

Histories of Housing

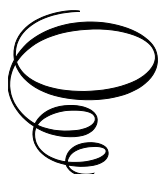
Histories of Housing:

*From Historical Foundations
to Modern Challenges*

Edited by

Ian W. Owen and Silvio Carta

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to Modern Challenges

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CHAPTER 1

BRIAN LINGARD AND THE TRANSFORMATION OF POSTWAR WELSH HOUSING: AN UNTOLD STORY

IAN W. OWEN AND SILVIO CARTA

Introduction

Contextualising Lingard: Postwar Housing in Wales

Wales, with its storied history and rich cultural heritage, has long been celebrated for its medieval castles, such as those in Caernarfon, Conwy, and Harlech. Yet, alongside its historic landmarks and modern structures like The Senedd, an equally compelling narrative often goes untold: the transformative impact of mid-20th-century development on the nation's urban and semi-urban landscapes. This period, marked by profound societal shifts and the drive to modernise, was driven by evolving political, economic and societal needs.

Following the Second World War, the United Kingdom faced a severe housing crisis driven by extensive war damage, population growth and widespread substandard living conditions. In response, the Labour government's 1945 manifesto introduced the "Homes for All" policy, a cornerstone of post-war reconstruction efforts (Labour Party, 1945). This initiative empowered local authorities to undertake extensive subsidised council housebuilding programs to meet the urgent demand for housing (Morgan, 1987, 346). The policy prioritised affordable, high-quality homes for the working class, addressing the acute housing shortage while seeking to improve living standards (Holland & Holder, 2019, 16). The impact of this policy was especially pronounced in Wales, where housing needs were particularly acute. Between 1945 and 1959, an impressive 120,000 council houses were built in Wales (Anon, 2019, u.p.), representing a transformative effort to provide adequate housing for its population.

However, despite these national efforts, social housing in Wales up until the 1960s lacked a distinct identity and remained heavily influenced by English policies. As Harmer and Runnett (2000, 200) observe:

"there was little that was distinctly Welsh about either the nature or the administration of social housing in Wales up until the 1960s. In many respects Wales was in housing policy terms merely an adjunct to England."

At the same time, the post-war period in Wales saw a re-evaluation of national identity and a renewed emphasis on the Welsh landscape and rural character in planning thought. While new housing developments addressed contemporary challenges with innovative solutions, they also drew on earlier ideas that framed Wales as fundamentally rural. As Judith Alfrey (2008, 82) explains:

"Much of the best practice in the early post-war period took these ideas forward, scaling up the garden village idea to meet the larger scale of demand. In the immediate post-war period, urban and rural developments had much in common, for all their stylistic differences, since both drew on picturesque ideas, particularly those regarding the Welsh landscape. One of the most powerful ideas was that of the hill village, which was refreshed and adapted for both rural and urban contexts."

This renewed focus on the rural landscape and traditional concepts highlighted the inherent complexities of modernising Wales while safeguarding its unique environmental and cultural heritage. Acknowledging these challenges, the government in 1951 recognised the difficulty of balancing modern development with Wales's extraordinary natural beauty. This recognition underscores the ongoing tension between the urgent need for modern housing and the commitment to preserving the landscapes that are central to Wales's identity. Architects and planners faced the delicate task of designing contemporary housing solutions that harmonised with the natural beauty deeply bound with Welsh heritage.

The post-war period marked a time of significant social and economic transformation across Wales, driven by a commitment to modernisation and improved living conditions. Public policies such as the Housing Act of 1949, which subsidised council housebuilding and the Town and Country Planning Act of 1947, which laid the groundwork for controlled urban and rural development, played pivotal roles in this process. The New Towns Act of 1946 shaped the integration of modern housing into Wales's semi-urban spaces, while the Housing Act of 1957 spurred slum clearance and redevelopment efforts. During this era, public housing emerged as a symbol of progress and resilience, reflecting the nation's dedication to rebuilding communities and

enhancing living standards (Malpass 2005, 5). Despite their significance, these achievements remain underexplored in academic discourse, limiting a fuller appreciation of their transformative impact.

While many post-war buildings in Wales still retain a contemporary appearance, they now approach the 70-year mark, revealing the urgent need for preservation efforts. Out of roughly 30,000 such buildings, only 79 have been officially listed for protection (Holland & Holder, 2019, 3). Notably, none of these include public housing developments, despite their pioneering contributions to architectural innovation. Jonathan Vining, an expert in post-war Welsh architecture, has emphasised that further examples from this period urgently need to be considered for listing, particularly those from the first decade after the war and especially public housing schemes, given their groundbreaking design and social significance (Vining, 2016, 12). At the time, these projects received numerous accolades, including RIBA Awards, Good Housing Awards from the Ministry of Housing, Civic Trust Awards, Welsh Office Housing Medals, and Gold Medals for Architecture at the National Eisteddfod of Wales. This neglect is particularly acute, as buildings that once epitomised post-war optimism and modernity now face the risk of demolition or significant alteration. Key structures have already been lost, including Gwent County Hall, Bettws High School in Newport, the Brynmawr Rubber Factory by Architects' Co-Partnership (despite its Grade II listing), the brutalist County Offices in Flintshire, and arguably the finest post-war building in Wales, the BBC's Broadcasting House in Cardiff. Moreover, entire categories of public buildings, such as libraries, schools and social housing, are under imminent threat, with dwindling government support hastening their potential disappearance. Jonathan Vining observes (2016, 13):

"Perhaps one of the difficulties with the listing of later twentieth-century buildings in Wales is that the perception of the value of modern architecture is not widespread. Maybe it is thought that a greater degree of justification is needed to define the significance to the nation than a building of an earlier period? If so, this would suggest that there is a need to promote our post-war heritage, but little has been done in Wales in this regard."

