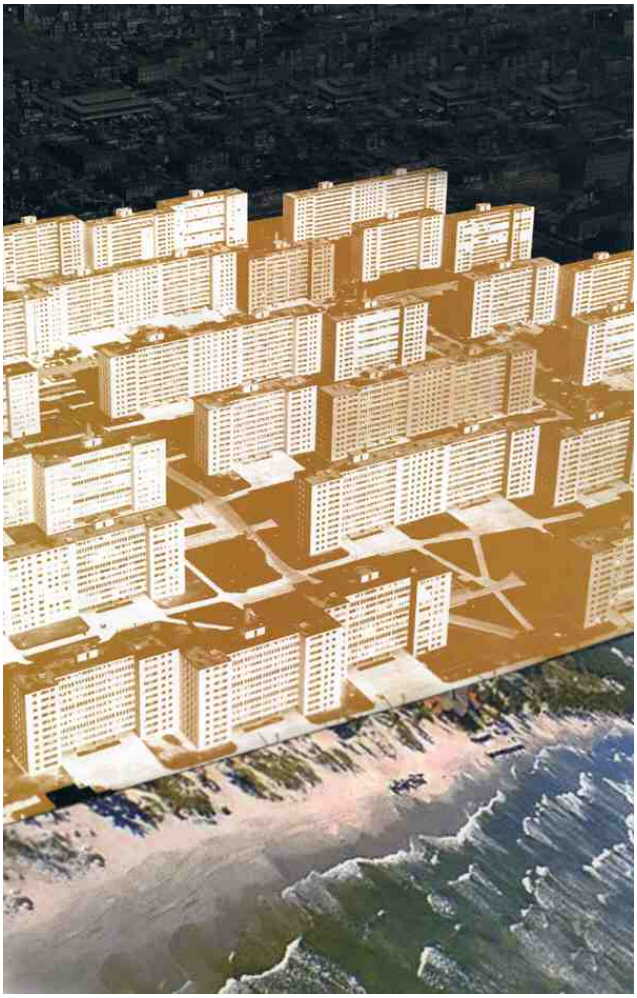
Vertical Village:

culture versus technique in high-rise public housing



Advanced Seminar in City Form

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Julian Beinart

Robert Cowherd

Scott Francisco, SMArchS II

Vertical Village: ***culture versus technique in high-rise public housing***

scott Francisco

This is a paper about housing written from the perspective of an architect—someone who loves to design and build, and believes in the relevance of tectonic construction. The paper's main purpose, however, is to question some of the prevailing ideas of material and formal determinism that are still common in the architecture and planning academy –expanding the potential of design beyond the material, into other worlds of intentionality.

On my first trip to Asia, a seaside walk was interrupted by something mysterious: Fragments of inhabitation barely visible through the foliage of a flanking hillside caught my view—ancient and out of context in Hong Kong's massive vertical density. Curiosity drew me into the canopy, up a narrow path running beside a stream, both of which seemed a deft collaboration of man and nature—a bit of stone fitted into a crevice, concrete formed to channel the flowing water; a tiny bridge shaped from a block of wood, polished black by countless feet. Nothing was planned, yet intention was everywhere.

On either side of the path were dwellings, stacked and woven into the slope with a warp and weft of urban flotsam. But not a sound or a voice—no clanking pots, crying babies, footsteps or grinding gears—only these silent dwellings. Doors wide open, and people nowhere, I entered house after house in awe. What had happened here? Who were these people who had left pots and pans, books and toys as though laid aside in a distracted moment? The mystery intensified with the official looking notices posted throughout the village—layered up, one over the other in an obvious paper dialogue. Fluency in Chinese was not necessary to understand their intentions, and finally the bright red characters stencilled defiantly across the last layer of bureaucratic officialdom: Condemnation, relocation, resistance, eviction, rebellion—policy and technology against the determination of dwelling: history, memory, meaning, and a small wooden bridge that thousands of bare feet had worn smooth.

At the top of the hill, another structure presented itself in a well-groomed clearing: a tower rising 15 storeys, clean, new and orderly into the mist. Several people passed in and out; someone called from a balcony; a truck pulled away.

At the time I did not recognize this as a classic Hong Kong 'relocation'—squatters moved into resettlement estates—a project that had been underway for more than 50 years. Nevertheless, my architectural heart sank, even as my architectural brain began to reason out a loss-benefit analysis.

The history of engineered or planned social housing, based on enlightenment concepts like *rationality, technology*, and ultimately *modernism* has had at best, a history of mixed successes in both the public and professional realm. High-rise towers set with unbending precision in fields cleared for the purpose, conjure up for many people, images of alienated inhabitants shackled to dysfunctional "machines for living". Exhaustive studies in North America has all but 'proven' the disastrous effects of this method of housing, and for the most part, contemporary planning and architectural thinking has responded by sentencing the 'high-rise social housing-block' to solitary confinement, or at least reform school.

