INTRODUCTION

This narrative turns on the limits—and limitations—of architecture as a means to provide housing under conditions of crisis: it examines the challenges to the universalist claims of architectural modernism in the postwar period when it was faced with an unsettling world of rapid demographic growth, very low-income populations, intensifying economic modernization, and increasing rural-urban migration, which resulted in extensive unplanned urban development. The prototypes first devised in Europe in the 1920s to provide affordable reform housing, which by this period had already gained a canonical status for architects, needed to be radically rethought. More than adjustments to create culturally appropriate residential forms, or regionally inflected aesthetics, or technical adaptations to different climates, building materials, and technologies, this would require a profound conceptual recalibration to accommodate unfamiliar economic and social conditions. In Peru, as elsewhere, the sheer scale of the housing deficit and of the incursions of improvised construction on illegally occupied land, combined with the scarcity of resources, tested the limits of conventional modernist mass housing. Aided self-help housing presented itself as a response to the constraints and apparent opportunities of this situation: its essential premise was to bring together

the benefits of "formal" architecture (an expertise in design and construction) with those of "informal" building (substantial cost savings, because residents themselves furnished the labor). Yet this formal/informal interface hardly represented a seamless alliance. Even at its most collaborative, the relationship between architect and self-builder remained to a degree conflictual, reflecting the inevitable friction as architecture sought to reorder the patterns of informal, or unplanned, urbanism—to remake or redeem the improvised city through design.

This examination of aided self-help housing, or technical assistance to self-builders, presents a case study of Peru, the site of significant (albeit sporadic) trial projects in the technique. The discussion centers on three interrelated contexts: the circumstances that made Peru a fertile site for innovation in low-cost housing under a succession of very different political regimes; the influences on, and movements within, architectural culture that prompted architects to consider self-help housing as an alternative mode of practice; and the environment in which international development agencies came to embrace these projects as part of their larger goals. The narrative unfolds over eight chapters focused on key episodes in this history, alternating its viewpoint between these contexts.

Over the three decades covered by this research (1954–1986), aided self-help housing projects were initiated in many countries. Since much of this history remains to be written, it is all but impossible to determine whether projects in Peru were more successful than trials elsewhere—whether more effective in their planning and implementation or more substantial in their social, economic, or urbanistic impacts. However, the Peruvian case is unequivocally significant in other respects—firstly, for the ongoing, deeply engaged debates about low-cost housing in general, and aided self-help techniques in particular, which involved key public figures and politicians, theorists and practitioners, over several decades. Some of these actors were prominent within Peru but little known outside the country, such as economist and newspaper owner Pedro G. Beltrán, or architect and politician Fernando Belaúnde Terry; others did their formative work within Peru but developed an international audience for their writing, such as English architect and self-help housing theorist John F. C. Turner and Peruvian neoliberal economic thinker Hernando de Soto. Taken together, their contributions generated a remarkable level of discourse around

aided self-help, providing a rich background to a discussion of the projects themselves. Secondly, Peru was pioneering in enacting a policy of land tenure regularization in squatter settlements, passing legislation to enable these efforts in 1961 as part of an initiative to reassert control over urban development. The legislation envisaged that once the status of illegally occupied urban land was resolved, planning professionals would guide the construction of high-quality aided self-help housing to replace the squatters' own improvised dwellings. As Julio Calderón Cockburn has observed, it was a decade before other countries in Latin America followed Peru's lead in regularizing tenure, with Mexico passing similar legislation in 1971, and Chile, Brazil, and Argentina following suit after Habitat, the first United Nations (UN) Conference on Human Settlements, held in Vancouver in 1976.[1] Finally, from the perspective of architectural history, Peru is notable for organizing PREVI (Proyecto Experimental de Vivienda, or Experimental Housing Project), which included an international design competition held in the late 1960s that invited prominent avant-garde architects to devise low-cost housing that would incorporate elements of aided self-help. While most aided self-help housing schemes tend to be modest in their formal ambitions, PREVI challenged participants to explore the design potential of an architecture devised at the intersection of formal and informal construction processes.

Efforts to make aided self-help housing work—technically, administratively, financially—took a variety of forms in Peru over these decades. Primarily, "aided" or "directed" self-help housing projects were intended to be carried out with active, on-site technical assistance from architects, harnessing the energy of do-it-yourself building and directing it toward more accomplished outcomes. The architect could offer improvements to the planning of urban layouts, to the design of building components and methods, to construction standards and structural engineering, or to the internal disposition of the house (separating functional zones, maximizing available light and air, or minimizing wasted space). More broadly, professional expertise could be deployed to produce efficiencies in the management of resources (usage of time, labor, materials, money) and to shape the social dimensions of the project (skills training, organization of work groups, promoting community development). Finally, the housing agencies sponsoring such projects could facilitate the participants' access to subsidized loans, in an effort to speed up the often protracted process of self-help construction.

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While a small number of projects discussed here were aimed at coordinating the remediation of existing unauthorized settlements, construction ex nihilo was regarded as far preferable, because a well-planned urban framework ensured that any subsequent installation of services would be more straightforward and therefore more affordable than working around improvised structures. These planned settlements took a variety of forms. Most commonly, following the sites-and-services model, they offered an urban layout, graded roadways, residential lots with a one- or two-bedroom *núcleo básico* (basic core unit), and essential services—water, sewerage, electricity—but only on a shared basis at the outset, with standpipes and latrines but no domestic plumbing connections, with street lighting but no domestic electricity. With the additional advantage of secure tenure (and the future possibility of gaining legal title), the expectation was that these fragmentary settlements would eventually cohere into more or less conventional urban areas, with more or less adequate dwellings. At times, however, the sites-and-services model stretched the *Existenzminimum* to its extreme: in their most reduced form, known in Peru as *lotes tizados* (surveyed lots outlined with chalk), they offered residents only rudimentary shared services and guaranteed tenure on the outline of a lot.

Other architect-designed projects went beyond the sites-and-services minimum, including a more substantial core house, which could be expanded and completed over time by the residents, following the architect's plans. Experiments with housing on this model of progressive development (also called the "growing house") go back to at least the 1920s, in Europe and elsewhere. In Peru this approach appealed not just to low-income households but also to lower-middle-income families, since it could provide an alternative path to achieving a standard modern dwelling, built incrementally as the family's needs demanded and its budget allowed. In another variant of the "growing house" model, known as supervised credit, financing would be disbursed in stages, with a technician inspecting and approving each phase of construction before the next installment was paid out. This offered technical assistance at a remove, in the form of quality control, and was a more cost-effective use of the expert's time—intervening at key junctures to ensure that work was proceeding in the right direction, rather than managing the entire process.

Significantly, the term *aided self-help housing* evokes ideologies of self-improvement, signaling the fact that it aimed not just to pro-

vide housing but also to transform participants into better citizens, better workers, better community members. However, the Spanish terms used to designate the technique vary considerably over this period. A key early study, published in 1953 by the Centro Interamericano de Vivienda (CINVA, or Inter-American Housing Center) in Bogotá, based on trial projects in Puerto Rico, used a pairing of terms—*ayuda propia* (self-help) and *ayuda mutua* (mutual help or mutual aid)—which it defined in tandem as "the deliberate effort of a group of families that joins together to study its problems, formulates plans to resolve them through its own efforts, and organizes itself for direct action, counting on minimum aid from the government." The roots of the technique lay in "universally recognized sociological concepts": specifically, the widespread phenomenon that "the individual has felt the need to participate in social institutions larger than the family."[2] Although some later theorists would insist on drawing a clear distinction between the singular and plural modes of the "self" that is the subject of aided self-help, the CINVA experts maintained that individual effort was inseparable from collaborative work in the successful realization of these projects.

In Peru, architect Eduardo Neira wrote a report in 1954 on measures to address unauthorized settlements in the city of Arequipa, in which he proposed "ayuda mutua" for housing construction, emphasizing the cooperative dimension. Significantly, Neira would later argue that forms of cooperative work were indigenous to traditional Peruvian society reaching back to the pre-Columbian era[3]—an idea that was frequently repeated elsewhere, often evoking the Quechua terms *ayni*, meaning reciprocity or mutualism, or *minga* (or *mink'a*), meaning collective labor to benefit the community, sometimes characterized as an Inca mutual self-help. This framing naturalized these practices and effectively set the stage for the adoption of mutual-aid self-help schemes as a key element of housing policy within Peru. A situation of crisis, with citizens forced into the arduous process of constructing their own dwellings, was given the reassuring patina of tradition, ensuring that the focus remained on their undoubted resourcefulness and creativity rather than the structural inequality that had necessitated it in the first place.

In his somewhat later study evaluating a realized project in Arequipa, Turner employed the term *ayuda mutua dirigida* (managed mutual aid), underscoring the contribution of professional guidance. The designation *autoconstrucción* (self-building) ap-

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peared in a Peruvian housing agency document from 1961, referring to two linked modes of self-help: ayuda mutua and esfuerzo propio (one's own effort).[4] In more recent documents, autoconstrucción is used alone, absent association with any outside "assistance"—it is object-centered rather than process-centered in its connotations, and entirely detached from the abstract values of personal and community development. Of course, all these terms serve to mask the difficulties of participating in the capitalist labor market while simultaneously employing one's labor to build one's own house, obscuring the extent to which "self-help" housing requires drafting the efforts of the entire household, including children, or is outsourced to local builders when that is judged to be a more efficient use of time and money.

