformations as developers found a comparative advantage to the cost of land in the area. Consequently, numerous houses were demolished, and residents were displaced, causing major disruptions to the social and spatial fabric of the area. The camps near/in Badawi were particularly affected by the blast, due to the poor quality of construction. Badawi also stands out among the neighborhoods due to the presence of active Armenian political parties who intervene in its public spaces, a legacy of the historical production of the neighborhood.

The research for this study was conducted by Field Researchers Lynn Hamdar and Fatima Alleik. All in all, the researchers conducted 41 in-depth interviews and conversations as well as numerous field visits.

I. THE NEIGHBORHOOD

1. Area of Study

A. Geographic Context

Area Definition

The definition of neighborhoods in the study begins consistently with the area boundaries outlined by InterAgency / Shelter Sector Zones. However, the boundaries of Badawi were substantially reviewed to include nearby camps (i.e., Camp Nor Hadjin and Camp Abiad) because the historical conditions and current population profiles make them one coherent whole (Map 2). In addition, the area was expanded to incorporate the space between its boundaries and Geitawi, an area BUL labeled "Geitawi Transition" (Map 3). The neighborhood boundaries were revised in order to generate a coherent zone where urban fabrics and scales share a common history, similar characteristics, and its populations share a relatively similar profile. The neighborhood edges relied, when possible, on major infrastructural breaks.

The area of study is separated from Bourj Hammoud by the Beirut River, which constitutes a natural rupture that has contributed to the differences in urban fabric between the two areas.

Moreover, the area of study (with the exception of Camp Abiad and Geitawi Transition) is defined by differences in topographical levels: It is located on flat grounds while Geitawi and Karm el-Zeitoun are located uphill. This creates a geographical rupture between the neighborhood of Badawi and the surrounding areas to the East and the South. The area of study is also bound by major infrastructure (Map 3):

- To the West, the Charles Helou Highway that separated Camp Nor Hadjin from Karantina,
- To the North, the Pierre Gemayel Highway (along Beirut River),
- To the East, the Independence Road.

Landmarks

Generally, landmarks are buildings and places that are used for wayfinding and identification by neighborhood residents. They may hold religious, political, cultural or social value. Landmarks can be open spaces, urban elements, distinctive or mundane locations where residents meet and socialize. Based on this definition, several landmarks in Badawi (Map 4) were identified as follows:

- Religious Landmarks: St. Haroutyoun Church & Saint Kevork Armenian Orthodox Church
- Cultural and Educational Facilities: Al Mandaloun, Cirque du Liban, Schools
- Public Administration: Ministry of Energy and Water
- Public Gardens and Communal Spaces: The Trax
- Prominent Commercial Projects: Porsche Center Lebanon, Est. Caporal & Moretti

2. Historical Overview

Badawi's historical development is closely intertwined with the history of Armenian settlement in the city that dates back to the early 1920s.[5] In 1922, the first wave of Armenian refugees arrived in

[5] On the history of Armenian urbanization in Beirut, see Kévorkian, R., Nordiguian, L. and Tachjian, V. (2007). *Les Arméniens, La quête d'un Refuge.* Beyrouth: Presses de l'Université Saint Joseph. On the historical transformation of this and other neaby camps, also see Fawaz, M., & Peillen, I. (2002). *The Slums of Beirut*: History and development 1930-2002. United Nations Center for Human Settlement.

Beirut and settled in camps temporarily set up for them by the French Mandate in Karantina, in the area of Medawar. As of 1926, more permanent settlements were established for the Armenian refugees in Bourj Hammoud, Karm el-Zeitoun, Camp Nor Hadjin, Camp Abiad, and Badawi Street.[6] These camps spilled over to nearby areas, including the Badawi neighborhood, which developed historically as a spillover of nearby Armenian camps. Following is the history of the three spatial clusters that stand to-date.

- **Camp Abiad:** In 1927, Camp Abiad was established by the French Mandate authorities and the League of Nations' Nansen Office. The League bought the land, planned the road network, divided the lots, and built two-story buildings (ground floor +1). Armenian refugees lived in these buildings and acquired legal property titles.[7] In later decades, property owners incrementally expanded the properties by adding floors for rent, sale, or simply to accommodate a marrying son. In the post-Civil War era, Camp Abiad has become a densely populated residential neighborhood accommodating large waves of migrant workers of multiple nationalities who rent rooms and/or apartments. Since 2012, it has also housed Syrian refugees. Today, the residents of Camp Abiad are mixed along national and ethnic lines and include Lebanese, Lebanese-Armenian, Syrian refugees, and migrant workers from Bangladesh, Ethiopia, Sudan, and more.[8]

- **Camp Nor Hadjin:** In 1929, Camp Nor Hadjin was built for the Armenian refugees who fled Hadjin (Kilikia later) in 1922. The land was bought and divided into lots that range between 64 to 115 m^2. It is said that an Armenian architect named Mr. Chirinian designed the camp such that its 192 buildings housed 400 families and contained commercial shops, a church, and three schools. The law forbids demolition of buildings inside the camp.[9] Nowadays, the residents of the camp are mainly Lebanese-Armenians with a prominent presence of Syrian refugees and migrant workers.[10]

- **Badawi:** Badawi Street was opened in the early 1930s, when an Armenian NGO bought the land from a local landowner, Khalil Badawi, and distributed it to Armenian families after dividing it into lots. Buildings and houses were constructed by the Armenian refugees themselves, which gave Badawi a building typology different from nearby Camps Nor Hadjin and Abiad. As time passed, the neighborhood expanded and attracted more residents, particularly rural migrants looking for affordable housing in Beirut. Today, the residents of Badawi are mainly Lebanese, Lebanese-Armenians, and Syrian Refugees.[11]

3. Main Urbanization Trends Influencing the Neighborhood at the Time of the Blast

Several trends characterized the neighborhood's transformation at the time of the blast. They are critical for predicting the mid- and long-term effects of the blast and mitigating displacement threats and loss of livability. All these trends need to be placed in the shadow of the history of its

[6] See, Khayat, T. (1999). « Borj Hammoud, de l'espace communautaire à l'espace public: croissance d'un quartier commercial » in : *Reconstruction et réconciliation au Liban. Négociations, lieux publics, renouement du lien social,* Beyrouth : Cermoc.

[7] Public Works Studio (2016). Mapping Beirut Through its Tenants' Stories. Public Works.

https://publicworksstudio.com/en/projects/mapping-beirut-through-its-tenants-stories.

[8] Based on information from the focal points of INGOs working in the area, as well as interviews with residents conducted for the fieldwork of this study in Fall 2020.

[9] See Public Works Studio (2016). Mapping Beirut Through its Tenants' Stories. Public Works.

https://publicworksstudio.com/en/projects/mapping-beirut-through-its-tenants-stories.

[10] Based on information from the focal points of INGOs working in the area, as well as our interviews with residents conducted for the fieldwork of this study in Fall 2020.

[11] See Public Works Studio (2016), *op. cit.*

development, the legacy of the war and forced displacement it generated as well as the recent effects of housing financialization in Beirut.

3a. Gentrification

Relative to other neighborhoods of Beirut, Badawi is a latecomer to gentrification.[12] The first decades following the Civil War witnessed only a few developments and a handful of small restaurants scattered nearby. In the past decade, however, gentrification caught up with the neighborhood, as a spillover from nearby Mar Mikhael and Geitawi where the penetration of restaurants and high-end building development was more substantive. The gentrification trend is mostly seen along the old railway road and in Geitawi Transition subzone, where old buildings are replaced with new high-end building developments. As show in the graph in Fig. 1, building permits in this neighborhood were only filed as of 2000, a decade after the end of the Civil War. The graph also reflects the position of the neighborhood in relation to the city. That is, most building developments occurred at the time when it was slowing down elsewhere in the city, reflecting the position of the neighborhood as a possibly more affordable area of the city. Yet, as seen in Figure 1, the survey of all building developments in the post-Civil War era conducted by the BUL shows substantial real estate activity in Badawi over the past decade.

Further scrutiny of the development through direct field surveys conducted by the BBED team in the 2018-2019 period and during fieldwork for this study in Fall 2020 shows that towers have been replacing old two-story structures (Fig. 2 and 3). BUL mapping shows (Map 5) that each of these new developments occupies a wider footprint, replacing several older structures. Given their typologies and costs listed in commercial venues, these new higher-end structures are unlikely to house the same population.[13]

The BUL study confirms an earlier rapid survey conducted by Public Works Studio in 2014, which identified some 28 structures vacated of their dwellers and counted eight new towers and eight new restaurants in the neighborhood. The BUL field survey verified and updated the findings of the previous study as it documented 10 new building developments during field visits and one building that is still in the first construction phase. The recent developments were among the last built before the financial meltdown; as a result, many are still not completed.[14]

Field assessments conducted in Fall 2020 for this study showed that recent developments were only superficially affected by the blast. The buildings were being renovated by local NGOs such as Nusaned by December 2020.

[12] Observation about building activities are all derived from the Beirut Built Environment Database. Data about building permits was obtained by the Beirut Urban Lab from the Order of Engineers and Architects in Lebanon in 2019 and all data points were surveyed to double-check their validity. Please check the Methodology section in the beginning of this report or visit the BBED website for the detailed methodology used to collect and analyze the data.

[13] Land Prices as based on prices indicated in *Commerce du Levant* and *Infopro* and updated by these two sources regularly. These are commonly used by researchers in Lebanon.

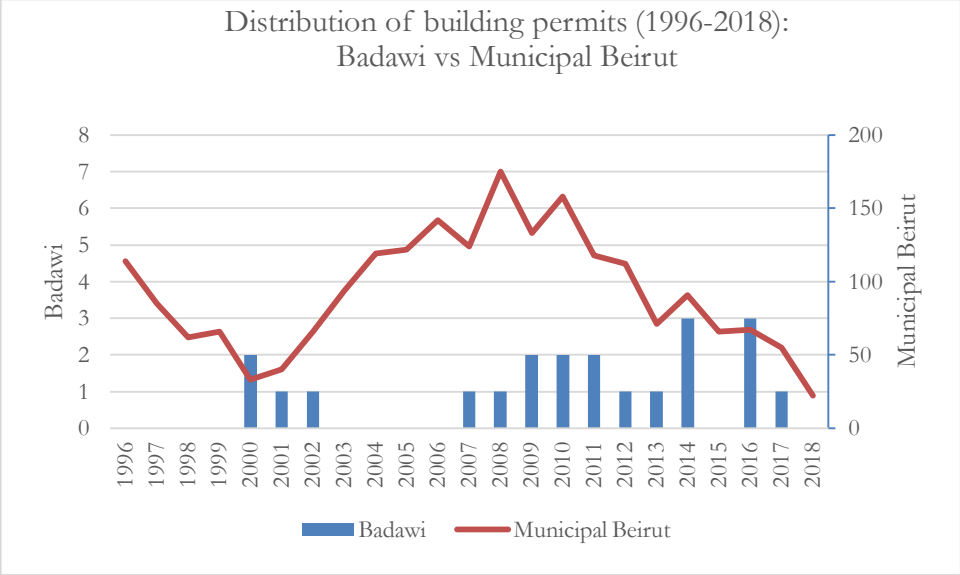


Figure 1. *Graph of building permits filed in Badawi and Municipal Beirut. Source: Beirut Built Environment Database (BBED), Beirut Urban Lab, 2020.*

Figure 2. *New high-end residential tower. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Figure 3. *New residential tower under construction. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Some of the heritage buildings (Fig. 4) that are classified by the DGA were observed to be under renovation. Others are old unclassified buildings that have been renovated in Camp Abiad (Fig. 5). BUL's field assessment showed that heritage was an important entry point for gentrification, as units with historical character were consistently observed to be rented out in this area at considerably higher prices.[15] This information corroborates earlier research in Beirut that had found

[15] Among the examples observed, we list one lot in Camp Abiad where a single apartment was rented at 450 USD per month in hard currently, another apartment in the same area was also being rented for 700 USD per month. In another case, we identified a newcomer family that had rented a

heritage to be an important entry point for gentrification in the city.[16] This trend has been noticed in several but not all neighborhoods of the city and the contrast with the neighborhood of Bashoura, for example, is noteworthy.

Figure 4. *Renovated building classified as heritage by DGA. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Figure 5. *Renovated building that is unclassified as heritage by DGA. Source: Lynn Hamdar and Fatima Alleik, 2020.*

3b. Forced Population Displacement

New building developments are highly correlated with forced displacement. To gauge the actual size of these displacements, more than 27 demolition permits were documented, as per the BBED study, in the neighborhood between 2005 and 2017.[17] Demolition permits are legal documents secured by landlords before they are allowed to bring down any structure.[18] Given that a demolition entails displacement, these permits provide a good indication of population evictions in the area. By overlapping new developments with these permits, it is clear that all new developments are replacing older structures, rather than developing simply on empty lots. However, given that there are much more demolition permits than building permits, it is clear that many old structures are being demolished without replacement. Thus, high rates of vacant lots were noticed during field visits conducted for this study in Fall 2020 in the neighborhood. These high rates of vacancy are typically correlated with speculative tendencies, particularly as vacant lots and housing units in Lebanon are exempted of property and municipal taxation.[19]

renovated old house for 1,000,000 LBP, which, according to a conversation with one of the residents of Camp Abiad, was highly overpriced.

[16] Krijnen, M. (2018), "Gentrification and the creation and formation of rent gaps", *City* 22(3): 437-446.

[17] See BBED methodology in foonote no. 9, in the methods section, and at www.beiruturbanlab.com

[18] Demolition permits were also obtained from the Order of Engineers and Architects by the BBED Study team for the period of 2005-2015.

[19] Fawaz, M. and Zaatari, A. 2020. Property Tax: No More Vacancy Exemptions. Policy brief at the Lebanese Center for Policy Studies. Can be read at: [https://lcps-lebanon.org/featuredArticle.php?id=319]

As elsewhere in Lebanon, evictions are typically conducted informally, without following the official due course, and typically with the collusion of influential local actors.[20]

In order to probe further the process of forced displacement, fieldwork for this study targeted existing buildings earmarked as sites where new building permits had already been filed in the neighborhood, according to the BBED records. In one case, they found a building subdivided into smaller apartment units and rented out to Syrian refugees and migrant workers. In another case, they found an elderly tailor threatened with eviction from a shop he has rented since 1969. Having already lost his apartment in earlier years, which he had rented under the old rent control, the tailor is currently in a legal dispute with the owners of the building. In both cases, it was clear that the current slowdown of the real-estate market was allowing for temporary pockets of affordability, without protecting dwellers from the sustained thread of eviction.