The loss of post-war architectural heritage threatens not only the preservation of buildings but also a deeper understanding of Welsh identity. Architecture in Wales has long mirrored the nation's cultural and regional diversity, with the post-war era standing out as a particularly significant chapter. During this time, Welsh buildings adopted distinct forms and arrangements, shaped by the country's unique history and landscape, setting them apart from the architectural styles of neighbouring England (Hilling, 2018,

5). Unlike in England, where high-rise flats became a defining feature of post-war housing, very few such developments were constructed in Wales (Stephens and Williams, 2016, 21). This reflects not only the country's rural character but also its cultural priorities. As Glendinning and Muthe-sius (1994, 3) observe, the Welsh nation's cultural identity has traditionally been held to reside chiefly "in the spoken word rather than in three-dimensional objects." This may explain why physical structures historically played a less prominent role in expressions of national identity. Such a context underscores the challenges faced by Welsh architects in creating designs that balanced modern needs with the preservation of cultural and natural heritage.

Welsh architecture from this era is typically characterised by smaller and more straightforward designs—a reflection not of aesthetic limitation but of the resilience and practicality dictated by the country's economic and historical challenges (Hilling, 2018, 6). Unlike the sweeping urban transformations seen in England, Wales adopted a cautious approach to modernisation, prioritising the integration of new structures into existing built environments and landscapes (Phipps, 2021, 7). This approach echoes the ethos behind a 1966 housing design competition initiated by the Welsh Office and RIBA, which sought to address user satisfaction while encouraging design that harmonised with the local context. As the competition guidelines stated:

"It is to be hoped that they also considered those elusive qualities which make a building look indigenous." (Anon, 1967, 56-57)

The introduction of modernist aesthetics through mass-produced housing sparked debates about national identity and its visual expression in the Welsh landscape. Repetition and scalability, as exemplified by developments like the Duffryn estate in Newport and Queen's Park Estate in Wrexham, raised critical questions about how modern designs interact with natural settings. These discussions highlight not only aesthetic preferences but also a broader dialogue on balancing modernity with the preservation of Wales's traditional environment, underscoring the complex relationship between identity and architectural expression. In this context, regional architect Brian Lingard (1932–) managed these challenges. Though less widely recognised, largely undocumented and underappreciated compared to some of his contemporaries, Lingard's work in post-war public housing in North Wales stands as a testament to his ability to harmonise modernist principles, reflect the socio-cultural shifts of the period and maintain a sensitivity to local Welsh identity. This chapter, therefore, aims to shed light on Lingard's contributions, addressing the gaps in ap-

preciation and advocacy that Vining identifies, and explores how Brian Lingard's public housing schemes in North Wales reflect socio-spatial and architectural principles while responding to the historical, geographical and policy contexts of the post-war era, as well as how they contribute to a distinctive architectural identity.

Through a structured, comparative analysis of Lingard's projects, this study adapts Anirban Adhya and Philip Plowright's socio-spatial principles from *Urban Design Made by Humans* (2022). As such, understanding the context in which Lingard operated is crucial to appreciating the significance of his contributions. The following section outlines the methodology employed in the study and presents two detailed analyses of Lingard's key projects and conclude with a discussion of his impact on the architectural identity of North Wales. By highlighting Lingard's work, this study aims to fill a significant gap in architectural history and contribute to the discourse on post-war Welsh architecture.

Methodology

This study adopts a case study methodology, focusing on a series of public housing projects designed by Brian Lingard in North Wales. This approach is particularly suited to architectural analysis, enabling detailed examination of specific examples that may be overlooked in broader studies. The selection of case studies was guided by criteria such as year of construction, scale, urban or rural context and housing typology (e.g., terraced, semi-detached, flats). These criteria aimed to capture a range of spatial and societal responses, reflecting Lingard's design philosophy. Initially, nine case studies were reviewed to develop a comprehensive understanding of Lingard's work. To allow for deeper exploration, this chapter focuses on two representative examples chosen for their notable demonstration of Lingard's work and their ability to highlight broader architectural and societal trends.

The theoretical framework for this study is drawn from Adhya and Plowright's (2022) "Socio-Spatial Ideas," which emphasises the significance of the spaces between buildings—the "voids"—as critical areas where social interactions and relationships occur. They argue that:

"Our lives are spent in the space between these objects, and it is in these voids that we build our relationships with other people. Many of these relationships are spatialised, which situate human social values and relations within a particular configuration of the environment" (Adhya and Plowright, 2022, 127).

This perspective aligns closely with Lingard’s focus on fostering community and social integration through his housing designs. By examining abstract social concepts such as organisation, belonging and accessibility, Adhya and Plowright’s framework provides a structured approach to understanding how public spaces contribute to social cohesion. Its application involved analysing each case study through specific socio-spatial categories, including Accessibility, Activation, Coherence, Control, Locality, Presence, Publicness, Resilience, Sensibility, Separation, Stability, Typology and Use. The nine housing schemes were evaluated against these principles through a detailed analysis of architectural design, urban planning and spatial relationships. Primary data sources—including documentation, archival research and physical site observations—supported a comprehensive interpretation of design features, spatial arrangements and their alignment with socio-spatial values.

