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REVIEW
of the DOCTORAL DISSERTATION of MSc Eng. Arch. Bahaa Bou Kalfouni

entitled

**Transformation of Disadvantaged Neighbourhoods: Urban Design and Architecture
Dimensions of Shaping Liveable, Equitable and Resilient Settlements. The Case of Beirut.**

developed at the Faculty of Architecture of the Gdańsk University of Technology under the supervision of Prof. dr hab. inż. arch. Piotr Lorens, in the discipline of Architecture and Urbanism.

The subject of the review is to assess whether the submitted doctoral thesis meets the requirements of the Act of 20 July 2018 - The Law on Higher Education and Science with subsequent amendments. Having regard to Article 187 of this Act, the evaluation included (1) the theoretical layer of the dissertation; (2) the level of originality in solving the identified research problem; and (3) the thematic coherence of the scientific articles indicated as the doctoral dissertation.

1. Basis for the review

The review was prepared in accordance with the decision of the Scientific Discipline Council of Architecture and Urban Planning of the Gdańsk University of Technology of June 24, 2025 and a letter from the Vice-Dean of the Faculty of Architecture and Urban Planning of the Gdańsk University of Technology dr hab. inż. arch. Karolina Krośnicka, Prof. PG of August 28, 2025.

2. Assessment of the structure of the doctoral dissertation

The dissertation entitled *Transformation of Disadvantaged Neighbourhoods: Urban Design and Architecture Dimensions of Shaping Liveable, Equitable and Resilient Settlements. The Case of Beirut* comprises 111 pages, plus five attached articles, which form a series of articles. The volume also includes the formally required attachments, including a summary of the dissertation in both Polish and English, as per the provisions of the Law on Higher Education and Science.

The dissertation, which is the subject of this analysis and assessment, is a collection of five thematically related articles. The structure of the description of this publication cycle is appropriate. The distinct sections are cohesive, and their order is logical (except for minor issues and some repetitions, as noted below).

The dissertation begins with an introduction, preceded by a personal address, acknowledgements and explanations regarding the volume content. The introductory chapter comprises an explanation of the research objectives, research questions, hypothesis and its grounding assumptions, geographical scope, case studies and finally, the thesis design.

Next, the research background is presented, with particular emphasis on the identified research gaps. In response to the identified goals, the research and data gathering methods are outlined, broken down into desktop analyses and mapping, field research, interviews and surveys, and reference case study analyses. Explanations of the research design to ensure reliability and validity, and enable proper generalisation of the outcomes, complement this chapter. It also addresses potential constraints and issues to consider when conducting field research and interviewing residents. Chapter four summarises the five articles which contribute to the submitted cycle. For each article, the following elements are provided: a list of authors in the order of their contribution, a brief summary, research questions, methods, and concise answers to preceding questions.

In the following chapter, the Author discusses the results and links them to the broader research context. Moreover, he proves the validity of the hypothesis. The following chapter of the dissertation provides a synthesis of the research findings and draws broader lessons for transforming disadvantaged neighbourhoods using context-sensitive design approaches. This is complemented by the content of the subsequent chapter entitled *Potential Limitations and Future Work*, which combines discussion and conclusions and indicates potential future research paths. The reviewer is not entirely convinced about the need to separate this section from the preceding chapter 6. Conclusions. Chapter 8 once again offers the Summary of the dissertation, and the following section (9) gives the references used in the research.

The final part of the dissertation comprises the five articles, which are the core part of the thesis. These are the following documents:

1. Lorens, P., Wojtowicz-Jankowska, D., & Bou Kalfouni, B. (2022). *Redesigning Informal Beirut: Shaping the Sustainable Transformation Strategies*. *Urban Planning*, 7(1), 169–182. <https://doi.org/10.17645/up.v7i1.4776>
2. Wojtowicz-Jankowska, D., & Bou Kalfouni, B. (2020). *Revitalization Project of Slum Transformation: A Case Study Hay-Al Tanak, Beirut, Lebanon*. *Przestrzeń i Forma*, 42, 119–132. <https://doi.org/10.21005/pif.2020.42.c-01>