3c. Speculative Investments and High Rates of Vacancy in New Buildings

The data and analysis conducted in the context of the BBED study show that vacancy rates in newly constructed buildings within Badawi, extending toward Geitawi, are high.[21] Data provided by BBED shows a 22% vacancy rate in residential apartments built after 1996. The findings of the BBED were confirmed by the field observations conducted for this report (Fig. 6 and 8), as well as in interviews with residents and building owners who recurrently stated that the vacancy in residential apartments is high and has increased since the economic crisis and the devaluation of the Lebanese pound whose onset was in 2019. It was also evidenced by signs of "for rent" or "for sale" hanging on buildings (Fig. 7). This indicates that new construction and demolitions do not actually respond to a need for residential units within the same housing segment. Rather, and in line with many other neighborhoods of Beirut, they are financial investments that respond to the public policy incentives that have fueled building development in the past two decades.

As for shops, vacancy is higher than in residential apartments. Based on a survey of all businesses conducted along the main streets during Fall 2020,[22] there are many vacant shops along Khalil Badawi Street whereas vacancy in shops along Armenia Street is very low due to the commercial appeal of the street and its direct connection to the Mar Mikhael neighborhood. Figure 9 shows vacant shops in Badawi neighborhood.

[20] For more on eviction processes and how they occur, please refer to the Legal Agenda at https://english.legal-agenda.com/country/lebanon/ or the Housing Monitor at: https://housingmonitor.org/en/about

[21] Please see footnote 9 for BBED. All data about vacancy listed here is based on the full survey of all buildings constructed since 1996 in Beirut in the context of this study during Fall/Winter 2018-2019.

[22] During fieldwork, a business survey was conducted along Armenia and Khalil Badawi Streets.

Figure 6. *Vacant building on Khalil Badawi Street. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Figure 7. *Office tower marked for sale. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Figure 8. *Abandoned Factory. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Figure 9. *Vacant shops. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Data provided by the BUL shows that most developments in these neighborhood are concentrated among a few developers whose building activities are in the neighborhood.[23] Anecdotal evidence gathered from residents indicates that these developers are from the area and invest in strengthening their hold over the neighborhood by buying property that they either rent out or redevelop into new buildings. As such, a small group of men tightly control the housing sector and its transformations in the neighborhood.

[23] Based on the georeferenced dataset of building permits obtained by the BBED, a full survey of all building developers was conducted as part of the study and the 2000 developers who have intervened in Beirut were identified and classified. This section follows the approach of the BBED. For more, please visit the website of the Beirut Urban Lab, www.BeirutUrbanLab.com.

3d. Loss of Heritage and Urban Character

Most of the neighborhood's urban fabric dates back to the 1930s and 1940s. As a distinctive representation of this period and its urbanization, this fabric is horizontally dense, with low-rise buildings and narrow arteries. In the absence of an integrated urban heritage preservation strategy

Figure 11. *A new residential tower in Camp Abiad subzone. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Figure 10. *A new residential tower on Khalil Badawi Street. Source: Lynn Hamdar and Fatima Alleik, 2020.*

that recognizes the integral role of urban fabric to the preservation of buildings, very few buildings have been recognized by the Directorate General of Antiquities (DGA) as having heritage value (Map 6). Similarly, the Technical Assessment conducted by UNHCR's partner categorized 104 buildings as heritage.[24] Consequently, and given the size of the rent gap[25] generated by the difference in number of floors and the incentive to lift rent control, property owners and developers replaced old buildings with residential towers. An analysis of subsequent aerial photographs allows this study to conclude that developed had pooled lots, set back from street alignment, and adopted a new building typology that radically changed the landscape of street perspectives.

For example, Figure 10 shows a 12-story residential tower at the edge of the commercial Badawi Street, which set a precedent with respect to new setback limits and building height. This building is not an exception. As seen in Figure 11, the volume of new developments is substantially larger than

[24] UNHCR Technical Assessment Consolidated Sheet, as received last on December 15th, 2020. Please note that there could be more; as indicated in the methodology section, the technical assessments conducted by UNHCR partners were led in the framework of the shelter intervention implementation. As such, they did not resort to any form of probability sampling nor were they meant to provide comprehensive neighborhood-level data.

[25] The rent gap is a concept that points to the tendency of neighborhoods to attract higher investments when the difference widens between, on one hand, the current profit (or rent) accumulated from property ownership and, on the other, the potential profit that could be reaped if residents were evicted and /or the building was altogether replaced by a new, typically higher building. In Lebanon, the rent gap is generally the outcome of three overlapping regulations, all of which affect Badawi. These are: (i) rent control, (ii) heritage preservation laws, and (iii) building development regulations. For more information, refer to: Smith, N. (1987). Gentrification and the Rent Gap. *Annals of the Association of American Geographers, 77*(3), 462-465. Retrieved December 30, 2020, from http://www.jstor.org/stable/2563279.

the older ones. The new buildings also have major effects on the streetscape, shadowing the narrow street and disrupting the privacy of nearby smaller apartments.[26]

3e. Proliferation of "Terrains Vagues", Temporary Uses

Building demolition at a time of a severe real estate crisis has left many lots in the neighborhood empty. As the number of demolition permits in the neighborhood indicates, developers have rushed to remove buildings in order to plot new developments, but they have failed to introduce new developments given the change in market conditions.[27] During the field visits conducted for this research in Fall 2020, it was possible to observe that private lots were either over by vegetation, used as parking lots, or used ad-hoc by the residents of nearby lots for temporary uses (Fig. 12 and 13). Other opportunities for temporary uses of these lots are covered in the "Recommendations" section.

Figure 12. *Vacant land taken over by vegetation. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Figure 13. *Demolition site used as a parking space. Source: Lynn Hamdar and Fatima Alleik, 2020.*

3f. Property Disputes

Interviews with residents conducted for this study informed us of several forms of property disputes in the neighborhood. While based on interviews with individuals and not corroborated with official records, given the informality of such practices in Lebanon, these narratives have echo in earlier research conducted in Beirut and its suburbs and seem to replicate a pattern of high vulnerability among tenants.[28]

First, there are multiple overlapping forms of property claims over camp spaces that have encouraged unofficial and sometimes illegal housing arrangements between property claimants and tenants. These include, most notably, a practice in which property claims are made over built housing units without any claims over the land on which these units stand. In Lebanese law, these

[26] It is noteworthy that aside from these spatial disruptions, an interview with an infrastructure engineer conducted by Mona Fawaz in Winter 2019 indicated that these new developments bring a practically unbearable load on the old infrastructure (e.g., roads, sewer and water networks), given that infrastructure capacity was not upgraded since the turn of the previous century. Consequently, new developments force the trucking of water and generate pressure on sewer systems beyond their capacity, with no additional tax to developers and /or property owners to support the prohibitive cost of such upgrades.

[27] For market conditions, see BBED, www.beiruturbanlab.com

[28] For more on conflicts between landlords and tenants, see, Fawaz, M. "Contracts and Retaliation: Securing housing exchanges in the interstice of the formal/informal Beirut (Lebanon) housing market", *Journal of Planning Education and Research* 29(1): 90-107. Also Fawaz, M., Saghieh, N. and Nammour, K. (2014) "Housing, Land and Property, Critical Issues in the Current Syrian Refugee Crisis", co-published by UNHCR and UN-Habitat.

claims do not have a legal standing.[29] However, their widespread practice in informal areas has forced courts sometimes to intervene and make decisions in favor of one of the claimants.[30] This has, in turn, generated multiple arrangements and eventually led to disputes over property rights that are unresolved to-date.

Second, there are numerous disputes between landlords and renters who benefit from the outdated rent control law, well in line with other neighborhoods of the city.[31] The old tenants in the neighborhood were left unprotected after the 2014 lifting of rent control allowed for their eviction.[32] Although the 2014 revised rental law had introduced provisions for old tenants, securing a transitional fund for families to be evicted, the fund was never established. Instead, the two parties, landlords and old tenants, have been left to resort to courts and address the property conflict as if it is a matter of private conflicting claims rather than a matter of public policy.

Third, field researchers observed several locations where conflicts over property date back to war-time squatters who have built structures for which they claim ownership, even though their access to land is illegal. According to data gathered in the neighborhood, there are several instances where courts have ruled in favor of property owners and demanded the eviction of occupants, with or without compensations, depending on the provision of the Displacement Fund established after the Civil War.[33] While they have restored property to its original owners, these measures have left vacant structures standing in the neighborhoods, leading to a loss of livability, as observed during the fieldwork conducted for this study in Fall 2020. In at least one case, however, the field researchers were told that the court had ruled in favor of the squatters who still resided in the buildings and/or rent out the apartments that they had illegally built. Figures 14 and 15 illustrate some of these cases.

[29] See Chamseddine, A. (1997), Property Law in Lebanon, published in Arabic as: الوسيط في القانون العقاري, عفيف شمس الدين. / الملكية العقارية, Beirut: The Legal Library.

[30] See Fawaz (2009), *op.cit.*

[31] Old renters are tenants who rented under the rent control law. For more, see Public Works (2016) Mapping Beirut Through its Tenants' Stories available online at: https://publicworksstudio.com/en/projects/mapping-beirut-through-its-tenants-stories

[32] For the effects of the old rent control law, please see www.publicworksstudio.com and www.legalagenda.com

[33] Similar information was reported by in the Public Works Studio study cited above.

Figure 14. *Structures built illegally during the Civil War. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Figure 15. *A structure that has been evacuated and left vacant. Source: Lynn Hamdar and Fatima Alleik, 2020.*

3g. A Rental Market Targeting Vulnerable Populations

The presence of two camps, Abiad and Nor Hadjin, turned Badawi neighborhood, specifically areas surrounding the camps, into a market of affordable housing targeting vulnerable populations.[34] The possibility of making profit by renting out units to refugees, migrant workers, and low-income groups, has enticed numerous Lebanese landlords to rent out these units.[35] These rental units are typically concentrated in deteriorated buildings and were observed to stand out from the rest of the neighborhood (Fig. 16). On the one hand, these rented out units have infused life and created a potentially desirable diversity. On the other hand, they have generated pockets of poverty where people live in overcrowded and poorly serviced conditions.

Figure 16. *A building in Camp Abiad. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Although the Technical Assessment conducted by UNHCR's partner in Badawi gathers only 293 housing units on the topic of modes of occupancy (placing it below a quantitatively significant number), and was not designed based on probability sampling, it still provides a good indicative snapshot of the forms of rental in the neighborhood The technical assessment indicated that tenancy was the most common form of shelter acquisition in the neighborhood, with three quarters of the households assessed on occupancy mode are tenants. Of those, about a quarter benefit still from old rent while the others have new rental arrangements. The technical assessment further showed that once those benefiting from old-rent

[34] Based on fieldwork conducted for this study in Fall 2020, migrant workers and Syrian refugees were observed to live mainly in the camps and on the eastern border of Badawi, on the edge of Karm el-Zeitoun.

[35] For a detailed review of this process in another nearby neighborhood, see Fawaz, Saghieh, and Nammour, *op.cit.*

are excluded from the dataset, given that these have necessarily written contracts, almost all others are relying on oral, hence informal arrangements.

Field visits in the neighborhood allowed researchers to recognize variations across neighborhood in the forms of rental arrangements. In camps, apartments were sometimes divided and leased as separate rooms. The latter could be rented out to several workers together, creating conditions of unhealthy overcrowding. In other cases, rooftops have been illegally transformed into single room apartments. Conversations with residents conducted during the field visits in Fall 2020 showed that rent prices are highly unpredictable, with variations that do not reflect the quality of the house, for example. It is likely that the poor level of information in the market induces such variations, as documented elsewhere in the city.[36]

As for the landlords, conversations with residents indicated that many live nearby or within the same building. Anecdotal information collected in the neighborhood also indicated that while some of the landlords own one or two buildings, others have acquired or gained hold over a larger number of units, which they rent out although they often do not invest in them. In the case of Nor Hadjin camp, researchers were told that a single landlord holds numerous units.[37]

4. Socio-Demographic Profile of Neighborhood

As noted in the historical overview, the neighborhood of Badawi was first developed as the land was turned into a place for Armenian refugees who came to Beirut in the 1920s. In the following years, the area began to attract rural migrants who found affordable housing in the neighborhood, close to the city center. Today, a distinctive character of the neighborhood is the high prevalence of migrant workers and refugees. This is mainly due to the presence of affordable housing units in an area that is close to job opportunities and offers similar amenities to the rest of Municipal Beirut. In the last few decades, migrant workers (e.g., Ethiopian, Sudanese, Bengali), and recently Syrian refugees, started living in the neighborhood, mainly in Camp Nor Hadjin, Camp Abiad, and on the borders of Karm el-Zeitoun. The diversity of the population was reflected in the Technical assessments conducted by UNHCR's partner; almost 40% of the assessed residents were non-Lebanese. The assessment further showed that one third of the assessed households were Syrian refugees (100/291).[38]

In Badawi and Geitawi Transition subzones (Map 3), most residents and shop owners are Lebanese or Lebanese-Armenian. In Camp Nor Hadjin, most residents and shop owners are Lebanese-Armenians despite the high percentages of migrant workers and Syrian refugees. In Camp Abiad, most interviewed residents are Lebanese who rented and bought apartments from Lebanese-Armenians during the Civil War.

5. Housing Conditions

5a. Quality of the Housing Stock

Housing conditions are highly uneven given variations in the physical fabric of the neighborhood, the age and size of the buildings, as well as the form of tenure in these buildings. There is a strong correlation between housing quality, building age, building location, and form of tenure.

[36] see Fawaz, Saghieh, and Nammour, *op.cit.*

[37] All fieldwork was conducted in Fall 2020.

