Modern housing redux: the (un)loved and the (un)learned

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Abstract

This paper examines the perceived failure of Modernism as an appropriate architectural expression for public housing despite the social agenda of Modernist architects in their housing schemes. Policy and financing decisions by successive US administrations have moulded the form of public housing in the US which, in turn, has influenced subsequent political decisions to provide social housing within a free market context. US and European examples illustrate the fraught path of Modernism in public housing and the on-going threat posed to architectural icons through lack of shared vision and lack of social infrastructure and on-going physical maintenance.

Introduction

Two recent events highlight the theme of (Un)Loved Modernism and a particular typology: modern housing. The first one is the continuing interest, dialogue, debate and decisions around Robin Hood Gardens in London and the subsequent rejection of listing by the Secretary of State and second, a housing charette organised by the Graduate School of Architecture and Planning at Columbia University in New York (figure 1). These two seemingly unconnected events are directly correlated to the premise that is the subject of this conference. Quality of life, or the lack thereof, is a common theme in any of the (Un)Loved Modernism discussions and the architecture alone is blamed for the so-called failures. That argument is particularly used against many of the modernist housing complexes, and surfaces again against Robin Hood Gardens’ heritage listing perpetuating myths about modern architecture (figure 2).

When considering the theme of (Un)Loved Modernism, it seemed more interesting and challenging to focus on one specific issue: modern housing. In the last couple of decades various other modern building typologies have been the subject of great concern and many preservation battles everywhere but housing, especially social or public housing, has hardly been part of the preservation debate and its battles.
It is important to place housing and its preservation, especially in the United States, in the broader context of American modernism, which followed a somewhat different path than in most of Europe. While the exhibits at the Museum of Modern Art in the 1930s would suggest considerable influence, aside from some younger proponents like Wallace K. Harrison and Edward Durrell Stone or the first generation of European immigrants like Richard Neutra, Rudolf Schindler or William Lescaze, the architectural, intellectual and philosophical influence of the European émigrés and their modernist ideals was not really felt until after World War 2.5

The Great Depression of the 1930s, with its severe financial restrictions and heart-wrenching homelessness, impelled a more active and greater government interest in housing policy, health, safety and welfare. Early housing advocates, such as Catherine Bauer, published extensively on the types of social housing built in Europe.6 Prior to World War 2 new policies were introduced and housing was constructed in the context of various New Deal initiatives. However, it was the housing needed near war production and armament facilities during World War 2 that changed old production methods and, for pragmatic reasons, forced the abandonment of earlier stylistic interests in favour of a simpler and more modest modernism: need, time and money. Against this wartime backdrop and the subsequent post-war housing needs for returning soldiers and the desire of the American corporation to portray an aura of efficiency and modernity, modernism is accepted – sometimes reluctantly. The housing debate in the US even today remains mired in the question as to what the role of government and the private marketplace should be.

In the 1950s and 1960s American transportation infrastructure such as highways and airports was expanded as well as the civic infrastructure in the form of large urban renewal projects with construction of new public buildings, office buildings and new housing projects. There were some low-rise residential projects, but there were also many multi-storeyed examples. The objective was to provide decent and affordable housing for many: a goal reminiscent of the policy ideals set out in the 1930s. Once again American practitioners and policy makers tended to look for inspiration towards Europe, especially the UK with its New Town developments. Hence, in the mind of the general public, modern architecture became visually associated with post-war housing and office developments. Subsequently, the rejection of massive urban renewal and the conditions in public housing caused a backlash against what was seen as the failure of modern architecture in general. Simultaneously, preservation emerged as an opposition and regulatory force advocating the value of nineteenth century neighbourhoods, which were so often the victim of those urban renewals. The social and political changes of the 1970s and 1980s created an undeserved aura of failure that directly affected the perception of post-war housing in the US and many other western countries. General public opinion did not ‘like’ modern architecture creating an historic legacy that has made the preservation of modern architecture in the US not easy and that of public housing almost impossible.7

**Housing in the US: prior to World War 2**

While circumstances and reasons may vary somewhat from country to country, an increase in population and decreasing employment in agriculture in the second half of the nineteenth century caused migration to the urban and industrial centres. In Europe and America the ever larger number of people living in destitute and unhealthy circumstances, combined with
unscrupulous and unfettered real estate speculation maximising density and rents, resulted in overcrowded and unsanitary conditions. Housing reformers demanded better services and more decent, affordable housing. Government agencies initially interceded to combat infectious diseases by enacting measures such as building codes and zoning laws, and began to provide municipal services such as running water, sanitation and utilities.

The nineteenth century attempts to improve the quality of worker housing often originated as charity or employer-sponsored small settlements, but the beginning of the twentieth century saw not only regulatory and political change but also a greater participation of the architectural and design community. In addition, technological advancements and the rationalisation of the building industry allowed the production of more readily available materials and prefabrication of larger sections to whole buildings, which, in turn, helped reduce construction time and, presumably, costs by reducing the amount of required skilled labour. The moral and social implications, in tandem with technological advancements, inspired many modern architects. Reinforced concrete and steel permitted changes in construction and affected plan layouts by alleviating the need for load-bearing walls and enabling large strip windows and simple detailing which came to define much of modern design.

The changes, however, extended beyond aesthetics, policies and technologies to new forms of living. In many ways, the 1927 Weissenhof housing exhibition in Stuttgart, Germany with dwellings by Mies van der Rohe, Le Corbusier, J. J. P. Oud, and others, presented contemporary ideas of living in different housing typologies ranging from freestanding single family residences to row houses and apartments. This exhibit introduced the modernist design aesthetic and publicised its social benefits and financial advantages to half-a-million or so attendees who visited the exhibition in the summer of 1927.8

Other developments in the 1920s influenced the design of modern housing until well after World War 2. The formation of the Congrès Internationaux d’Architecture Moderne (CIAM) in 1928 in La Sarraz, Switzerland is one such event. Its focus on housing, the minimum dwelling and urban planning influenced many architects, among them Jose Lluís Sert (who later designed Peabody Terrace at Harvard and housing on Roosevelt Island in New York). In continental Europe, in the aftermath of World War 1, England and Germany built over one million units, the Netherlands provided housing for one fifth of its population, and the newly established Soviet Union took on the responsibility of housing its citizens wholesale (Jackson 1985:220).

Many US housing advocates studied these European developments and the role of government and influenced local, state and federal government agencies in the US to implement similar legislative reforms and infrastructural upgrades. With a suspicion of Socialist-sounding ideas, an absence of the physical devastation and housing shortage of Europe post-World War 1 and an emphasis on private enterprise, housing tended to remain private undertakings initially involving unions, benevolent societies, and philanthropists and later private developers. Only the large municipalities like New York City and Chicago would get involved in building housing directly. The Great Depression and its homelessness did propel housing into the national spotlight, both as a moral obligation and as an economic stimulus, with the adoption of relevant legislation indirectly introducing the practical and economical aspects of modern design. “The National Industrial Recovery Act of 1933 had four goals: to increase employment, to improve housing for the poor, to demonstrate to private industry the feasibility of large-scale community planning efforts, and to eradicate and rehabilitate slum areas ‘to check the exodus to the outer limits of cities with consequent costly utility extensions and leaving the centrally located areas unable to pay their way.’” (Jackson 1985:221). Though the threat of suburbanisation to the cities was already apparent in 1933 and a cause for concern, by 1945, the Federal Housing Administration (FHA) housing policies contradicted the goal stated here. These so-called federal New Deal programs addressed the housing problem three-fold: one, direct building of housing units; two, providing subsidies for building public housing to localities; and, three, legislation to stimulate private investment in the housing market. In many ways the housing debate in the last decade has given rise to the same issues.
One such example of building housing and providing employment was the Greenbelt Town Program, which demonstrated Garden City ideals of decentralisation and open space living. Other initiatives were more incidental such as those of the Farm Security Administration or the Tennessee Valley Authority where housing programs were incorporated in broader economic assistance or development efforts. These projects provided some young architects with opportunities to experiment with efficient house plans and economic building methods designed to create small, mass-produced single-family and low-scale residences. Similarly, the public housing of the 1930s and early 1940s, built and operated in cities by local housing authorities through federal subsidies, utilised the suggestions of housing reformers like Catherine Bauer (1905-1964) and Edith Elmer Wood (1871-1945) who were inspired by European examples, mostly in Scandinavia, Germany and the Netherlands. Whereas most of the Federal efforts were concerned with low-rise single family occupancies, the urban housing authorities generally built high-rise apartment structures.