A scoring system was developed to quantitatively assess the alignment of each project with the socio-spatial principles. Each principle was rated on a scale from 1 to 5, reflecting the extent to which the case study embodied that attribute. This scoring system served several key purposes. Firstly, it enabled systematic comparisons across the case studies, helping to identify patterns and trends in Lingard’s designs. Secondly, it provided a quantitative measure of his adherence to the socio-spatial principles, offering a basis to evaluate his work. Importantly, the scores were not viewed as definitive conclusions but rather as tools to guide deeper interpretive analysis. While the scoring system adds rigour to the comparative analysis, the study’s qualitative emphasis remains paramount, with detailed descriptive and interpretive commentary on each case study foregrounded.

Table 1-1 Quantitative Assessment of Socio-Spatial Integration.

1. Minimal Integration: The principle is scarcely addressed in the design.
2. Limited Integration: The principle is present but not effectively utilised.
3. Moderate Integration: The principle is adequately incorporated with room for improvement.
4. Strong Integration: The principle is well represented and contributes significantly to the design.
5. Exemplary Integration: The principle is thoroughly and innovatively integrated, serving as a defining feature of the project.

Scores were assigned based on qualitative analysis of the design features, spatial arrangements and their effectiveness in embodying each principle. Examples of the assessment criteria include:

Table 1-2 Evaluation Criteria for Design Principles in Housing Projects. For brevity, not all principles are detailed here, but each was assessed using similarly specific criteria.

Accessibility: Evaluated by how easily residents and visitors can access the site and move within it, considering factors like pathways, entrances, and connections to the surrounding area.
Activation: Assessed by the presence of features that encourage use and social interaction, such as communal spaces and amenities.
Locality: Determined by the project's sensitivity to its geographical and cultural context, including the use of local materials and harmony with the surrounding environment.
Publicness: Measured by the availability and quality of public spaces that invite community engagement.

For each case study, design elements were evaluated against the established socio-spatial criteria through a systematic process:

- **Data Collection:** Architectural drawings, photographs and site observations served as the primary sources for evaluation.
- **Assessment Process:** Each socio-spatial principle was assessed within the context of the project's specific goals and constraints. For instance, when evaluating Accessibility for the Tan-Y-Mur project, the design of entrances, pathways, and provisions for elderly residents' mobility needs were closely examined.
- **Score Justification:** Tan-Y-Mur received a score of 4 out of 5 for Accessibility, reflecting a strong integration of accessible design features. However, minor areas for improvement prevented a perfect score.

This combined approach—qualitative case study analysis complemented by a comparative scoring system—provides a robust methodological framework. It offers insights into Lingard's work and establishes a replicable method for analysing architectural design principles in public housing. This methodology has potential applications in broader architectural studies, contributing to historical understanding and contemporary design practices. Moreover, the research underscores the symbiotic relationship between design and its societal context, illustrating how socio-spatial principles can enhance community well-being and architectural relevance.

Addressing Potential Limitations

While every effort was made to ensure objectivity, the evaluation and scoring were conducted solely by the researchers, introducing potential for subjective bias. To mitigate this, the criteria for socio-spatial principles were clearly defined and applied consistently across all case studies. Multiple data sources—architectural drawings, photographs, archival documents, and site observations—were used to triangulate findings, enhancing reliability. Reflective practice also played a role, with the researcher critically assessing personal assumptions and interpretations throughout the study. It is important to acknowledge that renovations or alterations to the buildings over time may have influenced the assessment of their original design features. Should this project advance and a more in-depth analysis of Lingard’s work be undertaken, a wider range of participants—such as architects, planners, residents, and other stakeholders—would be invited to review each case study. Incorporating these varied perspectives would enhance the diversity of insights, minimize researcher bias, and improve the overall rigor of the findings.

Analysis

Case Study 1: Tan-Y-Mur

Completed in 1963, Tan-Y-Mur (House of the Walls) is a two-storey block of flats for the elderly, located in the royal town of Caernarfon. Commissioned by Caernarfon Council, the project was developed in response to the 1961 Housing Act, which offered subsidies to local authorities for constructing housing tailored to different population segments, including the elderly (UK Government, 1961). As one of the first projects in Wales to utilise this provision, Tan-Y-Mur aimed to enhance the quality of life for older residents by creating a secure and comfortable living environment (Lingard, 2009, 1-6). The site, spanning just over a third of an acre, was historically significant and highly sensitive. Situated within and adjacent to Caernarfon's 14th-century town walls, it incorporated derelict cottages and outbuildings and directly opposite stood the ancient church of St. Mary, notable for using the corner of the town walls as two of its external walls. Access to the harbour from Church Street was provided by an arched opening in the town wall, further highlighting the site’s historical importance.

The evaluation of Tan-Y-Mur using the socio-spatial framework is summarised in Table 1.3 below, along with its performance across the selected principles.

Evaluation Using Socio-Spatial Principles

Table 1-3 Evaluation of Tan-Y-Mur using Socio-Spatial Principles.