Similarly, the phenomenon of informal or unauthorized urban settlement has been described by a number of different terms within Peru. By using the terminology of the original documents throughout the text, the aim is to foreground this shifting conceptual and ideological construction. While in English the recently revived and problematic term *slum* is frequently used to designate informal settlements,[5] in Peru, both in popular usage and professional discourse, these are two distinct urban forms: *tugurio* (slum) refers to degraded housing of various kinds, generally occupied on a rental basis and situated in inner-urban areas, but not to neighborhoods self-built by residents. Early references to unauthorized urban development are firmly within the tradition of regarding it as a form of "cancer" or other malady, with one government document from 1956 using the phrase "'barrios hongos' (insalubres)"—insalubrious, mushrooming—or fungal—neighorhoods.[6] In general, the terminology employed throughout the 1950s is less colorful, with more neutral descriptive modifiers, albeit with pejorative undertones: *barrio clandestino* (clandestine neighborhood), *barrio espontáneo* (spontaneous neighborhood), *barrio marginal* (marginal neighborhood), or, more colloquially and most commonly, *barriada* (shantytown). A more sympathetic denomination, and the one usually preferred by the residents themselves, was *urbanización popular* ("popular" or low-income urban settlement).

Writing documents for the Peruvian housing agencies that employed him, Turner tended to use "urbanización popular"; writing in English for a wider audience, he used "barriada" as well as "squatter settlement"—a term that underscored the illegal occupation of the underlying land, forcibly claimed by residents unable to find a

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footing elsewhere in the urban housing market. After 1968, the leftist Gobierno Revolucionario de la Fuerza Armada (Revolutionary Government of the Armed Forces) sought to eliminate the use of barriada, with all its pejorative connotations, by actively promoting the substitute term *pueblo joven* (young town, or young community), emphasizing the emerging economic and social potential, and anticipated future consolidation, of these neighborhoods. After the military regime ended in 1980, the official term was changed again, rejecting the ideological associations that had developed around pueblo joven in favor of *asentamiento humano* (human settlement), a more technocratic denomination popularized by Habitat in 1976. The usage *asentamiento informal* (informal settlement) seems to have been introduced by de Soto in his 1986 book *El otro sendero: La revolución informal* (first published in English in 1989 under the title *The Other Path: The Invisible Revolution in the Third World*). In this context, de Soto's employment of "informal" underscores his broader argument that the "formal" channels of law and bureaucratic procedure only serve to stifle the dynamism and economic potential of self-built neighborhoods; for de Soto, informal settlements succeed precisely by opposing themselves to the constraints of formal urban development.

Currently, "informal" is the prevailing term in Anglophone architectural discourse, where its somewhat blurry usage often fails to take account of the term's connections to neoliberal economic thought, and furthermore merges together related but distinct phenomena, which in practice do not always overlap.[7] On the one hand, "informal" or unauthorized settlements: these are extralegal in two senses, since they are established on land that has been occupied illegally by the residents, and they do not conform to prevailing legal standards for the development of urban subdivisions, lacking basic services such as water and sewerage lines, electricity, and graded roadways. On the other hand, "informal" or improvised construction: housing that is self-built rather than guided by architects, engineers, or building permits. Complicating matters, in Peru as elsewhere, "informal" or improvised construction is not confined to "informal" or unauthorized settlements—dwellings in legally established neighborhoods will often begin with conventional construction but will subsequently be modified or extended on an ad hoc basis via self-building.

Ironically, the influence of de Soto's ideas within Peru means that on a quite literal level, the term "informal" may be facing immi-

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nent redundancy: de Soto's call to recognize the economic potential of informal settlements has led to the widespread implementation of "formalization" programs aimed at clarifying and securing legal property title for residents (albeit without requiring improvements in their everyday conditions of life by bringing urban services up to code). Alternative terms such as *barrio popular* ("popular" or low-income neighborhood), and *ciudad emergente* (emerging city) have begun to appear—the latter term recalling pueblo joven in its evocation of an urbanism in the process of becoming, whose present deficiencies wait to be resolved. Perhaps these legally ti-tled, "formalized" neighborhoods—which remain "informal" in the sense that they fail to meet established planning standards—could be best described as "nonconforming" settlements.

Before turning to the narrative structure of the book, it is worthwhile to explore the wider context surrounding practices of aided self-help housing: first, debates within the social sciences concerning how to understand the patterns of urbanization shap-ing postwar Latin America; second, the positioning of self-help housing within architectural history, focusing on aided self-help housing per se, and the relationship of aided self-help and the "growing house" model.

Urbanization—Unbalanced, Marginal, Dependent, Informal

From the early 1950s, the discourse on Latin American urban-ization—understood as encompassing demographic change, the sociocultural changes experienced by rural-urban migrants, and the physical changes affecting the shape of cities—was intricately enmeshed with theories of modernization and development. The narrative of modernization, since complicated and compromised, was almost universally accepted in this period. As James Ferguson has suggested, its straightforward and self-evident appeal could be summarized in the upward trajectory of a diagonal line on a graph defined by a horizontal axis of "time" (aiming toward the "univer-sal telos" of modernity) and a vertical axis of "status" (promising elevation within the global economic system, as "the passage of developmental time . . . raise[d] the poor countries up to the level of the rich ones").[8] Promoting development in countries that were determined to be lagging in relation to markers of economic and so-

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cial progress became a widely shared goal of international agencies such as the UN and national governments alike, with elites in many "developing" nations setting agendas to transform their own societies, and the already "developed" nations selectively supporting these initiatives via foreign aid.

In Latin America, political elites had long sought to foster modernization, which was often seen as virtually synonymous with industrialization. In this view, modernization meant economic growth and diversification, entailing a shift from agricultural to industrial production, the transformation from a predominantly rural to an urban society, and with it the emergence of a particular kind of city (and citizen), unmistakably modern in character. Rather than entrusting the path of development to market forces, Latin American nations emulated the kind of state-run modernization programs undertaken in nineteenth-century Germany and Japan.[9] Accordingly, as the sense grew that somehow the anticipated patterns of development and its associated urbanization were not being followed in postwar Latin America, large-scale planning emerged as a preferred solution.

Typical of this thinking was the assessment of urban planner Francis Violich, who, writing in a 1953 UN publication, identified as an issue of concern the region's characteristically "unbalanced" economies, with their ad hoc industrial programs and unevenly distributed employment opportunities, which had resulted in a "high concentration of urban population in a few major cities." For Violich, the answer was regional planning: "With greater guidance of resource development and a basic policy for industrial locations, the urban pattern would be more balanced and a more stable type of development would result." Meanwhile, in the main cities, the population surge combined with "the utter lack of systematic zoning" had created an "anarchic pattern of land use."[10] While effectively enforced urban planning could alleviate this problem, Violich concluded that such measures would only fully succeed within a comprehensive program for national development, synchronizing networks of major cities, secondary centers, and sites of industrial or agricultural production. Coordinated initiatives to redirect the flow of migrants would relieve the pressure on overloaded poles of attraction and stimulate emerging urban areas, ultimately benefiting both the national economy and the cities themselves.

One element of the "anarchic" urban growth that Violich observed was the illegal construction of "conspicuous shacktowns"

on vacant sites. Violich did not speculate on their socioeconomic origins or role in the urban ecosystem; he simply applauded instances of "direct slum clearance" where shacktowns were "demolished for urgent sanitary reasons or for purposes of pure aesthetics" and the residents rehoused, arguing that any attempts to ameliorate conditions in these settlements "only add to the permanency of the miserable dwellings."[11] For Violich, the shacktowns were an epiphenomenon, a temporary side effect of the region's unbalanced urbanization that would disappear as these developing economies regained their equilibrium.

Half a decade later, sociologist and demographer Harley Browning reiterated the concern with Latin America's uneven urban growth, or, as he termed it, its "high primacy pattern" of urbanization, whereby the "first city is many times larger than the second city" and tends to monopolize economic opportunities and social resources, such as access to improved education and healthcare. Although there were doubtless some advantages to this concentration, the disadvantages were very clear. Second- or third-tier cities risked being left behind, while the favored cities faced their own challenge—becoming "overurbanized"—because "city growth is running ahead of economic development" as urban centers attracted far more migrants than the nascent industrial sector could absorb. In this way, Latin American cities appeared to be sidestepping established models of modernization: rather than urban development arising out of economic growth, cities were increasing in population and complexity and sheer physical size without the requisite economic development. The issue was not just an imbalance among cities, then, but a fundamental disjunction between urban and economic development. Nonetheless, Browning viewed "overurbanization" as preferable to minimal urbanization, which signified social and economic stagnation. Furthermore, the shift toward a more urbanized population was a positive in itself: migrants were "shedding some of their rural-based conceptions" and adapting themselves to the city, beginning a process of acculturation that would culminate in their full integration into the life of the modern nation.[12] Browning only obliquely addressed the issue of unplanned settlements. While acknowledging the substandard living conditions endured by many migrants, he noted that the situation was far worse in rural areas; despite the challenges they faced, new urban arrivals had already improved their lot simply by "urbanizing" themselves, and thereby offered encouragement for others to migrate.