3. Wojtowicz-Jankowska, D., & Bou Kalfouni, B. (2022). *A Vision of Sustainable Design Concepts for Upgrading Vulnerable Coastal Areas in Light of Climate Change Impacts: A Case Study from Beirut, Lebanon*. *Sustainability*, 14(7), 3986. <https://doi.org/10.3390/su14073986>
4. Bou Kalfouni, B. (2025). *Design for Well-being: From Disadvantaged to Satisfactory Built Environment, Building Places for Vulnerable Communities*. *Open House International*, ahead-of-print. <https://doi.org/10.1108/OHI-12-2024-0394>
5. Kalfouni, B. B., Kronicka, K., & Lorens, P. (2025). *Rethinking Design Priorities Towards Human Scale and Sustaining Culture in Disadvantage Neighbourhoods: A Case Study from Beirut*. *Środowisko Mieszkaniowe / Housing Environment*, 51, 1–29. <https://doi.org/10.2478/he-2025-0012>

The five articles included in the dissertation form a coherent whole. They address complementary facets of transforming disadvantaged neighbourhoods in Beirut. They focus on interconnected topics, covering physical and social improvements in informal neighbourhoods, climate-adaptive design for vulnerable coastal areas, the impact of the built environment on well-being, and the protection of local culture.

Their coherence stems from:

- A shared central objective—enhancing the liveability and resilience of disadvantaged neighbourhoods through integrated urban, architectural, and cultural strategies.
- Overlapping methodologies, such as field observations, interviews, mapping, and community surveys, applied across all papers to yield a common evidential base.
- Thematic continuity, progressing from holistic design strategies and specific interventions (articles I–III), to subjective well-being and local identity (articles IV–V), with findings from one informing the next.

3. Analysis and evaluation of the undertaken problem, objectives, research questions, and research hypothesis

The reviewed dissertation addresses an important research problem that has received little attention: how to support the transformation of disadvantaged neighbourhoods in Greater Beirut through architectural and urban design solutions. The study specifically aims to identify and evaluate physical improvements that can enhance quality of life, resilience, and well-being in these areas while also preserving cultural identity by focusing on the development and implementation of targeted design interventions, rather than relying on generic policy frameworks. The objectives of the dissertation fall within the applied research category. The reviewer suggests that the explicit definitions of cognitive and methodological goals would be helpful too.

In section 1.2, the author defined seven main research questions and eight sub-questions, which cover a broad thematic scope. The number of research questions exceeds that typically found in most PhD dissertations; it may initially seem larger than usual and might indicate a lack of focus.

The reviewer wonders whether the broad scope and interdisciplinary nature of the topic justify this approach. The dissertation addresses the transformation of disadvantaged neighbourhoods in Beirut—a subject encompassing complex, interwoven aspects like physical improvements, socio-

economic realities, environmental resilience, cultural preservation, and community well-being. The broad scope stems from an integrated approach to urban development, which defines challenges, evaluates solutions, and recognises the importance of community-driven, culturally-attuned, and sustainable interventions. Besides, the questions aim to ensure that findings are actionable and adaptable not only within Beirut but for similar urban contexts globally, making the study's insights broadly relevant to practitioners, policymakers, and researchers.

Moreover, the dissertation uses multiple case studies and a paper-based structure, with separate articles focusing on different dimensions and neighbourhoods. Each case study and paper uses a subset of the research questions, which helps distribute the analytical burden and ensures that findings are locally relevant but also potentially generalisable. The doctoral candidate made efforts to present a detailed structure of the publications collected in the volume and to precisely indicate the location of answers to individual research questions within the respective articles.

Furthermore, the reviewer notices some overlaps between the scopes covered by some of the RQs, for example:

- RQ1 and RQ3 - both questions address what should be considered in urban design and architecture. RQ1 focuses on identifying and categorising current interventions and measurements, while RQ3 looks for new dimensions to associate with urban design in Beirut.
- RQ2 and RQ5 - RQ2 deals with applying lessons and strategies, many of which will revolve around sustainability and climate resilience, which is the focus of RQ5.
- RQ4 and RQ6 - both ask about the outcomes of improvements/design interventions. RQ4 is about inclusivity and resilience, while RQ6 focuses specifically on well-being. These could be merged, or at least structured so that well-being is considered a key dimension of inclusivity and resilience.
- RQ3 and RQ5 - both focus on new or additional criteria: RQ3 on new dimensions in general, RQ5 specifically on sustainable design for climate and equity. These could be subsumed under a single umbrella RQ about new criteria.

Sharpening and possibly combining some questions would clarify the unique purpose of each, strengthen analysis, and reduce redundancy. The richness and complexity of the topic justifies some interaction, but explicit boundaries in scope and focus will aid both the reader and the researcher.