One of the major federal initiatives of the 1930s was the formation of the FHA\(^9\). With its various guarantees and financing it was able to impose minimum design and construction standards, including minimum space standards, indoor plumbing, light and air, and electric appliances. These standards sought to prevent substandard housing and protect FHA’s investment. While establishing a minimum quality it also tended to result in many similar neighbourhoods with small, traditional-looking houses that reflected examples published in the various FHA bulletins.\(^10\) Although the FHA programs re-energised the construction industry in the late 1930s and early 1940s until America’s entry into World War 2, its major impact was on post-war developments.

**Housing in the US: post World War 2**

In both Europe and the United States, housing construction came to a virtual standstill during World War 2, and in the US emphasis shifted to mobilising the war effort and constructing immediate (semi-permanent) housing next to manufacturing plants, ship yards, and military installations. Innovative and quick means of satisfying housing needs were put to use; experimentation with prefabrication and new or unusual materials was encouraged to meet the demand for new buildings. This wartime effort, with its mass production and distribution of standardised parts, had a direct impact on the post-war housing boom: the building process changed to obtain greater efficiency and lower cost (Albrecht 1995). Aside from big cities where (private) high-rise residential construction tended to prevail, most of the post-war development took place in the suburbs with its single family houses built, not for rental, but homeownership which, in many instances, was made possible through FHA guaranteed financing (Hayden 2004a:128-153).

In this context it is important to understand US housing policy as it evolved in the decades before and after the war. FHA guaranteed the security of mortgages and attached minimum standards for design and construction to those guarantees. Separately, the mortgage interest deduction designed to stimulate home ownership resulted in a tax break for the middle class and was a *de facto* middle class housing subsidy. This essentially two tier housing system continues to drive much of the housing industry in the US.

While the mortgage guarantee was a nationwide policy, other programs – even if federally funded – operated through state and local agencies and housing authorities. Funding was used to support housing authorities directly or the private market through rent vouchers for eligible families and individuals. In some states, rent subsidies were made available through state agencies independent of federal funding. However, most of those projects were withdrawn from these particular programs and converted to market rate-based developments.

Against this background we must place the post-war suburban developments and the construction of urban high rise housing and the demolition of the Pruitt-Igoe housing complex in St. Louis as a starting point and explore how the view of public housing has evolved, culminating more recently in a program titled Hope VI (figure 3).\(^11\) This program, accepted by many housing authorities across the country, including Chicago, has resulted in the demolition of older...
housing projects to make way for low-rise townhouse-like developments. In some instances, the publicly-supported housing was dispersed over a larger area in an attempt to create economic and housing diversity. The planning and development itself has an anti-modern tinge suggesting a solution intentionally diametrically opposed to the ‘failed’ model of Pruitt-Igoe and visually inspired by the retro-look favoured by New Urbanism. Critics have called this “public housing through gentrification.”

Housing in the US: suburban and low-rise developments

Key to the post-war developments is the continued emphasis on home ownership as the solution to the housing needs. This has affected the design and preservation of housing in general and that of multi-storey residential structures and public housing in particular. This, in many ways, is epitomised by post-war suburban development, which, even when financially supported by government, concerned – with very few exceptions – not rental housing but home ownership, the so-called American dream to which so many generations of Americans have aspired. Three examples, Greenbelt, Maryland; Levittown, New York; and Mar Vista, Los Angeles may serve as illustrations of this phenomenon (Prudon 2008:239-268). This, combined with the myth of the failure of Pruitt-Igoe as architecture, has coloured the debate, not only in housing but also for preserving modern architecture in general.

Greenbelt, just outside Washington DC, was planned and built by the Federal government between 1935 and 1938. It is a rare surviving example of pre-war housing policy, a model of comprehensive planning of a new community, and almost modern looking. While some 20 greenbelt towns were authorised, only three were constructed close to large urban or industrial centres. In the Maryland example, housing was rental and managed by a non-profit organisation or local co-operative intent on preserving the original goals and character of the development. In recognition of its significance, Greenbelt, Maryland was declared a National Historic Landmark in 1997 (Shprentz 1999 and Coffin & de Winthuysen Coffin 1988). Continued development encroaching upon the town has affected much of the original town. By keeping construction methods and materials simple, employment could be provided to relatively unskilled labour but probably increased its relative cost. The original 1930s housing stock was significantly expanded in 1941 and 1942 with an additional 1,000 residential units as defence housing. After the war, government agencies retreated from direct housing ownership and management. Greenbelt towns were transferred to non-profit societies or local housing authorities. The Maryland National Park and Planning Commission wrote in 1956: “Greenbelt may fall short of present day standards of housing design, and the row house may not be the dwelling type now most in demand, but ….in many respects it is still, after 20 years, the best example of suburban community designed for the automobile age” (Knepper 2001:122). The influence of Greenbelt as a planning example continued in the 1960s and 1970s when James Rouse established his two new towns at Reston, Virginia and Columbia, Maryland.

The post-war Levittowns, were a stark contrast to the pre-war Greenbelt towns and were entirely private developments that became synonymous with post-war suburban development in America. The original Levittown, on Long Island, built between 1947 and 1951, provided some 17,000 small houses intended for returning World War 2 veterans and their young families. Built in two stages, the initial 2,000 rental units, so-called Cape Cod-style houses with a 25’ x 30’ (7.6m x 9.1m) floor plan on a 6,000 square feet (550m2) lot, along gently curving streets conformed to FHA guidelines for good neighbourhoods (Kelly 1993:17). Kelly talks

Figure 3: Pruitt Igoe Houses, St. Louis, Missouri. Architect: Minoru Yamasaki, completed 1956 and demolished March 16, 1972. The complex consisted of some 33 eleven storey buildings with about 2870 apartments. (Photo courtesy State Historical Society of Missouri, 1972)
about Levittown as being for working/lower middle class at first, but introducing the idea of ownership and American dream to a broader group which then had the opportunity to change/gain equity and mould the house to their needs over the years. In 1948 the second phase introduced the so-called “ranch”, which was modelled on the California house to be able to compete better in quality. Twenty-five-year deed restrictions, included to obtain FHA-approvals, simultaneously ensured a code of acceptable behaviour and taste for an aesthetically harmonious community. The restrictions not only limited sales by race but also prevented hanging laundry to dry on the weekend when men were home from work, banned fenced-in backyards, limited the size, shape, and colour of additions and remodelling. Nearly all of the 17,447 Levitt houses have been expanded and remodelled, and additions, roofs, storeys and dormers have been added to reflect the changing profile of Levittown’s residents, and it retains little of the homogeneity that lent its original identity (figure 4). Still, it remains the model of the quintessential suburban community and the efforts of immediate post-war housing.