Western architects and planners have played a major role in this judicial process, serving part-time as both judge and jury, reform-school masters and prison guards. In doing so they have managed to continually reassert the importance of built form and policy infrastructure, despite the multiple failures of either to create or sustain social change[1]. A circular pattern of production emerges: *problem, manifesto, manifestation, frustration, critique, repeat:* Problems with the *architecture*, the *planning*, the *policy,* the *technique*, call for *different* buildings, *innovative* policy, *better* planning, *new* techniques. Fresh manifestos are called for, and produced; Architecture is there to help! But before architects sharpen their skills for making 'new' and 'better' forms of public housing, it might be useful to look again at the complex set of conditions that contribute to the success and failures of built work:

Although common knowledge and numerous examples in North America would hold

[1] Although this point scarcely needs validation, it will be addressed directly in the analysis of Hong Kong resettlement outcomes, which show that in spite of the perceptions of residents or bureaucrats (on either side of satisfaction with the new housing) almost all measures of living standards remained unchanged after the move from squatter dwellings to the new high-rise estate projects.

high-rise housing responsible for urban blight; a broad analysis of this housing type also tells a different story. On a global scale, not every rationalized mass-housing project ends up synonymous with urban decline, crime and neglect. While not exonerating built form from its culpability in social outcomes, this paper argues that the realization of satisfactory housing is less determined by 'technical', 'utilitarian' and 'rational' projections than by alternative constructs that sometimes operate in opposition to the technical or rational. After all the well-worn rhetoric of modernism and its discontents, the question remains: *why do some housing projects, despite overwhelming physical odds, 'work', while others with no less (and often more) physical advantage go awry?* This question is incredibly broad, and will thus be narrowed through comparison of two architecturally similar housing projects on opposite sides of the world—the iconic American failed public housing project Pruitt-Igoe in St Louis, and the less infamous Mark I-VI resettlement housing in Hong Kong. The similarities and differences between these projects reveal numerous systemic influences, but of particularly interest is the role of 'culture' as an entity that appears to play a defining role in housing outcomes as it operates from inside and outside on inhabitation, perception and context.

Competing *Structures*: beyond the failure of modern form

Studying the relationships between 'form', 'culture' and 'technology' has always been part of architecture, despite the difficulty presented by the complexity of each of these individual concepts. Each concept, however, is critical to an analysis of modern housing, and as they are also within reach of the designer, our goal will be to understand them and how they relate to each other. Famed cultural theorist Raymond Williams saw 'culture' as "one of the two or three most complicated words in the English language"[2]. Following this, I suggest "form" and "technology" could be seen as contenders for the other spots. As the theoretical arguments that follow are based on these complex and contested concepts, we will begin by constructing some working definitions and background:

[2] Williams, Raymond. Keywords. New York 1976. Pg 76

Culture

Tracking the history of the term culture from its root *cultura,* which "had a range of meanings: *inhabit, cultivate, protect, honor with worship*." Williams, points out that "*Culture* in its early uses was a noun of *process*: the tending of something…" But he also noted as a primary concept that, "'Culture is Ordinary'… Every human society has its own shape, its own purposes, its own meanings…[expressed] in institutions, and in arts and learning. The making of a society is the finding of common meanings and directions, and its growth is an active debate and amendment under the pressures of experience…"[3] Around the same time famed anthropologist Clifford Geertz outlined a concept of culture that was "essentially semiotic"[4]. "Believing…that man is an animal suspended in webs of significance he himself spun." Geertz understood culture "*to be those webs*". The analysis of culture, he continues, is not a "science in search of law" but rather an interpretative process "in search of meaning". This contrast between *science* concerned with "law", and *interpretation* bound up with "meaning", will become a central concept in our comparative analysis of culture, form and technology. At issue here is the *way in which*, and the *force with which*, culture operates to produce particular results, and thus its potential role with respect to the intentionality of design.

Cultural theorist and business historian Kenneth Lipartito, refines and pragmatizes the definition of culture "as a system of values, ideas, and beliefs which constitute a mental apparatus for grasping reality"[5] that is inferred to channel desire and action, and desires *into* action[6]. Organizational Culture theorist Edgar Schein looks at the origins of these systems, concluding that: "…cultures begin with leaders who impose their own values and assumptions on a group…which if successful…come to be taken for granted… as the group encounters adaptive difficulties, as its environment changes to the point where

[3] Williams, Raymond. *Culture and Society,* 1961.
[4] Geertz, Clifford. The Interpretation of Culture. 1973
[5] Kenneth Lipartito, "Culture and the Practice of Business History" University of Houston 1995 pg 2
[6] Francisco, Scott. *Culture Lab*, MIT 2004 <www.culturelab.org>

some of its assumptions are no longer valid, leadership comes into play once more."[7]

We now have a constellation of several key concepts: culture is a system of norms, values, meaning, signifiers, artefacts and habits, *created by people,* that structures: desire, action, relationships and power.