Another potential solution would be narrowing the thematic scope and focusing on one of the considered aspects, for example, the interplay of local culture and urban morphology. Focusing on a specific issue allows for in-depth critical analysis and avoids the risk of superficial coverage or overlap that arises when trying to address social, economic, ecological, cultural, and morphological issues all at once. Such a singular focus increases quality and coherence, minimises scope creep, and allows for a compelling narrative grounded in both critical science and practical outcome.

The central hypothesis in the dissertation is: *“The physical improvement of disadvantaged neighbourhoods, guided by context-appropriate architectural and urban design solutions, can drive social, economic, and environmental development by preserving cultural identity, enhancing community well-being, and building resilience to climate challenges”*. It shifts away from generic,

top-down policy approaches toward targeted, context-sensitive design solutions as the driver of liveable, equitable, resilient, and culturally integrated urban environments in disadvantaged areas.

This hypothesis is supported by eight supportive assumptions. Similar to research questions, the reviewer wonders that overlaps in the assumptions could easily enable their consolidations, thus improving overall clarity. For example, assumptions: *Improving the physical environment significantly enhances quality of life for residents of disadvantaged neighbourhoods*; *Architecture and urban design are key tools for transforming degraded built environments into attractive, functional, and inclusive places*; *Place quality has measurable effects on social, economic, environmental, and health outcomes* all three focus on the direct relationship between the form and quality of place and positive outcomes (well-being, inclusivity, resilience). The third is broader, but the first two could reasonably be compressed (design and environment improvement as mechanisms for enhancing place quality). The assumption *Physical transformation can strengthen integration and resilience within the broader urban structure, improving resistance to shocks and long-term sustainability* is both a result of, and a justification for, many of the prior assumptions; it synthesises their desired, system-scale outcome. While the listed assumptions are not strictly repetitive, tighter phrasing and explicit grouping would clarify their unique contributions and make the logical structure more transparent. As they stand, there is beneficial reinforcement but also a risk of redundancy for an academic reader. Streamlining them into a few, more concise claims would clarify the theoretical structure of the dissertation and provide a clearer logical path from intervention to outcome, without losing substantive content.

Nevertheless, the data, cross-case analysis, and triangulation of evidence in the dissertation all strongly support the confirmation of the original hypothesis and validate its core assumptions; this was robustly supported by the case studies and survey data. The synthesis section (*“Discussion and Verification of the Hypothesis”*) and the conclusion chapters explicitly state that key findings from each paper, alongside comparative analysis with international best practices, substantiate the overall research claim. The author acknowledges some limitations in generalisability due to the specificity of case studies and sociopolitical context, but the findings align with and extend major international and regional studies on urban resilience, sustainability, and community-driven transformation. The argument is that, despite contextual differences, these principles are adaptable and beneficial in comparable environments.

4. Analysis and assessment of the correctness of the research methods used

The dissertation employed a comprehensive mixed-methods research approach, predominantly qualitative, with a focus on understanding the physical, spatial, social, and cultural dynamics of disadvantaged neighbourhoods in Beirut. The primary research methods included: case study approach, field study observations with photographic documentation, unstructured interviews, ethnographic methods, surveys, participatory mapping, and SWOT analysis.

The research centred on three main case study areas in Greater Beirut, each representing different types of disadvantaged neighbourhoods. This allowed for in-depth, context-sensitive analysis. Fieldwork included systematic observations of urban and architectural features, social interactions, building types, open spaces, and street use; these observations were documented in field diaries and

photographs. These were complemented by ethnographic methods and unstructured interviews, which became instrumental in capturing complex behaviours, opinions and experiences related to neighbourhood transformations. Moreover, paper-based, self-administered questionnaires were distributed, yielding about 140 valid responses. Collaborative mapping involved both municipality representatives and local residents to define boundaries and core spaces within the neighbourhoods. Furthermore, the author used SWOT analysis to assess local and international reference projects. Multi-source data, including the collaboration with local informants, enabled triangulation and assured the internal validity and reliability of findings. In all, the reviewer assesses the applied methodology positively and commends the engagement of the researchers in collecting the relevant data.

The dissertation methodology explicitly combines community participation at multiple levels, using both architectural and urban strategies to promote resilience, inclusion, and sustainable management. Spatial transformation thus requires an approach that bridges architecture and urban design, allowing interventions to work harmoniously and support long-term enhancements in physical and social conditions within disadvantaged neighbourhoods. While such an approach may be suitable within the context of an applicational pilot project, such as the evaluated one, addressing the broader and more complex scope outlined here would benefit from the collective expertise of a dedicated team of researchers and professionals in future research endeavours. An overly broad scope results in limited depth in analysis, challenges in methodological rigor, and operational difficulties in implementation.