[38] UNHCR Technical Assessment Consolidated Sheet, as received last on December 15th, 2020. BUL notes that because of their status and vulnerability, it is likely that the non-Lebanese populations is under-reported in the assessments particularly as anecdotal information that has circulated since the Beirut Port Blast indicates that vulnerable tenants were being evicted or under-reported as landlords sought to collect their rents. For more on the status of vulnerable populations, please refer to the body of work about Syrian refugees produced by the Legal Agenda at https://english.legal-agenda.com/country/lebanon/.

In the western part of Badawi subzone and Geitawi Transition subzone (Map 3), field visits found that most buildings are in good condition, where several old buildings were renovated. Based on field observation and data provided by BBED, most buildings in Badawi neighborhood were built before the 1940s (Map 5).[39] Of 545 constructed buildings, 63% were built before the 1940's; 26% in the 1940's-1950's; 7% in the 1960's-1990's; and only 4% in the last two decades. Based on data provided by BBED and backed by field observation (Map 7), building heights range from one- to three-story buildings to 8- to 13-story towers with the majority within the former range.[40]

Field visits conducted for this study in Fall 2020 also showed that housing quality is generally poor in the camps and at the border with Karm el-Zeitoun (Eastern part of Badawi subzone), typically in apartments leased to Syrian refugees and migrant workers. In these areas, most houses date back to the 1930s, and without proper maintenance, these buildings have considerably deteriorated through the years. The buildings were originally built using durable materials (concrete), however, the addition of floors over the years increased the stress on the foundations of the building, jeopardizing the safety of the residents. In addition, field researchers observed that most rooftops in these areas are covered with corrugated metal sheets and not concrete. Conversations with residents indicated that floors and roofs needed repairs before the blast as buildings suffered from moisture and water leakage. Residents further reported that in 2018, a balcony fell into one of the alleys in Camp Nor Hadjin, posing a major threat to residents and pedestrians. The deterioration of buildings escalated after the blast, where water leakage worsened, and parts of walls and pieces of rooftops fell.[41] Moreover, it is all too common to find several workers living in one room, and several refugee families living in one apartment.

5b. Residential Arrangements

Forms of Tenure

Based on conversations with the local public official or *mukhtar,* two landlords, 39 residents, and the information provided by INGOs working in the neighborhood (ACTED and Save the Children-SCI) conducted for this Study as well as a study conducted by Public Works[42] (Map 9), multiple forms of tenure were identified. These differ considerably from one sub-area to another so we listed them by neighborhood.

1. **Camp Nor Hadjin:** Access to shelter in Camp Nor Hadjin relies essentially on rentals. Most rent is new (post-1992) and offers very little protection to tenants. These rents are largely organized through informal oral agreements and are undocumented. Rent ranges from 300,000 to 550,000 LBP. A number of households, nonetheless, still benefit from the old rent control. Most of the property in the Camp is held by three landlords who have managed to buy back all property in the neighborhood. Moreover, the presence of a private firm that has rented out/or owns several structures where it houses its workers was noted.[43]

2. **Camp Abiad:** Access to shelter in Camp Abiad relies primarily on rent (mostly old rent), and then on full ownership. The form of tenure and the social group of the tenants are highly correlated. Hence, based on BUL research in the neighborhood, five different categories of tenure were distinguished:

    - **Old rent tenants and old owners**: Tenants who benefit from the old rent control or own their houses/apartments and are mostly Lebanese senior citizens.
    - **New owners are mostly Lebanese**: The Public Corporation for Housing (PCH) loans map (Map 8) indicates four housing loans that were taken in Camp Abiad. The value

[39] Please refer to fn.9 for the methods of the BBED, or check www.beiruturbanlab.com

[40] All building heights in Municipal Beirut were surveyed through the BBED project in Fall 2020.

[41] Based on testimonies of residents in camp Nor Hadjin and field observation collected during the field work conducted for this study in Fall 2020.

[42] See Public Works Studio (2016). *Mapping Beirut Through its Tenants' Stories.* Public Works. https://publicworksstudio.com/en/projects/mapping-beirut-through-its-tenants-stories.

[43] Based on information provided by ACTED's focal point in Camp Nor Hadjin, in Fall 2020.

of these loans (less than 90,000,000 LBP) might indicate that the buyers were old renters.[44]

- **New rent tenants:** Tenants who are mostly Lebanese and pay up to 1,000,000 LBP /month for rent, according to field visits and conversations in Fall 2020.
- **Unregistered rental agreements:** These agreements are mainly made with migrant workers and refugees. This form of tenure varies from a shared apartment to a shared room, according to field visits and conversations in Fall 2020.
- **Tourists and temporary visitors who pay rent in "fresh" dollars (up to 30 USD/night)**: There are at least two spaces rented through Airbnb, according to field visits and conversations in Fall 2020.

3. **Badawi and Geitawi Transition Subzones:** Access to shelter in Badawi and Geitawi Transition subzones mainly depends on old rent and ownership, with the presence of other forms of new rent. Hence, based on field visits in the neighborhood in Fall 2020, five different categories of tenure were distinguished:

    - **Old rent control and old ownership**: Most tenure in Badawi and Geitawi Transition subzones falls under this category, where the residents are mostly Lebanese.
    - **New ownership**: New owners are mostly Lebanese. The Public Corporation for Housing (PCH) loans map (Map 8) indicates that the highest housing loans were granted in newly constructed buildings. Taking into consideration the PCH loans and the high prices of real estate in Badawi (5000 USD per m^2), shows that the residents of newly constructed buildings belong to the middle- and upper-middle classes who are eligible to take high housing loans.
    - **New rent (monthly)**: Lebanese and Syrian refugees.
    - **Rent per night (Airbnb)**: Tourists.
    - **Dormitories and studios**: These are mostly for Lebanese students or single employees who come to Beirut for study and work.

According to the Technical Assessment conducted by UNHCR's partner, tenants live in three quarters of the assessed housing units while the remaining have declared themselves to be owners[45]. As pointed above, the Assessment also allows to document a very high percentage of informal (or unrecorded) rent among assessed units, which amounts to almost all new contracts, which could result in precarious tenancy. However, in none of the cases assessed in the UNHCR assessment did a tenant report that the apartment was not fixed due to problems or tensions with the landlord. Although this may be considered anecdotal evidence that is not representative of the entire area, it still provides useful informational analysis.

5c. Residential Arrangements

Based on field visits and a business survey conducted in Fall 2020, linear concentrations of shops and businesses (Map 10) located on Armenia and Khalil Badawi Streets were distinguished. On Armenia Street, local businesses are mostly pubs and restaurants, as a result of the spillover of the trend that affected Mar Mikhael and Geitawi. On the western part of Khalil Badawi Street, the local economy caters to the basic needs of the residents of the area, where the majority of shops are grocery and food and beverage shops, with the presence of two boutiques, a jewelry shop, and an antique shop at the intersection with Armenia Street. Car mechanic shops are concentrated in the eastern part of Khalil Badawi Street, along with the presence of small vacant factories (some closed recently).

As for the local economy inside camps Nor Hadjin and Abiad, it comprises small grocery and food and beverage stores that cater to the needs of residents. It is worth noting that the low number of shops in the camp is due to the fact that ground floors are residential units.

[44] Please see BBED study of mortgages in Beirut in www.beiruturbanlab.com

[45] The Technical Assessment conducted by UNHCR partner was not designed based on probability sampling; it is thus not statistically significant, but provides informative analysis.

1. Public Spaces

Field visits conducted in Fall 2020 as well as the study of public spaces conducted in Beirut as part of the Plan Vert de Beyrouth in 2014 indicated that there is a shortage of public spaces in Badawi, as there are no official public parks.[46] The majority of open spaces and vacant lots in the neighborhood were verified against the neighborhood's cadastral map and sowed to be privately held (Map 11). In Badawi, the largest public spaces are the sidewalks of streets, alleys, and stairs. The descriptions below are all based on field visits and information gathered in the Plan Vert de Beyrouth listed above.

(i) Streets, Alleys, and Stairs

The walkability of the streets differs from one subzone of Badawi to another. Two months after the blast, one could still see rubble on the streets and in alleys, specifically on el-Jarrah Street (Fig. 17) and in Camp Nor Hadjin. However, the streets of Badawi are generally clean and pedestrian friendly. In addition, sidewalks are handicap accessible and walkable, except for a few places where cars are parked or people gather with their chairs. In Camp Nor Hadjin and Camp Abiad, the streets are narrower than those in Badawi and Geitawi, and sidewalks are absent in alleys. However, these streets and alleys are walkable, due to the low traffic in these areas. Moreover, the alleys of the camps are gathering places for residents and playgrounds for children. During field visits in Camp Nor Hadjin, women were often found chatting and children playing in the alleys.

The land topography made stairs common in Geitawi subzone and Camp Abiad. These stairs join the two subzones with Badawi. In general, they are in good condition and some have balustrades, though they do not include ramps for wheelchair users. During field visits, it was observed that people do not generally sit on these stairs. However, one of the stairs was used for seating by a pub near Geitawi (Fig. 18).

Figure 17. *Waste and rubble on el-Jarrah Street. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Figure 18. *Beirut on Stairs is a pub that uses stairs as a seating and gathering place. Source: Lynn Hamdar and Fatima Alleik, 2020.*

[46] For more information about the Plan Vert de Beyrouth, see http://idf-beyrouth.com/?q=content/espaces-verts-et-paysagers.

(ii) Public Gardens
There are no official public parks in Badawi. Instead, there is a public space called The Trax, which is the railway road transformed by GRO Beirut into a garden in May 2020[47] ("Train Track Flower Walk," as described by GRO's website).

The Trax is accessible to everyone, 24/7 (no fence), and has two seats in front of the entrance. However, the space needs maintenance (trees and plants are not trimmed, waste and rubble can be found on the trail, etc.) (Fig. 19 and 20). The Trax and the rest of the railway road are good candidates for further interventions (see "Recommendations").

Figure 19. *The Trax, a public space along the railway road. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Figure 20. *Entrance of the Trax. Source: Lynn Hamdar and Fatima Alleik, 2020.*

7. Infrastructure and Environment

A. Water and Sewage Networks

Municipal plans show that the neighborhood has a sewage network. Residents nonetheless pointed to the dire need for maintenance. But in general, all residential units have access to potable water through the public water network. Water supply is consistent, and residents claim to be generally satisfied by the water quality and quantity offered by the public water network. However, some residents do not rely on the potable water supplied and prefer to buy bottled drinking water instead. During the winter season, the sewage network floods, especially in camp Nor Hadjin[48] and on the eastern edge of Badawi subzone. During field visits, the Municipality of Beirut was observed draining one of the sewage manholes after it had flooded (Fig. 21).

B. Waste Management

In line with the rest of the city, the Municipality of Beirut has contracted a private company, RAMCO, for the collection of solid waste in the Badawi area. Generally speaking, the streets and alleys are clean, except for a few where waste and debris have not been properly removed while the main waste collection bins are exposed on the streets, spilling litter (Fig. 22). Moreover, during field

[47] See GRO Beirut official website: https://grobeirut.com

[48] UN-Habitat and UNICEF Lebanon (2012). *Safe and Friendly Cities for All: Rapid Profiling of Seven Poor Neighborhoods in Beirut City*, Beirut: UN-Habitat Lebanon. https://www.semanticscholar.org/paper/SAFE-AND-FRIENDLY-CITIES-FOR-ALL-Rapid-Profiling-of-Karm-El./9c36a8cccc29a5e7e44975883b988ece3c8cc49e

visits, a young man was observed digging through the waste bins in search for materials he could use or sell.

Figure 21. *A municipal truck draining a flooded sewage manhole. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Figure 22. *Waste and old furniture scattered around exposed waste collection bins. Source: Lynn Hamdar and Fatima Alleik, 2020.*

C. Electrical Supply and Street-level Generators

Before the blast, the electricity was mainly supplied by Electricité Du Liban (EDL), for up to 21 hours daily (as the rest of Municipal Beirut). However, residents claimed that feeding hours of electricity supplied by EDL decreased staggeringly in the months before the blast, when the feeding hours consistently reached up to 24 hours a day until at least December 2020.

Private generators usually provide electricity when it is not provided by EDL. During field visits, the presence of a large electricity generator was observed placed on the train railway on Bani Kahtan Street (Fig. 23). Map 12 shows the locations of waste collection bins and street-level generators in Badawi neighborhood.

Figure 23. *Street-level generator placed on train railway. Source: Lynn Hamdar and Fatima Alleik, 2020.*

II. STAKEHOLDERS IN THE NEIGHBORHOOD

At the time of the blast, the neighborhood counted numerous actors who were involved in the organization of its everyday life.

A. Political Parties

Numerous political actors intervene in the areas of Badawi. They include several Armenian factions as well as the traditional Christian political parties in Lebanon.

The Social Democrat Hunchak Party

Mostly anchored in Camp Nor Hadjin, this party has located its main office in the camp, in line with the historical evolution of the neighborhood during which Badawi grew around this branch of Armenian political life. The Party maintains strong affiliation with an Armenian identity, as evidenced by the temporary tents set up to fundraise for the Armenian war that was unfolding at the time of fieldwork (Fig. 24). Flags and banners also adorned Armenia and Khalil Badawi Streets (Fig. 25).

A 2017 study[49] conducted by students enrolled in the Planning & Design Workshop at the American University of Beirut mapped the party's locations (Map 13) in the Badawi and Camp Hadjin subzones.

Figure 24. *A fundraiser for victims of the Armenian war by Hunchak Party on Armenia Street. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Figure 25. *Hunchak Party flags on the porches of one of the buildings in Badawi. Source: Lynn Hamdar and Fatima Alleik, 2020.*

The Tachnag Party

The Tachnag is undeniably the strongest political party in the neighborhood today, as evidenced by its historic hold over the neighborhood in national and local elections. The Tachnag has two offices located on Camp Hadjin Street in addition to the Nor Hadjin Committee that was mapped in this

[49] Ali, D., Ghamrawi, G., & Najdi, W. (2017). AUB Planning and Design Workshop, Group C, Badawi Neighborhood Analytical Report 2017.

study on the intersection of the camp with Armenia Street. The students' research in 2017 also found the presence of youth and organizations within Camp Hadjin and Badawi areas. The **Tachnag** is also present in Badawi, Camp Abiad, and at the edges of Geitawi. One of the *mukhtars* of Badawi indicated his affiliation to the Tachnag Party, reflecting its electoral power in the area. The party's office location in the neighborhood is highlighted on the stakeholder's map (Map 13).

