The Informal as a Project: Self-Help Housing in Peru, 1954–1986

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ABSTRACT

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This dissertation examines the history of aided self-help housing through the case study of Peru, which was the site of significant experiments in this field, and pioneering in its efforts to enact a large-scale policy of land tenure regularization in unplanned settlements. As the sheer scale of the housing deficit tested the limits of conventional modernist housing reform, aided self-help 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 labour).

The analysis focuses on three key spheres: the circumstances which 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 which prompted architects to consider aided self-help housing as an alternative mode of practice; and the context in which international development agencies came to embrace these projects as part of their larger goals during the Cold War and beyond.

Aided self-help housing in Peru took a variety of forms, ranging from highly co-ordinated projects constructed using communal labour, with on-site technical assistance from architects, to sites-and-services developments, which included the provision of basic services (water, sewerage, electricity, roadways), on the expectation that residents would eventually consolidate their neighbourhoods into more-or-less conventional urban areas. These projects generally offered a very basic core house, which residents were expected to expand and complete over time following standard plans set out by an architect. Housing on this progressive-development model (also called the “growing house”) could be built incrementally as the family’s needs
demanded and its budget allowed. At the other end of the spectrum was the UN-sponsored Proyecto Experimental de Vivienda (PREVI), an international design competition which endeavoured to draw upon the experience of prominent avant-garde architects to devise new approaches to low-cost housing; foregrounding innovations in building technologies, construction systems, and urban design theories, this experiment ultimately brought the latent conflicts between high architecture and affordable housing into high-relief.

This research reveals that although aided self-help housing promised a means of resolving a housing crisis that conventional architectural techniques had failed to meet, it quickly encountered the seeds of its own failure—at the political level, the organizational level, the implementation level, and perhaps most crucially, the funding level. Despite the promises of technical assistance to self-builders, in practice the needed resources and trained staff often failed to appear, suggesting that the rhetoric of self-help could simply become a mask to validate the state’s disengagement from housing provision. While this withdrawal of the state (and as a result, of the architects it employs) from the provision of low-cost housing has seemed inevitable, the dissertation aims to reexamine the effectiveness of these experiments in aided self-help, in order to open the way to reassessing their potential and reframing their strategies for contemporary practice.
Contents

List of Illustrations iii

Acknowledgements xviii

1. Introduction: The Informal as a Project 1

2. The Challenge of the Affordable House, 1954–1957 17
   2.1 A School to Form Citizens
   2.2 A House that Grows
   2.3 Affording a House, or Not

3. The Barriada under the Microscope, 1955–1957 48
   3.1 A City Overnight
   3.2 The Anthropology of Improvement
   3.3 Reforming Ciudad de Dios

   4.1 Architecture, Anarchism, and the Artist-Technician
   4.2 Towards a New Social Architecture
   4.3 Arequipa: The Ecology of Man and Environment
   4.4 Reconstruction in the Emergency Zone
      Rural House Construction Program
      Ciudad Mi Trabajo
      Miraflores: Pilot Program in Aided Self-Help
   4.5 Systematizing Self-Help

   5.1 Dwelling on the Margins
   5.2 Constructing 13517
Plan Río Rímac

Urbanizaciones Populares de Interés Social

Plan Carabayllo

Satellite Cities

   6.1 The Money Miracle
   6.2 The Wichita-Lima Axis
   6.3 $22,800,000 and Two Years
   6.4 The Value of “Aided” Self-Help
   6.5 The Architect of a New Peru

   7.1 A Peruvian Weißenhofsiedlung
   7.2 Houses Generated by Architects
      Herbert Ohl: Minimum Constraints, Free Growth
      Center for Environmental Structure: Local Conditions, Generic Rules
      Self-Build and Advanced Ideas
   7.3 PREVI and the “National Reality”

   8.1 The Revolution Will Be Organized
   8.2 An Architecture that Works
   8.3 Freedom to Borrow

9. Conclusion: The Informal as a Projection 311

Illustrations 318

Abbreviations and Glossary 507

Bibliography 510
List of Illustrations

Chapter 2. The Challenge of the Affordable House


[2.7] Location of seven proposed unidades vecinales. El Arquitecto Peruano 9, no. 98 (September 1945).


[2.12] “Above, one of the huts in which the rural people were living. Below, the comfortable little four-room house which it has been transformed into.” La Prensa, August 7, 1954.


[2.15] “Their old dreams now have the form of a house”; “Today the roofs are placed on the casas baratas”; “The casas baratas will be delivered on October 4.” La Prensa, September 6, September 13, September 26, 1954.