The culmination of this strand of thinking was the Seminar on Urbanization Problems in Latin America held in 1959 in Santiago, Chile, cosponsored by three UN agencies—the Bureau of Social Affairs, the Economic Commission for Latin America (ECLA), and United Nations Educational, Scientific and Cultural Organisation (UNESCO)—along with the International Labour Organization (ILO) and the Organization of American States (OAS). Bringing together a range of experts from across the region, the multidisciplinary nature of the investigation is exemplified by the three contributors from Peru: anthropologist José Matos Mar, social psychologist Humberto Rotondo, and urban planner Luis Dorich. In its summary of the seminar's findings, the Rapporteurs' Report once again noted the disjunction between Latin America's urban and economic development. Yet rather than interpreting this as pathological, the authors argued that urbanization in Western Europe and the United States had been similarly "haphazard, regulated only by spontaneous market forces." These earlier models of urbanization seemed coherent only in hindsight; in fact, disorder and disequilibrium were constitutive of urbanism under capitalist economic development, and thus the experience of Latin America was not an aberration. However, in contrast to those earlier waves of modernization, experts now had the benefit of a scientific understanding of urbanization processes, such that planned development offered a viable tool to remediate its ill effects. Echoing Violich and Browning, the seminar concluded that development initiatives "should be used to achieve a better balance of urban-rural growth" in an effort to "moderate the excessive flow of migrants."[13] With such measures, a realignment of urban and economic development would eventually be achieved.

In Peru, concrete policies along these lines were proposed by the 1956 Comisión para la Reforma Agraria y la Vivienda (CRAV, Commission for Agrarian Reform and Housing), which explicitly connected substandard barriada housing in Lima to migration driven by insufficient access to arable land in rural areas. Its recommendations to slow migration included enacting agrarian reform to draw potential migrants back toward working the land and promoting regional development projects to counterbalance the gravitational pull of the capital. Realized initiatives included limited schemes for the resettlement of barriada residents via internal colonization, as part of the government's strategic "marcha a la selva" (march to the forest) to clear, cultivate, and secure the territory

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of the Peruvian Amazon. Foreshadowing later, more systematic colonization efforts, in July 1960 fifty families from the San Martín de Porres barriada in Lima established the *colonización* "La Morada" (The Residence) in the Huallaga Central area of Peru's Amazon basin, with each household granted title to 30 hectares of land. The "settlers" received technical assistance from a number of government bodies, including the Ministries of Agriculture, Health, Defense, and Transport, and the Fondo Nacional de Salud y Bienestar Social (FNSBS, National Fund for Health and Social Welfare), the primary body concerned with the well-being of barriada residents. Four years later, in May 1964, eighty heads of household from Lima barriadas embarked for another Amazonian colony, "La Buena Esperanza" (Good Hope) in Oxapampa, joining two hundred other settler families from around the country. Depending on the size of the household, they would receive 30 to 50 hectares of land, suitable for growing crops such as cacao, coffee, and rubber.[14]

Beyond its recommendations concerning planned development, the UN seminar acknowledged that urgent measures were needed to address the increasing prevalence of "shanty-towns" in rapidly growing cities. Yet it cautioned that the fundamental problem was the low level of household income, which would be resolved only with economic growth. In the meantime, the focus should be on realistic, achievable goals, such as "the provision of basic urban services to the mass population in cities" and perhaps very basic housing programs meeting "minimum standards of sanitation and comfort." In addition to these pragmatic physical planning solutions, the seminar addressed the "social welfare aspects" of urbanization, proposing measures such as "the creation of reception centres for newcomers . . . to ensure their integration into the city community." Channeling Georg Simmel, the Rapporteurs' Report framed such issues as falling within the "psycho-social aspect of urban culture": this demanded a "new type of personality" characterized by a "receptive attitude to foreigners, . . . emotional detachment, and the capacity for abstract thought." The urbanization of the individual required shedding rural personality traits (xenophobia, strong emotional connections) in favor of a more rational subjectivity, suitable for cultivating the "impersonal relationships" proper to urban life.[15] This psychological transformation also entailed replacing the traditional, inherited value system that had broken apart with the migrant's transplantation with a new set of values based on innovation, creation, and change—qualities that

were closely connected to (and needed for effective participation in) economic development.

José Matos Mar's contribution to the seminar report, an anthropological study of barriadas in Lima, provided a vivid illustration of the challenges involved. According to his analysis, the sharp contrast of rural (traditional) and urban (modern) cultures led "to serious conflicts which are reflected in mental, social, and economic maladjustment that militates against satisfactory integration."[16] Evidence for this lack of "integration" was abundant: under- or unemployment, inadequate living conditions, ill health and poor nutrition, matrimonial and domestic instability, and consequent vagrancy and vice. In sum, these migrants exhibited the economic, social, and psychological pathologies fitting the contemporary definition of a "marginal" existence—hovering on the periphery of mainstream society, seeking in vain a new rootedness in urbanity.

The pervasiveness and persistence of the discourse of marginality in discussions of Latin American urbanization in this period was comprehensively unraveled by Janice Perlman in *The Myth of Marginality* (1976). Noting the fluidity of the concept—which had been "popularized as a coherent theory even though . . . it is based on a set of loosely related, rather ambiguous hypotheses"—Perlman enumerated several distinct modes of marginality.[17] Its intellectual origins lay in the "psychosociological" mode introduced by Robert E. Park's "Human Migration and the Marginal Man" (1928), which described the migrant's hybrid existence, stranded on the edges of two cultures, one he had not fully left behind and the other he had not fully embraced. Although this marginality was experienced on an individual, psychological level, it was rooted in larger sociological processes. The concept gained a widespread legitimacy in the 1950s throughout Latin America, offering a framework to understand the new sociocultural landscape emerging as a consequence of accelerating urbanization. The "ethnographic" mode of marginality articulated in this context explicated the cultural dislocation experienced by rural-urban migrants. Matos Mar's analysis of Lima's barriadas fit firmly within this tradition. Other variants identified by Perlman were closely related offshoots. The "modernization" mode addressed the sociopsychological challenges of urban integration for the individual, as well as the political-economic challenges for the modern nation-state overseeing this integration, in order to produce the kind of citizenry required for political stability and economic growth. The "radicalism" mode took this pre-

occupation to its logical conclusion, suggesting that the inadequate integration of the neither-here-nor-there "marginal man" could lead to discontent, political instability, and even revolution, threatening the foundations of society as a whole.

Another important aspect of the marginality concept was that its descriptive power applied not only to social groups but also to the physical space of cities. Perlman denominated this the "architectural-ecological" mode of marginality, as it focused on identifying problematic neighborhoods by their physical characteristics: their marginal location on vacant sites, wasteland, or literally on the urban periphery, as well as their functionally marginal infrastructure and marginal construction. In this circular environmental determinist reading, "marginal settlements" were both a symptom of underlying social problems and the disease itself: socioeconomically marginal citizens built marginal neighborhoods; inhabiting a marginal neighborhood exacerbated and confirmed the residents' socioeconomic marginality.

With the rise of these debates, the discourse on Latin American urbanization shifted its conceptual framework. While for observers like Violich, focused on unbalanced urbanization, the "shacktown" was an epiphenomenon that would disappear when national development found its point of equilibrium, "marginal settlements" were now seen as a core problem, both in urbanistic terms (as unauthorized settlements subverting efforts at rational urban planning) and in social terms (as the home of an unintegrated mass of marginals).

In this new discursive context, aided self-help housing came to have a particular resonance. As a case in point, despite describing the barriadas as unstable and unhealthy, Matos Mar's study for the UN seminar also provided a clear-sighted view of the role of self-help—albeit unaided and improvised—in these settlements. His detailed observations of the process of barriada formation noted that self-organized residents carefully managed the occupation and settlement of their sites, overseeing tasks such as allocating lots among the group, and collectively executing public works from roads to sewer trenches. These residents, he concluded, "have been compelled to help themselves by organizing on an ad hoc basis." Furthermore, while he regarded the residents as "underdeveloped people of peasant mentality" yet to be integrated into urban life, he nonetheless endorsed the practices of cooperative work that he argued they had brought with them from their rural communi-

ties, interpreting this as an important continuation of traditional Peruvian communitarian values. In developing their barriadas, "the help which they give to projects for the common good is steady and effective and is perhaps their most valuable contribution."[18]

The UN seminar's Rapporteurs' Report also underscored the significance of such practices: "Evidence was presented for a number of cities indicating that the shanty-town dwellers had considerable initiative and, with proper leadership and guidance, could be mobilized for effective self-help types of community development activity that would notably improve their housing and environment."[19] Unaided self-help was already operative; by introducing technical assistance (that is, "proper leadership and guidance") its impacts could be amplified and refined. In this way, aided self-help could be engineered to provide a dual-use solution: delivering concrete improvements to improvised settlements (upgrading their "marginal" conditions) while building social integration (assimilating their "marginal" residents via community development). This deployment of aided self-help housing as part of programs to counteract the challenges of marginality would continue to find echoes in the language of "popular participation" and "social mobilization" of the Peruvian Revolution in the early 1970s, and once again in discussions around democratization and political engagement in the early 1980s.

Although marginality discourse continued to reverberate into the 1970s, by the late 1960s anthropologist William Mangin, among others, started to question some of its underlying assumptions. Mangin conducted fieldwork in Lima barriadas beginning in the late 1950s and collaborated with Turner on research documenting processes of barriada formation (discussed below). Mangin's article "Latin American Squatter Settlements: A Problem and a Solution" (1967) drew on a range of recent scholarship, including his own research on Lima, to debunk pervasive myths about squatter settlements, much of them shaped by marginality discourse. In Mangin's view, there was little evidence of the social pathologies described by Matos Mar. While families faced challenges due to low levels of income, the rates of violence, crime, and social breakdown were no higher in squatter settlements than in other neighborhoods with similar socioeconomic profiles. While these settlements were often unsightly to the casual observer and their living conditions difficult for residents, the general trend was slow but steady improvement. There was ample evidence of productive economic activity, seen in

each family's small-scale investment in improving their housing, and numerous home-based businesses. Participation in the formal labor market was uneven, but a majority of residents did have stable employment of some form—as skilled or unskilled laborers, domestic workers, small-scale entrepreneurs, midlevel public service employees (teachers, white-collar workers)—demonstrating that there was more economic diversity in the barriada than was often imagined.