The Lebanese Forces party is present in Badawi, Camp Abiad, Geitawi transition subzones, as evidenced by street signs, posters, and other urban markers in these areas.
The Free Patriotic Movement is present in Badawi, Camp Abiad, Geitawi transition subzones, as evidenced by street signs, posters, and other urban markers in these areas.

a. Public Actors

Administratively, the main public actor expected to display a strong presence in the neighborhood is the Municipality of Beirut. However, residents failed to mention this institution in interviews, and when probed noted that there were no municipal police nor public representatives. Instead, an interview with the locally elected representative, the Mukhtar made it clear that a handful of political parties managed the neighborhood. He further explained that the Municipality's offices were not yet repaired, indicating that the work of the Municipality on the ground is limited.

b. Religious Institutions

There are several religious institutions present and active as actors in Badawi neighborhood (mainly Christian).

- **Saint Kevork Armenian Orthodox Church** in Camp Nor Hadjin, organizes activities in the camp and has offered cash assistance for its members after the blast.
- **Eglise NDDes Anges-Badawi** (Evangelical Church) organizes activities for its members (Badawi area) and has organized activities for children as part of the recovery response.

c. Non-Governmental Organizations (NGOs)

- **Armenian General Benevolent Union (AGBU)** is a non-profit Armenian organization established in Cairo, Egypt, in 1906 and in 1910 in Lebanon. AGBU aims to preserves and promote the Armenian identity and heritage
through educational, cultural and humanitarian programs, annually serving some 500,000 Armenians in over 30 countries.
- **Homenetmen Lebanon** is a Lebanese-Armenian multi-sports club and Scouting movement. The club was established in Lebanon in 1924 and is part of the worldwide pan-Armenian Homenetmen organization, which was established in 1918.[50] The club organizes several youth activities in Badawi neighborhood.
- **Dekhrouni Student & Youth Association - Lebanon** was founded in 1952. According to its facebook page, the NGO acts as the Social Democrat Hunchak Party's Student & Youth Association.[51]

d. Private Actors

- **Landlords:** There are three main landlords in camp Nor Hadjin, who lease their apartments to tenants, mainly new rent**.** The concentration of housing ownership in the hands of three Landlords makes them powerful actors in the camp.

[50] Homenetmen Lebanon. *The First Years.* https://www.homenetmen.org/en/first-years

[51] https://m.facebook.com/pg/DekhrouniSYA/about/

III. RECOVERY STATUS

1. Damage Assessment

Based on the survey of the Order of Engineers and Architects (OEA) (Map 14), damages range from minor to severe in Badawi. The assessment of the structural damages by the OEA revealed that more than 28 buildings were at risk of full or partial collapse. The majority of these buildings were constructed before 1940 and were already dilapidated before the blast. More than half of the buildings surveyed had internal or external cracks in walls and floors (Map 14). During fieldwork, most people claimed that the damages to their property were shattered glass, broken doors, and some damaged furniture.

The Technical Assessment conducted by UNHCR's partner shows that the majority of assessed units were categorized as Level 1 damage (i.e. repairable easily; 202 of the 327 assessed units). None of the assessed housing units was categorized as Level 3 (or structural damage) during the Technical Assessment[52]. Repair in the neighborhood appeared low: according to the technical assessment conducted by UNHCR's partner, only 10% of the units assessed with blast induced damage had been repaired, through the support of a local NGO (at the time of assessment; i.e. not reflecting the repairs conducted by UNHCR's international NGO partners). .

2. Actors involved in Recovery Response

Several actors were involved in the recovery response of the neighborhood. These actors included public actors, political parties, religious institutions, INGOs, local NGOs, and Lebanese expatriates (Annex B).

Modalities of Repair and Reconstruction

Before delving in the modalities of housing repair, BUL points out that the recovery response in Badawi has included different types of interventions (e.g., shelter, cash assistance, in-kind assistance) (Annex B). BUL also points that most repair has focused on the shelter sector. In contrast, most shop owners interviewed reported that they had repaired their shops at their own expense. A number of shop owners waited for NGOs to repair their facades. However, one of the shops on Khalil Badawi Street remained without a façade three months after the blast (Fig. 26).

The neighborhood of Badawi witnessed multiple modalities of repair. Some of those modalities were common across the different sections of Badawi, while others were unique to certain sections. The distinctions across modalities of repair appear to be determined by a number of factors including: (i) tenure arrangements, (ii) profile of tenant, and (iii) level of income of the resident.

[52] Please note that there could be more; as indicated in the methodology section, the technical assessments conducted by UNHCR partners were led in the framework of the shelter intervention implementation. As such, they did not resort to any form of probability sampling nor were they meant to provide comprehensive neighborhood-level data.

Figure 26. *Unrepaired shop facade of an 80-year-old tailor. Source: Lynn Hamdar and Fatima Alleik, 2020.*

- **Modality 1: An NGO repairs the apartment in a multi-story building.** In this modality, an NGO or an INGO repairs the apartment directly.
  A number of discussions with local representatives of NGOs and INGOs in this neighborhood revealed that they intervened directly to repair damaged houses, or through hiring a contractor. Each intervening organization has its own rules for how to approach repair, depending on the level of damage as well as the neighborhood. For example, in camp Nor Hadjin, ACTED was helping households repair severe damage in their homes even if they preceded the blast, until they meet the minimum requirements set by Temporary Technical Committee (TTC). This includes fixing and replacing damaged windows and doors, installing plumbing fixtures, and painting walls. The maximum budget allocated for each apartment is 4,500 USD. Meanwhile, BUL was informed by the Norwegian Refugee Council (NRC) that they do not repair all damages nor paint or add fixtures but stick to the minimum direly needed repairs. In the Badawi subzone and Camp Abiad, Nusaned and Anera (partners of SCI) are repairing apartments and shops. As for apartments, Nusaned is repairing damages in windows, doors, and walls as well as adding fixtures and replacing home appliances where needed. Residents claimed that Nusaned gave them the choice between certain repairs and replacing home appliances, which was confirmed since Nusaned keeps a budget per housing unit. As for shops, Nusaned has only repaired / replaced shops' façades.

  This modality was common in all sections of Badawi, and mainly in Camp Nor Hadjin and Camp Abiad. For example, field reports from ACTED indicated that it had been involved in repairing over 50 housing units in Camp Nor Hadjin (Fig. 27). The repairs included fixing windows (i.e., aluminum frames frequently replaced the old wood when requested by residents, wooden doors, wall paint, tiles, plumbing fixtures). One of the apartments repaired is shown in Figure 27.

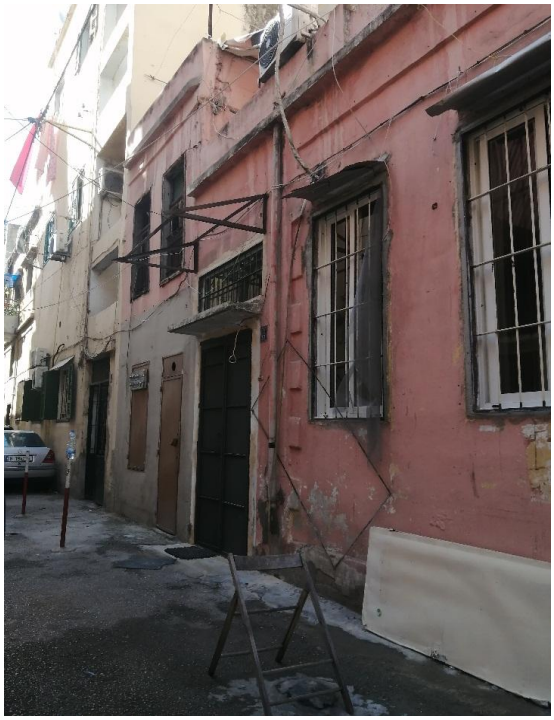


Figure 27. *Reinstallation of a metal door and aluminum window frames by ACTED. Source: Lynn Hamdar and Fatima Alleik, 2020.*

- **Modality 2: The residents repair the apartment, and the Lebanese Army gives a compensation for repair**. In this modality, the Lebanese Army assesses the damages caused by the blast and estimates the costs for which the household is compensated. The residents do not wait for an NGO to come and fix their apartment. Instead, residents directly commission the repair of the home, at their own expense. This was common among households who were able to find the funding as it took over a month for NGOs to start repairing apartments. Nonetheless, according to interviews and conversations, the criteria for which the monetary compensation was granted was unclear. In the Badawi subzone and Camp Abiad, the Lebanese Army has paid monetary compensations based on the damage assessment the Army completed earlier. Residents claimed that the Army only compensated for damages that the NGOs did not repair. Compensations ranged from 3,000,000 LBP to 15,000,000 LBP. In Camp Nor Hadjin, the Lebanese Army was giving monetary compensations three months after the blast for damaged apartments and houses, but not for shops.

- **Modality 3: The residents are granted cash assistance from a political party, a religious institution, a local NGO or an INGO**. In this modality, the residents are given direct cash assistance for their repair works. For example, the Lebanese Red Cross (LRC) assisted families[53] in Badawi with 300 USD as cash assistance to cover their basic needs. LRC also granted 600 USD cash assistance (provided once in September 2020[54]) for families whose houses sustained damages in order to assist them in urgent repairs.

- **Modality 4: Property owners/tenants repair household or shop solely at their own expense.** In this modality, none of the NGOs or public actors (Lebanese Army) repairs the property (usually a shop). These cases, especially amongst households, are rare in Badawi, since the Lebanese Army started paying compensations three months after the blast (in Camp Nor Hadjin subzone, residents stated that they had not yet received compensation as of December 2020).

[53] Based on fieldwork

[54] Lebanese Red Cross. *Direct Cash Financial Support.* https://www.redcross.org.lb/direct-cash-financial-support-2/

- **Modality 5: Landlords make deals with shop owners or apartments leased to tenants or wait for NGOs to repair their property in lieu of repairing at their expense**. This modality is related to tenure, where for example in the case of Camp Nor Hadjin, the main landlords are not initiating repairs of their property. The landlords are either waiting for NGOs to repair or for the tenants to repair, at their own expense. In one of the cases, in camp Nor Hadjin, the landlord offered to decrease the rent value by half, as long as tenants repaired the property at their own expense. In other cases, the landlord refuses to repair for the tenant, and chooses to wait for the NGOs to do so. In those cases, the landlord only repairs unoccupied apartments.

IV. RECOMMENDATIONS OF SITES FOR POTENTIAL COMMUNITY-BASED PROJECTS

In this section, BUL discusses recommendations of sites that could potentially be used for community-based projects. These recommendations derive from the present research's methodology, and thus have not been sufficiently validated by interviews and surveys with dwellers, business-owners and other stakeholders. Should actors be interested in implementing those, they should first seek to gain in-depth understanding of relevant dynamics to translated recommendations into action plans in close coordination with relevant stakeholders and residents. Any community-based project in the neighborhood should derive from a participatory planning process, which requires genuine and prolonged engagement with concerned people, including community meetings and discussions that ultimately converge towards a consensus. Still, BUL's post-blast recovery recommendations build on the urban trends and dynamics that characterize the neighborhood, the preliminary actors' mapping that we undertook, the identification of vacant lots or public spaces where either some socio-spatial activity has started taking place or could potentially occur, and preliminary discussions with residents.

BUL begins by noting that Beirut's public and shared spaces are severely neglected realms. This is due to a confluence of factors that include the neglect of public agencies to these valuable assets, associations between public and danger that date back to the legacy of the civil war, and the poor conceptual policy approach with which such spaces have been approached as ornamental rather than communal.[55] Thus, the "Plan Vert de Beyrouth" study– commissioned for the Municipality of Beirut by the Région Ile de France but never implemented–found that there was less than $1m^2$ of open space per capita, well below the $10m^2$ recommended by the World Health Organization.[56]

The absence of such spaces was often compensated by residents through ad-hoc appropriations, temporary occupations of vacant lots and sidewalks, as well as a heavy use of neighborhood scale commercial venues as sites of gathering.[57] Indeed, Beirut is a city rich with socio-spatial practices, which are deeply rooted in its urban history, experienced through streets, markets, and multiple public and private open spaces that are more or less hidden, including alleyways, historical staircases, building entrances, vacant lots, and other appropriated sites, many of which are found in the neighborhoods affected by the Beirut Port Blast. Yet, much more needs to be done to provide more and better open, green public spaces to residents of the city. Over the past decade, an increasing number of collectives and NGOs have decried the closure and scarcity of open spaces and the direct negative effect on neighborhoods' public life and attachment to place, as well as the mental and physical health of residents.[58]

Activating open public spaces and vacant lots for socio-spatial practices matters for recovery. Indeed, aside from the physical damage caused by the explosion and the temporary forced displacement, the blast has caused the temporary and potential long-term displacement of residents and may severe permanently their relation to the neighborhood if they are not provided with venues to gather. As argued elsewhere, shared spaces typically operate as sites

[55] For case studies of public spaces and urban mobilization in Beirut, see *Practicing the Public,* Fawaz and Gharbieh (2016) at: https://www.beirutурbanlab.com/en/Details/569/practicing-the-public; Harb M. (2013), "Public Spaces and Spatial Practices: Claims from Beirut", *Jadaliyya*, and Harb M. (2018) "New Forms of Youth Activism in Contested Cities: The Case of Beirut." *International Spectator*, 53:2, 74-93. About the fear of public space in Beirut, see Nasreddine-Cheaitli, A. (2019) "Addressing Fear in Public Spaces: Design Solutions for the Ramlet El-Bayda Park", Unpublished Master's Thesis, MUPP Program, American University of Beirut, and, for everyday appropriation of spaces in Beirut, see Guadagnoli, G. (2016), "Tools for Tactical Neighborhood Planning and Design: Lessons from User-Led Small Scale Physical Interventions in Municipal Beirut Open Spaces," Unpublished Master's Thesis, MUPP Program, American University of Beirut.