The Cultural Turn in social and critical theory occurred as a movement that, in light of failed Marxist structural materialism, began to recognize the autonomous nature and power of culture[8], linking up many theorists who were interested in these collectively-constructed systems. The movement "…put forth the notion that class consciousness was conditioned by collectively constructed norms and values (culture) and was not simply the inevitable product of material self-interest"[9] The patterns of behavior that culture engendered, it was recognized, are often much stronger than other contextual factors; "Anthropologists hav[ing] documented the *long term stability of core principles and traditions despite often striking transformations of the forms through which they are expressed*, be they religious, political, economic or material culture."[10]
(my italics)

For designers, architects and planners, this concept is critical. If culture can engender "long term stability" *despite* variations of form, the notion that architectural form (or any other externally applied structures) can create social change is massively undermined. On the other hand, if culture's power is harnessed in some way, it might be seen as a solution to some of the problems themselves. Here Schein's concept of 'leadership' becomes intertwined with the intentionality of 'design': If design is seen as a form of leadership, it must not operate in the material realm alone, but in any place where values

[7] Schein, Edgar. *Organizational Culture and Leadership.2nd Ed.;* San Francisco 1992. Pg 1
[8] Williams, Raymond "Cultural Materialism" was one example of the shift by Marxist thinkers into the realm of culture. See: Williams, Raymond "Base and Superstructure in Marxist Cultural Theory" *Problems in Materialism and Culture*. Verso, 1980
[9] Cowherd, Robert. "The American Dream Overseas: Cities Of The Developing World And The Cultural Turn" 2003 (Pg 3); referencing E. P. Thompson, *The Making of the English Working Class* (New York: Penguin Books, 1979 (1963)).
[10] Cowherd, (Pg 3)

and meanings can be found that structure and prefigure particular social outcomes.

Form in architecture is a similarly difficult concept, having been used to describe everything from the complete built work, to the very particular, even superficial, quality of shape and surface in opposition to 'content' or 'structure'. Countless architects and theorists both inside and outside the discipline, have explored the nature of form as a particular entity with varying degrees of agency in the architectural project. Rudolph Arnheim's famous *The Dynamics of Architectural Form* begins with the realization that: "the perceptual forces which organize visual shapes and endow them with expression [are] embodied in the geometry of architecture with a purity found elsewhere only in music", continuing that: "Design is nothing more or less than the creation of a building's tangible and visible shapes." This being said, we are only slightly closer to a definitive understanding of the concept of form, except to say that form is concerned both with the *visual*, and the *tangible*. Arnheim goes on to defend against the critique of formalism[11] by reminding his readers that: "Dignity, a sense of pride, congeniality…are primary needs, which must be seriously considered when the welfare of human beings is under discussion. And since they are requirements of the mind, they are satisfied not only by good plumbing, heating and insulation, but equally by light, colors, visual order, well-proportioned space, and so forth."[12]

For the purposes of this discussion we will focus less on the rarified or exclusionary notion of form as purely aesthetic (even if this were possible), or form as a critique, even though its volatility undeniably plays some role in this analysis. For us, form will be used to describe the architectural artifact as a physical structure, separate from its context and its many fields and forces of inhabitation. Having already argued that the role of designer might be expanded beyond a simple preoccupation with objects, it should be clarified that designers and architects as 'professionals' are expected to preside over the process of making them. What follows this possible contradiction is that forms may be made in

[11] Formalism in architecture is generally a pejorative notion, implying the rejection of content in pursuit of aesthetic satisfaction. See also Raymond Williams *Keywords*, Pg 113
[12] Arnheim, Rudolph. *The Dynamics of Architectural Form*. London. 1977

different ways with different frames of reference and intentions, and it is the goal of this paper to shift these frames, and not necessarily a participation in form-making itself.

The critique of form, particularly the forms associated with modern architecture help refine our terms. Let us remember, as a background to the complex ideality of modern form, that the same voice who exclaimed: *"…Suddenly you touch my heart. You do me good, I am happy and I say; this is beautiful.";* also declared that: "On the day when contemporary society, at present so sick, has become properly aware that *only architecture and city planning* can provide the exact prescription for its ills, then the day will have come for the *great machine to be put in motion*."[13] (my italics)

Following closely on the heels of various and sundry, often bastardized, global implementations of large scale modern architecture, however, came a realization that these forms did not always live up to their promises. In fact numerous examples were beginning to show signs of catastrophic failures in terms of the quality of life of their inhabitants. Critical commentaries began to emerge in droves condemning the consequences, forms and ideals of modernism. Jane Jacobs' *Death and Life of Great American Cities,* Colin Rowe's *Collage City,* and Charles Jencks, *The Language of Post Modern Architecture*, all played a key role in the rising condemnation of modern architectural and city form.