The author himself notes that attempting to address multiple layers, such as social, cultural, economic, architectural, and urban dimensions, can spread resources thin and result in superficial coverage of complex issues instead of providing thorough, actionable insights for each area. Moreover, the text points out that engaging with such a diverse population and set of challenges, especially in disadvantaged neighbourhoods, made it hard to gather data at a scale large enough to be scientifically robust, often due to limited trust, difficult access, and small sample sizes. The breadth of the scope required multidisciplinary engagement and coordination, which is rarely feasible for a single researcher or a small team. This complexity increases the risk of incomplete interventions and hinders meaningful, sustainable change in practice. The author admits that broad scopes make it difficult to formulate clear, targeted recommendations, as the range of variables and stakeholder needs grows, often leaving conclusions too open for practical application. In the case of the Sabra neighbourhood study, these outcomes demonstrate why future work should focus more narrowly or employ larger, multidisciplinary teams to address complex challenges in a comprehensive and effective manner; the reviewer shares this view.

5. Characteristics of the substantive content

When evaluating the substantive content of this dissertation, it is essential to highlight the author's critical engagement with one of the most pressing contemporary global challenges. The reviewer commends the dissertation's approach to the transformation of deprived neighbourhoods; it is both highly relevant and up to date. The presented text has significant cognitive value and comprehensively familiarises the reader with the development of informal housing in Beirut, the

challenges associated with these areas, and possible transformation pathways. The categorisation of potential interventions and relevant and well elaborated. The dissertation provides a detailed, multi-level examination of spatial, social, cultural, and environmental dynamics, which allows for a deep understanding of the challenges and opportunities in informal settlements. By engaging directly with residents, gathering their perspectives, and conducting ethnographic and survey-based research, the study ensures that proposed design and planning interventions respond to actual community needs.

The reviewer also observes certain ambiguities in the use of terminology, which may, to some extent, result from the broad scope of the work undertaken. The dissertation clarifies its deliberate use of the term “*disadvantaged neighbourhoods*” as an umbrella concept that includes what are internationally often called “*slums*” and “*informal settlements*”. The author notes that adopting terminology free from the “*romanticisation*” or stigma of poverty is preferred for advancing scientific discourse and policy effectiveness. The dissertation critically engages with scholarship that challenges the pejorative and oversimplifying use of the term “*slum*,” citing authors like Mike Davis, Alejandro De Castro, and Elliot D. Sclar and referencing the Global Report on Human Settlements “*The Challenge of Slums*.” It reflects on critiques that see “*slums*” as a spatial expression of urban inequality rather than simply a planning or aesthetic problem.

However, in the reviewer’s view, a more up-to-date definition of slums by the United Nations is missing. Moreover, there is a lack of reference to the recent discourse on the topic of informal settlements versus slums. The most recent elaborations of the United Nations on slums and informal settlements focus on the need to transform these areas by 2030 due to the rapid growth in slum populations and their impact on sustainable urban development (UN-Habitat, 2022). The quoted document defines a slum as “*a contiguous settlement where the inhabitants are characterised as having inadequate housing and basic services*”. Recent UN documents emphasise a more nuanced understanding and measurement, focusing on household and settlement-level deprivations: access to water, sanitation, secure tenure, living space, and compliance with local regulations.

Moreover, recent literature and United Nations documents highlight both differences and close relationships between the terms “*slum*” and “*informal settlement*,” which are sometimes used interchangeably but have distinct emphases in contemporary research and policy. “*Slum*” is often considered a static, pejorative label referring specifically to urban areas characterised by high density, poor housing quality, inadequate services, and insecure tenure. The term “*slum*” typically refers to clearly deteriorated city neighbourhoods. “*Informal settlement*” is a broader, more dynamic term focusing on unregulated, unplanned housing processes and noncompliance with planning/building regulations. It encompasses a variety of settlement structures, including those outside urban cores, and implies ongoing adaptation and transformation. All slums are forms of informal settlements, but not all informal settlements are considered slums. There is a move in current UN and academic usage away from the negative connotations of “*slum*,” favouring “*informal settlement*” for its descriptive, process-oriented term, which highlights both vulnerability and agency of residents. In summary, “*slum*” denotes a chronic condition of deprivation in urban spaces, while “*informal settlement*” refers to the broader process of unplanned urban or peri-urban development.