[56] For more information about the Plan Vert de Beyrouth, see http://idf-beyrouth.com/?q=content/espaces-verts-et-paysagers.

[57] See Fawaz and Gharbieh, *op.cit.*

[58] See Harb (2018), op.cit. Also, see: Harb M. and Mazraani D., "Vacancy as Opportunity: Re-activating Public Life in Beirut." Beirut Urban Lab website, March 2020. https://www.beirutурbanlab.com/en/Details/619/vacancy-as-opportunity-re-activating-public-life-in-beirut

of sociability and social interaction, where children play safely, the elderly socialize, women meet and converse, migrants, refugees and other vulnerable groups hang out and forge communities.[59] Indeed, such sites can foster what authors called "city-zenship," a sense of inclusive urban belonging where "the right to the city [...] extends to all residents, regardless of origin, identity, or legality.[60]" In the aftermath of large-scale disasters, communal belonging is threatened and communities are scattered. Consequently, shared spaces gain an additional critical role not simply to recover a lost space, but rather to allow communities to perform two critical tasks: healing and exchanging information.[61] This role extends, it is noteworthy, to commercial social spaces that have been shown to provide in post-disaster recoveries the direly needed gathering social spaces where communities can share information and experiences that contribute to a better and faster recovery.[62]

Despite the horrendous effects of the blast, we noted during fieldwork that some of the everyday socio-spatial practices were resurfacing, performing an important role in keeping residents connected to their neighborhoods. For instance, fieldworkers observed dwellers placing chairs and congregating among the ruins of destroyed homes, in the alleyways, along the sidewalks. They also observed children playing football in empty lots. As such, a participatory urban strategy that seeks to re-activate anchors of socio-spatial practices within neighborhoods, whether publicly held land, temporarily occupied private lots, public venues, or commercial stores that serve as sites of congregation, can play an important role in fostering recovery. These anchors could be a small garden, a street corner, a small store, a building entrance, a stairs landing, etc. Such sites play a key role in allowing communities to heal and even flourish, depending on an array of socio-economic and political conditions which need to be investigated beyond this report. Interventions on these sites need to be conceived according to participatory modalities that enable the co-imagining of how to activate them with programs that respond to the needs of specific communities and neighborhoods in relation to the post-blast trauma. Such activities can bring dwellers together to heal and recover collectively and to rebuild neighborhoods, including private homes and shared spaces.

In what follows, BUL identifies potential sites where such community-projects could occur in Badawi (Map 15). In some instance, these proposals build on already existing practices. BUL also identifies the potential NGOs and collectives that could be supportive of these projects—noting that we have not discussed these ideas with them, but we identified them as actors actively engaged in activating public spaces and collective life in the post-blast recovery of the city. Most of these actors have also been identified by the Area-Based Approaches (ABA) Temporary Technical Committee (TTC), in a study dated in February 2021 on Civil Society Organizations (CSOs) engaged in the Beirut Port explosion.

Potential Interventions in Badawi

Based on these principles, four communal-based interventions are possible (Map 15):

A. Old Railway as an Inclusive Public Space

A major opportunity arises in temporarily transforming the old railway track into an inclusive public space/pathway that cuts across the neighborhood and can potentially extend beyond. The intervention will make use of the long linear space the railway provides to link between the different subzones of Badawi and the surrounding neighborhoods (Geitawi and Mar Mikhael). In proposing this intervention, the temporality of the intervention must be strongly considered as the railway

[59] See Mazraani D., Dayekh L., and Harb M., "Why Socio-Spatial Practices Matter to Urban Recovery?" *Public Source*, December 2020.

[60] Vrasti W. & Dayal S., (2016), Cityzenship: Rightful Presence and the Urban Commons, *Citizenship Studies*, 20:8, 994-1011.

[61] Brand D. & Nicholson H. (2016) Public Space and Recovery: Learning from Post-Earthquake Christchurch, *Journal of Urban Design*, 21:2, 159-176.

[62] See, for example, Haeffele, S. and Craig, A.W. (2020), "Commercial social spaces in the post-disaster context", *Journal of Entrepreneurship and Public Policy*, Vol. 9 No. 3, pp. 303-317.

company will be staunchly opposed to foregoing the track. The current state of the track can be viewed in Figure 28.

The abandoned train railway passes from the west to the east of Badawi, separating Camp Abiad and Geitawi Transition subzones from the rest of the neighborhood. The railway is abandoned and covered with vegetation. In some sections, the railway is used as a parking space. In others, it is blocked by electric generators. In addition, the railway track is not always easily accessible; it is elevated about a meter from the ground in some points and fenced in other places (Fig. 20). There are a few openings in the wall that pedestrians use to move from Badawi subzone to Geitawi Transition subzone. Nonetheless, these openings are not safe for elderly and not equipped for wheelchairs.
As mentioned earlier in the "Open Spaces" section, GRO Beirut turned a small part of the railway into a garden. To transform the railway into an inclusive public space, the proposed interventions include the following:

1. *Convert the railway into a green walking track, with the cooperation of local NGOs (e.g., GRO Beirut, Arcenciel), while keeping all interventions to a minimum: facilitate walking and greening along the track. An example of such an intervention is the High Line park in Manhattan, New York City (Fig. 29). The park is a two-kilometer elevated linear park, greenway, and rail trail created on a former New York Central Railroad.*[63]

2. *Improve the accessibility to the railway road by fixing the stairs, installing rails, and building a ramp for wheelchairs.*

Figure 28. *Vegetation on the old train railway. Source: Lynn Hamdar and Fatima Alleik, 2020*

Figure 29. *High Line Park: Abandoned railway transformed into a track in NYC. Source: Getty Images.*

B. Vacant Lots as Local Economy Boosters

There are several vacant lots and unbuildable parcels in Badawi (Map 11), both private and publicly owned, that can be used as places for communal-based projects. When abandoned and unsupervised, some of these lots have turned into open-air dumpsters. As per Beirut's Municipality decree, vacant land should be invested either in the construction of buildings, parking lots or public gardens. This legislation can be used to invest these lots in a way that serves the neighborhood of Badawi. Therefore, the proposed interventions include the following:

[63] See High Line official website at https://www.thehighline.org/design/

1. Build temporary kiosks, inviting food trucks, and allowing for other temporary sales of food, beverages, and goods that could strengthen the local economy and generate job opportunities.

2. Partner with **Arcenciel** NGO to provide urban agriculture opportunities by building vertical gardens, in which residents can participate in planting and harvesting crops. Such a project can be done on a private vacant lot or unbuildable parcel, or even on a municipal-owned lot (Map 11).

3. Partner with **Live Love Recycle** NGO, in order to transform one of these sites into a small sorting facility (sorting glass, plastics, and paper). This will provide vulnerable residents with job opportunities, while minimizing the amount of waste dumped.

C. Communal Spaces as Inclusive Spaces

The communal spaces and hangouts (Map 15) refer to places that are not necessarily public spaces. Rather, they are locations where residents gather regularly. In Badawi subzone, residents, mainly senior male residents, gather during the day on street corners and in front of their shops, where they drink coffee and socialize. In Camp Nor Hadjin, both women and men gather in the alleys of the camps.[64] During field visits, mid-aged women were observed sitting on their chairs in the middle of the camp's alleys and socializing, often during morning hours. Children were also observed playing in these alleys. In order to transform these spaces into more inclusive places, the proposed interventions include the following:

1. Improve sidewalks and alleys where people gather. This can be done by paving alleys, proposing car-free spaces within camps, and adding lighting where needed.

2. Add a small number of benches, without compromising mobility in the alleys of Camp Nor Hadjin, so that residents of the neighborhood, from different nationalities and age groups, can gather. Moreover, shade from trees or even a temporary roof or tent can be added so that the space can be used in different weather conditions.

D. Enhanced Waste Management

As discussed earlier in the report, waste spills out of the exposed waste collection bins and accumulates in the surrounding vacant lots. Tackling the issue of waste management will have major benefits on the living conditions of the residents of Badawi. Therefore, the proposed interventions include the following:

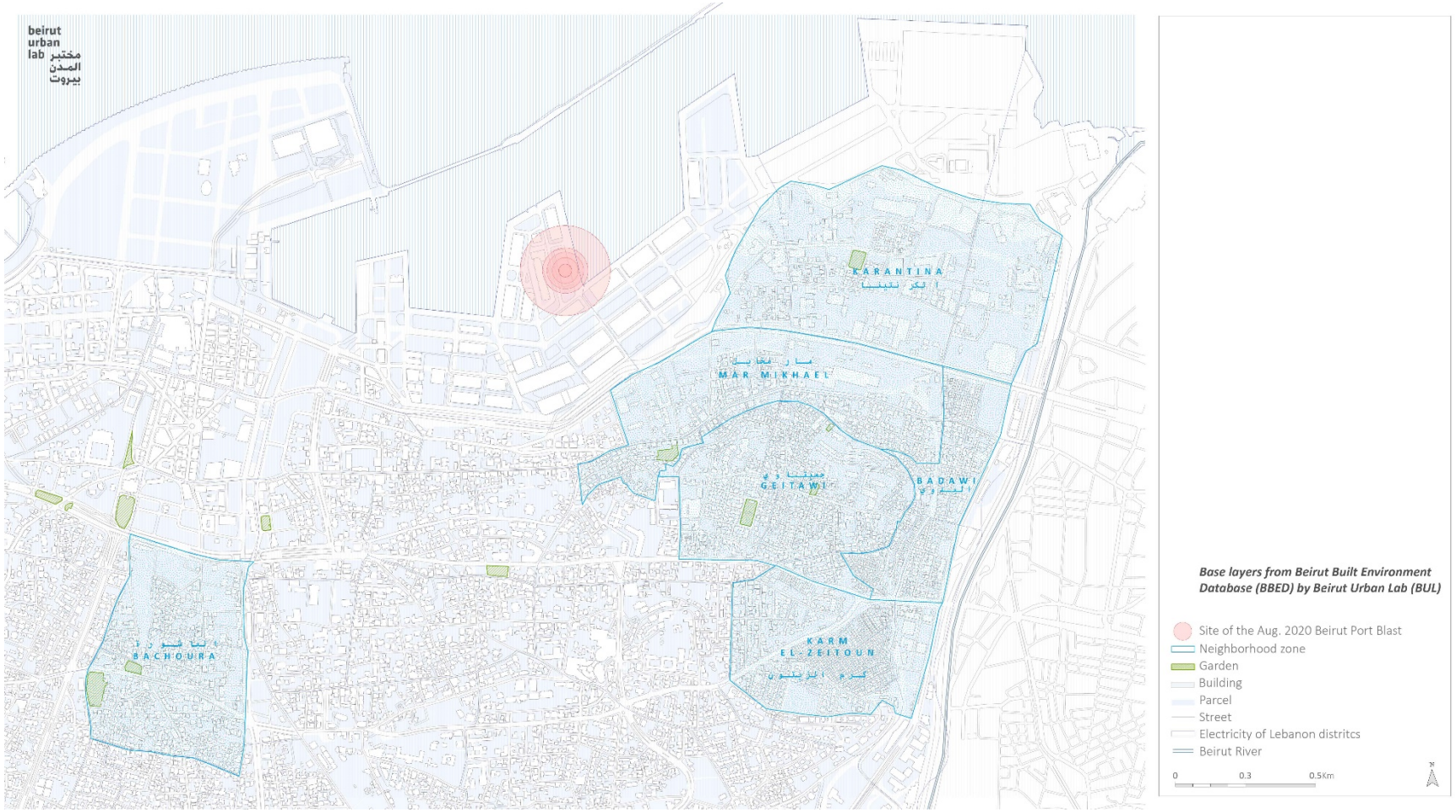
1. Devise a waste management scheme with the community of Badawi, in collaboration with local NGOs and institutions found in Badawi such as the **AGBU**. This can be done through a partnership with NGOs such as **Live Love Recycle**. This scheme might include sorting from the source as a way to decrease the amount of waste in collection bins. Moreover, the need for main bins can be eliminated in some subzones of the neighborhood by collecting waste directly from each building. For example, residents of each building can collect their waste in common small waste bins inside the building, which can be collected by RAMCO. This method has been followed by the Municipality of Hadath for almost two years now. There, the guard of every building collects the waste from the apartments in a small waste bin. At 7 p.m., all the guards place the waste bins at the entrance of the building, where City Blue collects.

2. Cover all waste collection bins, either by a metallic structure or by placing them inside old containers. Old shipping containers can be transformed into small rooms with sliding doors in which the waste bins are placed.