In the Mar Vista development, the third example, architect Gregory Ain managed to create a diverse yet cohesive streetscape through variations on a single basic plan and different orientations vis-à-vis the street as well as by incorporating public landscaping by Garret Eckbo (1910-2000), one of America’s pre-eminent modern landscape architects (figure 5). While the initial plan envisioned some 100 houses, FHA was reluctant to approve such modern house designs out of fear that it would affect the resale value. Only 52 homes were approved to gauge interest and marketability in sales. “The builders were told time and again to intermingle ‘colonial, Cape Cod, Italian, Spanish and what have you’ with a few modern dwellings. After months of plugging, the project was finally accepted on condition that only half of it be built at a time, to see how the houses sold” (Adamson 2002:57 and Anon 1947:128). The relatively high cost, and probably the non-traditional, that is modern, design, contributed to slow sales and therefore the financing of the second 50 did not receive FHA approval (McCoy 1984:129-130).

Mid-twentieth century suburban housing developments of somewhat traditional design appear to have been what represented (and perhaps still do) the ideal for many Americans regardless of economic resources. It is in this context that it is easy to understand why living in public housing represented more of a stigma than as an amenity or social benefit. The subsequent ‘failure’ of multi-storey housing, whether Robin Hood Gardens or Pruitt-Igoe, further exacerbated an already existing perception.
Multi-storey residential buildings

While multi-storey residential buildings, from the midsize walk-up tenements to the fifteen- and twenty-storey apartment houses, had become important as housing for the urban poor by the beginning of the twentieth century, unregulated dense, substandard developments remained prevalent. It was not only because of catastrophes and health emergencies that action would be taken. Humanitarian concerns began to foster activism for better housing regulations. In Europe the acute need for housing after World War 1 created the political will for significant governmental action and attracted many young European architects to design well-planned, efficiently built and cost-effective social housing. While most of this pre-war housing was low-rise, CIAM’s work in the 1920s and 1930s, and the visions of Le Corbusier in particular, became important in shaping the design of post-war housing and its construction.21

In the US the subsidised or public housing that did occur before World War 2 tended to be low-rise except in the major urban areas where multi-storey buildings were primarily aimed at improvement of urban housing conditions for the ‘deserving’ working poor. In 1937, the United States Housing Authority was established to provide subsidies for slum clearance and housing construction in the urban centres. This spurred the creation of local housing authorities to receive federal funds and build clean, decent, modern housing resulting in simplified and less ornate masonry apartment houses of small to medium scale utilising labour intensive and simple trade construction methods in order to provide as many jobs as possible. However, compared to Europe, this involved only a small number of housing units.22

After World War 2, the United States government continued to focus on providing subsidies for municipalities to construct low-income, medium to high density housing, but to a lesser extent than the direct or indirect support for home ownership and suburban development. Because funds were often tied to slum clearance in Title 1 of the 1949 Housing Act, much of this assistance went to the urban areas, where the tight space and density requirements necessitated multi-storey apartment buildings that, throughout the 1950s, became increasingly taller and larger in scope. Tall towers with cruciform or star-shape plans with a central core, as seen in Le Corbusier’s Plan Voisin of the 1920s, or with narrow slabs with double-loaded corridors or an open-air gallery, earlier proposed by Gropius in his 1929 and 1930 lectures at CIAM, became technologically and materially possible, not to mention more economical and customary.23

While representing only a small fraction of the housing constructed in the 1950s, the simply detailed high-rise apartment towers grouped on a superblock site came to be seen as synonymous with public housing in the minds of the general public although most of the public housing units were built as two- to four-storey structures (von Hoffman, nd). The relocation and upheavals for people caused by the demolition of existing, if blighted, neighbourhoods, together with the declining quality of the replicated designs and the use of inexpensive building materials, the forced demographic and societal changes and, finally, the lack of (economic) diversity and opportunity, changed an initially positive impression of modern housing into a negative one by the end of the 1960s.24 This negative perception and discomfort with high-rise housing was somewhat limited to low income projects but did also affect more moderate income ones. Projects such as Chatham Towers in New York and Marina City in Chicago were privately constructed but the land was often acquired through the previously mentioned Title 1 provision in the 1949 Housing Act. Construction of this type of affordable or middle-income high-rise housing was an attempt to entice the middle class lured by suburban life back to the cities. Unfortunately, the backlash against the destruction of those communities and the new construction that emerged fuelled the preservation movement in the US.

Much of the more innovative multi-storey housing built in the US in the decades after the war was not only aimed at housing the ‘deserving’ poor. Various states and municipalities also sought to stimulate construction of affordable housing in larger urban communities like Roosevelt Island in New York City or Cedar Riverside in Minneapolis, both examples of an interesting mixed income housing development in the spirit of the English new towns made possible through innovative federal funding.25
While private construction of high rise multi-family housing for middle to upper middle class urban living continued in the major urban areas, the building of low income housing was largely abandoned by the middle of the 1970s and replaced mostly with rent subsidies. In the last decade, townhouse-type low rise buildings, almost as an amalgamation of suburban development and the nineteenth century townhouse, have replaced high rise development.

In Europe, the years immediately following World War 2, saw a severe housing shortage caused by physical destruction and a lack of new construction. High-rises were technologically possible and more economical because of the use of reinforced concrete. Le Corbusier, for instance, realised some of his theories of urban building in the vertical stacking of modular housing units in his 1946-1952 Unité d’Habitation project in Marseilles, France, while the 1957 Interbau Exhibition in the Hansa quarter of Berlin adjacent to the old Tiergarten demonstrated the new urban housing possibilities in some 45 new residential buildings designed by as many as 51 architects from 30 different countries, including Alvar Aalto, Le Corbusier, and Oscar Niemeyer. The area has since been heritage listed (Dolff-Bonekämper and Franziska Schmidt 1999). Both private and public sector housing increased exponentially in the 1960s as did high-rise modern towers aided by public monies or subsidy policies for both low and middle-income populations (Wynn 1984:2-3). Other countries, including England, Germany and the United States were also more active.26

The 1972 demolition of the Pruitt-Igoe development in St. Louis symbolised a turning point and became an icon of failed public housing signalling the end of consistent support for high-rise public housing in the US (figure 3).27 This perception is not limited to the US as the destruction of projects in Chicago (Cabrini Green),28 Glasgow (Red Road) or Amsterdam (the Bijlmermeer) demonstrates (Doctor 1997 and Brierley 1997).

Many post-war multi-storey housing projects still exist across the world and, regardless of the country, seem to present one of the most difficult problems in the preservation of modern architecture. The lack of maintenance or the initial lack of quality combined with the minimal standards for size and amenities, the subsequent social issues such as isolation, crime and lack of social services and employment opportunities in the respective communities that are not economically diverse, are presenting powerful negative factors. However, on the positive side, the continued and growing need for affordable housing, the rise in real estate values and a general movement of people returning to cities have created a new demand and thus new opportunities for preserving this architecture in a meaningful and useful way. It is here that the preservation of modern architecture can play a role not only in helping to keep a substantial portion of the existing housing stock, that can and should be improved, but also can serve, even more importantly, as lessons to be learned from past public housing endeavours.

In a practical sense the preservation of the individual high rise building faces considerable limitations when compared with low-rise residential architecture. The early to mid-twentieth century multi-storey building unit size is often quite small by contemporary standards, its structural system quite rigid, its services fixed, its amenities limited and its site lacking enough space to expand and adapt to new needs. As a result, the preservation and continued use of many of these buildings is possible only by accepting the existing configurations or combining units, and implementing technical and physical upgrades where possible. To illustrate different conditions and strategies some case studies, while not all public housing per se when viewed from its ownership, are presented here to demonstrate how continued use and preservation may be accomplished successfully using the social and financial policies in effect at the time of renovation.