Case Study	Socio-Spatial Principles						
Tan Y Mur	Accessibility	Activation	Coherence	Control	Locality	Presence	Publicness
	4.5/5	4.5/5	3/5	3/5	5/5	4.5/5	4/5
	Resilience	Sensibility	Separation	Stability	Typology	Use	
	3/5	4.5/5	4.5/5	3/5	5/5	4/5	

Accessibility and Publicness: The "Z" shape configuration of the building reflects a thoughtful design choice to enhance accessibility while maintaining privacy. The layout steps back from the street to create a small linear square, providing a welcoming space for both residents and the public. Green spaces soften the building’s façade, encourage pedestrian interaction, and integrate the structure into the urban landscape. The inclusion of benches further enhances the space, encouraging restful moments, whilst encouraging social interaction among residents and visitors. These features contribute to its score of 4/5 for both Accessibility and Publicness.

Locality and Presence: Tan-Y-Mur’s design demonstrates a sensitivity to its historical and cultural context. The use of reclaimed stone—sourced from Edward I’s town walls and the nearby Roman Segontium—along with the building’s alignment to existing structures and its carefully considered height, ensures a harmonious integration with its surroundings, including the 14th-century town walls and St. Mary’s Church.¹ By thoughtfully aligning the building’s form with its historic setting, Lingard created a development that actively engages in a meaningful dialogue with the past (Figure 1.1). Its thoughtful design earned it a 5/5 for Locality and 4/5 for Presence.

¹ Segontium, known in Old Welsh as Cair Segeint, is a Roman fort located on the outskirts of Caernarfon in Gwynedd, North Wales.

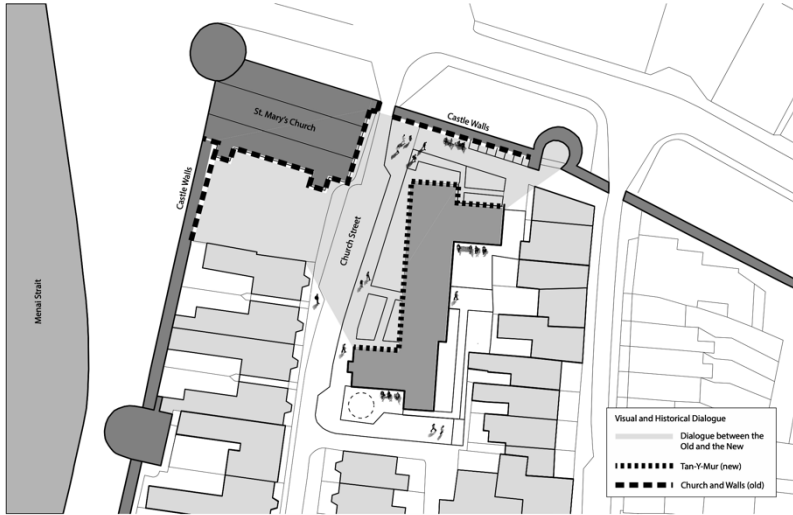


Fig. 1-1 Locality and Presence. Credit: Authors.



Fig. 1-2 Separation, Sensibility and Activation. Credit: Authors.

Separation and Sensibility: A low stone boundary wall subtly delineates the public and private spaces around most of the site, balancing inclusivity with the elderly residents' need for a clear boundary. This thoughtful design allows for a sense of openness while safeguarding personal privacy. Each flat includes a balcony, with designs ranging from cantilevered, Bauhaus-inspired styles to enclosed forms where the balcony above serves as a roof. These balconies provide residents with semi-private outdoor spaces, enhancing their connection to the environment. At the rear, private green spaces create a restful setting, offering a balance between opportunities for public interaction and personal respite. Collectively, these design features contributed to scores of 4/5 for both Separation and Sensibility.



Fig. 1-3 Tan-Y-Mur, Caernarfon (1963). Source: Brian Lingard.

Activation: By forming a linear green square across the building, the design activates the street front, creating a focal point for social interaction. The building's setback from the path ensures harmonious integration with the streetscape without overwhelming it. By contrasting with neighboring buildings that extend more assertively to the site line, Lingard's design prioritises openness and context over maximizing the physical footprint. Inspired by the principles of the Seagram Building by Mies van der Rohe, an architect Lingard greatly admired, these thoughtful choices provide

Church Street with a sense of space and reflect Lingard's commitment to fostering social cohesion. This principle earned a score of 4.5/5.

Discussion

Tan-Y-Mur demonstrates how modern development can coexist with and enhance the historical and cultural heritage of a historical Royal town. Lingard's design addressed the dual challenges of modernisation and conservation by integrating reclaimed materials and aligning the building with the medieval context of Caernarfon. The "Homes for All" policy served as a foundation for this approach, emphasising accessibility, inclusivity and community interaction while maintaining harmony with the surrounding urban fabric. The project's success is evident in the recognition it received, including the Ministry of Housing and Local Government Housing Medal for Good Design and a Civic Trust Highly Commended Certificate. These accolades highlight the project's innovative yet sensitive approach to housing design. However, Lingard's work also demonstrates broader themes in post-war Welsh housing—balancing innovation with tradition and responding to evolving social needs, particularly for elderly residents.

Despite its achievements, Tan-Y-Mur raises questions about the long-term challenges of integrating contemporary housing into sensitive historical settings. For instance, has the reliance on reclaimed materials posed maintenance issues? Additionally, while the project was praised for fostering community interaction, how have these spaces adapted to changing social dynamics over time? Further fieldwork and resident interviews could provide deeper insights into the building's enduring impact on the community. Ultimately, Lingard's ability to reconcile modernity with heritage is compelling, offering valuable lessons for contemporary architectural practice. Its design underscores the importance of aligning functional requirements with cultural sensitivity, a principle that remains relevant in housing developments today.