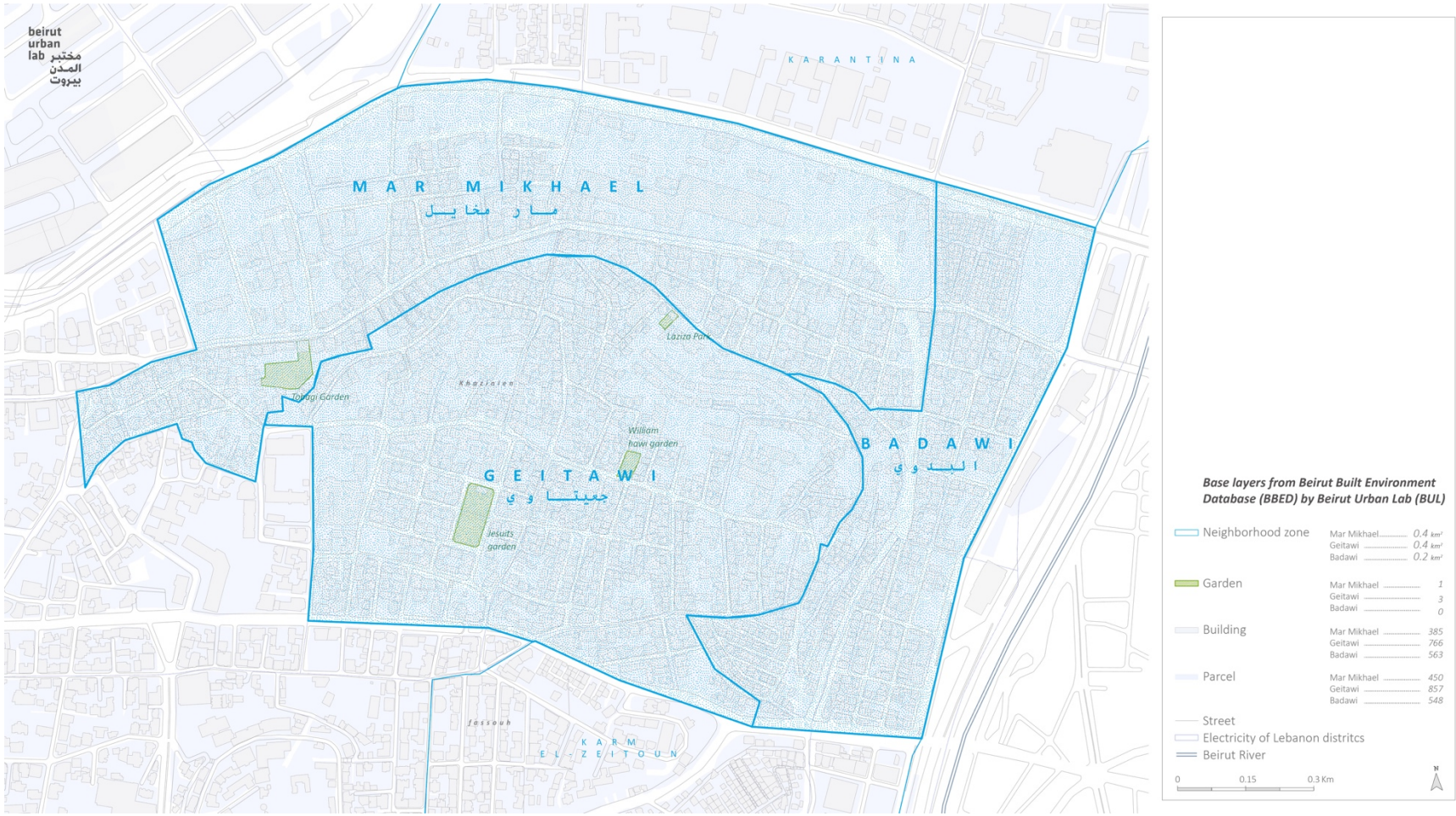
***

[64] During field visits, it was observed that cars rarely circulate in the alleys of Camp Nor Hadjin.

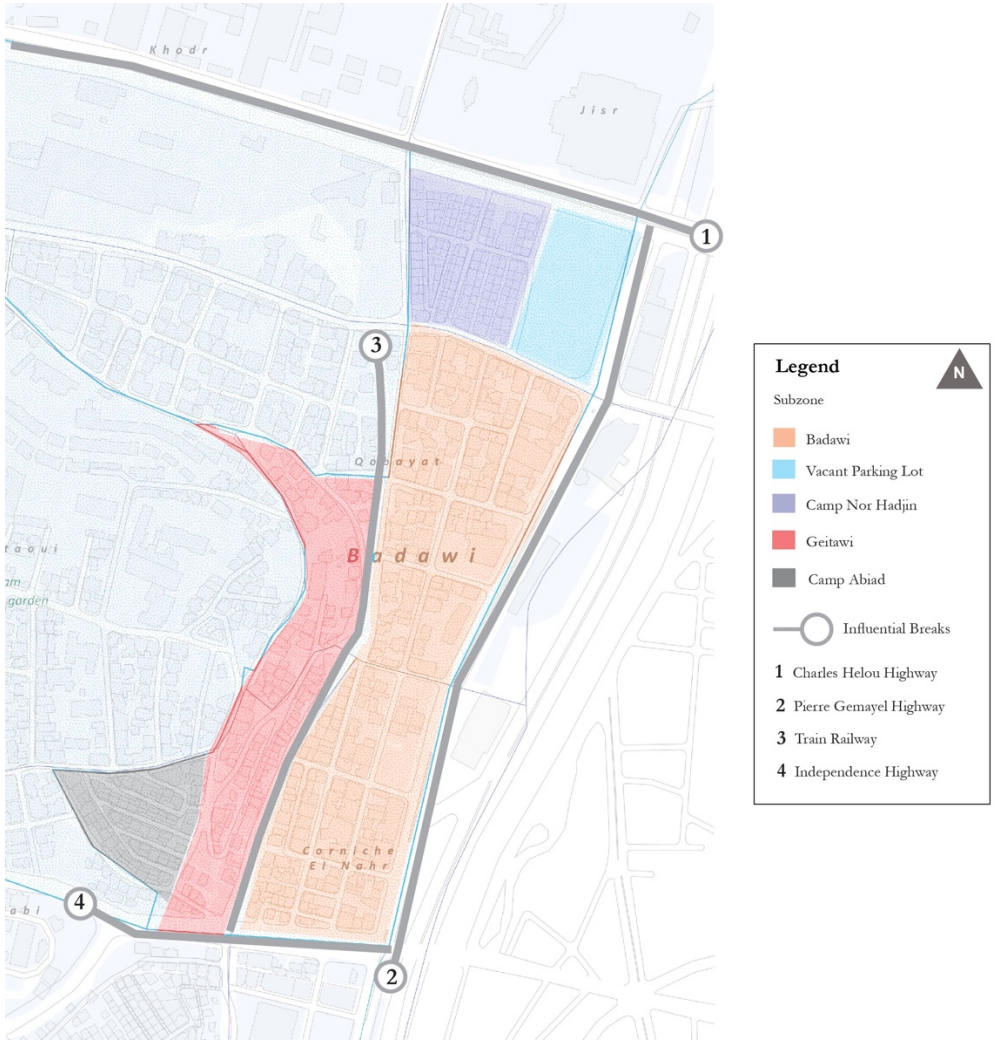
V. ANNEX A



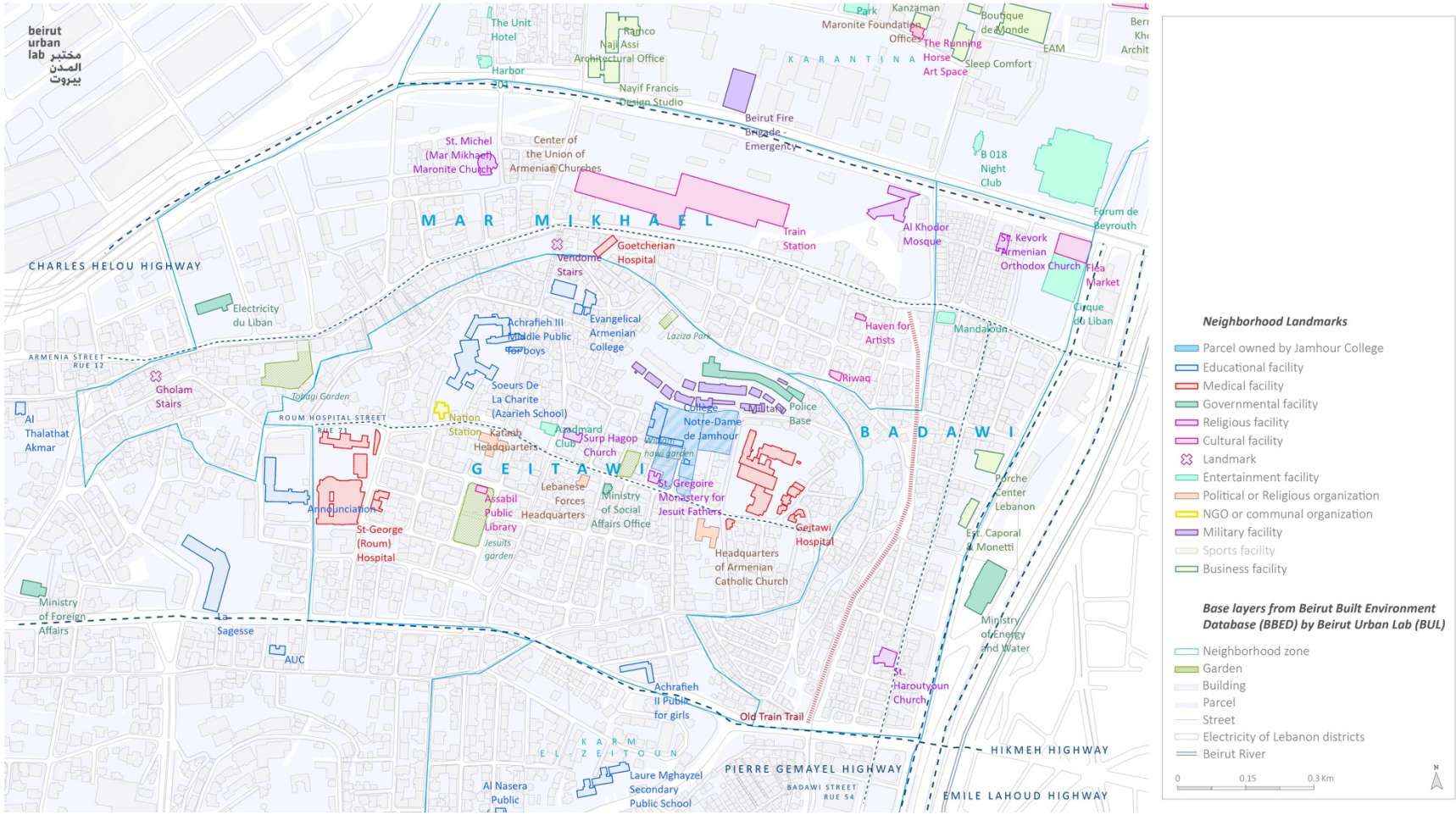
Map 1: *Zone limits in all neighborhoods. Source: Beirut Urban Lab, 2020.*



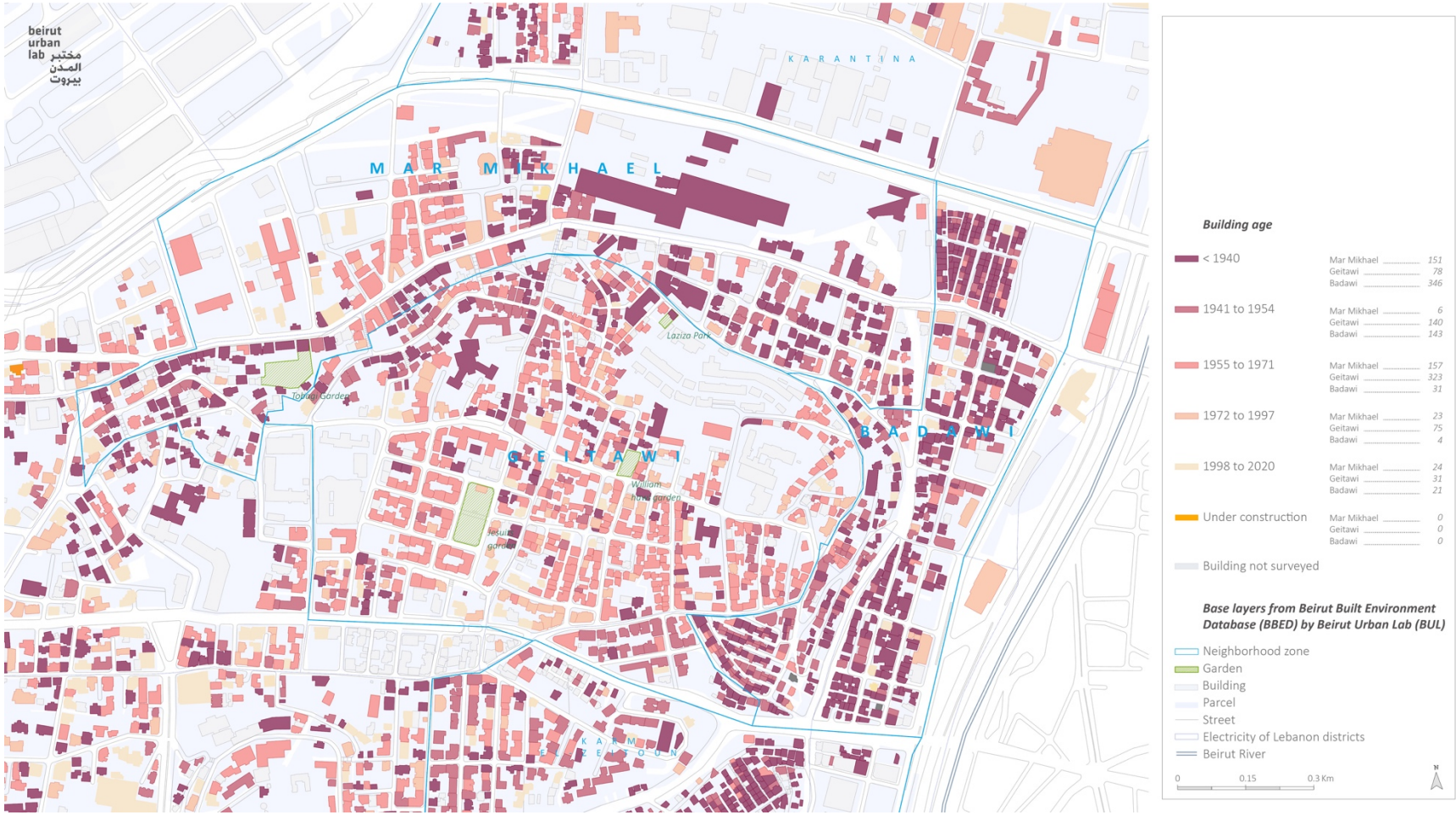
Map 2: *Zone limits in Badawi. Source: Beirut Urban Lab, 2020.*