Modern housing case studies: Chatham Towers, Peabody Terrace, and the Raymond M. Hilliard Center

In the last decades buildings have not remained in the original or institutional ownership and attempts have been made to privatise much of the originally social and subsidised housing by either turning it over to the occupants or to investors.29 The case studies, Chatham Towers in New York; Peabody Terrace in Cambridge, Massachusetts and Raymond M. Hilliard Center,
Chicago, are examples of mid-century projects created for particular occupant groups; moderate income, married students and low income and subsidised residents, respectively.

Chatham Towers, close to Manhattan’s Chinatown and Civic Center, are two medium-height Brutalist concrete towers planned as affordable or market rate housing (figure 6). Started in 1960 and completed in 1965 the project was one of the many private but subsidised initiatives of the time created under Title 1 of the 1949 Housing Act (Anon 1964a). The project was made possible through the efforts of several organisations and credit unions. I.M. Pei designed apartments for New York University and a 420-unit, middle-income housing project named Chatham Green, which is directly to the east of Chatham Towers. The design was the work of a group of younger architects at Kelly and Gruzen and included a landscape design of the plaza and adjoining playground by modernist landscape architect, M. Paul Friedberg, which provided the transition from the towers to the street (Anon 1966a).

Chatham Towers received awards from the New York AIA citing its “originality of concept and use of materials in the planning and design” and was hailed as one of thirty-eight most important buildings constructed since 1850 in New York (Anon 1966b and Fried 1967). Fifteen years following the completion of the towers, the critical acclaim remained constant.

The buildings have not received any local or national designation as a historic resource because of its residents’ reluctance toward regulatory guidelines that may come with local designation. Residents have adapted interiors to accommodate their changed expectations and taste which was possible because all partitions were constructed in plasterboard (Rozhon 1994). Finally, because of the possibility to make changes and the demand for housing in New York remaining so large, Chatham Towers will retain its value while the regulations underlying its co-operative ownership moderate extensive exterior alterations.

The Francis Greenwood Peabody Terrace was intended for married students at Harvard University and is the first large housing project in the US designed by Josep Lluís Sert (1901-1983) then a practising architect and dean of the Graduate School of Design at Harvard. (Figures 7 and 8) Given Sert’s work with Le Corbusier and his active involvement in CIAM, notably as its president from 1947 to 1956, it is not surprising that the project shows a European influence. Whilst widely acclaimed upon completion and greatly liked by architects and designers, reviews from former occupants have been mixed. Located along the Charles River in Cambridge, Massachusetts, the project has 500 residential units,
for which design began in 1962 with the first units completed by 1964. The urban plan still remains an excellent example of modernist urban planning and seeks to actively connect the new urban neighbourhood to its surroundings through its massing. The massing was deliberately created to achieve the most economic solution possible with a density of 60 to 80 units per acre (148 to 197 units per hectare).35

In 1993, after some 30 years, the entire complex was renovated and included work on the exterior and upgrading of the kitchens, bathrooms and interior finishes. The infrastructure systems remained largely unchanged. Sprinklers had been added earlier to comply with fire safety codes. Because there are no concealed spaces (vertical ducts or dropped ceilings) all sprinkler piping and fire alarm systems and electrical conduits had to be surface mounted.36

There is little doubt in the minds of the design community that the complex deserves preservation, but the critique levelled against the project today is indicative of arguments in general. The complex is still generally liked and admired by architects and designers, but found less attractive by many others (Cott 2003).37 Vegetation in and around the complex has matured and the neighbourhood character has changed because of many new additions (Hale 1974:73-77).38

Standing well apart from public housing’s stereotypical image of drab high-rise slab towers are the circular and curved towers of the Raymond M. Hilliard Center in Chicago, designed by Bertrand Goldberg (1913-1997) (Buck 1964:B9). Built from 1962 to 1966, Hilliard Houses, as it is known, consists of four residential towers for families and seniors and one low-rise community building on a 12.5 acre (4.8 ha) site located 3 miles (4.8 km) south of Chicago’s downtown Loop (figures 9 and 10). The residential towers have distinct round forms that are reminiscent of Goldberg’s celebrated corn-cob shaped Marina City towers along Chicago’s waterfront or his Prentice Women’s Hospital at Northwestern University (now demolished). The Hilliard Center is a statement not only about Goldberg’s architectural and engineering ingenuity but also his views on the important role of architecture in society. The hallway and common spaces were meant to foster community and mutual aid to the senior residents who may require physical or emotional support (Blum nd:193-194).
By the time Bertrand Goldberg began designing the Raymond M. Hilliard Center, public housing in Chicago had already come under scrutiny for its poor management, institutional design, racial configuration, and patronising approach toward the population it was seeking to serve. The New Deal-era public housing projects in Chicago had combined progressive goals with practical job creation for architects and construction workers. The resulting superblocks, filled with multiple high-rise buildings covering only 10% to 20% of the sites, reflected the ‘towers in the park’ image and the belief that a change in environment would improve the behaviour of the residents. Because of the problems in the earlier projects in the 1950s and early 1960s in the mould of Chicago’s infamous Cabrini-Green project, the Hilliard Center met with some resistance at the onset of its approval as “extending a ghetto” of public housing concentrated along South State Street in the South Side of Chicago (Buck 1963:E4).

Bertrand Goldberg received the commission in 1963, shortly after the completion of his Marina City towers, which was built for a labour union seeking to keep residents in the central city as a way to retain jobs for its workers. Goldberg was able to incorporate his strong social and political beliefs into his architecture with that project. When attending the Bauhaus and later working for Mies van der Rohe in 1930s Germany, he had begun by examining shapes and forms structurally superior to rectangles (Blum nd:151 and Cook & Klotz 1973:122-146). He could design a space as needed with “the line of enclosure drawn around it.”(Goldberg 1969:258).

The Hilliard Center was a public housing project, owned and operated by the Chicago Housing Authority (CHA) but financed with federal monies, which required minimum unit sizes, quality of amenities, and design innovations. The unorthodox design met strong resistance from the federal public housing authorities, which apparently characterised the design as “too good for the poor.” Goldberg was told to redesign the project and he was even offered an additional fee. Charles Swibel, then the head of the CHA, who had been involved with obtaining the land for Marina City, convinced the federal authorities to allow the design to proceed (Blum nd:196).

Despite the attempt to use good design to salvage the image of high-rise family housing, the Hilliard Center was the last significant, tall family housing built by the CHA. When offered a choice, only a handful of original residents agreed to return after its rehabilitation. Currently some 55% or 350 of 654 available units remain classified as affordable low-income housing; the other 45% or 305 units continue to serve as public housing to the same population of seniors and families as before. In an effort to distinguish the complex from its earlier public housing image, it was renamed Hilliard Towers Apartments. While Hilliard Center was not without its share of problems, it never generated the contempt seen at other CHA projects. In fact, during the overhaul of CHA’s housing projects which began in the late 1990s Hilliard Center was the only CHA high-rise residential buildings not slated for demolition.