Case Study 2: Mostyn Broadway Estate

The Mostyn Broadway Estate, completed in 1969 in Llandudno, demonstrates a complex and meticulous approach to public housing designed for the elderly. Initially conceived as part of a broader masterplan for the Craig-y-Don area, the project faced unique challenges, including accommodating an existing Christian Church and meeting the stringent require-

ments of the Hanover Housing Association.² The site consists of 55 flats and the project was commissioned by the Hanover Housing Association, a charity established under the 1957 Housing Act to address the urgent need for housing for the elderly across the UK. This sponsorship came with strict design standards, forms and administrative oversight, which often clashed with Lingard’s creative vision. Despite significant obstacles, including repeated tenders and debates over key design elements like flat roofs and glazing, Lingard preserved the integrity of his design with support from the County Planning Officer. The estate’s first 25 flats opened in the autumn of 1969, with a second phase added nearly a decade later in 1978.

The evaluation of Mostyn Broadway Estate using the socio-spatial framework is summarised in Table 1.4 below, along with its performance across the selected principles.

Key Application of Socio-Spatial Principles

Table 1-4 Evaluation of Mostyn Broadway Estate using Socio-Spatial Principles.

Case Study	Socio-Spatial Principles						
Mostyn Broadway Estate	Accessibility	Activation	Coherence	Control	Locality	Presence	Publicness
	4.5/5	4/5	4.5/5	4/5	5/5	4.5/5	5/5
	Resilience	Sensibility	Separation	Stability	Typology	Use	
	4/5	5/5	4.5/5	4.5/5	5/5	5/5	

Accessibility and Publicness: The winding paths and courtyard layout promote accessibility and encourage both casual and interactive movement throughout the site. Lingard’s decision to maintain a setback around the estate (similar to his approach at Tan-Y-Mur), combined with various arched brick pedestrian access points, enhances the welcoming atmosphere of the courtyard. This design choice establishes a transitional buffer between public and private spaces, enabling passive recreation while ensuring a sense of privacy for residents. Notably, Lingard avoided the use of a

² Hanover Housing Association, a British registered social landlord (RSL) and nonprofit exempt charity, was established in 1963. It was named after Hanover Gate, the West Gate of London’s Regent’s Park, where the Association’s initial Board meetings were held. The organization oversaw nearly 19,000 mixed-tenure Retirement and Extra Care properties across more than 600 estates.

physical boundary fence around the site. Instead, the boundaries were defined through thoughtful landscaping, including native shrubs, trees, and planting. This approach reinforced the estate's openness, blending it seamlessly with the surrounding environment while subtly delineating public and private spaces. By forgoing rigid barriers, Lingard created a softer, more inclusive transition that invited engagement with the site while preserving its calm and private character. However, in later years, a steel fence was added around the estate, compromising the original openness and sense of integration with the community. While this intervention may have been introduced to address concerns such as security or privacy, it conflicts with Lingard's original intent to use natural landscaping as a boundary and maintain an inviting, accessible environment. This change reflects the evolving needs of the site but raises questions about how later modifications can alter the socio-spatial dynamics of a space and its interaction with the community.



Fig. 1-4 Accessibility and Publicness. Credit: Authors.

Activation and Use: Each flat is thoughtfully designed to provide access to green spaces and natural elements, either visually through large windows or directly via external balconies. The presence of trees and shrubs throughout the site further enhances its calming and approachable charac-

ter. At the centre of the estate, a large body of water originally served as a focal point for social interaction. Surrounded by seating, it provided a serene environment that encouraged residents to gather, rest, and engage with one another. Figure 1.6 shows residents interacting on benches near the pool, highlighting how the design naturally fostered community connections while offering spaces for relaxation. However, the pool has since been filled in due to maintenance challenges. This alteration represents a notable departure from Lingard's original design, as the water feature not only contributed to the estate's aesthetic appeal but also played a key role in its social activation. Its removal diminishes the vibrancy of the courtyard as a focal point for interaction, raising questions about how the practicalities of long-term maintenance can influence the functionality and character of public spaces over time. Despite this change, the surrounding green spaces and remaining seating areas continue to encourage outdoor activity and interaction, ensuring that the site retains elements of its original intent.

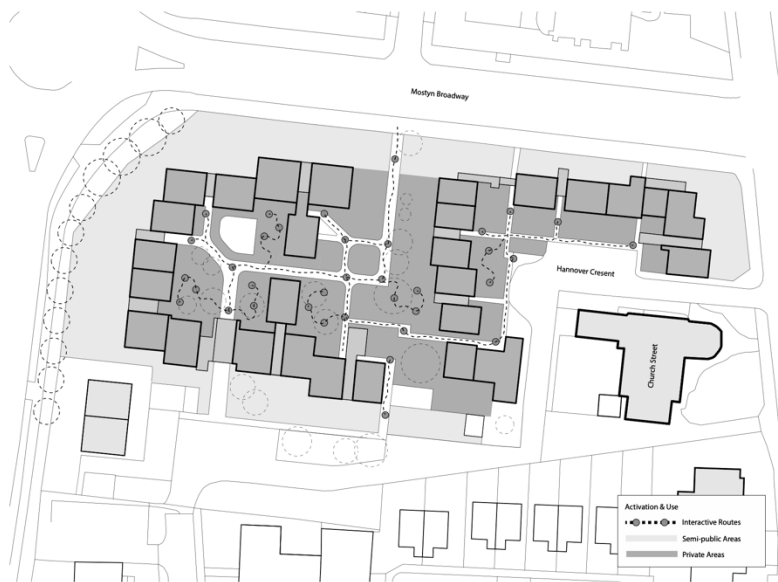


Fig. 1-5 Activation and Use. Credit: Authors.