To Matos Mar's charge that barriada residents were struggling to adapt to urbanity, Mangin responded that they negotiated institutions of urban life from a pragmatic standpoint, having been "compelled to acculturate strategically in order . . . to defend themselves." He noted that many demonstrated a keen awareness of laws, bureaucratic procedures, and political debates that could potentially benefit or harm their interests. They had learned to lobby powerful outsiders for support, cultivating clientelistic relationships with politicians who could legitimate their settlements by guaranteeing secure tenure or the installation of urban services. In this way, they astutely leveraged the promise of their electoral support into gradual but tangible improvements in their neighborhoods. Far from being motivated by radical politics, any collective mobilization was guided by concrete goals and unapologetic economic self-interest. Mangin observed that residents had retained some elements of their rural culture—although he doubted whether cooperative work was one of them, suggesting that most "had never heard of *mingas* before they read about them in newspapers"—but this did not interfere with their ability to function in the urban sphere. They negotiated a new hybrid identity easily, without the trauma suggested by Matos Mar. In sum, for Mangin the squatter settlement was not the "problem" anxiously examined by earlier observers: he did not see it (as per modernization theory) as an unfortunate side effect of dysfunctional urbanization, nor (as per marginality theory) as evidence of social breakdown. Rather, it was a grassroots "solution" to an otherwise intractable housing shortage: the self-organized self-help of the barriada represented "a process of social reconstruction through popular initiative"—and it was now an integral part of Latin American urbanization.[20]

Mangin's work contributed to a wave of scholarship that fundamentally changed how unauthorized settlements were understood. This shift was due in part to new evidence and interpretative approaches, and in part to the emergence of a very different theoret-

ical paradigm—dependency theory—which emphasized a structural rather than a cultural interpretation of poverty. Peruvian sociologist Aníbal Quijano wrote an influential essay on the urban implications of dependency while he was the principal researcher on urbanization and marginality at ECLA in the late 1960s. Quijano argued that Latin American societies—with the exception of post-revolutionary Cuba—occupied "a position of dependency" within a globalized "system of relationships of interdependency formed by capitalist countries." This was not a new phenomenon: from the outset of its colonial occupation, Latin America had been "constitutively dependent"—although the precise contours of its dependency had evolved with the transformations of capitalist markets and modes of production, as successive metropolitan powers in Europe (and later the United States) claimed dominance in the global economy.[21] Importantly, these relations of dependency were not simply imposed by metropolitan powers; rather, they resulted from transnational alliances of external capital and internal elites whose own interests would be furthered by faciliating the local economy's position as a dependent, subordinate actor in the international system.

Latin American urbanization was likewise dependent, the configuration of its urban networks subject to the evolving demands of capital, whether a colonial framework of mining centers and administrative nodes to streamline metal exports or a postcolonial—read: imperial—model of ports along the Atlantic coast to serve British-dominated commercial shipping. Viewing the contemporary situation, Quijano observed that relations of dependency were only intensifying, as international capital shifted into manufacturing and services, resulting in another reshaping of both urban networks and urban society. The new urban networks were dominated by ever more influential industrial centers that were drawing workers away from the rural economy, creating the unbalanced urbanization identified by earlier observers. In Quijano's view, this increasingly asymmetrical dynamic between the urban and rural spheres, and between primary and secondary cities, was symptomatic of internal relationships of dependency. In parallel, the emerging urban society was defined by recent rural-urban migrants whose lives were now circumscribed by the limited opportunities for stable employment that "dependent industrialization" entailed: "Its very logic contains the inevitability of the *marginalization* of growing sectors of the urban population."[22] In this reading, recognized phenomena associated with unbalanced or marginal urban-

ization were reconceived within a new theoretical framework that viewed the global economic system as the driving force of urban change.

The challenge for those such as Quijano who decried the destructive effects of dependent urbanization was how to move beyond its apparent structural determinism. That is, if dependent urbanization was an expression of global structural inequality—and of internal structural inequality within Latin American societies—it would persist as long as current geopolitical and economic relations held firm. In his conclusions, Quijano pointed to one possible alternative future: the disruptions caused by intensifying urbanization might well lead to a reckoning with the social problems that it had inflamed, because "cities in Latin America fulfill an ambivalent function, serving . . . as vehicles for the penetration and expansion of dependency" while also stimulating "the most broad and rapid diffusion of clear forms of social consciousness in dominated groups."[23]

In an essay a few years later, Manuel Castells underscored that in its dependent state, Latin American urbanization was directed not by the coherent, self-determined plans of developmentalist states but by the needs of capital in its imperial mode: "The transformation of Latin American space is not, then, a 'march toward modernization' but the specific expression of the social contradictions produced by the forms and rhythms of imperialist domination." In essence, the region's dependent urbanization had resulted in a series of unwanted effects, the most striking in spatial terms being "*the development of intraurban segregation and the constitution of vast ecological zones called marginal in a process of 'wild urbanization'* [*urbanización salvaje*]." Viewing this landscape through a Marxist lens, Castells concluded that the key issue now was to determine whether there was a meaningful relationship between the ecological and social stresses created by dependent urbanization, and whether the breakdowns this unveiled opened the possibility of new political movements and alliances, as Quijano had suggested.[24]

A decade on, Castells returned to this theme in *The City and the Grassroots* (1983), a study focused on the dynamics of urban social movements. Castells explicitly identified Latin American squatter communities—the architects of "wild urbanization" and the archetype of social marginality—as potentially "a bank for an alternative political scheme, mak[ing] them at once dangerous and

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necessary" for existing and nascent political systems alike. In particular, Castells explored the tensions in the relationship between squatters and the state, examining "the dialectics between social integration and social change, since urban populism always walks on the thin edge between clientelism and the triggering of urban social movements."[25] On one side was assimilation to the dominant political system via clientelism; on the other, disrupting it via the construction of a new politics.

In this discussion, Castells refined and to an extent redefined the concepts of marginality and dependency, introducing a new term: the dependent city. Drawing an analogy with the asymmetrical relationships of dependency in the international system, the "dependent city" is characterized by the dependencies that govern its most disempowered residents: squatters. Rather than viewing marginality as a side effect of dependent urbanization, Castells now saw it as a tool to forge dependency: marginality is "socially constructed by the state, in a process of social integration and political mobilization in exchange for goods and services which only it can provide." These goods range from guaranteeing secure tenure to granting title to infrastructure provision (and, by extension, overseeing aided self-help housing schemes). The squatters' extreme need and precarious status—their constructed marginality—binds them to the rules of clientelism, within which their demands may only be met on the state's terms. As squatters, even their physical presence within the city is "an exception to the formal functioning of the economy and of the legal institutions"—and as such is sustainable only under the protection of a patron-client relationship. Ultimately, since squatters are constituted by patronage rather than legal rights, they lack the citizenship required to hold the state accountable. Thus, Castells concludes, "The dependent city is a city without citizens."[26] Nonetheless, even though urban popular politics has a strong tendency toward cooptation by clientelism, it is still only a "thin edge" away from the eruption of urban social movements, potentially triggered by squatters empowered to reject their stable but impoverished situation of dependency, and to demand instead—echoing James Holston's terminology—the recognition of their urban citizenship, their right to the city.

Following a very different theoretical pathway, in the early 1970s some critics of dependency theory, who nonetheless accepted a structural interpretation of poverty, sought to develop a less

deterministic viewpoint about its causes and the possibilities of social change. One of the most influential of these was the "dualist" economic theory developed by Keith Hart and others, focused on the complex interrelationships between the "formal" and "informal" economic sectors, generating much debate about how to define their particular characteristics. While earlier theories had viewed informal production and labor markets as a drag on efforts to modernize the economy and spur national development, according to the dualist theory the informal sector had its own logic and dynamism, which was indispensible to the productivity of the formal sector.

The informal sector came to the forefront of debates about urban settlements in the 1980s, largely due to the influence of de Soto's *El otro sendero*. However, while Hart and his contemporaries perceived complex and productive interconnections between the formal and informal sectors, de Soto framed the relationship as inherently antagonistic: the "formal" signified the bureaucratic operations of the state, and the "informal" signified economic vitality, seen to be under constant threat from a state trying to contain entrepreneurial spirit via needless rules and regulations. In his discussion of three areas of economic activity—housing, trade, and transport—there is no mention of the formal economy, as if economic activity per se can be generated only by the informal sector.

On the surface, this would seem to be a deliberate misreading of dualist theories; however, Ray Bromley convincingly argues that de Soto simply has little interest in engaging in such debates. Rather, his intellectual roots lie elsewhere, in a range of conservative and libertarian influences, including economic ideas derived from Adam Smith and Friedrich Hayek, Thomas Paine's political theory, and conservative critiques of dependency theory that attribute Latin America's underdevelopment to its political elites and institutions. Accordingly, de Soto looks at the informal from a "sociolegal" viewpoint, focused on the intersection of law and economics, considering the social impacts of regulations that shape the borderline between the formal and informal sectors. He defines the informal as hovering somewhere between formal and criminal activity, with each of the three sectors characterized by a particular means/end profile. While formal activities seek legal ends via legal means, and criminal activities seek illegal ends via illegal means, "informal activities have legal ends, but are conducted illegally because it is difficult for the participants to comply with official regulations."[27]

In contrast to the black markets of criminal activity, the informal sector functions in a grey zone—rendering a legitimate, necessary service via widespread under-the-table practices (such as operating without a permit or avoiding tax) that are, strictly speaking, illegal, but generally socially sanctioned. The problem with this arrangement, according to de Soto, is that there are considerable costs to the household or business owner operating in this grey zone, adversely affecting the dynamism and productivity of the informal sector. Long-term solutions include streamlining bureaucratic processes and reducing regulations, while in the short term the answer is to "formalize" informal housing and businesses, thereby removing the shadow of illegality.

