

INEFFICIENT BY DESIGN

Habitat for Humanity in North Philadelphia

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Abstract

The paper traces the evolution of a Habitat for Humanity over twenty-five years in its inner-city North Philadelphia neighborhood, focusing on the design of Project 1800, a half-block complex of new and renovated houses and outdoor spaces. The project was the local affiliate's most ambitious undertaking and redefined its modest house-by-house approach to providing homes to poor families. It sought to build upon the practice of repairing and healing the city fabric (Sennett, Alexander) to generate a new spatial structure (Alexander). Together with the Habitat staff and residents, a small team of architects and landscape architects would interrogate the complex problem of re-inhabiting abandoned neighborhood space in a human-centered paradigm. In order to sustain an emergent wholeness of place we grappled with several issues: How to make more potent the "inefficiencies" of human engagement in the design and building process while increasing production? How to reinterpret patterns inscribed in the physical fabric in response to fundamental change in habits of dwelling? How to create a porous environment that connects the individual to larger social and natural realms while maintaining boundaries that provide a secure foundation for dwelling? Without the funds or capacity to produce at a large scale, the design inventions in Project 1800 drew on its most available resources – time and collective imagination.

The Growing Whole

When Habitat for Humanity opened its affiliate in North Philadelphia in 1985, circumstances in the city were bleak. Since its high point in 1951 Philadelphia was losing population at an alarming rate. In four decades the

unstaunching flow of the working and middle class from the city left North Philadelphia neighborhoods frail. The residential fabric mostly built in the decades following the Civil War for the middle and working classes had been neglected since the Depression, with racially-biased disinvestment and the post World War II middle class exodus further driving its decline. The collapse of an industrial economy had left huge rifts in the urban landscape and along with it a regular rhythm of empty lots where the micro-economy of small mom and pop stores had once anchored the neighborhood block structure. Virtually every corner was now vacant, and small services like laundries, garages and repair shops remained abandoned until demolition became inevitable. Urban Renewal had either done its job too well, relocating residents of decaying neighborhoods to superblocks of public and quasi-public housing, or it had defaulted halfway through its mission leaving behind territories of disinherited space un-built for decades.

Into this unstable landscape Habitat for Humanity ventured, establishing a modest foothold in a depleted several block area west of Broad Street. Without literally demarcating boundaries, the nascent North Philadelphia affiliate identified a focus area with deliberate care, settling in uncontested space near but not adjacent to Temple University, and in an interstice between the territories claimed by existing non-profit community development corporations competing for slim resources. Obligated by charter to abstain from taking public money Habitat North Philadelphia would follow a course that was less hampered by local money politics. (Tyree, 2003) Its work would take place at its own pace with productivity measured by its own terms.

While Habitat North Philadelphia was forming, it purchased vacant auto repair building providing its operational center - workshop, storage and eventually the office. Extending from 19th Street through to Gratz Street, the workshop's physical presence embodied commitment to the place, where the energy of on-going work could be seen, heard and felt. It became, as a matter of practice the nucleus of the emergent neighborhood that developed over time as Christopher Alexander calls a "growing whole" where

increments add to and continuously redefine the organism. (10-22) Over twenty-five years sixty-seven new or rehabilitated houses have been built – and built in a pattern that is distinctly unlike that of contemporary urban redevelopment --neither with the passive opportunism of “scattered site” infill development adopted by the public housing agencies, nor with the spectacle of brand-newness which characterizes large clean sweep urban renewal projects. Rather, Habitat’s projects began close to the incubating body of the workshop, circling it and then spiraling outward, growing organically, centering its activities and catalyzing further growth. (Fig. 1)



Fig.1: *Habitat Growth and Neighborhood Impact Patterns 1985-2009* (image T. Nawrocki)

Habitat is focused on people and place rather than simply production; the practice of volunteer participation and homeowners’ contribution of sweat equity makes the work a slow, freighted process. Looking back, the affiliate’s first director described the work as “inefficient by design” (Tyree 2003). Operating as part of a complex physical and social fabric, the construction of each dwelling carries with it the real weight and density of a deeper situation: it must weave

together the collective lived histories embedded in the neighborhood, engage the crossings of multiple urban trajectories, and speak to the private desires for growth and renewal that collectively build community.