Coherence and Typology: Lingard's modular approach to typology ensured the estate avoided the monotony often associated with public housing. The staggered buildings, interlocked with staircases, created an active

yet coherent layout that emphasised both independence and community. These staircases, strategically designed to support mobility, were a critical feature for elderly residents navigating the site. Lingard's persistent defence of flat roofs against administrative opposition illustrates his commitment to ensuring the estate's visual identity and overall coherence. This design choice allowed Lingard to establish a consistent and streamlined visual appearance across the estate, reinforcing its identity as a cohesive whole. Functionally, the flat roofs provided critical design flexibility. By avoiding the constraints posed by pitched roofs, Lingard was able to optimise the layout, maximising usable space and accommodating the varied heights and orientations of the modular buildings. This adaptability was particularly significant in addressing the irregular shape of the site and integrating existing features, such as the Christian Church. The resulting design not only enhanced the functionality of individual flats but also improved the overall usability of shared spaces, such as the courtyard, by ensuring unobstructed circulation and clear visual connections.



Fig. 1-6 Mostyn Broadway Estate, Llandudno (1970). Source: Brian Lingard.

Locality and Presence: Despite being situated in the heart of town, the large courtyard at the center of the complex—surrounded by one-story flats—feels private and shielded from external observation. This carefully

crafted sense of enclosure allows residents to enjoy outdoor spaces without feeling exposed, achieving a delicate balance between publicness and personal comfort. The openness of the courtyard is further enhanced by clear skies and occasional views of the Great Orme in the distance, establishing a strong visual and emotional connection to the surrounding landscape.

The estate's proximity to Craig-y-Don shops and the iconic Llandudno promenade strengthens its sense of publicness. These nearby amenities provide practical resources while encouraging residents to remain engaged with the wider community. Lingard's design thoughtfully integrates opportunities for both social interaction and quiet solitude, demonstrating a nuanced understanding of the diverse needs of elderly residents. Additionally, the estate's architectural language, while distinct, complements its surroundings, creating a symbiotic relationship between the built environment and the existing urban context. This confident yet considerate presence highlights Lingard's ability to harmonise modern housing design with the cultural and environmental character of the site.

Discussion

The Mostyn Broadway Estate encapsulates the complex nature of post-war public housing in the UK, highlighting both the opportunities and challenges faced by architects during this transformative period. Designed to meet the specific needs of elderly residents, the estate demonstrates how thoughtful design can transcend the utilitarian constraints of mass housing. Lingard's approach, characterised by modular layouts, flat roofs and courtyards, balanced cost-efficiency with a commitment to creating human-centered spaces. The project's emphasis on accessibility and publicness reflects Lingard's socio-spatial philosophy. The absence of rigid barriers, reliance on natural landscaping and inclusion of communal features like the water pool exemplified a design intent to encourage interaction and community cohesion. However, the removal of the pool and the addition of a steel fence in later years illustrate the practical challenges of maintaining such spaces over time. These changes highlight the tension between preserving architectural intent and addressing evolving needs for security and maintenance.

Despite the successes, the Mostyn Broadway Estate also reflects broader challenges in post-war housing. The use of precast reinforced concrete (PRC) and the prioritisation of rapid construction, while addressing immediate housing shortages, raised questions about long-term durability and energy efficiency. Lingard's response to these challenges, such as his defence of flat roofs and modular designs, showcases his ability to adapt within a constrained architectural framework. Ultimately, the Mostyn

Broadway Estate demonstrates Lingard's ability to balance innovation with practicality, creating spaces that prioritise both social and physical well-being. While subsequent changes have altered the estate's original socio-spatial dynamics, its core design principles continue to offer valuable lessons for contemporary housing developments.

Conclusion: Lingard's Socio-Spatial and Architectural Legacy

Brian Lingard's public housing projects in post-war North Wales epitomize the integration of socio-spatial and architectural principles within a complex historical and cultural landscape. Lingard's designs go beyond functional housing to create vibrant, community-oriented environments that respect the unique identity of Wales while addressing the broader societal needs of the post-war era. Lingard's work must be contextualised alongside contemporaries such as Clough Williams-Ellis, Sidney Colwyn Foulkes, Sir Percy Thomas and Graham Brooks, who shaped a distinct Welsh architectural identity during this transformative period. His contributions reflected the broader objectives of the "Homes for All" policy, emphasising community cohesion, quality of life, and designs that harmonized with local contexts. As Holland and Holder (2019, 14) note,

"[these architects] brought their experience... to bear on the problems of working-class housing and its associated planning problems in Wales."

Lingard's sensitivity to local contexts and his ability to merge modernist principles with Welsh traditions were instrumental in translating these broader goals into tangible architectural outcomes. Alongside the two case studies above, another notable example of this integration is Lingard's 1974 project at Is-Craig in Tremadog, where seventy-four houses and eighteen flats were designed to harmonize with the historic townscape. As Holland and Holder (2019, 27) describe, the project sought:

"to fit within the existing townscape, demonstrating a thoughtful integration of new development within a historic setting."