In 1999 when Holsten Real Estate approached the CHA about acquiring the Hilliard Center, the buildings were in a dilapidated state: one of the family towers had been mothballed due to low occupancy, as had the upper floors of the other three towers. Initially retained as the...
management company, Holsten now owns and operates the complex but the CHA retains a land lease, which has covenants to ensure affordability of the housing as well as address the historic significance of the buildings. The buildings were listed on the National Register in 1999 as part of the Raymond M. Hilliard Center Historic District. The original landscaping by Alfred Caldwell (1903-1998), a noted Chicago landscape architect and frequent Goldberg collaborator who also designed the landscape at Marina City, was retained and many of the original trees remained though additional plantings were installed (Blum nd:176).43

The Hilliard Center rehabilitation strikes a careful balance between practical use and historic preservation. The simplicity of these buildings, the result of public housing guidelines and attitudes of the 1960s as well as the structural and design experimentation of the architect, makes its significance and preservation relatively easy to argue but adaptation to current expectations of residential comfort more difficult. The rigidity of the original structure as witnessed in the poured in place concrete walls between bedrooms and the living room, made dismantling the partitions to create more spacious rooms difficult and costly.

Other housing initiatives: “New Town-In Towns”

Housing policies in the 1960s and 1970s underwent a number of changes. One such change was the introduction of the New Town in Town program. Earlier in 1966 the US Department of Housing and Urban Development established the Model Cities initiative made possible by legislation enacted by Congress. The program was part of President Lyndon Johnson’s Great Society and War on Poverty initiative and redirected urban renewal efforts to pay more attention to improvements of both the physical and the social infrastructure. While the Model Cities Initiative was abandoned in 1974 it underwent a number of changes and additions in the following years including the addition of a program called “New Town in Town”. These initiatives sought not only to stimulate the construction of new public housing but to do this in the larger context of community development. The two best known examples of these policies are Cedar Riverside, Minneapolis, Minnesota44 and Roosevelt Island, New York.45

The redevelopment of the Cedar Riverside neighbourhood in Minneapolis was under discussion for some time. Several local developers had begun purchasing property in the neighbourhood as early as 1962 and Ralph Rapson (1914-2008), then the dean of the architecture school at the University of Minnesota, was retained as the project architect.46 The design team also included urban planners Barton-Aschman and landscape architect Lawrence Halprin (1916-2009) in addition to others.

The first plan, unveiled in 1968, which continued to be developed in the following years, did envision five neighbourhoods with a total of some 12,500 residential units, 1.5 million square feet (135,000 square metres) of commercial space and extensive recreational space and parkland. Only 1,299 units were built before the project...
stopped because funding for the federal program was cancelled in 1974. Initial financing came from the US Department of Housing and Urban Development in the form of loan guarantees, while in 1973 additional financing was granted under the New Town-in Town program.

Because all utilities and services were planned and built to the planned larger scale, many of the maintenance challenges and improvements necessary today are the result of this intended larger scale and the inexpensive construction. Today the project is owned and operated by a private developer with an agreement with HUD to maintain the rent-subsidised apartments through its voucher programs. In the current economic housing climate, the voucher program, ironically, provided the private owner a steady cash flow not so easily achieved in a fully commercial rental project. Today Cedar Riverside continues to function as a housing project and is probably the largest Somali community in the US (figures 11 and 12).

The site is architecturally different from the surrounding neighborhood of academic and cultural institutions and is physically segregated because its interior urban spaces are elevated above street level to accommodate a large parking garage underneath. Because the project was never fully realised, the planned physical connections (bridges and paths) were never built. Entrances and stairs designed to reach the elevated inner urban spaces are closed either for security reasons or because of dilapidation. Unfortunately, the urban spaces themselves have lost many of the original features and elements typical of a Lawrence Halprin-designed interior urban environment. Cedar Riverside is in no immediate danger and seems to fulfill its basic function. However, the need for investment to complete infrastructure and architectural upgrades will put considerable pressure on the complex and possibly its occupants in the future.

The other example of the New Town-in-Town program was Roosevelt Island in New York City. The two projects have fared quite differently not in a small part due to their location. On Roosevelt Island the master plan, developed by Philip Johnson and John Burgee in 1969, was envisioned to be much larger than Cedar Riverside when finished. The first phase, Northtown I, designed by Sert and Johansen and Bhavnani was followed in 1989 by the construction of Northtown II to the designs of Gruzen Samton. Finally Southtown also by Gruzen Samton was completed in 2004. This last phase included luxury condominiums (figures 13, 14 and 15).

Of the two New Town In-Town projects, Roosevelt Island resembled the ideals of the program most closely. While the census in 2000 still reflects that ideal of the economically and racially diverse community, the subsequent completion of the luxury housing has affected the

Figure 12: Cedar Square West (Riverside Plaza), Minneapolis, Minnesota. Architect: Ralph Rapson, completed (first and only phase) 1973. View of one of the interior urban spaces designed originally by Lawrence Halprin. (Photo courtesy Caroline Stephenson, 2009)

Figure 13: Roosevelt Island, New York, NY. Architect: Masterplan, Johnson & Burgee; first phase, Northtown I, Jose Luis Sert and Johansen and Bhavnani; Northtown II, Gruzen Samton, 1989; Southtown, Gruzen Samton, 2004. View taken from Queens with Manhattan in the background. (Photo courtesy Harris Graber, 2011)
original mix but the island continues to be a successful and desirable residential community.\textsuperscript{47}

Returning to Robin Hood Gardens, Tower Hamlets, London\textsuperscript{48}

While the American examples seem to be the result of different policies and cultural preconceptions, the underlying issue of devising policies and strategies to provide decent housing to the economically disadvantaged is shared by all initiatives. Much of the building stock we are dealing with today dates from the 1960s and 1970s when public housing was seen as one of society’s responsibilities. In one form or another the projects resulting from those policies have come under pressure either to be demolished to make way for low rise traditional schemes, changes in ownership or wholesale renovation or sale. While the American debate is limited (the earlier mentioned Columbia University charette being the beginning of such a debate) the discussion around Robin Hood Gardens and the arguments offered for its demolition are instructive and are worth thoughtful consideration that may help to structure the debate.

After completing architecture school, Alison and Peter Smithson joined the London County Council at the end of the 1940s before establishing their own practice in 1950. The design for the Robin Hood Gardens Complex was started at the end of the 1960s but did not proceed without complications and aggravations.\textsuperscript{49}

The project consists of two long parallel rows flanking an open area in the middle. The open area was the subject of considerable study in the design process and many of the early illustrations feature a variety of activities in this area, which was conceived as a ‘stress free zone’ away from the noise and action of the surrounding city. Many of the early studies focus on the acoustics and sightlines in the communal area and their benefits.

The buildings themselves are stacks of mostly duplex units with an internal stair reached from broad galleries every three floors. Referred as a ‘streets in the sky’, the galleries are reminiscent of other earlier projects. All the exteriors are constructed out of high quality precast concrete panels reflecting the Brutalism stylistically prevalent in the UK at the time and which can be found in use in other post-war housing projects in London (figure 2).\textsuperscript{50}

The project was refused listing or landmark status and, in addition, a Certificate of Immunity was issued, which precluded the possibility of listing for five years.\textsuperscript{51} The rationale given for that refusal is of most interest in this discussion about housing. Aside from the discussion of criteria that recognise the prominence of the Smithsons, the intellectual underpinnings and the interest of the internal urban space with its evocative landscaping, most of the critique is directed on the relative significance of the Gardens in the context of the Smithsons’ œuvre, the uniqueness of the project as housing and under the category “Influence and critical evaluation” a discussion of the flaws of the project. It is there that a critique of public housing is inferred and which can be read to be applicable to many of the projects described in the earlier sections:

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{roosevelt_island.jpg}
\caption{Roosevelt Island, New York, NY. View along the East River. \hspace{1em} (Photo courtesy Katherine Malishevsy, 2011)}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{roosevelt_island_19th_century.jpg}
\caption{Roosevelt Island, New York, NY. View of Main Street with 19th Century church and housing dating from phase I. \hspace{1em} (Photo courtesy Katherine Malishevsy, 2011)}
\end{figure}
He [the Secretary of State] considers that it would be contradictory to provide social housing that was not a good place to live. He also notes that the Smithsons’ intended to foster a sense of community, particularly with their use of street decks, which further persuades him to conclude that the overarching aim of Robin Hood Gardens as a social housing project was to provide a decent place to live. Whether Robin Hood Gardens was a decent place to live is consequently relevant to his review.52

The Robin Hood Gardens housing complex had been scheduled for demolition. The ensuing preservation battle has been indicative of the many opinions and the differences between the proponents and critics of public housing in particular, and the preservation of modern architecture in general.