Learning to Build in the City: Healing and Repair

Every increment of construction must be made in such as way as to heal the city... the word “heal” must be understood in its old sense of ‘making whole’. It includes not only the repair of existing wholes, but also the creation of new wholes (Alexander 22)

The North Philadelphia Habitat was one of the first affiliates to be established in an inner-city, and at that time the parent organization had little to offer as a model for building in the urban situation where context was a strong presence. From its origins in rural Georgia, Habitat for Humanity’s objective of providing “simple decent housing for people in need,” was fairly uncomplicated: its detached one story wood frame housing was relatively easily built and did not need to negotiate the layers of existing social and physical realities found in a city site. The fabric in North Philadelphia, though aged and deteriorating, was nevertheless deeply inscribed and complex requiring a more nuanced approach to design and building.

Being inextricably bound to its place of operation the affiliate learned by trial and error to build in the city, gradually developing skill at using what sociologist Douglas Harper calls “live intelligence, fallibly attuned to the actual circumstances” (qtd. in Sennett p 199). Its first foray into new construction problematized the issues of intervening in an urban site. As a large vacant lot became available the young affiliate eagerly set about to make an impact on the neighborhood, and using plans borrowed from a suburban affordable housing developer, constructed ten new houses. Although it satisfied an immediate need for affordable housing, as an urban project it was opaque: it did not heal the city or make a new whole that would add to the organic growth of neighborhood. Low slung the homes seemed to shrink from neighborhood, and the car placed unsociably

between sidewalk and dwelling, permanently undermined the trace of street life that still existed.

Recognizing the project's weakness, the affiliate reconnoitered, and refocused its attention on rehabilitating abandoned row houses on the small streets adjacent to the new development. Healing and repairing the urban fabric became also a means of knowing the structure of the city from inside out. As Richard Sennett says in his book, *The Craftsman*, making and fixing are parts of a continuum. "It is by fixing things that we often get to understand how they work," (Sennett, 19).

The simplest way to make a repair is to take something apart and fix what's wrong, then restore the object to its former state. This could be called *static repair* ... A *dynamic repair* will change the object's current form or function once it is reassembled... A dynamic repair may involve a jump of domains, as when a mathematical formula corrects defects in observed data. Or a dynamic repair may invite new tools for working with objects." (Sennett 200, italics mine)

Indeed, the process that restored these houses to their former state revealed the inherent limitations of the existing type: 800 square foot homes on tiny lots could not accommodate Habitat's primary goal to provide for growing families who would stay and build the community. Through this careful process of static repair emerged a strategy of *dynamic repair* that would solve the problem of the too small house. The next project was more complex. By reassembling adjoining shells in various configurations the affiliate could create comfortably sized houses. Inside, kitchens were moved to the front and the utilitarian back sheds were rebuilt as well-fenestrated two story additions. Widened stairways extended the depth of the building, landing next to and expanding the zone of the kitchen. Reflecting on her experience, a new homeowner described a simple pleasure afforded by the design:

In the summer I can watch my kids out on the street from the kitchen and in the winter while I'm cooking my kids play on the stairway, smelling

what's coming up for dinner. It's nice family time. (Seitz, 2000)

Context of the City: Going to Scale

As Habitat North Philadelphia undertook this process of urban repair it sought out Temple's departments of architecture and landscape architecture to join with them in conceptualizing new patterns of dwelling and neighborhood space at a larger scale. It was clear that the sea change of population loss and lowered building density in the post industrial decades was an irreversible fact needing a new paradigm for rebuilding neighborhoods. But the erase-and-replace strategy in play by the city and its development partners was not useful for the community-building agenda fundamental to Habitat mission. Taking into account the web of existing and emergent conditions in North Philadelphia's neighborhoods, our work would provide the basis for building an alternative vision.

We were alarmed by the market-driven policies that were reshaping whole cloth former urban neighborhoods. Philadelphia had inaugurated a new anti-blight program, the Neighborhood Transformation Initiative, which sought to repopulate abandoned city neighborhoods. Well-intended, but in a top-down process so much like those of past redevelopment initiatives, the city targeted blighted neighborhoods, properties were taken by eminent domain, residents were relocated and land cleared, eradicating traces of inhabitation embedded in urban landscape. New construction could proceed uncontested by neighbors and unfettered by existing buildings. With tax abatements and the flow of subprime mortgage money, what had begun as a trickle of interest from the private sector soon became a land rush as new markets in the inner-city emerged.