One of these landmark books, Oscar Newman's *Defensible Space,* was a powerful agent in shifting architectural and planning sensibilities away from modern rationalist systems of form making, which had often resulted in high rise towers set in undifferentiated fields. The text redirected both professionals and academics towards a "recognition of the significance of territoriality" and the *"development of a new rationalism for housing design*."[14] The following excerpt from *Defensible Space* exemplifies the critical discourse on modern housing of the time:

[13] Le Corbusier, The Radiant City. New York, 1964 pg 143
[14] Newman, Oscar. *Defensible Space.* New York, 1973. Pg xvi

> "…The new dorms are tied together in one long double-loaded slab structure, not unlike a motel. Students in the new dorm structure feel isolated without any sense of community. It is claimed by the college councilors that the students easily fall into patterns of antisocial behavior… The *old* dorms are divided into separate buildings which resemble old manor houses. Students in each dorm have a strong sense of identity and communal responsibility." (my italics)[15]

Arguments like these are well-known, and empirically demonstrated in many instances throughout North America, and it is not the intention here to undermine any of the basic tenets of this critical discourse. But if we can free ourselves temporarily from our culture of western-architectural-education, a statement like this begins to carry an equal force of logic and absurdity: 'hallways' and 'Manor-houses' inducing "anti-social behavior"? And imagine…living in a *motel!* The use of symbol is critical here; allowing an evaluation based on cultural tropes already fully invested with values in the given context: After all, what hopeful American parent would want their child living in a "motel"? Wouldn't a "manor-house" be a more fitting place for brilliant young Amanda to meet the academy? Nowhere are we appraised of what Amanda *brings to* the motel or Manor House, or how these symbolic cultural descriptors frame the way she inhabits the space and relates to the people she shares it with. Instead we are left once again only with architectural *form,* as both problem and solution. As our examination will demonstrate, similar forms inhabited by different cultural systems can have vastly different outcomes.

Technique

Returning to Le Corbusier's "*great machine*" to be *"put in motion*" illuminates another critical layer in the discussion of modern architecture's relation to form and culture. The high-rise slab form, so indicative of modernism, is also revealing of another concept, arguably separate, on which this form is based: that of "*technique"*. Philosopher and critic Jacque Ellul has written extensively on this elusive yet ubiquitous phenomenon,

[15] Ibid Pg 76

developing a concept of ‘technique’ as an autonomous, self-fulfilling and ever expanding force which by nature claims an increasing portion of both public and private space: In *The Technological Society,* Ellul describes the ethos of technique beginning with and epitomized by the machine, that has now become completely independent of it, even surpassing and transcending it.[16] To Ellul technique is "the totality of methods, rationally arrived at and having as its goal, absolute efficiency…in every field of human activity. …It clarifies, arranges, rationalizes, it is "efficient and brings efficiency to everything"[17]

> “Technique advocates entirely remaking life and its framework, for they have been badly made. Since heredity is full of chance, technique proposes to suppress it so as to engender the kind of men necessary for its (technology's) ideal service…It is no longer necessary to rely on the chances of the family or on the society.”[18]

This vision of ‘technique’ is obvious in the modernist glorification of machine, mass production, rationality and industrial process. It is seen in writing and image making, but even more poignantly in architectural *form*—the translation of these ideals into material structure—even when at great odds with the process of building itself.[19] Thus the form of the modern tower block so common by the 1960’s, begins to operate as both a rationalized framework for actual day to day living, while at the same time functioning as a reminder of the methods of “absolute efficiency”. What becomes both most interesting, and contentious, in Ellul’s notion of technique and technology, however, is his conviction that these forces are fundamentally *incompatible* with the concept of culture:

> Culture is necessarily humanistic or it does not exist at all…humanity is its central theme and sole preoccupation… It has human beings (and not what serves

[16] Schuurman, Peter J. *Theoretical Perspectives On Video Surveillance* <http://spartan.ac.brocku.ca/~pschuurm/thesis/chapter5.html>

[17] Ellul, Jacques. *The Technological Society*, 1964. pg 5

[18] Ibid.

[19] Corb and other moderns often used essentially hand-crafted construction to create the aesthetic of the machine.

> them) at its heart…including all that they put in the form of questions about the meaning of life, the possibility of reunion with ultimate being, the attempt to overcome human finitude, and all other questions that they have to ask and handle. But technique cannot deal with such things. It functions merely because it functions. It is self-reproductive…It is itself the center of attention and allows of no questioning outside the mechanical sphere. It is not interested in what serves humanity. Its only interest is in itself. It is self-justified and self-satisfying. It cannot occupy itself with the human except to subordinate it and to subject it to the demands of its own functioning. Culture exists only if it raises the question of meaning and values. In the last analysis one might say that this is the central object of all culture. But here we are at the opposite pole from all technique. Technique is not at all concerned about the meaning of life, and it rejects any relation to values. It cannot accept any value judgment, good or bad, about its activities. Its criteria of existence and functioning are qualitatively different. It cannot give meaning to life nor give insight into new values. On any approach we have to say that the terms culture and technology are radically distinct. There can be no bridge between them. To associate them is an abuse of meaning. It is nonsense.

Descending from this powerful and shocking argument we are left with a triangular relationship, albeit tenuous, between three distinct and overlapping entities: Culture: a socially constructed system of lived and shared values and meaning; Technique: a rational system of ‘value–less’ mechanical methods with a goal of total efficiency; And Form: the perceptual physical nature and structure of the artifact;

What role do each of these play in the outcomes of social housing? Can culture be seen as an independent entity equal in power to Technique and Form? If so this raises a challenge to Ellul’s vision of a hegemonic “technological system”, as well as to the supremacy of architectural form, whatever its origin or ideology. These entities,

inseparably part of the design process, will be put to use in our examination of the housing case studies of Pruitt-Igoe and the Hong Kong resettlement estates.