In the case of informal housing, de Soto argues that through developing their informal settlements, squatters have "created considerable wealth . . . by causing land values to rise and investing in the building of their own homes, thereby dispelling a myth . . . that Peruvians of humble origins are incapable of satisfying their own material needs and must be provided for, guided, and controlled by the state."[28] For de Soto, the state's only legitimate role is to eliminate these settlements' extralegal status: gaining formal title would free the homeowner to borrow money, using the home as collateral to access capital to start a small business or invest in some other enterprise. The economic implications of formalization are seen to be overwhelmingly positive, both in the immediate materialization of home equity for the individual householder and the promised boon to the national economy, as the entrepreneurial spirit of countless residents of self-built settlements is set free. By contrast, the urbanistic implications of formalization are of no concern to de Soto: he does not consider the potential negative impact for overall urban development of granting legal status to any and all self-built housing, no matter how poor the physical condition of the structure, or how ill-planned the neighborhood. Urban planning regulations are only ever seen as compromising the self-determination of the individual householder; de Soto does not acknowledge that the state may have a legitimate right, and even a responsibility, to use planning law to shape the evolution of the city as a whole, for the maximum collective benefit of the urban community.

The conceptual framings of urbanization discussed here—unbalanced, marginal, dependent, and informal—sometimes overlap or blend into one another; paradigm shifts are rarely marked by hard and fast boundaries, even less so when they are translated

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into policy positions and on-the-ground projects. Nonetheless, it is clear that each of these framings identified particular urban problems, and proposed particular solutions, which could be summarized as follows. In the "unbalanced" paradigm, the problems of overurbanization and associated urban ills (such as shantytowns) can be resolved by recalibrating development to correct urban imbalances. In the "marginal" paradigm, the problems of marginal citizens and settlements can be resolved by programs to integrate the marginal into the mainstream. In the "dependent" paradigm, unbalanced urbanization, marginality, and "wild urbanization" all result from dependency, and can only be remedied through radical structural reform; urban popular politics offered a possible route to creating a less dysfunctional and inequitable city, but—in Castells's reading—was torn between cooptation (social integration) and empowerment (social change). In the "informal" paradigm, improvised settlements are not the problem they appear to be; the solution is to accept this as its own form of urban development, and aim to facilitate, rather than overregulate or restrict, its dynamism.

Likewise, each of these framings of urbanization could be said to present a particular position on the role of aided self-help housing. For the "unbalanced" paradigm, aided self-help is moot, because the shantytown is a transitory epiphenomenon; once its root causes are addressed, it will disappear of its own accord—or be cleared away. For the "marginal" paradigm, aided self-help is a powerful tool, and its impacts are twofold: improving physical living conditions while fostering social integration. For the "dependent" paradigm— again following Castells's reading—"goods and services" such as aided self-help programs seem to occupy an ambivalent position— most likely functioning as a tool of the clientelism that permeates state-squatter exchanges, but possibly a venue for the alternative politics of urban social movements. For the "informal" paradigm, aided self-help is unnecessary, because independent self-helpers are already developing their settlements and their wealth, unaided, and any state assistance is simply another constraint undermining their self-sufficiency.

While there is a particular resonance between aided self-help and the conceptual framework of marginal urbanization, its implementation was not only due to the influence of that position. Rather, aided self-help was a recurrent theme of housing policy in Peru, though pursued with varying degrees of enthusiasm and efficacy,

while the arguments supporting it were modulated in response to theoretical, political, and ideological shifts. Nevertheless, in practice, the unaided self-help of the barriada, shantytown, marginal neighborhood, or informal settlement was responsible for the bulk of urban housing production over these decades, remaining a constant throughout these conceptual reframings of the city.

Architectural Encounters with Self-Help Housing

Self-help housing, whether aided or unaided, has been peripheral to architectural history. Yet there are significant points of intersection between these practices and established historical narratives. The focus here will be on two such instances: the history of aided self-help housing per se, and the relationship of aided self-help and the "growing house" concept.

As Richard Harris has shown, the history of aided self-help housing extends far beyond the postwar programs in the developing world often associated with the term. Promoted in Sweden as early as 1904, it first emerged as a widespread solution during the housing crisis following World War I, with programs implemented in several Western European countries and the Soviet Union. Notably, Ernst May worked extensively with self-help projects during his tenure directing the provincial housing authority in Silesia (1918–1925). In addition to supervising a self-help housing program at Neustadt, he experimented with different building methods and materials to improve their efficiency, produced pamphlets demonstrating simple construction techniques, and devised a manually operated brick press for self-builders.[29]

Beyond Europe, Patrick Geddes's *Town Planning towards City Development: A Report to the Durbar of Indore* (1918) includes an important, if brief, theoretical discussion of aided self-help housing. While Geddes addressed the topic in only a few pages of his lengthy and wide-ranging two-volume report, which revolves around plans for a new industrial town, the passages are worth examining in detail, as they foreshadow many of the arguments that were made in favor of aided self-help housing in the postwar period. Addressing the issue of providing mass housing for industrial workers, Geddes argued: "For the needed thousands of houses, we cannot often hope to start with capital more than to admit of an initial single room and veranda, especially in *pukka* [first-class, complete construction]. We

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must even be content in a good many cases with *kucha* [makeshift, unfinished construction]; and this has the advantage of more cheaply and easily ensuring the adequate floor-space and air-space which are prime essentials of health. Moreover in *kucha* construction, labour can often, at least partly, be given by the worker himself." Geddes continued by suggesting that the state should foster these efforts by providing security for deposits invested in promoting housing construction—this being, in effect, an investment with a guaranteed return in future economic growth, since both state and city governments would be "enriched and strengthened by every increase of material property within their limits, and by every tax-payer whose prosperity and permanence they can assist." In addition, better housing would make for a more stable workforce: "Nothing fixes people like a good house." (Realizing this house with the personal investment of the owner-resident's labor would seem to give additional weight to its anchor.) Returning to the subject in a subsequent chapter, Geddes claimed that many manual laborers had time to spare, and were "sturdy fellows, handy, willing, and often intelligent: and what better outlet can a man find for these virtues, or for increasing them, even acquiring them, than in the construction of his own home?" This proposal was complicated, Geddes lamented, by the fact that the processes of modernization in India had transformed housing construction from "one of the most widely diffused aptitudes" into a specialized occupation; therefore the authorities needed to find "some capable overseers . . . men who could keep up the standards of planning and execution, yet utilize and train the more or less unskilled labor of its employees into satisfactory house-building."[30]

Here are many themes familiar from postwar debates: the reduction of construction costs through self-help; the deployment of state-backed financial resources to expand homeownership, and thereby elevate the household income of self-helpers and stimulate overall economic growth; the increased work-discipline of the industrial labor force; the moral improvement of the self-helper/homeowner; and the importance of sound technical assistance to direct the work.

The key point of connection between Geddes and postwar practice is Jacob L. Crane, director of the International Office of the United States Housing and Home Finance Agency (HHFA, 1945–1954). As documented by Harris, Crane, "who coined the term 'aided self-help housing' in about 1945"—thereby foregrounding the role of experts in guiding such projects—was influenced in his approach

at least in part by Geddes, whom he had met in 1921 shortly after Geddes left India. Crane's firsthand experience of the practice came from his time working as director of project planning for the United States Housing Administration, beginning in 1938. This involved overseeing the provision of low-cost housing in Puerto Rico, including an early sites-and-services project in the city of Ponce, whereby the housing authority drew up lots, paved the streets, and at the intersection of every four-lot grouping installed a utility unit with individual toilet, shower, and laundry facilities for each family. The housing itself was provided either "in the traditional way" by unaided self-building or by moving the family's existing house to the newly appointed site. For Crane, the next logical step was to improve the outcomes of these "traditional ways" by providing technical assistance in the design and construction of the housing unit, and by streamlining building via cooperative work—hence "aided mutual self-help." Harris has argued that Crane became a key promoter of the practice and the professionalization of its techniques by using his office at the HHFA to gather and disseminate information via a network of "well-placed individuals throughout the developing world."[31] His closest contact in Peru seems to have been David Vega Christie, a prominent housing official from the late 1940s onward.

