4. Housing and the Shape of the City

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The Paddington Terrace House: An Example of Incrementally Accommodating Change from the House to the City

I. Introduction

As a reaction to the strict functionalism of modern architecture, a number of social housing failures and an increasing awareness of the environmental impact of buildings and architectural conformism, architects and academics at the end of the 20th century took on the issue of how to design housing that could accommodate change over time. "Flexible" housing allows users to readily move or transform spaces at will through a variety of intermediate and permanent alterations. This method was systematized through the open building concept of Habraken et al. (1976) and their "Design for Incremental Change" through the use of moving partitions or more permanent alterations. This approach is best summarized in the concept of support structures and infill (Habraken et al., 1976). Some researchers analyzed existing housing and found that it could be considerably adapted, much built speculatively in the late 19th century, looking for design attributes or spatial advantages of the infill. Others explain how they could be continually inhabited for over a century (Baehr, 1974; McInerny, 1986). Recently, the social, economic and environmental advantages of flexible and adaptable housing have been well documented along with a wide range of case studies (Kendall and Martin, 2001). Yet there is a significant gap in this discourse by documenting a method of incremental change in housing and the full potential of these incremental changes. While the plans come from a variety of sources, these plans were checked against field measurements, planning documents and a literature review at local libraries. A study was conducted over three weeks in 2004 and consisted of doing a thorough check against original documents and maps and a literature review at local libraries. Although the documentation is quite large and not reproducible for this study the database itself is quite large and not reproducible for this study. The database itself is quite large and not reproducible for this study. The majority of the terrace houses were built speculatively. Land speculators would buy property, typically from the ranchers who owned the land after the subdivision of labor as the farmers were selling more lots, they divided their parcels into dimensions as narrow as 3 meters (10 feet) and typically 24-36m (80 to 120ft) in depth. The craftsmen built their own houses out of local sandstone based on 19th century, Georgian, English working class terrace houses of the type documented by Muirhead (1888). These houses had flat, unadorned facades, placed along the sidewalk edge. As the climate of Sydney is radically different than that of England, the English terraced house typology was quickly adapted by adding a balcony and verandah to exterior spaces and the relationship of houses to one another. In most cases, these walls extended past the roof and formed the often-steep topography of Paddington as individual houses were tided or those of a neighboring house, or impeding any transformations needed. The primary additions to the terrace houses occurred in the rear where the original scullery is transformed into a modern kitchen and additional living space. There are three primary types of additions that include (1) extending the full width of the terrace house only on the ground floor with potentially less than the original height, (2) extending both the ground floor and the terrace house but creating a narrow courtyard between the houses, or (3) extending the original house deeper into the rear yard. Numerous methods are available to transform the historic district is made visible with often radically transformed facades on the other side of the street. The four to six-foot depth of the verandahs offers the opportunity to move into space and create a courtyard scheme less viable. Figure 4 highlights how the facade of a typical terrace house can be transformed. This study supports Kelly's assertion that the average lot size of Paddington terrace houses ranges between roughly 35 to 45 ft and the average total area of the building units per lot is generally dependent on the width of the lot in a given area. The average distribution of housing building units calculated per square or 34 dwelling units per hectare (Australian Bureau of Statistics, 2007) for Paddington terrace houses is predominantly in providing housing that supports walking, public transport, commercial enterprise and other social, environmental and economic benefits while maintaining individual ownership of land and buildings (Bennet, 2011).

II. Sources and Methods

Through a detailed survey of the neighborhood using field research, aerial photography, and a variety of resources, this paper documents the developments and transformations of the Paddington terrace houses. The field research in Australia was conducted on a 1000 foot lot in Paddington. The data is documenting over twenty terrace houses, collecting planning documents, and maps, and historical architectural and interior photographs were used to verify additions and transformations throughout the paper.

In order to study a wider range of terrace houses, this paper documents the potentialities of the Paddington terrace houses, which make moveable partitions and transformable agent when a house is sold. This documentation was collected from a range of real estate websites in 2005, 2008 and 2012. The terrace houses were studied and analyzed to see if the dimensions of the terrace houses could be transformed. The results of this study show that the terrace houses were transformed and the houses were built in Paddington between 1870 and 1890 (Kelly, 1978).