Inhabitation and Demolition:
varied responses to the technique of high-rise housing

The following section will look at two housing projects both begun in the mid 1950's, and from them, develop a relationship between *formal, cultural* and *technical* agency by comparing the different outcomes. The Intention of a comparison between these projects is *not* to produce an exhaustive inventory of the various factors that led to the vastly different outcomes—to be sure these factors are many and complex, including systemic racism and a myriad of other social and economic prejudices. One particular concern that will not be addressed directly in this analysis, for example, is the issue of housing 'demand', along with the corresponding occupancy rates and general desire for housing in question. The importance of this factor cannot be overlooked in the outcomes, given that the occupancy rates in the two cases were almost a direct inversion of each other. While one project saw a steady attrition throughout its short life, the other became so densely populated (at some points almost three time the specified density) that average floor area was as low as 9.4 sq ft per person. While acknowledging the interaction of these factors, we will be leaving them to future study in order to clarify the particular roles of form, technique and culture.

Perhaps no other project in the history of modern public housing has been as useful to theorists as that of *Pruitt-Igoe (see figure 1)*. Standing as an icon for the failures of modern form, the long demolished housing project in St Louis, represents and reasserts the responsibility of architecture to society through its radical failure to produce intended results. In this failure, however, it simultaneously becomes a tool for architects—proof of their importance in its reaffirmation of the power of form and technique. Clearly the story is much more complicated, and it is now widely understood that a myriad of factors were involved in

the project's failure. Yet despite the fact that a search[20] through a profusion of articles and books about Pruitt-Igoe from the late 50's to the present shows at least equal press for doubts over the role played by architectural form, the power of the icon remains entrenched: *Imploding buildings representing the failure of modern planning and architecture.*[21]

On the other side of the world, however, at virtually the same time, another housing project was underway which, although strikingly similar in form and ideology, would dwarf the scale of Pruitt-Igoe. Beginning in 1954 Hong Kong's newly formed "Department for Resettlement" would engage in slum clearance and relocation of more than 1 million squatters into modern slab housing estates, in what has been considered the world's biggest housing scheme outside the socialist block.[22] Today the Pruitt-Igoe site remains empty after its symbolic demolition in 1972, while the "Hong Kong Housing Authority" website[23] proudly displays the updated concrete housing, built and inhabited 50 years ago without plumbing, electricity, or elevators, where in initial occupancy the average floor area was 20 sq. ft. per resident.

Pruitt-Igoe was conceived as one of America's largest postwar housing projects, consisting of 33 nearly identical, 11 storey buildings housing 13 000 people, rationally organized on a "park-like" ground plain, which was created by the clearing 400 units of "slum" housing. By most accounts the housing project was initially designed with some amount of optimism and social conviction, *Architectural Forum* (1951) hailing it as a new standard in housing design, "bringing row-house convenience to high-rise dwellers".[24]

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[20] Montgomery, Roger. Bristol, Kate. *Pruitt-Igoe : an annotated bibliography***,** CPL bibliography ; no. 205; Chicago, Ill. : Council of Planning Librarians, [1987]

[21] This Symbolic Image is most clearly established in Charles Jencks' *The Language of Post-Modernism,*1977, where generations of students were presented with images of the collapsing Pruitt Igoe buildings, accompanied by narration the likes of: "[Modern architecture] expired finally and completely in 1972 after having been flogged to death remorselessly for ten years by critics…[it] died in St Louis, Missouri on July 15, 1972 at 3:32 pm…put out of its misery. Boom Boom Boom." pg 9

[22] Golger, O. J. *Squatters and resettlement: symptoms of an urban crisis: Environmental conditions of low-standard housing in Hong Kong*. 1972. Pg 34.

[23] <www.housingauthority.gov.hk/en/aboutus/resources/progress/0,,1-716-1186,00.html>

[24] Comerio, Mary. "Pruitt-Igoe and Other Stories" *Journal of Architectural Education* v. 34 1981. Pg 26

Figure 1: Pruitt-Igoe 1955

Figure 2: Mark II estates, Hong Kong c.1955

Although by the time of implementation a disturbing number of its original features had suffered budget cuts, early images and accounts describe orderly efficient apartments of varying sizes for different family configurations with plenty of natural light, air and all the conveniences of modern urban life. However, the thousands of personal stories that make up the lived experience are far less clear-cut than the evenly spaced slab apartments standing regimented in the urban fabric of St. Louis. What is known, is that in the 18 years that these buildings stood, the quality of life for the residents steadily declined, from optimism and faith in a brighter future, to despair, entrapment, and fear for the lives of their families. The physical environment reflected these feelings with broken windows, trash-filled hallways, graffiti and vandalism. By 1972, things had become so bad that despite several attempts, protests and formal proposals to save the projects (some which in retrospect seem enormously reasonable) the entire project was slated for demolition—the physical form of the building sentenced to death and erasure. On July 15, 1972 Pruitt-Igoe was dynamited to the ground and the site cleared once again.