Within the international sphere, the UN's advocacy of aided self-help dates to the late 1940s. Initially, the UN's interest in housing was limited to postwar reconstruction in Europe, through the auspices of the UN Housing and Town and Country Planning Program, situated within the Bureau of Social Affairs (in 1964 the unit was granted greater autonomy as the UN Centre for Housing, Building and Planning, and in 1978 it was expanded into the UN Centre for Human Settlements, or UN-Habitat, now the UN Human Settlements Programme). In 1947 the UN Social Commission officially widened its housing focus to encompass areas beyond Europe, and in mid-1949 the secretary-general proposed a study to address the lack of adequate housing in much of the world's "tropical and semi-tropical regions." Given the low incomes of these households, the recommendation was "to spread among the population concerned the knowledge required to enable them to build their own houses in a manner which will give them a greater degree of health and comfort"—in other words, via techniques of aided self-help.[32]

This call for action was quickly followed by two reports on low-cost housing that reiterated the support for aided self-help. In both cases, the influence of Crane is evident: the first was essentially a

literature review that drew heavily on the HHFA's collection of materials; the second reported on a multination research mission to Asia led by Crane. While acknowledging that implementing aided self-help programs on a large scale presented logistical challenges, this report argued that it could "do more to reduce money cost and to achieve higher standards than any other combination of finance and technology."[33]

Shortly afterward, the January 1952 issue of *Housing and Town and Country Planning*, the bureau's information bulletin, focusing on the theme of housing in the tropics, again emphasized aided self-help. The issue included information on successful trial projects across several continents and the draft of a manual for organizing aided self-help programs, drawn up by the HHFA. According to the editorial statement, not only was this an effective solution in technical terms (allowing for "the rational application of local materials and skills") but it also offered individual self-improvement, drawing out the participants' existing capabilities (their "initiative and resourcefulness"), and enhanced community development through the shared task of building a neighborhood of houses. Furthermore, "there is every right to expect that by relating housing to a country's economic and social development, aided self-help can become a lever for continuous betterment of living conditions in general." This was followed by a number of UN consultants' reports that recommended the technique for the Gold Coast (now Ghana, 1956), Pakistan (1957), and the Philippines (1959).[34] These documents were not widely circulated at the time, but do indicate the extent to which the technique was embraced by UN-affiliated experts. M. Ijlal Muzaffar's research examining the deployment of aided self-help housing as an instrument of development in the postwar Third World provides a close reading of the discourse of expertise as it was framed in such documents.[35]

During the 1950s the ILO and the OAS added their support, and in 1953 the OAS-funded CINVA published a Spanish-language manual on aided mutual self-help housing based on trial projects in Puerto Rico. CINVA also operated as a training center on techniques of aided self-help, reaching housing officials from across Latin America. Also in 1953, mass-scale urban informality was introduced into the discourse of modern architecture, via representations of the "bidonvilles" (shantytowns) in France's North African colonies, at the ninth meeting of the Congrès Internationaux d'Architecture Moderne (CIAM). The displays by CIAM-

affiliated groups in Morocco included ATBAT-Afrique's celebrated Sémiramis and Nid d'Abeille apartment buildings (1952), which were erected as part of a program to rehouse residents of the Carrières Centrales bidonville in Casablanca. In 1954 a managed, cooperative aided self-help housing project was launched as part of the same program. The site was laid out following the standard 8-by-8-meter housing grid designed by Michel Écochard and used throughout Carrières Centrales, accommodating a basic two-room patio house. The project was a trial of the "mouvement Castor" (Beaver movement) method: this cooperative model of aided self-help housing originated in working-class communities in postwar France, with roots in Catholic and labor union activism, and was responsible for the construction of some eight thousand dwellings throughout France in the early 1950s.[36] While North Africa is often framed as a colonial laboratory for projects devised by metropolitan architects, in this case the aided self-help model was trialed in the metropolis, then exported, pointing to the circulating nature of aided self-help between industrialized and industrializing nations.

When the aided self-help approach was first considered within Peru in the mid-1950s, the Puerto Rican projects were the best-known example of the technique. The US government actively promoted these projects to a wide audience, with the particular assistance of Pedro G. Beltrán, a conservative economist and publisher of the newspaper *La Prensa*, who was well-connected to housing officials in Washington. In August 1954 *La Prensa* published an article on the Puerto Rican projects, citing as its source a press conference held at the US embassy in Lima by Teodoro Moscoso, head of the Economic Development Association of Puerto Rico (and later head of John F. Kennedy's Alliance for Progress).[37]

A second point of intersection between architecture and aided self-help appears in the "growing house" concept—also known as incremental or progressive development. This model is often promoted by its advocates as replicating the traditional mode of construction in unaided self-built housing, where the dwelling is treated as an adaptable object, with no fixed or final form: typically, a basic livable shelter is completed quickly, then gradually improved as needed. The architect-designed "growing house" aims to be equally responsive to the constraints of budget and the rhythms of changing household composition, while providing a strict blueprint for all stages of the house's development. Early trials of pro-

gressive construction to reduce the cost of housing include Marga-
rete Schütte-Lihotzky's explorations of the "core-house" in 1920s
Vienna and Martin Wagner's advocacy of the "wachsende Haus"
(growing house) in early 1930s Germany.

During the political and economic turmoil of World War I, it
became apparent that the Viennese government could not guar-
antee adequate food or shelter for the city's two million residents.
In response, squatters of the so-called wild settlement movement
occupied public land, planting subsistence gardens and construct-
ing their own dwellings. By 1918 over one hundred thousand people
were living in self-built settlements and surviving on produce they
had grown themselves. After the war, the municipal government's
housing proposals included support for the construction of self-
help settlements—no longer "wild" but organized within municipal
guidelines. To this end, in 1921 the municipality established a de-
sign office (with Adolf Loos as chief architect) to produce master
plans for new settlements. The municipality also undertook to pro-
vide the necessary materials via GEBISA (the settlers' cooperative-
ly run building materials supplier) along with machinery and tools.
Under the municipal model, prospective settlers were required to
contribute two thousand to three thousand hours of work to build a
new neighborhood; once construction was completed, each family
would be allocated one of the collectively self-built houses.

In 1923 the municipality supported an exhibition to showcase
the achievements of the settlement movement, including three
model houses designed by Schütte-Lihotzky. These "core-houses"
all employed a modular construction system, with prefabricated el-
ements that allowed the structure to grow progressively, according
to a set plan. The first stage (or "core") was a compact, two-story
dwelling with a live-in kitchen on the ground floor and a small
bedroom above, and featured traditional stylistic references such
as a pitched roof. The designs received enthusiastic coverage in
the press, and GEBISA announced that it could prefabricate the
core-houses. However, this failed to convince the intended cus-
tomers, who were accustomed to contributing their sweat equity as
payment for the house. While using prefabricated elements would
doubtless save them time, it would also require a much larger cash
outlay upfront. Ultimately, a prefabricated core-house was simply
less suitable for self-builders' budgets than a dwelling realized with
labor-intensive (but low-cost) conventional materials and meth-
ods. As a result, fewer than two hundred were purchased.[38]

In the early 1930s, amid Germany's ongoing postwar housing shortage and concurrent economic crisis, Martin Wagner, the head of Berlin's municipal housing program, conceived the *wachsende Haus* explicitly in opposition to the *Existenzminimum* so enthusiastically promoted by Ernst May, his counterpart in Frankfurt. Wagner argued that the use of minimum standards—which were continually being revised downward due to the deteriorating economic situation—would permanently tie residents to barely livable conditions imposed in the throes of a national crisis. Instead, he proposed a simple *Kernhaus* (nucleus-house or core-house), built around a *Wohnungskern* (dwelling-core), which would evolve into a complete dwelling over time, thereby surpassing the constraints of the "minimum" as the family's finances improved. Wagner publicized the concept through a conference and a design competition, culminating in a presentation of full-scale prototype dwellings as part of the 1932 Deutsche Bauausstellung Berlin. From over one thousand submissions, twenty-four designs for single-family dwellings were selected, including projects by a number of prominent modernist architects, among them Walter Gropius, Ludwig Hilberseimer, Erich Mendelsohn, and Bruno Taut.

Wagner's conception of the "growing house" showed the influence of the *Laubenkolonien* (summerhouse colonies) that had arisen on the outskirts of many German cities. These were allotment gardens with very basic, part-time summerhouses—often little more than a toolshed—which in cases of extreme need were converted into full-time residences. Wagner responded to this prevailing form of emergency self-help housing by adopting its model of the compact single-family house on a generous lot with room for a subsistence garden. In this way, Laubenkolonien-inspired dwellings would be reconceived within a modernist architectural language, and provided with enough design integrity to function as adequate permanent housing.

Importantly, as in Vienna, Wagner's "growing house" assumed a technological solution—a prefabricated, modular design—but it was to be carried out by trained construction workers, not self-help builders. In fact, Wagner's description of the project offered a vigorous critique of self-help housing: citing one of his earlier writings, he characterized it as "construction industry dilettantism, which would make each settler into his own entrepreneur and his own fabricator of raw materials." Wagner's critique, from a socialist perspective, was that self-help was destructive to the

building economy as a whole: do-it-yourself builders made it more difficult for trained construction workers to find employment, they produced poor-quality work that lowered the standard of the dwelling, they wasted materials and damaged machinery (all the while requiring extensive supervision), and they relied on outmoded, inefficient building methods because the sophistication of modern construction systems was incompatible with self-help labor. Finally, Wagner argued that although it promised to lower construction costs, self-help did not in fact produce any savings: "It is a dangerous self-deception, which makes plans to persuade the public that with this method something can be 'saved.' If capitalism had been able to save in the building sector through 'self-help' then it would have done so with the greatest consequences for the last century."[39] While Wagner is correct that self-help often fails to reduce overall costs—that is, the houses may not be cheaper than those built using the most efficient technologies—it does produce savings for the sponsoring housing agency: the sponsor "saves" because the self-builder expends labor in kind.

Wagner was forced to leave office shortly after the presentation of the "growing house" exhibition, as the political climate within Germany turned sharply to the right. As a consequence, his proposal was not implemented. However, in a postscript, Ernst May revisited Wagner's concept in a project for a "growing house" designed for a neighborhood in Mombasa, Kenya (1952–1953). Intended for low-income rural-urban migrants, the design was projected to incorporate family growth, including the possibility of accommodating extended family, in line with traditional living patterns. The intention was apparently to replace the kind of provisional housing that migrants tended to construct for themselves, resisting a permanent structure, knowing that their needs would change. Once again the proposal was unrealized. According to a recent assessment, the design was of a type that "could neither be afforded by the majority nor conveniently built by the government"[40]—since, as with any implementation of the "growing house" model, the housing authority would have faced considerable challenges in overseeing extensions to ensure that they were carried out in accordance with the established plan.