This approach reflects the adaptation of the "hill village" concept, echoing Alfrey's observations on the centrality of the Welsh landscape in post-war housing design. Similarly, projects like the Mostyn Broadway Estate in Llandudno and Tan-Y-Mur in Caernarfon demonstrate Lingard's focus on creating spaces that encourage community integration and social interaction through thoughtful layouts, green spaces, and accessibility. Lingard's

contributions to housing for the elderly further illustrate his nuanced understanding of specific societal needs. At Kennedy Court in Colwyn Bay, for instance, he preserved semi-mature trees to harmonise the design with its surroundings, earning a Civic Trust commendation in 1968. Such projects embody the broader post-war emphasis on inclusivity, well-being and the integration of modernist aesthetics with local traditions. This careful balance underscores Lingard's ability to bridge national housing policy goals with the distinct geographical and cultural contexts of North Wales.

Lingard's architectural vision marked a gradual shift towards a uniquely Welsh approach to public housing, distinguishing it from trends seen in England. By embedding modernist principles within the cultural and environmental framework of Wales, he contributed to the creation of a post-war architectural identity that was both resilient and adaptable. His designs, which reflect sensitivity to the Welsh landscape and a commitment to addressing local needs, deserve recognition alongside Sidney Colwyn Foulkes's Grade II-listed housing such as Cae Bricks in Beaumaris and the Elwy Road Estate in Colwyn Bay. Despite these achievements, Lingard's work remains underappreciated in academic discourse and further fieldwork is essential to assess the current condition of his projects and to evaluate their significance within the broader narrative of Welsh architectural history. This oversight underscores the need for greater recognition of Lingard's contributions and their enduring impact on the architectural and cultural identity of North Wales.

In response to the principal research question, this chapter demonstrates that Lingard's public housing schemes reflect the thoughtful application of socio-spatial and architectural principles while engaging with the historical, geographical, and policy contexts of post-war North Wales. Lingard's designs are more than functional spaces—they are embodiments of Welsh identity, combining innovation with a respect for local history and tradition. By fostering community cohesion, addressing societal needs, and honouring the cultural and environmental context, Lingard's work establishes a distinctive post-war architectural legacy for North Wales that continues to resonate in architectural discourse.

References

- Anon. 1967. "News; Wales – Housing design competition", *The Architects' Journal*.
- Anon. 2019. "The solution to the Welsh housing crisis lies with our councils". Institute of Welsh Affairs. Accessed 15 November 2023.

- https://www.iwa.wales/agenda/2019/10/the-solution-to-the-welsh-housing-crisis-lies-with-our-councils/?utm_source=chatgpt.com
- Alfrey, Judith. 2008. "Themes and Sources for Public Housing in Wales." *Twentieth Century Architecture*, no. 9, Housing the Twentieth Century Nation.
- Bullock, N. 2002. *Building the Post-War World: Modern Architecture and Reconstruction in Britain*. Routledge.
- Cherry, Monica. 2006. *Building Wales/Adeiladu Cymru*. Cardiff University Welsh School of Architecture.
- Davies, J. Maldwyn. 1954. "Post-War Housing in Wrexham." *Journal of the Royal Sanitary Institute* 74, no. 2. 99-156.
<https://doi.org/10.1177/146642405407400206>
- Glendinning, M. and Muthesius, S. 1994. *Tower Block: Postwar Modern Housing in England, Scotland, Wales and Northern Ireland*. New Haven: Yale University Press.
- Harmer, M. and Runnett, S. 2000. The changing role and nature of Welsh social housing. In Smith, R., Stirling, T. and Williams, P. (eds.), *Housing in Wales: The Policy Agenda in an Era of Devolution*, Coventry, Chartered Institute of Housing.
- Hilling, John. 2017. *The Architecture of Wales: From the First to the Twenty-First Century*. University of Wales Press.
- Holland, E. and Holder, J. 2019. "Advice to Inform Post-War Listing n Wales". Cadw.
https://cadw.gov.wales/sites/default/files/2019-06/Cadw%20Post-war%20report%20FINAL%20March%202019_0.pdf
- Fisk, M.J., 2000. "Historical perspectives on housing development." In: R. Smith, T. Stirling, and P. Williams, eds. *Housing in Wales: The Policy Agenda in an Era of Devolution*. Coventry: Chartered Institute of Housing, pp. 18-35.
- Labour Party. 1945. "Let us face the future: A declaration of Labour policy for the consideration of the nation". Accessed 15 November 2023. <http://www.labour-party.org.uk/manifestos/1945/1945-labour-manifesto.shtml>
- Lingard, Brian. 2005. *Special Houses for Special People*. The Cormwell Press Group.
- Lingard, Brian. 2009. *Thrifty Homes for Thrifty People*. The Cormwell Press Group.
- Lingard, Brian. 2009. *All the Rest of the Bricks & Mortar*. The Cormwell Press Group.
- Malpass, Peter. 2005. *Housing and the Welfare State: The Development of Housing Policy in Britain*. Palgrave Macmillan, 2005.