The large sites were rebuilt from scratch with a vision of low density suburban site planning, reducing densities from forty to twelve units per acre. The projects produced a new urban text that was flaccid, a field of objects surrounded with space leaking in all directions, without the energizing force of complexity, wholeness or continuity. Housing was designed with surface charm in hope of coaxing those people with middle class aspirations back into the city -- as

if by living in these homes they might complete the image. (Harrison, 1999) In this banal utopian vision, efficiency was the rule; repair was its antithesis.

In this context we formed our partnership with Habitat. Starting out we volunteered on-site so that we would share in their perspective of hands-on engagement, and as we gained our footing, began exploring the larger context. We formed a team of academics and neighborhood residents that walked the community and made detailed site-generated physical mappings of current conditions. Combined with demographic and historical research, these produced a narrative of the place at the crux of transition.



Fig. 2: *North Philadelphia's deteriorated context*

Among our observations were how the culture and the of the street had been transformed with the erosion of the building fabric, and that the existing row house types were often poorly attuned current habits of living – either too small for families (as was apparent on Morse Street) or too large to maintain, and with minimal private outdoor space. The primary grid streets were originally built up with large row houses which when converted to apartments became overcrowded and poorly maintained by absentee landlords. The properties decayed, and were abandoned creating uninhabited territories that had lost structured urban purpose. Beaten paths cut shortcuts diagonally across long partially eroded blocks. (Fig. 2) The overriding impact on the street life was profound - functioning now as corridors for fast-moving traffic they were dangerous to pedestrians and had been easily appropriated by the drug trade.

But within this overall pattern of decay we had also found places that were remarkably robust. Tucked within the grid were small intact enclaves one or two blocks long that seemed to have been untouched by the collapse around them. The houses were, atypically, of a medium size and fit well with the street scale. Strong spatial boundaries defined these intermittent streets, and freedom from through traffic allowed to residents claim the place as a whole. From the well maintained houses, to the in-between space furnished with lawn chairs and planting pots, to the sidewalks shaded with street trees, this kind of place could inform Habitat's understanding of how to build in the city. Seeing the possibilities for dwellings pattern that could reconcile the current housing needs with the problem of incremental urban growth, we turned our attention to planning and design for the Habitat neighborhood – a decade long undertaking that would involve partnerships with neighbors, builders, city agencies and affiliated professionals.

Beginning with the home – the basic neighborhood building block - we proposed a concept for new mid-sized infill house that would draw upon both our site observations and essential lessons about light, living space and material context learned from the reconfigured row homes being built on Morse Street. Several empty lots across the street would provide a testing ground for new construction that would make this tiny block whole. The ideas were passed on to another architect and the project was realized as three pairs of twin homes, simple, generous and neighborly. As an infill project it was small enough in scale to circumvent the parking requirement so the homes could be tightly packed, maintaining the rhythm of the street. Free of the structural uncertainties of renovation, the homes could be constructed with longer span floor joists and truss roof framing. A language of building that was both locally responsive and technically appropriate began to emerge. Through a process of learning from the patterns of the city, healing and repairing the fabric, engaging the deep structure of the place, Habitat was prepared to take its next step.

Growing a New Structure: Project 1800

In the process of growth, certain larger structures, or centers emerge. These larger centers are distinct and recognizable entities, larger than any individual building... these centers emerge slowly. That is, there is no one act of construction which totally produces one of these structures by itself... These larger centers [...] take shape gradually and are always surprising, even to the people who helped create them. (Alexander 1987, 39)

Challenged, but ready to take on a larger project in its own terms, the Philadelphia affiliate sought to step up its production. Having steadily acquired vacant uncontested properties before the building boom had made them a market commodity; the affiliate had assembled a relatively large site ready for a new more ambitious undertaking. Dubbed Project 1800 because of its street addresses, the work would focus on the larger half of a block directly behind the Habitat's workshop, bordered by the 1800 blocks of Gratz, Montgomery and 18th Streets.

Project 1800 would have the complexity to make a "jump of domains" as Sennett would say, or, in Alexander's terms, to grow new structures for collective inhabitation. We worked with the affiliate to develop a practice of community-building through design as we began to plan the project. Together we would grapple with questions that address the multi-scalar phenomena of urban living and the practice of building as a social enterprise: How could we make more potent the "inefficiencies" of human engagement in the design and building process while increasing production? How might we reinterpret patterns inscribed in the social and physical fabric in response to fundamental change in habits of dwelling? How would we be able to create a porous environment that connects the individual to larger social and natural realms while maintaining boundaries that provide a secure foundation for dwelling?