Furthermore, the reviewer notes also that, while in introductory and conceptual sections, the author distinguishes both terms, providing explicit historical and definitional backgrounds from UN and research literature, and noting the sensitive, evolving nature of the debate, in the empirical and descriptive parts of the dissertation—including the discussion of case studies, typologies, and design strategies—the terms “*slums*” and “*informal settlements*” are frequently used as rough synonyms, especially when referencing statistics or generalising about disadvantaged neighbourhoods. Tables, figures, and cited research often present data under one or both terms, and several referenced policy documents and reports also use the categories interchangeably or as overlapping, which is reflected in the dissertation’s language. Even when critical literature is cited to highlight differences, much of the subsequent narrative blurs the lines between the two concepts (e.g., discussing slum upgrading, slum typology, and informal settlement transformation within the same analytic framework). In summary, while the theoretical distinction is acknowledged, the dissertation generally adopts everyday and policy-practice conventions, using “*slums*” and “*informal settlements*” as interchangeable terms in its applied work and analysis.

The broad theme of the dissertation implies a generalised approach towards operational theoretical constructs. Especially the discussion of well-being, while empirically solid, multi-source, and fit for practical design application, is not especially profound in engaging with leading or critical works in well-being theory. The use of the Centres for Disease Control and Prevention (CDC) definition and other practical approaches roots the work in a pragmatic empirical framework. However, it bypasses potential engagement with philosophical or cross-cultural criticism and alternative models. Most engagement with well-being focuses on practical, design-friendly factors (lighting, green space, security, accessibility, noise, comfort) rather than delving into contested academic territory or contextualising the dissertation's approach within major schools of thought. By the same token, the normative framework concerning well-being is insufficiently precise.

Similar shortcomings apply to the concepts of sustainability and resilience, which are also not clearly defined in the entry part of the submitted dissertation. A single textbook definition of sustainable development is not presented at the outset. Nevertheless, the reviewer admits that the author makes the definition and conceptual boundaries of sustainable development clear and explicit through detailed discussion. The explicit definition of resilience - another key concept referred to in the analysed work - is provided in paper 3, particularly in the context of climate adaptation and urban informality.

6. Analysis and evaluation of individual works included in the collection of publications

6.1 Lorens, P., Wojtowicz-Jankowska, D., & Bou Kalfouni, B. (2022). Redesigning Informal Beirut: Shaping the Sustainable Transformation Strategies. *Urban Planning*, 7(1), 169–182. <https://doi.org/10.17645/up.v7i1.4776>

70 MEiN points, JCR - 1,7

Strengths: The research presented in this article draws on a comprehensive analysis of Beirut’s history, geography, migration patterns, and socio-political context, aiming to avoid one-size-fits-all solutions and focusing on tailored strategies for different neighbourhood typologies. It emphasises

the importance of community participation, cultural identity, and resident engagement in the transformation process, supporting more sustainable and resilient outcomes. Moreover, it highlights the critical role of cultural preservation, social cohesion, and community ownership in ensuring long-term success of urban redevelopment in informal settlements. By documenting design interventions that respect and enhance local traditions and narratives, the research supports more inclusive, equitable urban environments. It integrates global best practices with local realities, referencing successful interventions in cities such as Rio de Janeiro, Mumbai, and Nairobi, while adapting strategies to Beirut's unique conditions. In all, the article advances academic debates by challenging technocratic and top-down "Big Ticket" policies, advocating for ethics-driven, context-sensitive, and participatory urban design. The structure of the article is transparent and the language is clear, pleasant to read.

Weaknesses: The research methodology is rigorous as a qualitative, context-driven framework, but is limited regarding quantitative depth, statistical generalisation, and sometimes the practical depth of participatory measures, which may constrain transferability and replicability. Some of the methodology, such as the speculative visions for redesign or strategic recommendations, depend on expert inference and extrapolation from limited precedents rather than experimental or longitudinal study, which inherently carries more subjectivity. The paper notes that participatory approaches are often more surface-level than truly collaborative, which can restrict long-term ownership and effectiveness of the proposed interventions. Finally, the methodology relies heavily on published reports and on precedents from other local interventions with different original contexts, sometimes leading to conclusions based on the presumption of similarity without robust comparative metrics.