Arguments of this sort also permeate the public housing discussion in the US and are equally used to justify much of the demolition. There is no question that standards in every aspect of life have changed and these changes warrant attention. However, as some other successful conversions and adaptations have shown over the last three decades, and is evident in some of the case studies outlined above, these issues are not insurmountable. On the contrary, it offers new challenges and opportunities as the studies around Boston City Hall or even Robin Hood Gardens have shown (Powers 2010).

More specifically, two aspects are discussed further in the above quoted letter: one, vandalism (not specifically defined as to what it is) and, the much more arbitrary argument of the effectiveness of the design. To attribute vandalism to the design of the buildings is, at best, incongruous and already decried at the time by Alison Smithson. The effectiveness of the design argument is probably the reverse of the earlier ideal that by providing decent housing people could improve socially. So conversely the failure to improve social behaviour can be assigned to be the failure of the design of the building.

While the suggestion that the opinions of the residents should be taken into account is important, it sidesteps the real issues. The views of the residents are about the quality of life, which may involve some criticism of the building’s design but are more likely to concern ongoing safety and a complete lack of adequate maintenance. This does not eliminate the need and obligation to bring housing to contemporary standards as much as possible as would be the case with any building. However, heritage decisions should not become post-occupancy evaluations by transient groups of occupants for purposes of justifying demolition but rather as an incentive for improvement. By placing any consideration of listing outside the realm of possibility for five years, the very notion of preserving the recent past, as an evolving process as history so clearly demonstrates, is negated and, almost, an incentive is provided inviting demolition. Finally, buildings and people evolve and changes to the design can be made and conditions can be adapted without losing the spirit of the buildings. As Nicolai Ouroussoff, the architectural critic of the New York Times writes:

Architecture attains much of its power from the emotional exchange among an architect, a client, a site and the object itself. A spirited renovation of Robin Hood Gardens would be a chance to extend that discourse across generations.53

Conclusion

While much of the discussion has been addressing the aspect of housing and its preservation, first and foremost in the US and its particular political, economic and regulatory circumstances, the parallels with the Robin Hood Gardens story are, in many ways remarkable. However, the question of what needs to be (Un)Learned remains to be reintroduced in the on-going housing debate. While there may be differences in financing and ownership structures, when comparing today with earlier times or making comparisons between countries, it does not change the basic requirements or public responsibilities either socially or economically. It is what the Robin Hood discussion can teach us and the Columbia charette attempted to address.

It is up to us to learn from the past and embrace our (Un)Loved heritage.
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Endnotes

1 The purpose of the Housing Charette: Graduate School of Architecture, Planning and Preservation, Columbia University, New York, June 12, 2009, was to initiate a debate and dialogue about public housing in the literal sense of the word. Aside from the acknowledgement that the term ‘public housing’ needs to be de-stigmatised, the main questions addressed were: why is the word ‘public’ in housing not be interpreted and valued in the same vein as infrastructure like in public transportation and secondly, what should the government do to stimulate the construction of much-needed affordable housing? In many ways the ideas explored were part of a discussion that has been ongoing in the US since the 1930s. The terminology to describe public funded and owned housing varies from country to country. In the US the term ‘public housing’ generally refers to rental housing for economically less advantaged groups of the population that is owned and operated directly by a government entity. However, today support for housing is mostly through rent voucher programs, financing or loan guarantees for privately developed and owned properties. Even some of the traditional government housing authorities are seeking recourse in private developments, a process that is lauded by some for its presumed efficiency and effectiveness and questioned by others because of fairness, financial incentives and ultimate concerns for real improvements and affordability.

2 There are many exceptions to this argument. For instance, a complex that is a direct contrast to Robin Hood Gardens is Alexandra Road Estate in West Hampstead, a Grade II* listing. The project is generally liked by its occupants, who were instrumental in its listing (Freear 1995).

3 The arguments are laid out in more detail in the letter from The Culture Team of the Department for Culture, Media and Sport on behalf of the Secretary of State dated 13 May 2009 addressed to Jon Wright, Case Officer, Twentieth Century Society and signed by Lauren Warren, Heritage Protection Policy Advisor.

4 For a general discussion about post-war mass housing in different countries, see Glendinning 2008, Glendinning and Muthesius 1993 and Harwood and Powers 2008.

5 See Hitchcock and Johnson 1995. This edition with its new foreword by Philip Johnson was originally published under the title The International Style: Architecture Since 1922. It also contains a reprint of an article by Hitchcock looking back twenty years later in 1951. Most of the examples are European and include several low-rise and multi-storey housing complexes as well as a chapter on Siedlungen.

6 Catherine Bauer (1934) describes not only various housing policies and projects in different European countries but she also states on page 213: “Architecture is the Social Art”.

7 Some of the general issues involved in the preservation of modern architecture as well as some case studies may be found in Prudon 2008.

8 The Weissenhof housing exhibition was organised by the Deutscher Werkbund, a German association of architects, designers and industrialists, which was founded in 1907. The project, financed by the City of Stuttgart, was to demonstrate that modern design could be used effectively to address the housing crisis in Germany. Mies van der Rohe, who was in charge, invited 16 architects from around Europe to build prototypes of mass housing using new materials and techniques. The cluster of houses and apartments brought together the work of the some of the most progressive and ultimately some of the most influential architects of the twentieth Century. See Pommer and Otto 1991 and, Kirsch 1989. Several of the buildings also appeared in Hitchcock and Johnson 1995 and, thus, in the 1932 Museum of Modern Art exhibit.

9 The primary mechanism for government involvement, and the key agency to much of the housing developments in the post-war era in the US, was the Federal Housing Administration (FHA). Started in 1934 as part of the National Housing Act, FHA programs sought not only to stimulate the building of housing by private industry but also to support the hard-hit construction industry and the beleaguered banking industry during the Depression. To this end FHA insured the loans banks made to builders for home
construction, as well as the long-term mortgage loans made to individual homeowners. By insuring the mortgage loans and limiting the banking risk, it was hoped that more loan funds would be available for the home building industry, bolstering the construction industry and the possibility of more favourable terms opening a better chance for homeownership to the working class (Jackson 1985:204). Prior to the Depression, mortgages were limited to 40 to 60% of the appraised value, meaning a prospective homeowner had to provide at least a substantial down payment and/or apply for a second mortgage. The FHA-insured mortgages covered 80-95% of the value, allowing a much lesser down payment. Additionally, the average length of a mortgage was 5 to 10 years and not fully paid off, or amortised, at the end of the term. Homeowners had to refinance for the remainder of their mortgage, but risked foreclosure if financing was not available. These terms were more favourable for the banks, but made homeownership risky for the owners as well as for the banks, limiting homeownership to the upper and middle classes. See Jackson 1985:195-205 and Wright 1981: 240-242.