The Paddington terrace houses used in this study range from four to six-foot depth of the verandahs, offering a more sustainable and viable alternative to the dense blocks in Paddington that were tered or those of a neighboring house, or impeding any transformations needed. Today, the Paddington terrace houses used in this study range from 2.8m to 6.9m (9 to 22ft) with an average width of 4.3m (14 ft). The distribution of the building units has two distinct peaks at 4.0m (13ft) and 4.4m (14.5ft). These two widths alone make up 40 percent of the houses in the study. It is evident that the majority of the terrace houses in Paddington in is approximately 4.6m (15ft) or a 60-60 foot frontage. The database high of 2.8m to 6.6m (9ft to 22ft) with an average width of 4.3m (14 ft). Over 90 percent of the terrace houses are less than 4.0m (13ft) wide. Due to these narrow widths, the density of terrace houses ranges from roughly 35 to 45 ft and the average total area of the building units per lot is generally dependent on the width of the lot in a given area. The average distribution of housing building units calculated per square or 34 dwelling units per hectare (Australian Bureau of Statistics, 2007) for Paddington terrace houses is predominantly in providing housing that supports walking, public transport, commercial enterprise and other social, environmental and economic benefits while maintaining individual ownership of land and buildings (Bennet, 2011).

III. Paddington Terrace House

The history of the Paddington neighborhood and terrace houses is exemplary of the modern urban neighborhood and its inhabitants. A comprehensive database highlights several key trends with respect to the neighborhood and organization. This approach is best summarized in the concept of support structures and infill (Habraken et al., 1976). The four to six-foot depth of the verandahs offers the opportunity to move into space and create a courtyard scheme less viable. Figure 4 highlights how the facade of a typical terrace house can be transformed. This study supports Kelly's assertion that the average lot size of Paddington terrace houses ranges between roughly 35 to 45 ft and the average total area of the building units per lot is generally dependent on the width of the lot in a given area. The average distribution of housing building units calculated per square or 34 dwelling units per hectare (Australian Bureau of Statistics, 2007) for Paddington terrace houses is predominantly in providing housing that supports walking, public transport, commercial enterprise and other social, environmental and economic benefits while maintaining individual ownership of land and buildings (Bennet, 2011).

Construction

Despite the range of widths discussed in the previous section, the design of each terrace houses is relatively consistent. The facades are in need of remodeling, and that the boundary of the terrace houses, the positions of the original sculleries along one side of the street.
walls. Two neighboring terraces can share the same addition wall creating mirror image plans or use different walls where each house has the same plan and windows from the additions look onto the blank, back side of the neighboring addition wall.

While there are many similarities between the Paddington terrace houses and English workers’ terraced houses from the same period, one key difference was the additions of alleys in Paddington to address sanitation needs. Ranging from 2.5 to 5.5m (8 to 18ft), the alleys now provide automobiles and pedestrians access to the rear of almost every lot. Nearly half of the houses in this study have either a garage or parking spot off an alley. Where garages cannot be added due to topography, many streets are generous enough in width to allow for cars to park perpendicular to the direction of traffic and the alleys themselves provide parking. Currently, only three houses in the study have accessory dwelling units accessed by the alleys, but as the need for housing in Paddington increases the rear portion of the lots offer opportunities to continue accommodating change.

VI. Conclusions

While there will continue to be accidental flexibility and adaptability within housing, we cannot rely on it. The ability to accommodate change must be anticipated, structured and intentionally integrated. Incremental change in housing has the potential to accommodate unforeseen shifts in demographics, new technologies and different lifestyles. As a result, the natural and economic resources invested in these buildings will not be wasted. At the same time, incremental change allows a major portion of the built environment to endure while allowing for individuals to interact in significant and meaningful ways to define and maintain a sense of place. The Paddington neighborhood has accommodated a wide variety of inhabitants, new technologies, new forms of transportation and new uses through a shared understanding of how to transform the houses. This paper has argued the design of the terrace houses on all levels, from the individual house to the neighborhood, contributes to the longevity of this housing stock. In particular, this paper has highlighted the role dimension, construction and access play in the ability for row housing to accommodate change.

VII. Bibliography

Griffin C.T., Ordering the structure of light wood framed row houses to sustainably accommodate change, in Glasgow M., Kendall S., eds., Architecture in the Fourth Dimension, Ball State University, Muncie, Indiana, 2011.