It seems like no accident that this drastic response was *corporal*. The form-as-body, of the building offered the most obvious target for discipline concerning such a complex and frustrating problem. Writers like, Jane Jacobs, Charles Jencks, Lewis Mumford, Lee Rainwater and Oscar Newman had written in great detail on the multiple failings of the physical form, declaring the spaces, materials, finishes and fittings institutional, and "not unlike our worst hospitals and prisons". This negative iconic identity, Newman argued, engendered a lack of ownership and pride in physical place, where built form became a testing ground for vandals, rather than to something to be tended and cherished.[25] Another complaint levelled by one of numerous sociologist studying the project, was that the hallway "galleries" (fig. 6) designed, with plenty of natural light, to function as "indoor streets" and communal space for casual interaction, were dysfunctional; instead of encouraging neighborliness, these spaces bred illicit behaviour and outright crime, and because of the danger perceived to be present in these shared spaces, the tendency to remain confined to the inside of the apartments was reinforced, perpetuating the problem.[26]

[25] Newman, Oscar. *Defensible Space.* New York, 1973. Pg 105
[26] Stromberg, Jerome. "Private Problems in Public Housing: A further Report on the Pruitt-Igoe Housing Project." Occasional Paper #39, 1968 Pg 49

Figure 3: Squatter's Housing c.1966

Figure 4: Mark I + II estates, housing +/-150K resettled squatters,1966

Hong Kong in the 1950's, like St Louis, also faced a housing crisis. Hundreds of thousands fleeing China had arrived on the shores of Hong Kong, and with no hope of finding existing housing, had squatted illegally on hillsides, ravines and any other unoccupied bits of land; constructing shanty-towns of whatever materials they could scavenge *(figure 3)*. The land being scarce, these villages were often extremely dense, with little air circulation or light, and virtually no basic services[27]. With no end in sight to this tide of immigration, Hong Kong's newly formed "Department for Resettlement" began a policy of eviction and relocation, along with a design and construction program at a feverish pitch. Between 1954 and 1969 the Public Works Department had designed and constructed 477 multi storey housing blocks containing 221 581 rooms.[28] The earliest buildings, Mark I and II, were extremely basic 7 storey concrete slab constructions, with no plumbing or electrical service to the apartments. Each building with between 56 and 84 rooms, had 6-12 shared outdoor flush latrines and two water taps. With no elevators, buildings were entered using exterior staircases, and access to

[27] Golger, O. J. Squatters and resettlement: symptoms of an urban crisis: Environmental conditions of low-standard housing in Hong Kong. 1972. Pg 34.
[28] Ibid. Pg 34

each apartment via a shared exterior balcony. Although planned densities of these buildings were already very high, actual numbers were often several times the planned figures. Space was at such a premium, and used so efficiently that the roof-tops were put to use for primary schools and sports fields[29]

A formal comparison of Pruitt-Igoe and the Hong Kong housing reveals striking similarities *(fig. 1+2)*. Both offer themselves as case study examples of stark concrete modernist slab buildings, rationally and orthogonally organized on a cleared site, surrounded by pre-existing urban fabric. Both offer very limited amenities, particularly at ground level (Pruitt-Igoe offering its residents somewhat more in the individual apartments). But most importantly, both Pruitt-Igoe and the H.K. Housing Authority apartments formalize the concept of "technique", producing standing, inhabitable examples of Ellul's "totality of methods, rationally arrived at", with their goal of "absolute efficiency"—powerful icons of the modern ideology that brought them into existence.

For the most part, this is where the similarities end. In the use of common spaces, for example, the contrast between Pruitt-Igoe and the Hong Kong buildings is striking. In the early Mark I and II buildings, the elevated common spaces, which were outdoor 'balconies' running around the buildings served to access the units as well as places for cooking and laundry. Less than 5 feet in width, these passages presented a constant and serious problem of organization and coordination—a problem that was met with an incredible normalized self-organization (fig. 5): Cookers, buckets, tubs, crates and clothes-drying poles, all share space with a passage that is religiously kept clear for passers-by. Looking up at the buildings in Hong Kong one saw: "All sorts of household utensils, gay washing on drying poles, and the Chinese love of birds and flowers, colours and children, transforming these concrete blocks into charming kinds of dwellings."[30]

[29] Ibid. Pg 36
[30] IbidPg 35

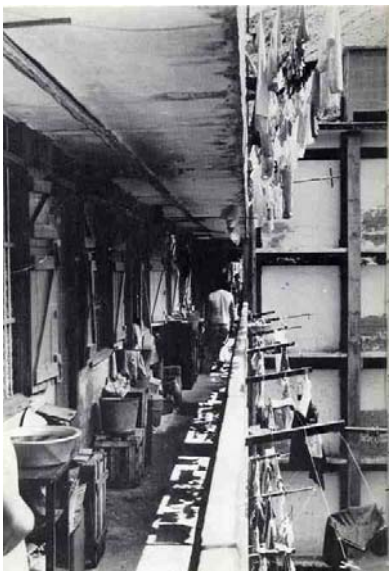

Figure 5: Mark II Shared Corridor

Figure 6: Pruitt-Igoe Shared Galleries, conceived as "indoor streets"