6.2 Wojtowicz-Jankowska, D., & Bou Kalfouni, B. (2020). Revitalization Project of Slum Transformation: A Case Study Hay-Al Tanak, Beirut, Lebanon. *Przestrzeń i Forma*, 42, 119–132. <https://doi.org/10.21005/pif.2020.42.c-01>

40 MEiN points, JCR - not classified

Strengths: This article's most valuable qualities are its locally rooted, participatory methodology, contextual adaptation, multi-dimensional sustainability focus, and realistic engagement with the complexities of urban transformation in Beirut—qualities that give it relevance against more conventional, generic, or technocratic treatments in similar literature. It incorporates direct participation from residents, gathering their everyday experiences, needs, and aspirations through interviews and surveys. Such qualitative data grounds all recommendations, making them more realistic and ethically responsible than studies that rely on expert analysis alone. The research proposes phased interventions that address both immediate health, safety, and technical problems (ventilation, sanitation, infrastructure) while keeping long-term goals in sight. The design recommendations include not only technical solutions (building upgrades, green areas, vertical farming) but also cultural and economic ones, such as empowering women, promoting professional education, and preserving traditional practices. This balances physical improvements with social transformation. The article is transparent about methodological limits and the complex interplay between local actors and external agencies, offering a realistic roadmap and acknowledging risks of

exclusion, resistance, and unintended consequences. The article's structure is clear and language accessible.

Weaknesses: The weaknesses of the presented approach reflect the complex realities of urban transformation in informal contexts. Ambitious design and policy recommendations are often difficult to realise on the ground, and the article's participatory aims are limited by practical challenges in research and local partnership. Some architectural proposals are ambitious (overambitious?) and may not suit the deeply rooted social, cultural, or economic structures of Hay-Al Tanak, potentially risking loss of local practices or identity. This is the reason why this interventions should be supported by more in-depth studies related to local culture and morphology. Moreover, while the research emphasises resident engagement, there were practical difficulties in obtaining meaningful local participation. Fear, privacy worries, and mistrust, especially regarding the use of technology and data collection, limited the depth of fieldwork and hampered the validation of findings through advanced analytical tools. The methodology faced issues in mapping and defining boundaries for the study area due to a lack of official mapping and documentation for informal settlements. Reliance on inductive observation and informal interviews means that some findings might not be fully generalisable or scientifically robust. This means that for future research and real-life interventions more intensive mapping activities are required. Finally, proposed spatial upgrades (such as targeted demolition, vertical extension, and new community facilities) might inadvertently contribute to gentrification or displacement if not carefully managed and monitored, which is a risk not fully addressed.

The reviewers is not convinced by the by the sketchy nature of the presented design proposals and by the lack of a separate discussion section presenting the results against other interventions of similar nature. Regarding language, there are some grammar lapses in the article, such as inconsistent verb tense, missing articles, awkward prepositions, non-idiomatic phrasing, and occasional issues with subject-verb agreement. These lapses do not significantly affect comprehension or academic credibility, but careful copyediting could improve fluency and readability

6.3 Wojtowicz-Jankowska, D., & Bou Kalfouni, B. (2022). A Vision of Sustainable Design Concepts for Upgrading Vulnerable Coastal Areas in Light of Climate Change Impacts: A Case Study from Beirut, Lebanon. *Sustainability*, 14(7), 3986. <https://doi.org/10.3390/su14073986>

100 MEiN points, JCR - 4,32 (Q2)

Strengths: The article presents a comprehensive study on strategies to enhance coastal informal settlements in Beirut's southern suburbs, particularly the Al-Ouzai/Jnah area, in response to climate change and urban vulnerability. It applies two main research methods: a literature review and document analysis, and fieldwork in Al-Ouzai/Jnah, including interviews, observations, and further complemented by a SWOT analysis. The article proposes a model for climate-resilient coastal development, balancing ecological sustainability with the needs of urban poor communities in Lebanon and similar contexts worldwide. The paper develops a three-tiered speculative visions (research design strategy)—spanning landscape, architectural, and urban dimensions—that emphasises ecological functionality alongside human well-being. It introduces design concepts,

such as green rooftops, biodiversity corridors, and shaded street networks, which simultaneously reduce vulnerability and improve urban liveability. The article's strengths lie in its collaborative, contextual, and solution-oriented approach, combining academic rigor with practical applicability. The structure of the article is well-defined and its language is academically clear, formal, and functionally competent.