The "casa que crece" (growing house) model first appeared in Peru in 1954, in a design for low-cost housing by modernist architect Santiago Agurto. It does not appear that Agurto was aware of any European precedents; rather, his inspiration was the incre-

mental construction of barriadas. By the early 1960s the casa que crece had been widely adopted in designs both for government housing projects and for private sector developments aimed at the lower-middle-income market. This was a conventional dwelling in the sense that it conformed to basic building codes and standards of services and was sited on legally acquired land, but it borrowed the barriada model of stage-by-stage construction to create an affordable dwelling.

As documented by Turner and Mangin in 1968, construction in barriadas tended to follow a regular pattern.[41] Once lots were allocated to each household, a provisional one-room dwelling of *esteras* (woven bamboo mats) was erected; this was quickly followed by a *cerco* (perimeter wall), also of esteras, delimiting and protecting the lot (fig. I.1). (According to one architect, the reason for this act of enclosure transcended the resident's need to secure the lot or create privacy: "Why? To hide his poverty, so that at six in the evening, the neighboring family cannot see whether or not he has now lit the fire to cook.")[42] In the next stage, the cerco was rebuilt in concrete block; over time, the provisional materials of the dwelling were replaced with permanent ones, and rooms were gradually added to fill out the lot, and finally extend upward with additional stories. In Lima and other cities in Peru's coastal desert, a mild climate combined with extremely low levels of rainfall facilitates the long-term use of such provisional materials, even for the roofing. However, it should also be noted that esteras and open flames used for light and heat in the absence of electricity make for a volatile combination, leaving these houses vulnerable to fire.

The most sophisticated explorations of the "growing house" model within Peru appear in proposals produced for the PREVI design competition held in the late 1960s, involving a number of leading avant-garde architects. Each architect was to present a twofold design: a core housing unit to be constructed by professional contractors and taking advantage of the economies of mass production, and a blueprint for gradual horizontal and/or vertical extension of the house over time to be carried out by self-help. As in Schütte-Lihotzky's core-houses, many of these designs proposed that the extensions be carried out using prefabricated components, which in this case were to be manufactured in an on-site factory. For the earlier generation of modernist architects, the "growing house" was viewed primarily through the lens of the innovative possibilities offered by prefabrication and modular construction;
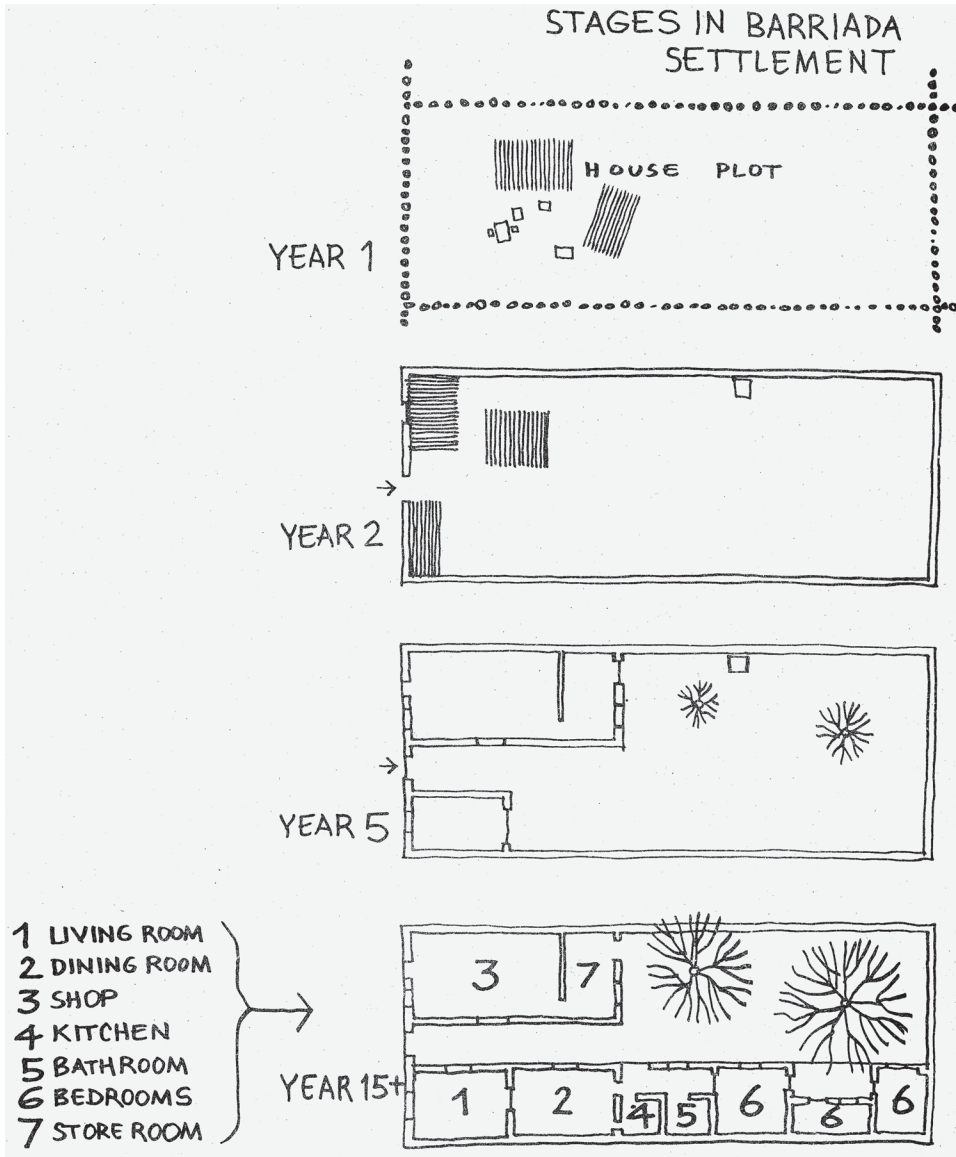
Figure I.1. The "growing" barriada house. *Source*: William Mangin and John F. C. Turner, "The Barriada Movement," *Progressive Architecture* 49 (May 1968), John F. C. Turner Archive.

for many of the architects involved with PREVI, the "growing house" model again suggested new constructional possibilities, but also strongly resonated with ideas about design for transformation, evolutionary potential, and open form. However, this did not necessarily translate into more meaningful participation for the self-help builder, who was to provide the labor to execute extensions

that were carefully incorporated into the initial plans. Improvisations were discouraged, since any deviation could compromise the integrity of the design and its engineering. This points to an inherent tension in the architect-designed "growing house": although the concept was inspired by informal self-help practices, it redesigned—and formalized—the model it was emulating, placing the self-help builder's desire to shape the house according to evolving needs below the architect's desire to complete the growing house according to a static, preconceived design.

As a postscript to this review, it is worth noting that beginning in the late 1960s a number of architectural historians in Latin America began to address issues of urban informality, and along with it self-help housing. Notably, Francisco Bullrich framed his survey *New Directions in Latin American Architecture* (1969) as an overview of the region's architectural production considered "in relation to the problems which are now being confronted." To this end, the chapter on "Urban Utopia and Reality" pointedly concluded an extended analysis of Brasília by discussing the "spontaneous wild west, shanty-town life" of a self-built neighborhood on its outskirts that housed the low-wage workforce needed for the city's functioning but not provided for in its plan. Bullrich expressed skepticism that conventional mass housing schemes would ever entirely replace such shantytowns, and—referencing a 1963 issue of *Architectural Design* on the region's housing guest-edited by Turner—pointed to recent aided self-help initiatives in Peru as a more realistic solution. In Bullrich's view, these trials in "assisted" barriada construction challenged architects to rethink their practice, incorporating greater flexibility (since "the barriada is the paradigm of work in progress") and cultivating "a mutual respect of designer and owner-builder" (since effective collaboration was essential to such projects). More broadly, Bullrich interpreted this approach as exemplifying the imperative that Latin American architects devise local solutions to local problems, guided by a "crude realism" that was inspired by the profession's social engagement: "The new generation has varying attitudes towards the barriada experience, but in general it is entirely committed to the sense of public participation and design for change that are implicit in the experience."[43]

In contrast to Bullrich's embrace of the barriada model, other architects and historians aligned themselves with writers such as

Castells, viewing the shantytown as a highly compromised housing and urban solution, symptomatic of the region's dependency. Prominent among them, Cuban architect Fernando Salinas wrote a widely read critique of architecture in "underdeveloped" countries, identifying characteristics such as an intensifying housing deficit due to land speculation and a profit-focused real-estate market, with minimal government efforts to address the issue. This had left most with no other option than to house themselves via self-building, "in a spontaneous manner, with scattered dwellings in the countryside and huts and *barrios insalubres* [unsanitary neighborhoods] on the outskirts of the cities."[44]

América Latina en su arquitectura (1975), edited by Roberto Segre and featuring chapters by architects, planners, and social scientists from across the region, was broadly in line with this interpretation. Many of its chapters explored the challenges presented by unplanned urban development, but with widely differing assessments of the viability of self-help housing as a solution. Architect Germán Samper, who had worked on aided self-help housing projects in Colombia, foresaw "the *tugurio* and the incomplete dwelling" as the default low-cost housing options for the immediate future, and argued that architects could play a role in transforming these communities via the provision of "complementary institutions that make up for [their] deficiencies"—whether collective laundries, meeting halls, or childcare facilities. By contrast, Diego Robles, a colleague of Turner's on early aided self-help projects in Peru and subsequently the most senior architect in an agency focused on pueblos jóvenes under the Revolutionary Government, characterized "officialized *ayuda mutua*" as a "type of domination" that effectively undermined the unaided self-help efforts of the improvised city. Such programs were complicit in replacing self-builders' "mode of producing urban space socially" with a capitalist mode of city-making that reduced them to passive consumers, thereby reinforcing the existing socioeconomic order.[45]

Finally, Segre, the key historian of architecture in postrevolutionary Cuba, argued that the self-built housing of rural-urban migrants represented a degradation of both aesthetic and social values: rural creative traditions withered "in the context of marginality" in the urban shantytown, while self-builders' efforts to differentiate their dwellings from those of their neighbors demonstrated the "clear expression of the loss of the rural collectivist consciousness, supplanted by urban individualism."[46] Segre contrasted

this to the experience of "microbrigadas" in Cuba, small voluntary work brigades that collaborated to build the multifamily housing that would become their homes, in some cases participating in the design process. This approach echoed aided self-help projects by relying heavily on the contributions of builder-residents, but surpassed them by utilizing modern building technologies, by allowing for the builders' creative input, and by producing collective housing blocks rather than single-family dwellings.