10 FHA published guidelines for house and neighbourhood design to ensure designers and planners consider certain issues, like space planning, orientation, street layout, etc., in projects that would receive FHA approval. In its 1939 manual Planning Profitable Neighborhoods, the FHA recommended against tightly packed, straight grid neighbourhoods with narrow 40’ x 100’ (12 x 30m) lots in favour of a more park-like subdivision with gently curving streets to ease vehicular traffic, a landscaped park area, and lots of 70’ x 150’ (21 x 45m) in contrast to what was generally being built privately by merchant builders. The recommended models were based on the suburban models like Radburn, New Jersey by Clarence Stein and Henry Wright, who, in turn, were influenced by the early twentieth century planned Garden City-style communities in England. Subsequent publications focusing on the neighbourhood or subdivision units continued to advocate for such planning well into the 1940s.

FHA also published principles for planning small houses that veered toward the more traditional ideas of house and home as those most successful for housing. Based on the simplified designs of traditional architectural styles such as those available in the early suburbs and through mail-order kits, the designs illustrated in the bulletins included Colonial Revival, Cape Cod, Tudor, Spanish, bungalow and later ranch houses; conspicuously modern design was discouraged as a poor investment. Although the FHA guidelines were not steadfast rules and they originated from a need to protect the interest of residents as much as the developers and banks, it became easier and more cost effective for builders to adhere to some, if not all the guidelines to acquire quickly FHA approval, obtain loans, and sell the houses. Eventually, the guidelines became entrenched more like standards and deviations did not easily receive approval. Houses with a modern design vocabulary generally faced such difficulties. The Eichler developments and Mar Vista are two examples from the post World War 2 period. Also see Jackson 1985:197.

11 The program administered by the US Department of Housing and Urban Development (HUD) was the outcome of a report issued by the National Commission on Severely Distressed Public Housing, a federal commission established in 1989. The program was enacted into law in 1992. The approach recommended was based on the actions around the Columbia Point Housing in Boston built in 1954. Here the solution had been to turn the project over to a private development firm, which demolished the housing and built a new complex.

12 The suburban subdivision was quintessential American in its scale, design, planning and financing. The policies and ideals leading up to these developments have been the subject of a great deal of study over the last two decades. See for instance Jackson 1985 up to Hayden 2004a. Also of note are studies that examine the suburbanisation phenomenon in relation to the development of housing from a social history perspective see Hayden 1984 or Wright 1981. For a discussion about sprawl, Hayden 2004b details different forms of sprawl including some more recent residential developments. Hayden in this and her earlier writings points to, among others, the policies of the Federal Housing Administration (FHA) as reasons for the continued development. For a more
comprehensive history of sprawl and its positives and negatives, see Bruegmann 2005. In the US, attempts have made to develop criteria for listing suburban developments, see Ames and McClelland 2002.

13 For more on the original intent of the greenbelt towns, see Cam 1939.

14 The three are Greenbelt, Maryland; Greenhills, Ohio, and Greendale, Wisconsin. Some of the objectives of the towns were seen as too much like socialism and made some uncomfortable. The program was accused of being a threat to the private sector more so than the other New Deal programs and caused funding to be cut and the program to be folded into the Farm Security Administration as early as January 1, 1937 (Knepper 2001:25-29).

15 A recent real estate article in the real estate section of the New York Times quotes a local planning official as having studied the merits of the old plan of Greenbelt in planning a new major development directly adjacent, which is replacing an earlier development from the 1960’s (Hughes 2007).

16 The potential savings were estimated at $ 5 million but the site employed 13,000 people, who otherwise would have received unemployment or other benefits (Coffin and de Winthuysen Coffin 1988:49).

17 The area surrounding Greenbelt became a desirable location because of its large open spaces in close proximity to Baltimore and Washington and it saw a tenfold population increase between 1940 and 1990 (Lange 1997:190). This publication is mostly a social and political history that provides a good insight into the community as it evolved over time.

18 The Levittown Cape Cod was very similar to the Cape Cod kit named “The Nantucket” offered through the mail by Sears Roebuck twenty years prior (Hayden 2004a:108).

19 While FHA guidelines did not specifically suggest segregation by race, it did provide guidelines that sought homogeneity in income, race, and age for a successful community through restrictive covenants (Kelly 1993:60-65). Even after such covenants were ruled unenforceable, FHA underwriting guidelines continued homogeneity and not racial mix based on a belief of financial and social stability for neighbourhoods (Mitchell and Smith 1979:168-185).

20 For a description of the plan, see Anon 1949 and McCoy 1984. For the work of Garrett Eckbo, see Treib and Imbert 1997.

21 While initially CIAM was primarily concerned with housing, this quickly also included an interest in its broader implications, ie urban planning (Mumford 2002). For a general introduction of Le Corbusier and his ‘Ville Radieuse’, see Frampton 1992:178-185. An overview of the urban design and housing projects designed by the various CIAM participants may be found in van der Woud 1983.

22 During the interwar period, over a million houses were built by the local authorities in England and Wales while in the four years before the outbreak of World War 2, only 130,000 new units were sponsored by the USHA. See Jackson 1985:190-230 for more on the New Deal housing programs.

23 For a discussion of the evolution of high rise housing in the US, see Mumford 1995. He notes the influence of both the European modernist and the already existing American practice of building multi-storey residential structures. See also Stern, Gilmartin and Mellins 1987:428-447 for a summary of housing in New York City in the two decades before World War 2. Most of the projects noted are multi-storey structures in cruciform typologies. Only the Christie-Forsyth Street development proposal by Howe & Lescaze of 1931-1932 shows a pure modern scheme.

24 The issues surrounding the design of modern high rise housing and their success or lack thereof remain an important subject of discussion and controversy with very divergent points of view, which continues to affect preservation not only where it will concern these buildings directly but also as it concerns the general perception of modern architecture.
In her conclusion Radford (1997:208-209) argues that some of it did work and serve well. One of the culprits identified is the so-called ‘two-tier’ housing policy in the US, ie public housing versus the middle class mortgage income tax deduction. That opinion is echoed in Fuerst (2003) and he comes to a somewhat similar conclusion when discussing the Chicago Housing Authority. Peter Hall (2000:239-240), in discussing Pruitt-Igoe in St. Louis, sees its failure not the result of a ‘planning mistake’ but of the arrogance of the ‘Corbusians’, who did not understand what was needed for the population inhabiting the buildings. A point of view to some extent echoed in Hunt (1997:637-642) in his review of Radford’s 1997 book.

25 A good summary of the history of the development of Roosevelt Island may be found in Stern (1995:641-659). An overview of housing and their design and design methodologies for both low rise and highrise for the 1960’s and early 1970’s may be found in Macsai (1976).

26 The amount of historic fabric loss, though, depended on how much power the governments had in acquiring land through eminent domain. For instance, eminent domain was limited in France and therefore more of the historic fabric was retained (Pearsall 1984:24) while West Germany utilised eminent domain to redevelop large areas of its cities in the 1960s and 1970s (Kennedy in 1984:59-64).

27 According to the US Department of Housing and Urban Development since 2006 some 195,000 units of public housing have been demolished and another 230,000 are scheduled for demolition. See Brown (2007) on Atlanta where the typical brick structures – dating from 1936 – are being demolished to make way for quasi-colonial low-rise housing dispersed in presumably mixed neighbourhoods developed by private developers. The same has been taking place in New Orleans and Newark. For Newark, see Martin (2008), and for New Orleans, see Saulnay (2006) or Ouroussoff (2007). Ouroussoff states: “Some [public housing] rank among the best early examples of public housing built in the United States, both in design and in quality of construction”.