Habitat had not yet identified the future homeowners so we developed the program for the design of site and dwellings

based on an accumulation of shared knowledge about the place derived from discussions with recent Habitat homeowners as well as those had lived in the neighborhood for years. A distinct sense of belonging emerged as residents began to project ideas about a development that they would not inhabit themselves but would impact and serve the larger community.

They were pleased to live in a neighborhood alive with the positive pro-social activity of daily construction, but they were distressed about the threat of crime came at nightfall. They wanted to reclaim in-between spaces, like their front windows and stoops, to watch over and engage the neighborhood. Parents yearned for safe space for their kids to play after school that they or their neighbors could informally supervise. Elderly residents reflected on their childhood experiences in the rural south where connection with the natural environment was seamless; here it was interrupted. One whose house front was planted with climbing roses described her dark but lushly decorated interior as a "garden without sunshine". Younger adults in the community talked about the tensions of living at close quarters with parents, and how their houses could not accommodate different spaces to gather. Families --often multigenerational and with changing household members - needed more fluid living space, more privacy, and unchartered space. And they needed space for the car.

The site was complex. The block at its south end was largely open from previous slum clearance initiatives, but in places it was peppered with existing houses, some vacant in various conditions, and some populated with families living in homes, retaining a tenuous foothold in a rapidly eroding fabric. The surrounding streets were also diverse in character: Montgomery, a once elegant street but now decimated and virtually devoid of context, fast-moving 18th street with its dilapidated three story row homes, and narrow, intermittent Gratz Street with a hodge-podge of three and two story dwelling, one-story gabled garages and the rear access bays of the Habitat workshop.

To bind together this uneven social and physical fabric we needed a pattern that would address lower building density without resorting to inner-urban sprawl. The city's current

preferred house-type -- the twin home with porches attached to the front and parking to the side - was a strategy so rigid that it demanded a fully cleared site. We settled on a tactical approach that would weave new housing into the existing fabric in a way that would rebuild the integrity of the street as a public space and allow a diversity of dwelling options. Vacant viable structures of various sizes would be rehabilitated and new attached homes would be introduced in groups of three, four and six filling in gaps between existing occupied dwellings, and establishing an anchoring presence at the open corner.

Of the many issues that had surfaced in Habitat's incremental process of building, the possibility of introducing new systems of positive open space had yet to be examined; but in design at a larger scale it was now relevant and critical. Ironically it was in seeking a solution to the most mundane and functional requirement -- parking the car -- that could generate a vision for incorporating collective outdoor space. Looking closely at the block structure we found a pattern that had all but dissolved in the physical decay but remained inscribed in the urban landscape. Long three foot wide alleys ran the length of the 19th century blocks, and were part of the street structure. Once providing rear egress from the densely built row house streets they were no longer used and regarded as a safety and security liability by residents. Narrow and overgrown, and often blocked with debris, they could harbor vermin and camouflage intruders. But reinterpreted they might provide a new kind of space. We proposed a scheme that re-envisioned and restructured the alley as a widened path that cut z-shaped through the center of the half-block. All homes, including those already occupied, would share the internal space; and would engage the different public domains of the three streets that defined the site's perimeter. The internal space could accommodate car-parking without eroding the street wall and provide space for play and informal communal gathering. This was in a sense dynamic repair at a site level, jumping from the domain of the traditional block, to a new urban structure.

A strategic idea, it developed tactically, with bends that navigated around existing lot lines, creating room-like

subspaces within. The pattern of the well-inhabited short bounded block that we had observed in our context research had resurfaced transposed to the interior of the block -- woonerf-like in between private and public. (Fig. 3)



Fig. 3: Site axonometric Project 1800: Reweaving and reinventing the existing fabric

And not unlike the mid-block beaten paths we had observed in our preliminary research, this space was a new kind of pore (Starvrides, Benjamin) in the larger urban fabric.

With a footprint half again as wide as the traditional row house, the infill homes would provide comfortable dwelling space. The unit design grew out of neighborhood discussions about program. Front porches, though not part of the existing typology of the area, were introduced as a vital social filter between the public and private domains. These were compressed into the façade of the new homes, both intervening and rebuilding the scale, rhythm and materiality of the street. Quite compact at 1350 square feet particular emphasis was given to the spatial qualities of the shared living areas. (Fig. 4)

Large windows and an additional foot of ceiling height would increase scale and porosity inviting natural light, view, and a flow of fresh air could create connections with social and natural worlds beyond the dwelling. The living

room was placed at the front of the house with large front windows on the street and kitchen and dining areas at the back over-looking the garden and the larger space of the



Fig. 4: Project 1800 Phase 1: Montgomery and Gratz Streets

common driveway court beyond. Configured in an “L” the ground plan would capture part of the private outdoor space in a deck connected to the garden. The units could be built to accommodate either three or four bedrooms, with the potential for two side by side bedrooms to be converted to a large loft-like sleeping space, as household configurations changed. A deep basement, unfinished but well lit was included at the encouragement of the neighbors who advised during the design.