Weaknesses: The article's weaknesses lie in empirical incompleteness and implementation feasibility. While its speculative, design-based methodology offers insightful directions for climate-resilient urban transformation and might serve as a beginning of the discussion on this topic, the lack of quantitative backing, policy integration, and economic grounding constrains its potential direct application in practice. The analysis relies heavily on qualitative observations, grey literature, and interviews, which limits the empirical rigor and replicability of its conclusions. The field visit and unstructured interviews (only 14 participants) provide valuable local insight but do not capture the full social diversity or power dynamics of the settlement. The small, non-representative sample introduces bias and subjectivity. Although speculative design is used to creatively envision future scenarios, it lacks empirical validation. The proposed interventions—such as flood defence walls, dune restoration, or façade redesign—remain conceptual renderings rather than tested strategies. This limits their immediate applicability to real-life policy-making or engineering implementation. The paper does not refer to economic feasibility, maintenance requirements, or institutional capacity to implement its design scenarios. Due to the scarcity of environmental monitoring in the study area, the analysis draws on regional climate projections rather than site-specific data. This may oversimplify the micro-climatic and hydrological factors affecting the Al-Ouzai/Jnah coast. The use of six reference projects (international and local) provides comparative value, yet several differ in scale, climate, and socio-political context from Beirut's informal coastal zones. This creates context mismatch, risking partial transferability of solutions. Regarding language, there are some stylistic and technical inconsistencies typical for non-native academic writing.

6.4 Bou Kalfouni, B. (2025). Design for Well-being: From Disadvantaged to Satisfactory Built Environment, Building Places for Vulnerable Communities. Open House International, ahead-of-print. <https://doi.org/10.1108/OHI-12-2024-0394>

40 MEiN points, JCR - 1.6

Strengths: The study reveals how design interventions—from lighting and ventilation to shared courtyards and façade renewal—can elevate residents' psychological, social, and physical well-being. The article defines well-being as a holistic state of human flourishing, a kind of synthesis of physical satisfaction, emotional balance and social belonging. It presumes that architecture and urban design play a pivotal role in stimulating this balance through multisensory, inclusive, and culturally rooted environments. A major strength is its context sensitivity. The paper grounds its discussion in vulnerable areas such as Sabra and Shatila (Beirut) and compares them with international examples from Egypt, India, South Africa, and Palestine. The study combines multiple qualitative methods—including ethnographic observation, participatory mapping, and resident surveys—to analyse how people experience degraded environments. It emphasises community-driven processes, treating residents' emotions and perceptions as essential design data. This

participatory ethic reinforces the relevance of its conclusions. The paper suggests implementable design actions and frameworks for urban renewal; these pragmatic insights make the work actionable.

The article's structure is well-defined. Regarding the article's language, the writing communicates sophisticated, multi-layered ideas in a way that is accessible and relevant to an international audience. The reviewer commends the depiction of outdoor life in Sabra neighbourhood (subsection 4.3); it is extremely well-written, even compelling.

Weaknesses: The study tackles well-being from multiple angles—psychological, biological, social, spatial, and cultural—integrating a wide range of design factors such as geometry, material, light, texture, colour, community perception, and ethical responsibility. This holistic breadth is intended to capture the full complexity of well-being in disadvantaged neighbourhoods but this broadness also implies limitations. The conceptual scope limits the depth of analysis for any single factor, diluting focus on the most critical elements for specific communities. The broad approach, while inclusive, risks making the recommendations less actionable and harder for practitioners or policymakers to directly implement without further site-specific refinement or quantifiable priorities. The wide-ranging framework makes it difficult to isolate which specific design interventions most influence well-being, as so many variables are considered together - this might raise issues if trying to monitor the results. Also, a more systematic review of the origins and development of the concept of well-being is missing - this has always been a driving force for designers but its understanding and normative framework changed dramatically.

Next, the study faced challenges gathering data due to limited support from local authorities and community wariness of outsiders. Issues like lack of official maps, security concerns, and resident reluctance to share information created potential gaps and limited the scope of observation. Another issue is the implementation of design interventions adapted to each neighbourhood's unique social and cultural context. However, the examples from places like Cairo, and India may not be directly transferable, and the paper acknowledges that solutions must be carefully contextualised rather than universally applied. The discussion of the presented reference case studies is missing, which makes difficult the understanding of reasons of their selection and it is not obvious how these examples might be relevant for the examined case study.

Moreover, questions remain about how advanced technologies (such as virtual reality, wearable biosensors, EEG) could map residents' emotional and physiological responses to space; the paper identifies this as a future research need but this threat is only loosely related to the presented research and might not fit considering the local lack of trust and attitude towards high tech solutions. In all, in this reviewer opinion the research would benefit from the narrowing of the perspective and increased focus on local culture and morphological conditions.

Regarding the structure, the conclusions should be separated from the discussion part. Regarding the language, there are occasional grammatical and syntactic errors, such as missing articles or repetitive phrasing. Some sentences are lengthy and layered, and there is redundancy in certain expressions, especially in the linking of design solutions and well-being outcomes. Moreover, the language sometimes borrows heavily from technical phrasing.