28 In 1999 the Chicago Housing Authority adopted the Plan For Transformation reflecting HUD’s Hope VI program. The viability of each high rise was assessed to determine whether it was physically and financially feasible to rehabilitate the buildings. While all housing for seniors (including Hilliard) was remodelled, for family developments demolition and rebuilding (in low rise quasi-historic) ways was considered more cost effective. By 2001 22 of the some 51 family high rises had already been demolished. Today only 9 of those high rises remain (Wilkosz 2009:13).

29 Landler (2006) describes the purchase of housing units in Dresden, Germany by outside investors and refers to similar purchases in cities like Berlin. For a – somewhat – comparative discussion between the US and Europe, see van Weesp and Priemus (1999).

30 For a brief summary of the history of AMIHI, the non-profit developer, see Siegler and Levy (nd).

31 Goldberger (1979:33) described the buildings as “…powerfully articulated towers of raw concrete [that have] aged well.” Giving the building credit despite their “heavy-handed Corbusier” inspiration, he described the complex as “well scaled, comfortable, and visually attractive – qualities which help any building survive the passage of time.” As part of the acclaim for this project, the firm Kelly and Gruzen earned a Bard Award when Chatham Towers received first honours: “Kelly & Gruzen’s rough expressionist towers, represent a new romantic reaction from international style simplicity” (Bird 1967:44).

32 Chatham Towers was originally a limited-equity co-operative but became a private co-op in the 1990s when the city property tax abatements for the non-profit Association for Middle Income Housing, Inc. ended. As a private co-op, the co-operative owns the buildings and the residents occupy the apartments under the terms of a lease, which in effect works as ownership. While the New York City landmarks law does not specifically require owner consent, it has been part of the operative procedures for the last decade to not designate without it.
José Luis Sert (1901–1983) was born and studied architecture in Barcelona, Spain from 1922 to 1929, where he also practised from 1929 to 1939 until the Spanish Civil War forced him to leave. He became best known initially for the design of the Spanish Pavilion for the 1937 World’s Fair in Paris, where Pablo Picasso’s *Guernica* was first displayed. In that period, he worked extensively with Le Corbusier in Europe, was an active participant in CIAM and served as its president from 1947 to 1956. He emigrated to the United States in 1941. In New York from 1941 until 1958 his practice, Town Planning Associates (TPA) with his partners Paul L. Wiener and Paul Schulz, was working throughout Latin America; among the numerous projects included a never implemented city plan for Havana, Cuba. Rovira (2003) provides the most detailed general discussion of Sert’s work. Rovira (nd) contains detailed descriptions of most of Sert’s projects.

The magazine *Architecture Boston* in 2003 dedicated its July-August issue (Vol 6, No.4) to Peabody Terrace. Different architects, former tenants and people that grew up there as children are interviewed and asked for their opinions. Hale (1974) lists some functional issues mentioned by the residents such as the elevator skip-stop system and the inalterable heating system. Space was apparently deemed adequate.

Sert’s plan for the residential buildings uses a basic structural unit to maximise the number of units possible while minimising the cost of construction. Each three-storey module contains two apartments per floor for a total of six. The middle floor has an enclosed gallery, which provides access to the centre stair embedded in the unit, the elevator, and the two apartments on that particular floor. The apartments on the floors below and above are only accessible from the centre stair and have no direct elevator access. As a result, the elevator stops on every third floor only, hence the name skip-stop for the system. While this solution was adopted to offset the cost of the elevators and to avoid a slab-like configuration, it became and continues to be the primary source of aggravation and contention. This module—three bays wide and three storeys high with a stair in the middle—is repeated and stacked in low and high rise alike, allowing for the differentiation in heights. A detailed description of the original project and its various components is found in Anon (1964b:122–133). Sert used the skip-stop elevator in a number of his housing projects. He undoubtedly knew of Le Corbusier’s use of the system. It saved costs not only for elevator construction but it also eliminated the need for galleries and corridors every other floor. It meant, however, that two thirds of the residents had to walk and carry everything up and down the stairs. Others in the US used the system, see Macsai, Holland, Nachman and Yacker (1976:382-395). In Peabody Terrace of the approximately 500 apartments, 15% are efficiencies (studios) measuring 415 square feet (38.5m²), 40% has one bedroom but is still only 487 square feet (45m²), 40% are two bedrooms and 766 square feet (71m²), and 5% are three bedrooms and 960 square feet (89m²) (Anon 1964b:124). A different mixture of apartment sizes is given in Anon 1964c:12–13.

I am indebted to Leland Cott, FAIA, who provided much of the detail contained in the restoration section. His firm of Bruner/Cott & Associates in Cambridge, MA was the architect for the renovation of Peabody Terrace in the 1990s. Dixon (1994:100-108) states that the renovation was necessary not only because of physical conditions, but also because of negative opinions voiced by the students.

Also see Anon 2003 for a discussion about public housing and high rise buildings between Lawrence J. Vale and Hubert Murray, head of Urban Studies at MIT.

The complaints centre on the town-gown issues and the lack of community within the complex itself. The latter is not entirely surprising given the fact that the occupants are an extremely transient population: graduate students.

Such a moralistic attitude toward the poor was a large part of the housing advocates’ campaign to gather support for improved housing conditions since the nineteenth century (Wright 1981:234).

Unlike Hilliard Center Marina City was a moderate income project, with minimum unit sizes dictated by Federal Housing Authority (FHA) guidelines, cost limits and rents lowered
to overcome the perceived prejudice to living downtown in non-standard, high-rise housing during the height of suburban flight.

41 Based on interview by Flora Chou with Peter Holsten, January 19, 2006.

42 Both the affordable units (55% of the project units) and the CHA public housing units (45%) limit the income of the occupants to 60% of median income, which for a family of 4 in Chicago is approximately $75,000. The difference is that the CHA units cannot rent for more than 30% of the occupant’s income while the affordable units have a set rent based on the requirements of other funding sources. The units are not physically designated public housing or affordable; instead, the percentage of the units for each category is maintained as they become available in both the family and senior towers.

43 Caldwell worked for the Chicago Park District during the Great Depression and was responsible for many of the city’s well-known landscapes, including the 1937 Rookery at Lincoln Park Zoo and Promontory Point on the city’s lakefront. He was influenced by the Midwest works of Frank Lloyd Wright and Jens Jensen. Caldwell taught at Illinois Institute of Technology from 1944 to 1959 while Mies van der Rohe was director and designed much of the campus landscaping as part of Mies’s masterplan (Kamin 1998).

44 A good summary of the project, its design and development can be found in Hession, Rapson and Wright (1999:192-201)

45 A good summary of the history of the development of Roosevelt Island may be found in Stern (1995:641-659).

46 For a tribute to Rapson, see, for instance, Mack (2008). The architectural office was located in the Cedar Riverside neighbourhood across from the project and continues today under the direction of his son Rip.

47 Brozan (2005) provides some interesting statistics. At that time the total population was a little under 10,000 with a mixture of approximately 45% white, 27% black and some 11% Asian. With regards to income 37% earned less than US$ 37,000, 40% between 37,000 and 100,000 and 23% more than 100,000.


50 The ‘street in the sky’ concept can be found in other housing estates most notably the Barbican and Golden Lane Estate both in London and by Chamberlin, Powell & Bon. To some extent Bertrand Goldberg used the same concept in his Hilliard Towers project in Chicago.

51 The preservation advocacy efforts were instigated by the Twentieth Century Society in co-operation with the magazine Building Design.

52 As contained in the previously quoted letter from The Culture Team of the Department for Culture, Media and Sport dated 13 May 2009 addressed to Jon Wright, Case Officer, Twentieth Century Society and signed by Lauren Warren, Heritage Protection Policy Advisor.