These contrasting positions toward self-help housing both aided and unaided—from optimism to pragmatism, to critique, to conviction that its underlying principles could find better form—demonstrate the range of theoretical and practical responses that these techniques could provoke among architects.

Practices of Self-Help Housing in Peru

This history unfolds via an episodic narrative that features a number of recurring figures, including Beltrán, Belaúnde, Neira, Robles, and Turner. Turner is particularly prominent, partly due to his position as a widely published and influential writer on self-help housing, partly due to the fact that I was able to interview him in some detail, and partly due to the survival of archival materials. The breadth and richness of Turner's personal archives allows for a close analysis of an early trial project in aided self-help housing that he managed, for example, and provides insights into the evolution of his thinking over many decades. Similarly, a self-help housing project that Turner worked on for the US-based company Hogares Peruanos (Peruvian Homes) is amply documented in the archives of the parent company, World Homes. By contrast, the records of Peruvian housing agencies have suffered from uneven custodianship, and as a result are fragmentary. There are no publicly available papers tracking internal debates about policy development, and the documentation of projects—whether proposed or realized—is scarce and often unreliable in the details. Furthermore, these projects tend to be presented in the standardized format of official reports, which does not allow for the voices of the individual architects who worked on them; to a certain extent, these viewpoints do come through in conference presentations and newspaper or magazine articles written by architects independently of their work at government agencies. Some of the policy debates

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can be traced through newspaper reports, particularly those in *La Prensa*, published by Beltrán, who was greatly concerned with the issue of affordable housing; however, since *La Prensa*'s reportage faithfully reiterated Beltrán's political and policy positions, this is by no means a neutral account.

On the other side of the formal/informal divide, it is even more difficult to account for the voices of barriada residents and of participants in self-help housing programs. Their presence in the archives is almost always mediated: their behaviors and attitudes are filtered through the descriptions and analyses of anthropologists, architects, and officials; the words attributed to them in newspaper articles are set within a narrative framework established by the writer or editor. Whenever possible, I have included those rare documents where residents and self-builders present themselves and their viewpoints, such as petitions arguing their case in the public sphere. Nonetheless, as a result of archival gaps, this account is unavoidably incomplete. In the end, the construction of a historical narrative around these projects is a work of bricolage, assembled from the materials at hand.

The period covered here (1954–1986) encompassed great political and social change within Peru, starting with the tail end of the military regime of dictator Manuel Odría (1948–1956), followed by efforts to consolidate liberal democracy under Manuel Prado (1956–1962) and Fernando Belaúnde Terry (1963–1968), interrupted by a brief interlude of military rule (July 1962–July 1963). This was succeeded by a leftist military regime (1968–1980), and then a fragile return to democracy in the 1980s under Belaúnde (1980–1985) and Alan García (1985–1990), accompanied by the emergence of neoliberalism, as well as the guerrilla campaigns of leftist revolutionaries, most prominently Sendero Luminoso (Shining Path). In one way or another, each of these political shifts is reflected in the discourse around aided self-help housing.

The narrative begins in the mid-1950s, when debates on housing provision gathered new urgency. Chapter 1, "The Challenge of the Affordable House," examines contrasting positions on how to address the housing crisis—New Deal–inspired developmentalism to stimulate growth, market liberalization to promote homeownership, and structural reform to raise living standards—seen through the contributions of three figures: respectively, architect-politician Belaúnde, economist-publisher Beltrán, and architect Adolfo Córdova.

Chapter 2, "The Barriada under the Microscope," begins with the establishment of the Ciudad de Dios squatter settlement in Lima on Christmas Eve 1954, an event that prompted the government to introduce unprecedented legislative measures in an effort to solve the housing crisis. In addition, it considers the importance of anthropological research into the barriada as a tool for policymakers, politicians, and architects to understand, and thereby manage, the dense cultural context into which aided self-help housing projects would be inserted.

Chapter 3, "A Profession in Development," explores the intersection of aided self-help housing and modernist architectural culture through an individual career. It follows Turner's intellectual formation in England, his development of an architectural practice in Peru, working on early trials of aided self-help, and his subsequent shift from on-the-ground projects to theoretical work, which would culminate in a series of influential articles and books.

Chapter 4, "Mediating Informality," returns to the policy sphere, discussing innovations in Peruvian planning law that were designed to manage unauthorized settlements and reestablish control over the development of urban land. In particular, it analyzes Law 13517, which was conceived as a comprehensive effort to meet the challenge of the barriadas, and reviews a number of trial projects where these new approaches were implemented.

Chapter 5, "World Investments, Productive Homes," shifts to the international sphere, investigating the political appeal of aided self-help housing during the Cold War, deployed as a tool of both development programs and capitalist market expansion. The chapter begins with the establishment of new mechanisms for housing finance in Peru, and then assesses two very different projects, both funded by US government aid agencies under the umbrella of the Alliance for Progress: the Villa Los Angeles housing development in Lima, and the Perú-BID Plan Bienal 1962–1963, a nationwide program of aided self-help housing.

Chapter 6, "Building a Better Barriada," closely examines the UN-sponsored PREVI PP1 competition held in 1969, which challenged prominent avant-garde architects to develop proposals for affordable housing in Peru. This project transferred the growing house model into the realm of high architecture—an experiment that ultimately brought the conflicts between affordable housing and capital-A "Architecture" into high relief. The discussion also covers an associated project, PREVI PP3, planned as an entirely

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self-build program. In both cases, challenges in the implementation reveal the difficulties of devising a workable, affordable form for aided self-help housing.

Chapter 7, "Revolutions in Self-Help," explores how practices of aided self-help housing were reevaluated and reshaped during a period of leftist, revolutionary experimentation within Peru (1968–1980). The malleability of self-help in theoretical and ideological terms is demonstrated by the contrasting values and significance attributed to it by state agencies working with residents of pueblos jóvenes, by Turner's anarchist-inflected writings of this period, and by Habitat: UN Conference on Human Settlements, held in 1976.

Chapter 8, "Other Paths," reflects on how the self-help housing model was reframed from contrasting political positions, as the return to democracy in the 1980s brought about new alliances of leftist activists who saw in barriada communities the potential for an invigorated grassroots democracy, as well as the emergence of neoliberalism and its embrace of "informal" self-building as a route to economic development. The key link between debates within Peru and in the international sphere was de Soto's neoliberal manifesto *El otro sendero,* which contributed to a fundamental shift in the housing policies of development agencies such as the UN and the World Bank, whose consequences continue to unfold.

Aided self-help housing offered an innovative strategy to approach a problem that could not be resolved via conventional architectural techniques, promising a productive partnership of architect and self-builder that in practice proved to be more ambivalent. It quickly faced the specter of failure at many levels: at the political level, shifting and unreliable support, resulting in inadequate budgets; at the implementation level, the challenges of translating policies and regulations into design practice; at the organizational level, the complex social dynamics of self-help communities and building sites; and perhaps most crucially, at the funding level, the demand that programs be self-sufficient—the costs entirely reimbursed by their participants—belied the underlying economic reality, placing the sustainability of self-help housing programs into doubt. With the realization that those most in need of assistance were also the most difficult to incorporate into successful programs, funding tended to drift upward to the higher end of the low-income spectrum—that is, to more manageable target populations that posed

less of a financial risk, such as low-level government employees with regular incomes. Moreover, despite the Peruvian state's pledges of technical assistance to self-builders, in practice it often failed to provide the needed resources and trained staff, revealing the emptiness of its rhetoric of "helping those who help themselves": as Jean-Claude Driant has argued, its glorification of self-help building "has long served as a pretext for the inaction of the state."[47]

As modest trial projects were overwhelmed by the rate of improvised urban development, the withdrawal of the state—and the architects it employs—from the provision of low-cost housing has seemed inevitable. Yet the undeniable shortcomings of these various initiatives in aided self-help housing need to be measured against the failures of the laissez-faire approach to housing and urban development that has taken its place, considering the impacts that a large-scale regime of unaided self-help construction has had, not just for individual households but for the neighborhoods and cities that have emerged. Returning to examine the limitations—but also the possibilities—of these trials presents the opportunity to reassess their potential and to reframe their strategies for contemporary practice.