Residents, at Pruitt-Igoe most often told a different story. Joe Jefferson, a fifteen year-old resident of Pruitt-Igoe, describes his environment in a speech prepared for a sophomore high school class called "*Life in the Projects*"; a deft commentary on the form-technique-culture relationship:

> As for conveniences, occupants have them all. They have installed stoves, refrigerators, radiators, cabinets and closets too. There are also incinerators to burn their trash…There used to be telephone booths in the lobby…with all these conveniences there should be no trouble at all… [But] the conditions here are pitiful. People act as if they were some sort of creatures or animals…. [they] go around urinating and letting their bowels go on the steps and in the halls…children write all over with chalk, crayon and even paint…We have incinerators. Where do they throw their trash? All over the halls. What do you think should be done?[31]

Embedded in a social system that seems to resist attempts at improvement, Pruitt-Igoe

[31] Quoted in: Rainwater, Lee. *Behind Ghetto Walls.* Chicago, 1970 Pg 292

residents interviewed in several extensive studies, often brought up family and social issues as critical in their understanding of the problems they faced: Children were one of the most cited worries, both in terms of the annoyances they created, and the worry that they caused for parents who were only too aware the ubiquitous dangers and temptations. Parents referred to fighting, stealing and sexual relations between children of all ages as some of their main concerns. The laundry rooms were sites for theft of clothes and sexual assault. Windows seemed made to be broken. Despair raised over the fact that there was no consensus among residents as to how children were to be taught, or disciplined.[32]

The desperation, and resignation of the voices of so many of the residents interviewed reveals a sense of powerlessness over their environment, but particularly in the social relationships that define it. Although physical space clearly played a role in these relationships, the powerlessness seems to be located in the lack of alignment between personal values, the expectations of each 'other', and the actual values and occurrences that surround them and join them into a community.

Figure 7: Pruit Igoe Interior c. 1960

This is highlighted by the striking disparity that was often found between the interiors of Pruitt-Igoe apartments and the public spaces right outside their doors (fig. 7,8). While in Hong Kong there appears to be a "doors open" policy, with a consistent value system

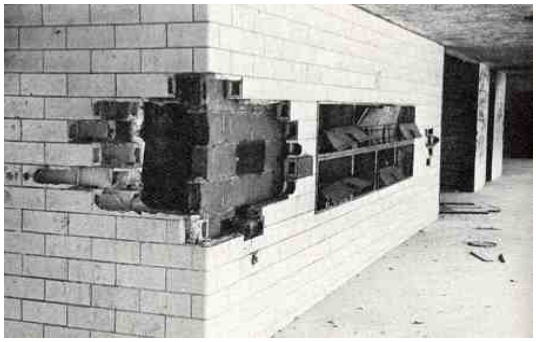

Figure 8: Pruitt-Igoe Shared Gallery

[32] Ibid. (Pg 19)

flowing from ‘inside’ to ‘out’ (fig. 9, 10), Pruitt-Igoe residents described the danger zone for children beginning right outside the apartment door[33]. This presents a clear linkage between lack of collectivity, and the condition of these public spaces. Individuals experiencing this disparity become terrorized by the inability to have their personal values and aspirations reflected in the collective environment.

Figure 9: Mark I Apartment: doors-open

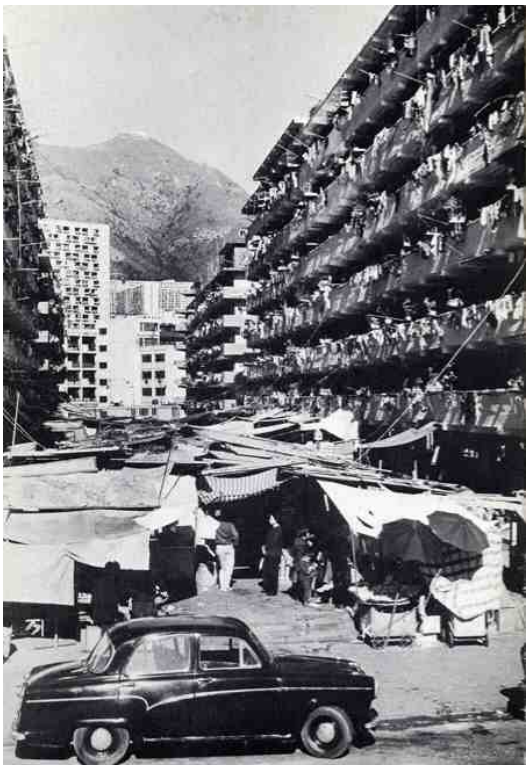

Figure 10: Mark I: high rise street life

In Hong Kong, the story by many accounts is a success. By 1964 the ultra-basic 7 storey Mark I and II models still in full use, were replaced for continuing development by the 16 storey Mark IV with plumbing, lighting and elevators[34] (fig. 7). For the Hong Kong Administration, the resettlement program was seen as a victory “both as a building