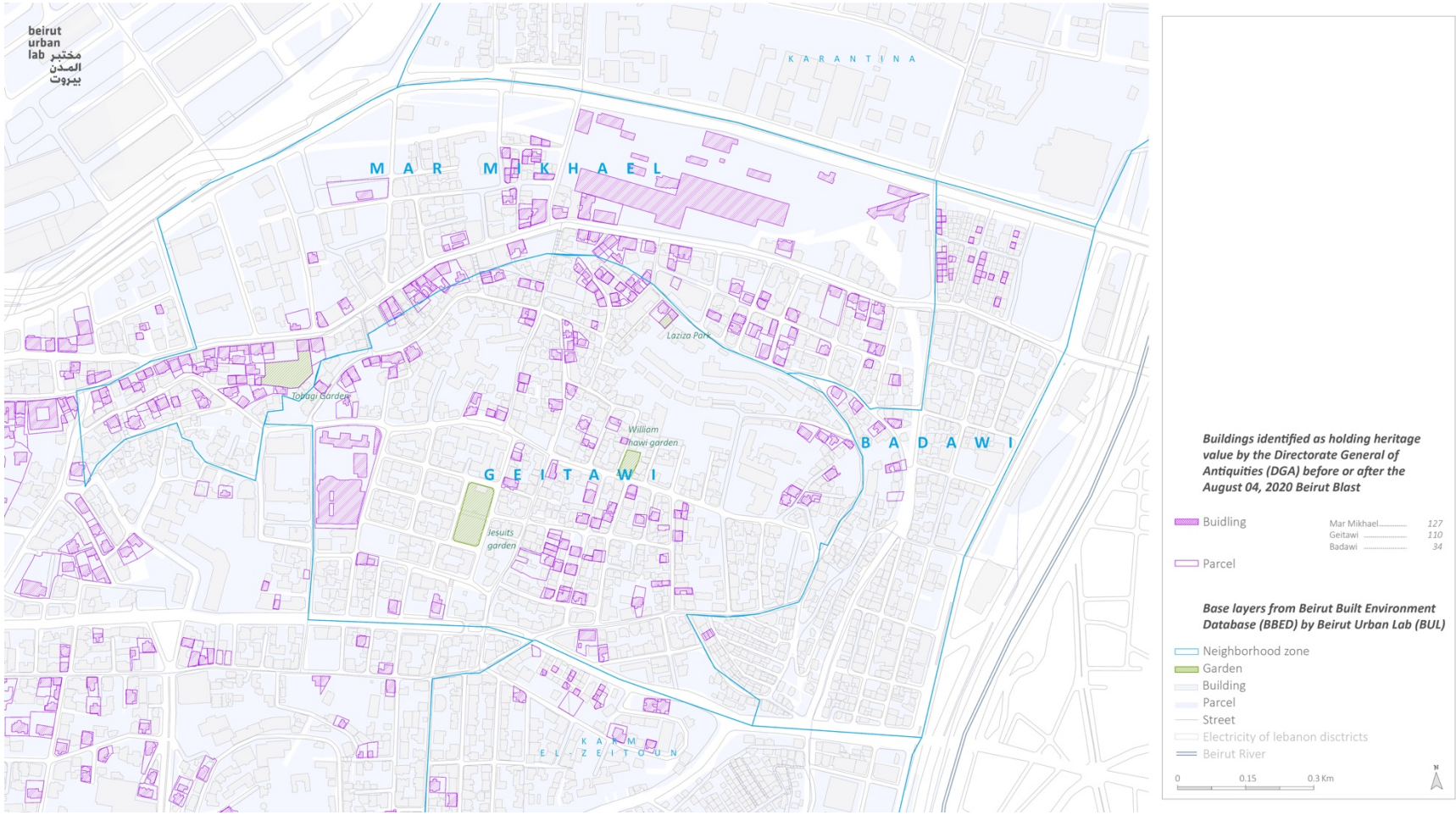
Map 3: *Boundary map showing the subzones of Badawi neighborhood. Source: Beirut Urban Lab, 2020 edited by Field Researchers Lynn Hamdar and Fatima Alleik.*



Map 4: *Neighborhood landmarks in Badawi. Source: Beirut Urban Lab, 2020.*

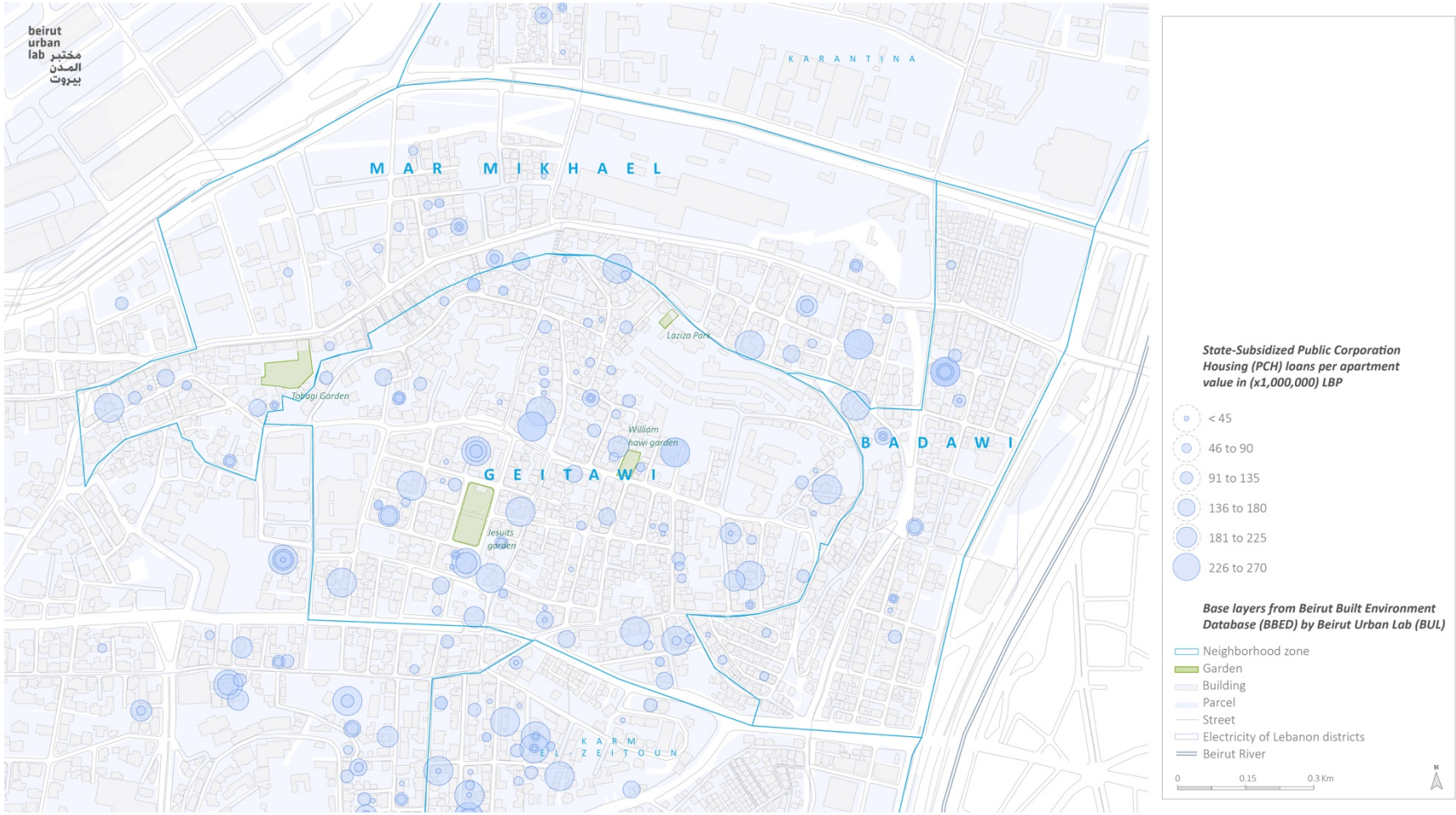


Map 5: *Building age in Badawi. Source: Beirut Urban Lab, 2020.*



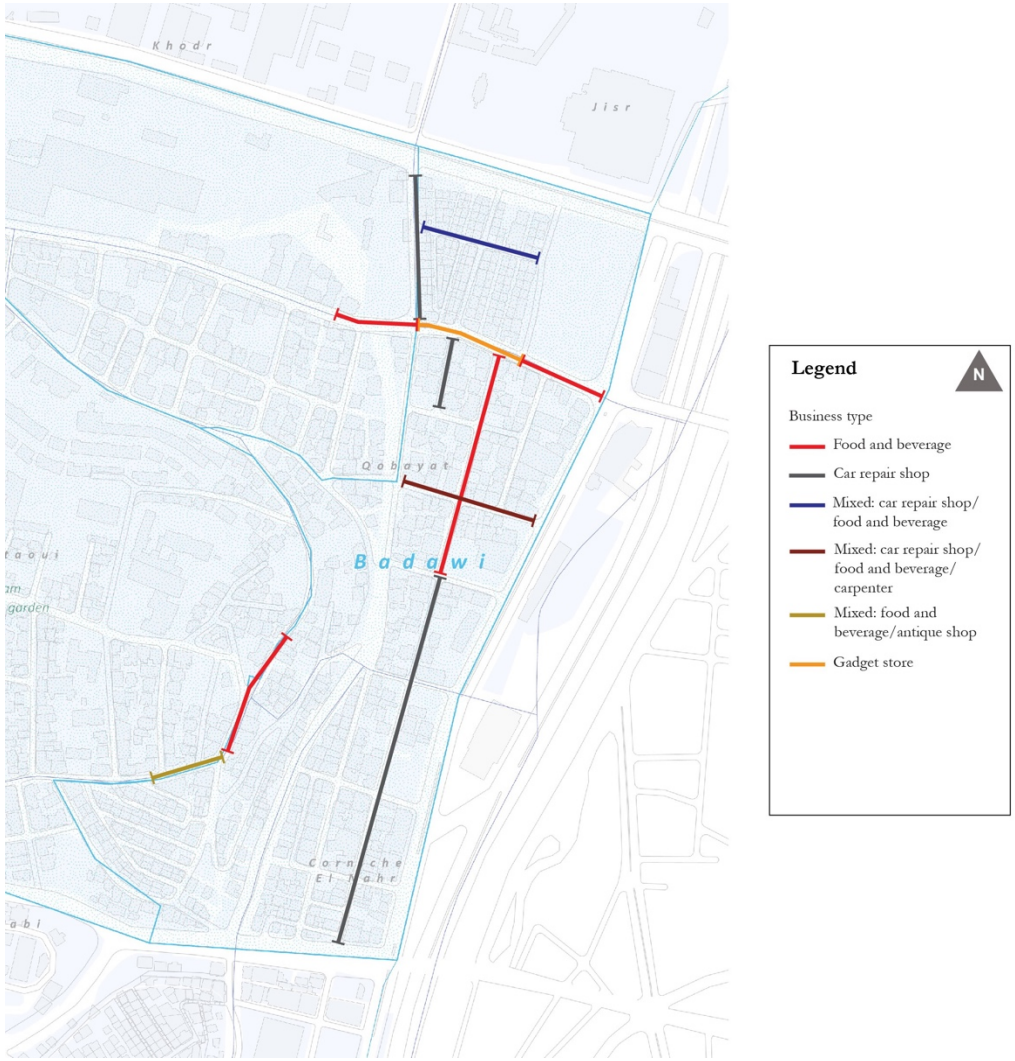
Map 6: *Buildings identified as holding heritage value by the Directorate General of Antiquities (DGA) before or after the August 4, 2020 Beirut Blast. Source: Beirut Urban Lab, 2020.*

Map 7: *Number of floors per building in Badawi. Source: Beirut Urban Lab, 2020.*

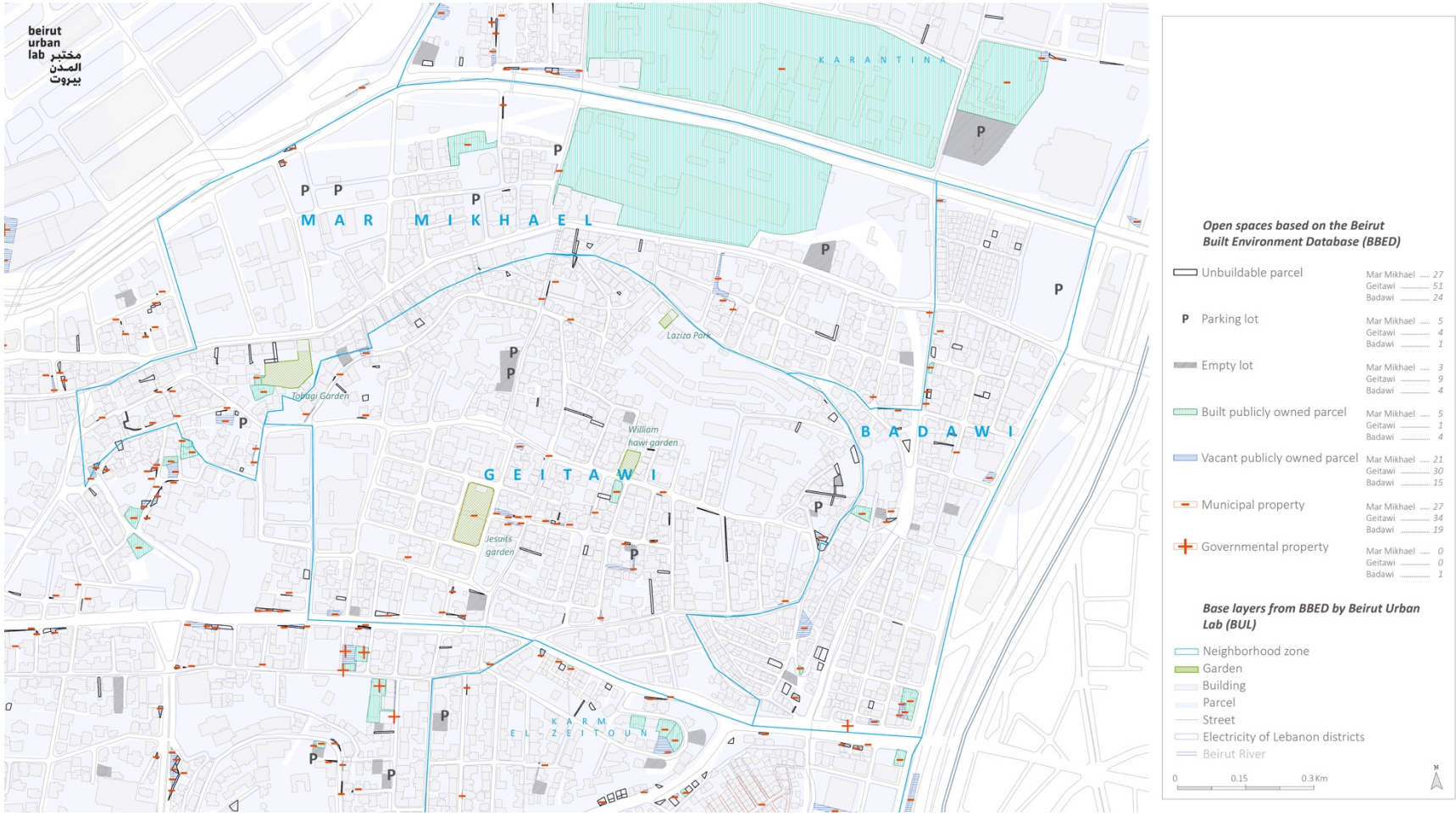


Map 8: *State-subsidized Public Corporation of Housing (PCH) loans in Badawi. Source: Beirut Urban Lab, 2020.*