New Domains of Engaged Practice

As the project moved from design we collaborated with an architectural firm to assist with documentation, and we were joined by an unlikely new partner, a suburban developer with an interest in supporting Project 1800 through the firm’s fundraising capabilities and professional experience in producing residential construction on a large scale. As designers who believed in the Habitat’s demonstrated commitment to place-making as a social operation, we were leery, but recognized that affiliate’s aspirations could not be accomplished alone. With a construction manager and three staff carpenters directing revolving teams of unskilled volunteers, and only subcontracting to specialized trades, the affiliate did not have the capacity to execute this complex project.

But having begun experimentation in the Morse Street twins with new construction methods, Habitat was ready

move into the next domain of engaged practice – one that would carefully combine site-based volunteer building with standardized production. (Fig. 5)

The developer proposed a method of panelized construction that would dramatically increase the efficiency of framing hitherto done by stick building. He offered his shop and framing team to produce wall panels sheathed and with openings in place. These would be trucked to the site and could be rapidly erected once the foundations and piping had been laid. Framing Project 1800 would have the effect a series of mini “blitz builds” with teams of volunteers following behind the construction crane and a small army of professional builders. In the first phase, the erection of wall panels and the installation of floors and roofs took less than two weeks. The open corner at Montgomery and Gratz Street, inert for so long had very visibly come to life. Framed, the project was ready for full participation.



Fig. 5: Diverse building methods and housing types

Meanwhile a steady program of renovations to the vacant homes gradually restored the fragmented existing fabric. A range of housing opportunities and a heterogeneous approach to rebuilding responded to diverse needs and possibilities for engagement. While the initial construction was planned the Habitat was identifying homeowners. The momentum created by the increased production also created a new domain of practice in homeowner participation and community-building. Now multiple families were engaged in the sweat equity that was an essential

component of the Habitat ethos. Far from undermining the beneficial inefficiency of holistic process, the accelerated pace of production had created a critical mass of communal participants. Working on their own homes as well as those of their neighbors, new homeowners developed an esprit de corps. As each of the subsequent phases of Project 1800 were initiated, homeowners who had already moved in organized celebratory barbecues in the emerging communal space at the center of the block. The excitement of shared participation in the process of building a new place, larger than their individual dwelling, grounded friendships that have been sustained to this day. (Musselman). In recent walk around the neighborhood, one of the original homeowners proudly gestured to the four houses on Montgomery Avenue where she and her neighbors live: "Oh yes, I built all of these houses." (Hall)

Emergent patterns of dwelling: Post occupancy observations

Neighbors who had helped in the design process had a stake as well in the new project. The quality of life on their blocks in terms of both neighborhood appearance and defensibility had been tangibly improved as each new home became occupied. A privately owned drug house located directly in the middle of Gratz Street that Habitat had struggled for years to acquire or have shut down was finally surrounded. With more eyes on the street, and the back now giving out to a communally supervised space, its denizens were no longer able to operate freely and the drug dealers abandoned the property as the last phase of Project 1800 was completed. Indeed the neighborhood as a whole has been remarkably free of crime. (Musselman). Other privately owned vacant houses not owned by Habitat had begun to have a market appeal and several were bought and renovated by private owners. (Fig. 1) One enterprising resident rehabilitated a long abandoned corner store at the center of the neighborhood near the Habitat workshop. The new market is a convenient and busy center for informal neighboring. Ironically the emergent nuisance is the influx of university students into the neighborhood. (Hall, 2010) Fortunately Habitat's mortgage policy is an excellent hedge against gentrification.