[33] Stromberg, 1968

[34] Skip stop elevators are cited as one of the major design failures of the Pruitt-Igoe development. The 16 storey Mark IV-VI buildings similarly “…have…2 elevators, which stop only at the 6th 10th and 14th floors and the 8th 12th and 16th floors respectively… However most of the residents do not miss an elevator and do not mind climbing several floors, contrary to Europeans. Like the squatters who do not mind climbing the steep paths, these people do not mind the lack of elevators; (Golger, 1972)

programme and an administrative process", a bureaucracy predictably proud at having moved hundreds of thousands of squatters into new housing. Life for the resettled residents of the housing projects, however, is somewhat more complex: The resettlement estates, for example, were often far away from the original squatter villages, thus breaking up social networks, employment opportunities and children's schooling with the move.

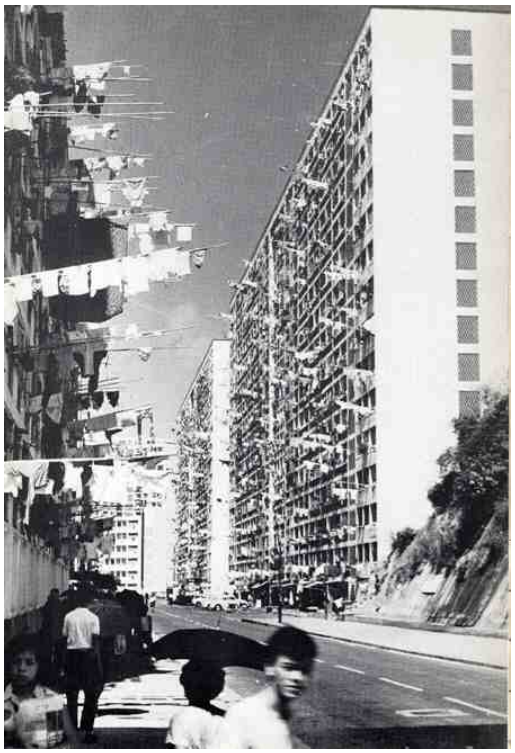

Figure7: 15 storey, Mark V: clothes-drying poles

Figure 6: Pruitt-Igoe: broken windows

While less than 40% of squatters welcomed the relocation into the estates, 82% of the relocated residents indicate that they are happy with their new housing; In spite of the fact that 68% of the residents had "potted plants in their private quarters", many other metrics of well-being, such as economic conditions, hygiene and health had not measurably improved since moving. This also correlated with the fact that the majority of residents did not indicate that they were any more or less happy in general after moving into the mass housing estates.[35] Despite severe over-crowding and extremely poor

[35] Golger, Pg 40

services, Hong Kong during this period also maintained an extraordinarily low crime-rate[36]. All told, here is a living example of vastly disadvantaged people, in both local and global terms, happily moving on with their lives in spite of enormous shifts in their built environment. Moving from handmade shacks with no security or modern conveniences, into institutional boxes provided by the state with no appreciable improvements in living conditions, they maintain a self-organizing culture that allows a smooth and normative social system, apparently regardless of externalities.

Empowering and Expanding *design*

The implications of the cultural solidity demonstrated here is astounding for designers; particularly seen in relation to both Newman's argument of formal determinism, and Ellul's description of the overwhelming autonomy of technique. Given the evidence of the system of 'communal values and behaviours' in Hong Kong, compared with the feelings of detachment, isolation and insecurity in Pruitt-Igoe, it appears that 'cultural frameworks' exhibit a force of tremendous power on the way built environments are inhabited, regardless of their form.

Newman would almost certainly agree with Ellul, that 'technique' embodied in built form as a 'housing solution', is likely to become a dehumanizing force with potentially disastrous outcomes in certain cultures. Our comparison between these similar architectural forms on opposite sides of the world can be seen as a reminder of this potentially alienating outcome; but it also gives hope to the idea that culture has the power to transcend even the most hegemonic growth of technique in contemporary society, along with other forces and forms of trauma in the city. By contending with the concept of culture, architects and planners are provided with a new frame of reference

[36] "[Hong Kong's] crime rate is among the lowest in the world, despite the extreme overcrowding which aggravates the aggressive instincts in Man, despite the lack of education, great social differences, and unemployment for some adults. In London for example, the crime rate for 1965 was 6 times higher…In 1964 in Los Angeles, 15 times more people were murdered than in Hong Kong. in Washington D.C. about 34 times more in 1969." (Golger, Pg 53)

and a new source of power, which can be drawn on and stimulated through design. Design understood as a vehicle of cultural leadership, embedded with *intentionality* and *values,* is a phenomena separate from, and layered up with, both form and technique. As seen in the mass housing of Hong Kong, where stable functioning communities thrive despite the meanest of technocratic architectural form, culture can be used to *overwhelm* technique or form if need be. In the case where collective identities and cultures have been devastated by oppression, poverty, neglect or apathy, it becomes the responsibility and privilege of the designer to find ways to engage culture directly, creating spaces that resuscitate, empower and uncover values that, if shared, can lead to better ways and places to live.

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