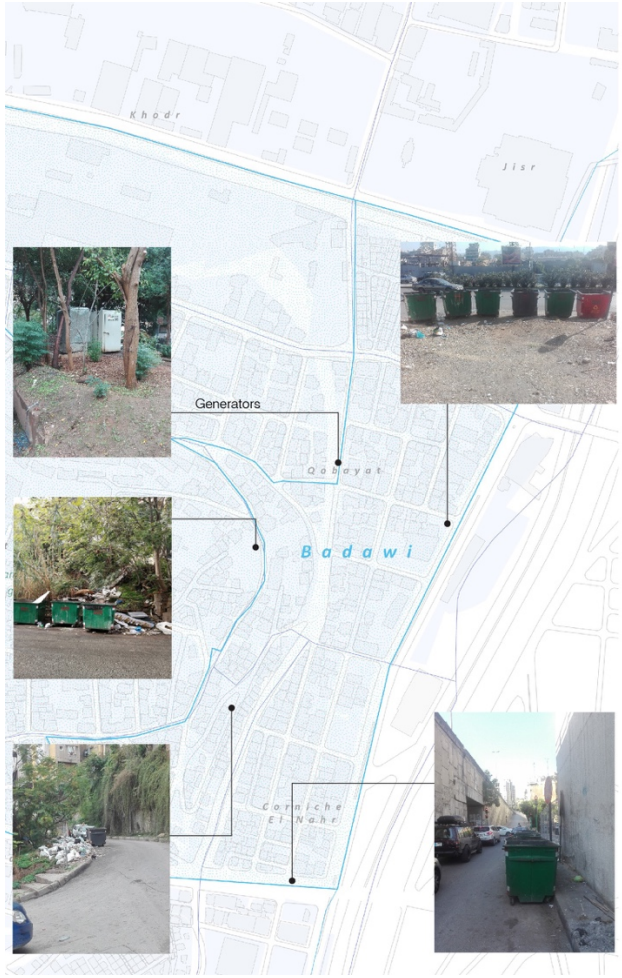
Map 9: *Forms of tenure in Badawi. Source: Public Works, 2016.*



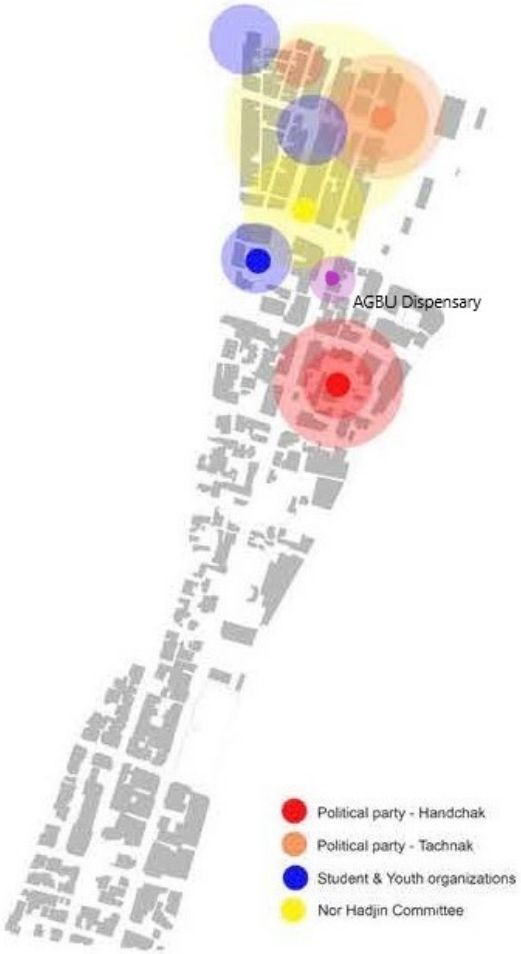
Map 10: *Rapid mapping of local economies in Badawi. Source: Beirut Urban Lab, 2020 edited by Field Researchers Lynn Hamdar and Fatima Alleik.*



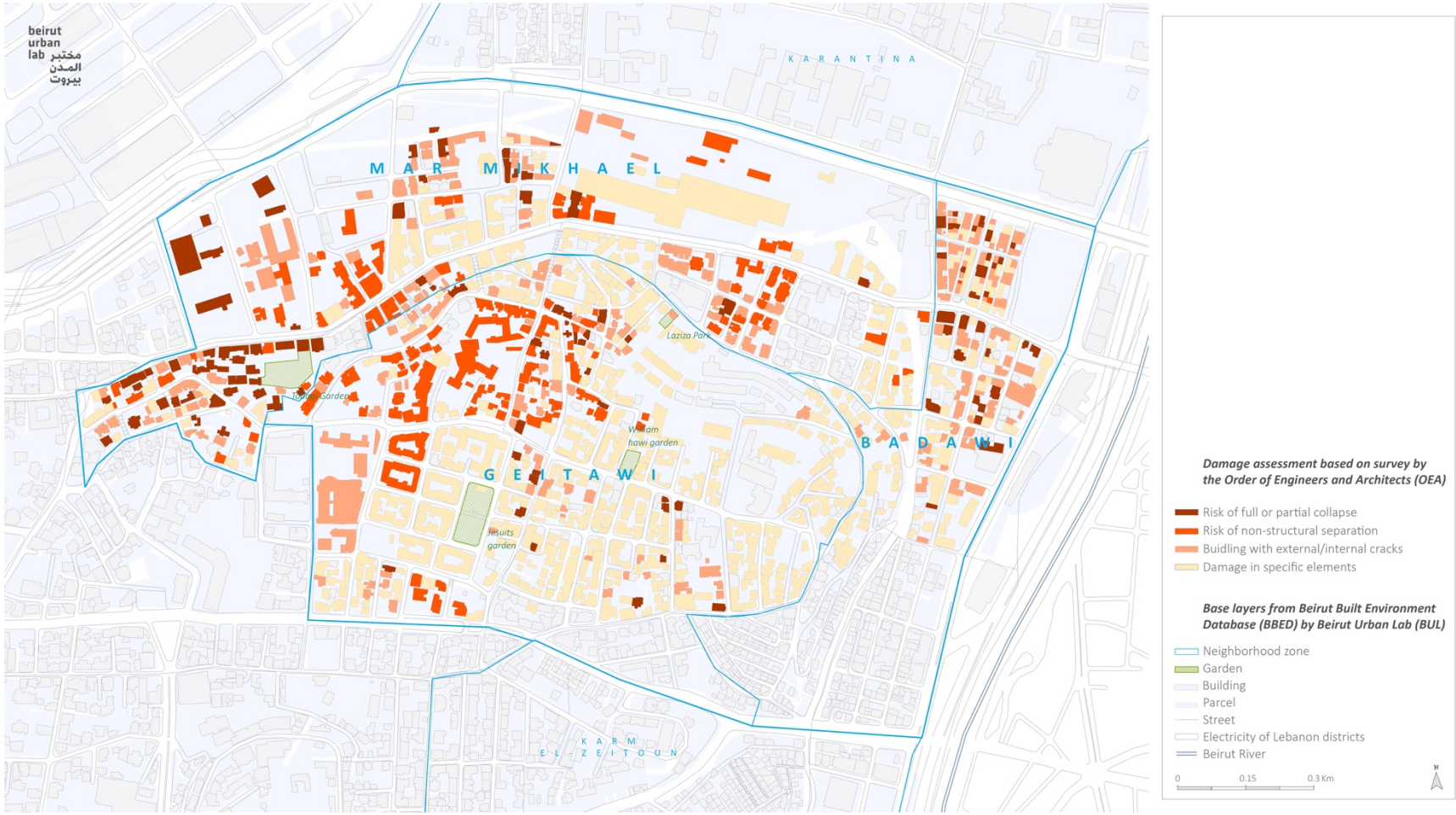
Map 11: *Open spaces in Badawi. Source: Beirut Urban Lab, 2020*



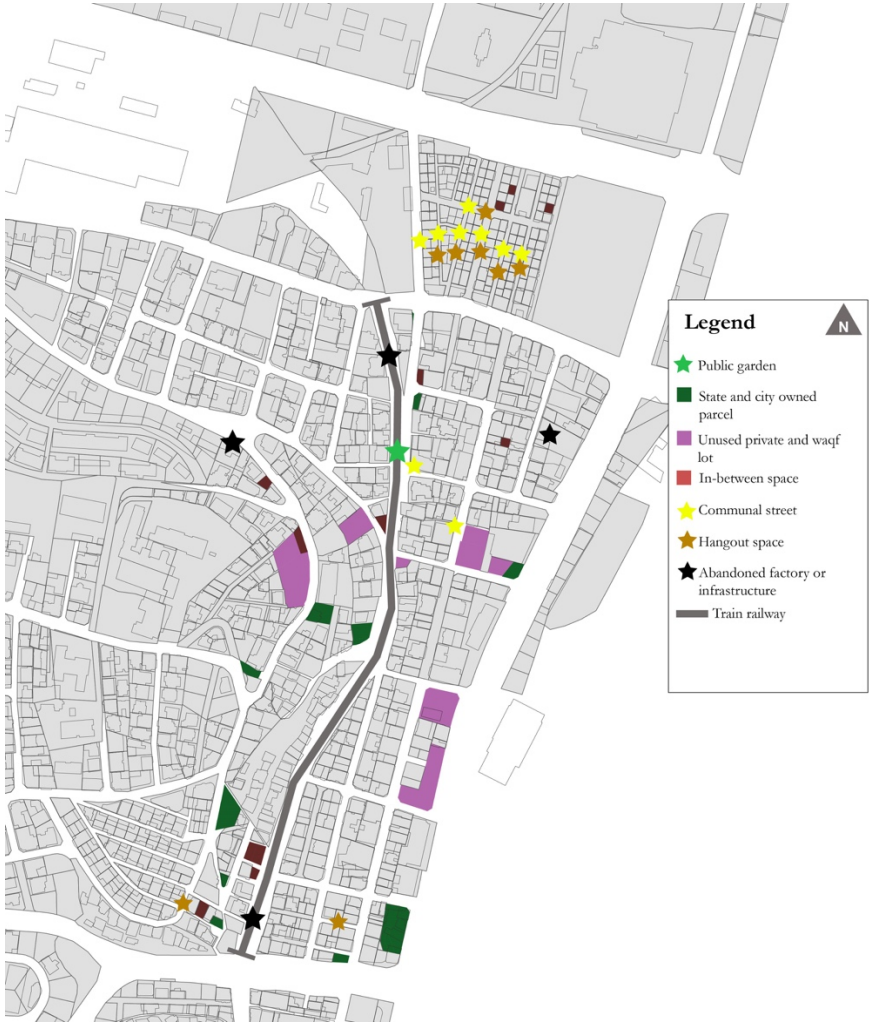
Map 12: *Location of waste collection bins and street-level generators in Badawi. Source: Beirut Urban Lab, 2020 edited by Field Researchers Lynn Hamdar and Fatima Alleik.*



Map 13: *Mapping of the Parties and Dispensary locations in Badawi and Camp Hadjin Area. Source: AUB Planning and Design Workshop, Group C, Badawi Neighborhood Analytical Report, 2017.*



Map 14: *Damage assessment in Badawi based on survey by OEA. Source: Beirut Urban Lab, 2020.*



Map 15: *Sites for communal space interventions in Badawi. Source: Lynn Hamdar and Fatima Alleik, 2020.*

VI. ANNEX B

Table 1: *Actors and their interventions in the recovery response as of November 2020. Source: Lynn Hamdar and Fatima Alleik, 2020.*

Actor		Intervention			
		Shelter	Cash Assistance	Other	Zones[65]
Public	Lebanese Army	Damage assessment of most Buildings and shops	monetary compensation for assessed damages in zones 40,41,42		9, 40, 41, 42
UN Agencies	UNICEF		Cash assistance		9, 40, 41,42
	UNHCR	distribution of weatherproofing kits	Cash assistance 600 USD		9, 40, 41, 42
	UNDP				40
INGOs	LRC		Cash Assistance 300 USD, 600 USD		9, 40, 41, 42
	SCI	Shelter repair (Build Better)			40, 41, 42
	ANERA	Shelter Repair (glass, doors)			40, 41, 42
	NRC	Shelter Repair (glass, doors)			9
	ACTED	Shelter repair (Build Better)			9
	World Vision International			Food, Hygiene Kits	9, 40, 41, 42
	WeWorld				9
	Mercy-USA				9
	MERATH (Middle East Revive and Thrive Lebanon)				9
	ACF				9
	Caritas				9
	AVSI				9
Local NGOs	Nusaned	Shelter repair (glass, doors)			40, 41, 42
	Beb w Shebbak	Shelter repair (glass, doors)			9

[65] Zone delineation according to OCHA.

	AGBU	Shelter repair			9, 40, 41, 42
	Caritas	Shelter repair			9
	New Vision	Shelter repair			41
	Leb Relief				9, 42
	Tabitha			Psychological Assistance	41
	LSESD (Lebanese Society for Educational and Social Development				9, 41, 42
Political Parties	Tashnag		Cash assistance		40, 41, 42
	Hunchak			Food Ration	9, 40, 41, 42
Religious Institutions	Saint Kevork Armenian Church		Cash assistance		9, 40, 41, 42
	Evangelical Church			Activities for children	40