The new homes of Project 1800 have been inhabited over several years, with the final renovation on Gratz Street completed in the fall of 2009. Only one house – a very early renovation -has been resold; the owner having found work in another part of the city. (Musselman). There is a feeling of settling in. Homeowners are pleased with their



Fig 6: Porosity, front and back (upper left image by J. Johannssen)

new houses. The porosity of the space with its fluid plan, its well-used front porches and generous outlook has created livable space that connects the residents with the worlds beyond their private domain. (Fig.6)

While the ground floor works well for the different families, the upstairs space has been less successful; bedrooms are too small and the option to join rooms together never undertaken. A designer's idea of flexibility may not be so easily done in real life...The basement, however, emerged as a very valuable flex space. It is almost always well used for storage, a workspace, or (not entirely legally) as a private apartment for adult children with babies, or a temporary place to stay for a relative looking for work. The neighborhood design consultants had vigorously insisted on having a "good basement", and we had defended it from the rigors of value-engineering, deemed by the developer as a \$15,000 waste of space. Our argument -- true in its

own terms-- that a basement would lift the home above the street, creating a situation that was more defensible and a scale harmonious with the adjacent buildings had been tough to advocate in the face of bottom line thinking. We were glad that the neighbors knew something we did not. If perhaps we had listened more carefully we would have reoriented the main stairway differently, so that access to the basement would have been more discrete and the landing could function as it did on the Morse Street houses as a place to hang out near the kitchen.

As we planned the site we had been worried about the unorthodox ownership of the shared courtyard space, especially in terms of maintenance and security. Private housing in Philadelphia was strictly lot simple, and this was a new pattern, neither a public street nor a private driveway with clearly assigned responsibility. The rear drive was built as an easement though private property, and though lightly used for vehicles we had decided that it be well-paved for sustainability, and has stood up well. Owners have cooperated in shoveling snow, and done spring clean-ups. With only one incident in five years, security has also not proved to be a problem. Security lighting installed at the rear of each home provides illumination at night. And space configured with distinct thresholds at its two entrances, reads as claimed and cared for. Although we had originally believed that a homeowner's association would be the best vehicle for managing communal responsibility, this has proved unnecessary, and perhaps in its efficient control would have undermined the neighborly cooperation that has emerged informally in response to the given situation.

The space has emerged as Alexander would suggest, in ways not fully anticipated. The original design had envisioned a space with rows of shade trees along the drive flanked by private gardens that were landscaped and partially defined by solid fences between patio of each dwelling, and low hedges at the communal edge. But as the economy began to soften, funds for the landscape and outdoor amenity were diminished. Wood fencing was abandoned in favor of chain link, and trees and shrubs never installed. As designers we were extremely disappointed at the outcome, concerned that without these

key design elements the place would be unused, un-cared for, and deteriorate.

Though is more ragged than the original vision, it appears to be a robust contribution to the neighborhood structure. A "loose space" it slips between private and semi-public domains. (Franks and Stevens) adding a new layer to the dwelling experience, increasing the depth of neighborhood affiliations. As one resident put it, "I have my street neighbors and then I have my backyard neighbors. We know each other in different ways."

The back court has been most vigorously appropriated by the children of the neighborhood. (Fig. 6) The children who live in the homes are its primary users; they "own" it the way that children do-- with an open-ended invitation for friends to join in gamest exists in semi-secret, frequented by kids who live in a two three block radius. Variants of kickball, and keep-away are favorite games, and at one end a family has in contributed a portable basketball hoop. On paved surfaces more generous than the narrow sidewalk kids jump rope and play hopscotch under the casual observation of parents or neighbors.

A Craft of Inefficiency

A craft of inefficiency has been well-honed by Habitat North Philadelphia over its twenty-five years. Without access to mass capital resources and the capacity to generate mass production of a single commodity it defaults to its richer resource of time. In taking the necessary time to heal the neighborhood it has formed a model of building in the city that may be worthy of consideration by other entities. Inefficiency in production has allowed the emergence inventiveness as it draws into its process a rich program of ideas and actors. The hopefulness of the building enterprise is embodied in the participation of the community. With much at stake their unskilled – and inefficient - involvement constructs for them a heightened sense of the reality of the dwelling experience, of their connection to the neighborhood environment and of the craft of building. (Musselman). Project 1800's open-ended design process has yielded physical space that is similarly porous, loosening the discontinuities between the owned

and collective realms. Fundamental environmental qualities that have been excluded from dwelling by the harsh exigencies of living in poverty have been introduced through careful consideration of the in-between. Space that invites creative accommodation, that is infused with light and air, and that connects the dweller to natural and social systems and to the constructed history has emerged in time. Modest in its design, Project 1800 and the new situation it has evolved is nevertheless radical, as it has penetrated deeply to the root of the dwelling experience.

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