- Morgan, K. O. 1987. *Rebirth of a Nation: A History of Modern Wales 1880-1980*. Oxford: Oxford University Press.
- Phipps, S. 2021. *Brutal Wales: Buildings of the Welsh Brutalist Era*. Tewkesbury: September Publishing.
- Powell, C. (2009). "The Welsh School of Architecture 1920-2008: A History". Cardiff: Welsh School of Architecture, Cardiff University.
- Peate, Iorwerth C. 1987. *The Welsh House*. Gomer Press.
- Plowright, Philip D., and Anirban Adhya. 2022. *Urban Design Made by Humans: A Handbook of Design Ideas*. Routledge.
- Stephenson, Gordon. 1954. "The Wrexham Experiment: The Queen's Park South Estate". *The Town Planning Review* 24, no. 4.
- Stephens, M., Gibb, K., and Williams, P. 2016. *The Future of Social Housing in Wales*. Cardiff: Institute of Welsh Affairs. Accessed 15 November 2023. <https://www.iwa.wales/wp-content/media/2016/04/futsocialhous.pdf>
- UK Government, 1961. *Housing Act 1961*. Accessed 15 November 2023. <https://www.legislation.gov.uk/ukpga/1961/65/enacted#:~:text=An%20Act%20to%20make%20further,orders%20and%20demolition%20orders%2C%20to>
- Vining, J., 2016. "Going Backwards Forwards". *Touchstone: Architecture in Wales Review*. RSAW.

CHAPTER 2

HERITAGE CONSERVATION AND SUSTAINABLE DEVELOPMENT: A CASE STUDY OF THE ADAPTIVE REUSE OF THE BLUE HOUSE CLUSTER IN HANG KONG

HOK NANG TAM

Introduction

The field of heritage conservation, historically shaped by the Euro-American modernist ontology, has been bound up with a Cartesian dualism that separates the material from the immaterial. This dualistic perspective has resulted in two major limitations: First, it prioritises the physical "fabric" of heritage sites over the intangible cultural practices and lives of the communities inhabiting them. Second, this dualism has erected disciplinary boundaries that not only exclude communities from decision-making but also fail to recognise certain lived experiences as valid knowledge. Throughout the 20th century, international conventions like the Venice Charter (1964) and the World Heritage Convention (1972) emphasised the material conditions of historical objects. However, this material-centric focus has been criticised for essentialising heritage (Smith, 2006, 3), marginalising communities (Byrne, 2008, 158), and excluding alternative forms of knowledge (Winter, 2013, 539). As Harrison (2012, 223) aptly observes, communities are often left with little say in the conservation process, hampering the contributions of heritage towards addressing issues of sustainability. This chapter advocates for a move away from this dichotomous approach towards a hybrid model, as Harrison (*ibid.*) suggests, embracing a holistic understanding of heritage that integrates technical, political, environmental and social concerns in a complementary manner. In short, this chapter calls for a shift from an "either/or" to a "both/and" approach to heritage conservation.

The Blue House Cluster, a revitalisation project encompassing a group of three Chinese tenement houses (commonly referred to as Tong Lau) constructed between the 1920s and 1950s in Hong Kong, stands as a testament to such a paradigm shift in heritage conservation. Recognised with the prestigious UNESCO Award of Excellence in Cultural Heritage Conservation in 2017, this project exemplifies a move away from traditional practices that prioritised the mere preservation of physical structures towards a more adaptive and culturally sensitive approach. By safeguarding both the tangible architectural elements and the intangible neighbourhood networks, the chapter argues that Blue House Cluster showcases a path towards achieving social sustainability within urban development.

Despite its accomplishments, the Blue House Cluster project remains the sole instance of such a heritage revitalisation model in Hong Kong. This chapter delves into the reasons behind this by examining the project's adaptive reuse strategy, its impact on achieving sustainable development and local policy context. The central question guiding this research is: How can bottom-up heritage conservation initiatives, like the Blue House Cluster, can cut across the dominant top-down authorised heritage discourse and be factored into the sustainability assessment framework? Exploring this question has significant implications for probing the social and economic impacts of the project in achieving urban sustainability.

By using the UNESCO Thematic Indicators for Culture in the 2030 Agenda, referred to as the Culture 2030 Indicators (UNESCO, 2019), as an evaluative framework, this study aims to explore an evidence-based methodology to measure the significance and relevance of the heritage conservation project on sustainable urbanisation. The major empirical case study of this chapter is the adaptive reuse of a collection of three government-owned tenement buildings in Hong Kong, namely the Blue House, Yellow House, and Orange House. The Blue House and Yellow House were constructed in the 1920s, while the Orange House was built during the 1950s-1960s (Iwk & Partners Conservation, 2011, 6). These buildings were originally erected to meet the growing housing demand resulting from population growth during that period. However, only a handful of these traditional Chinese-styled houses remain in the district today (Yung et al., 2014, 90). Prior to their construction, the site held significant historical value in relation to the urban development of Hong Kong, as it served as one of the settlements where Chinese refugees initially established themselves during the early colonial era and was originally the first hospital for Chinese people in the 1850s (Iwk & Partners Conservation, 2011, 6).



Fig. 2-1 A general view of the Blue House Cluster after the adaptive reuse. Source: public domain.

The case study presents an alternative model of heritage conservation that emphasises an integrated approach, encompassing material continuity, cultural and historic values and community needs. Through the analysis, it posits that urban renewal-induced displacements should not be understood as inevitable but rather as a preventable consequence of prioritising material-based values over community well-being. The study's outcome provides a foundation for future policy recommendations and formulation, highlighting the need for coherent policies regarding the role of heritage conservation in sustainable development.

Methodology

This study uses a case-study approach with a qualitative research method that merges primary and secondary data sources to investigate the implications of Hong Kong's Blue House Cluster revitalisation project on its heritage values. Primary data sources include field observations and archival documents. The secondary sources include journal articles, media reports, and government documents. Recognising the evolving paradigms in heritage and conservation practices, the shift from material-based to value-based and people-centred approaches (Haselberger and Krist, 2022), this