6.5 Kalfouni, B. B., Kronicka, K., & Lorens, P. (2025). Rethinking Design Priorities Towards Human Scale and Sustaining Culture in Disadvantage Neighbourhoods: A Case Study from Beirut. *Środowisko Mieszkaniowe / Housing Environment*, 51, 1–29. <https://doi.org/10.2478/he-2025-0012>

100 MEiN points, JCR - not classified

Strengths: The article uses a combination of qualitative and design-focused research methods to understand and address challenges in disadvantaged communities like Sabra, Beirut. The comprehensive and well-thought methodology relies on participatory paper-based surveys, ethnographic observation, interviews, subjective self-evaluations, and comparative case analyses to gather resident needs and feedback on potential spatial improvements. The focus is on generating context-sensitive recommendations, specifically those addressing architecture, urban design, and eco-friendly strategies, using analytical and participatory tools. The article's strengths lie in its ethical, human-centred approach, its integration of local knowledge, and its clear focus on sustainable, inclusive, and culturally resonant community improvement. The potential interventions are analysed not just for technical or aesthetic merit, but also for their effect on social cohesion, sense of safety, local pride, and feelings of belonging. The study grounds its design solutions in the context, culture, and lived experience of the Sabra neighbourhood. The article is very well-written (both in terms of structure and grammar) and the graphics quality is exceptional.

Weaknesses: Due to limited data and the lack of robust quantitative methodology, suggestions and recommendations remain conceptual without exploring the challenges of practical execution. Moreover, the research is limited to a single disadvantaged neighbourhood in Beirut, which means findings may not represent the full diversity of urban challenges or cultural contexts found in other cities and regions and this limits their potential transferability.

7. The formal aspects of the work and editorial remarks

The dissertation submitted for review was prepared correctly in terms of formal requirements. The footnotes were drawn up consistently using a single style. In the articles added as attachments, the formatting and citation styles were adapted to the publishers' requirements. The figures and tables are clear and diligently prepared. Their titles are properly formulated and sources are provided. Minor editorial shortcomings are indicated in the commentary to individual articles.

Regarding the entry part of the submitted volume, the research strategy outlined in subsection 3.7 lacks clarity, as it primarily describes the approach to conducting unstructured interviews rather than presenting the overall research methodology. Furthermore, Section 3.8 reiterates points about methodology already addressed earlier in the text, resulting in unnecessary repetition.

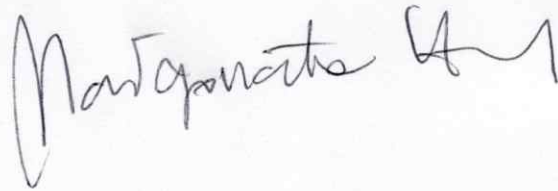
8. Summary and final conclusions

Doctoral dissertation of Mr. MSc Eng. Arch. Bahaa Bou Kalfouni entitled Transformation of Disadvantaged Neighbourhoods: Urban Design and Architecture Dimensions of Shaping Liveable, Equitable and Resilient Settlements. The Case of Beirut, which is the subject of this review, I rate

highly. In my opinion, the entire work is fully consistent with the accepted standards and requirements for the doctoral thesis in engineering and technical sciences, in the discipline of architecture and urban planning.

I believe that the dissertation presented as a series of publications constitutes an original solution to an important research problem which pertains to improving quality of life and strengthening resilience in disadvantaged neighbourhoods by integrating urban planning, architectural innovations, and cultural initiatives. This dissertation meets the requirements of the Act on Higher Education and Science. Therefore, I request that Mr. MSc Eng. Arch. Bahaa Bou Kalfouni be admitted to the subsequent stages of the proceedings for the award of the doctoral degree in engineering and technical sciences, in the discipline of architecture and urban planning..

At the same time, bearing in mind the innovative nature of the conducted research, as well as the innovation and high level of creativity demonstrated in the work and the multi-threaded and exhaustive presentation of a very complex topic, I am convinced that the presented work requires additional appreciation. Hence, due to the exemplary nature of the doctoral thesis of Mr. MSc Eng. Arch. Bahaa Bou Kalfouni, as well as due to the PhD student's scientific achievements so far, including in particular the publication achievements and involvement in scientific work - I recommend that this work be awarded a distinction.

A handwritten signature in dark ink, appearing to read 'Mariam Kalfouni', followed by a stylized flourish or mark.