2.18 Santiago Agurto Calvo, La casa que crece. La Prensa, October 24, 1954.

2.19 Santiago Agurto Calvo, La casa que crece: Perspective, Stage 2 (two-bedroom house). El Arquitecto Peruano 18, no. 204-205 (July-August 1954).

2.20 Santiago Agurto Calvo, La casa que crece: Interior, Stage 3 (three-bedroom house). El Arquitecto Peruano 18, no. 204-205 (July-August 1954).

2.21 Martin Wagner, Design for the “growing house.” Das wachsende Haus (1932).

2.22 “Happy epilogue to ten years of an exemplary life.” La Prensa, December 26, 1955.

2.23 “Cerro San Cosme”; “Recent barriada marginal”; “Barriada on the left bank of the Rímac.” CRAV, Informe sobre la vivienda en el Perú (1958).


Chapter 3. The Barriada under the Microscope


3.4 “A city in the desert is born in one night.” La Prensa, December 28, 1954.

3.5 “The first public works project in Ciudad de Dios.” La Prensa, January 4, 1955.

3.6 “The low-cost house is what we need, say the leaders of Ciudad de Dios.”; “Visit of thanks to La Prensa.” La Prensa, January 5, 1955.

3.7 “The population of Ciudad de Dios received the measures dictated by the government.” La Prensa, January 23, 1955.

3.8 Barriada Ciudad de Dios, 1955: Provisional housing; Plan of the initial settlement. José Matos Mar, Estudio de las barriadas limeñas (1966).

3.9 Barriada Ciudad de Dios, 1955: Plans of Representative Houses; The first street; Provisional housing. José Matos Mar, Estudio de las barriadas limeñas (1966).

3.10 Typical house, Ciudad de Dios. La Prensa, December 17, 1959.


Chapter 4. A Profession in Development


[4.20] Hernán Bedoya for ONPU and OATA, “Aerial view of the site from 250m.” and “The same view showing the projected stage of the city.” “Las Urbanizaciones Populares de Arequipa,” November 1957. JFCT-UW.


[4.27] Series of six forms used to administer the directed aided self-help program in Arequipa: Form for the group; Form for the house; Daily activities; Form for the participant; Price of materials; Control of materials. JFCT-UW.

[4.28] Community meeting, Arequipa, ca. 1958; Voting at a community meeting, Arequipa, ca. 1958. JFCT-UW.


[4.32] Existing company housing in Paramonga, ca. 1959. JFCT-UW.


[4.43] John Turner in Peru, consulting with residents; Community meeting. JFCT-UW.

Chapter 5. Mediating Informality

[5.1] “The Constitutional President of the Republic, Dr. Manuel Prado, at the moment of promulgating the historic Ley de Barriadas.” CNV, Ley de Remodelación, Saneamiento y Legalización de los barrios marginales (1961).


[5.7] Plan Río Rímac, divided into ten unidades vecinales. CNV, Plan Río Rímac: Memoria Descriptiva (February 1962).


[5.9] Remodelling of Unidad No. 6, Plan No. 3. Condition of construction. CNV, Plan Río Rímac: Remodelación Unidad No. 6 (1962).

[5.10] Remodelling of Unidad No. 6, Plan No. 4. Lot size. CNV, Plan Río Rímac: Remodelación Unidad No. 6 (1962).


[5.20] UPIS Caja de Agua, 1964. Plans for Nucleus No. 1; Nucleus No. 2; Plan for completed dwelling. MVC, Evaluación integral del proyecto de vivienda Caja de Agua-Chacarilla de Otero (1970).
[5.21] Plans of the actual extensions carried out by residents of various Nucleus No. 2 dwellings. MVC, Evaluación integral del proyecto de vivienda Caja de Agua-Chacarilla de Otero (1970).

[5.22] “Map of barriadas to the north of Lima showing age and population of each.” Architectural Design 33, no. 8 (August 1963).

[5.23] “Members of the Assault Troops proceed to destroy the rustic dwellings.” El Comercio, November 19, 1960. JFCT-UW.


[5.27] “The employment of your family’s free time is worth money.” CNV, brochure for Urbanización San Juan, ca. 1961. JFCT-UW.


[5.32] “A city arises …”; “Imagine to yourself what it would mean to found a city!” Ciudad satélite Canto Grande, ca. 1962. CDI-MVCS.

Chapter 6. World Investments, Productive Homes


[6.3] “Father Dan’s Big Adventure,” Saturday Evening Post, July 8, 1961. WHC.

[6.4] Advertisements for mutual savings associations. Vivienda 1, no. 10 (October 1965); Vivienda 2, no. 16 (April 1966); Vivienda 2, no. 22 (October 1966); Vivienda 4, no. 38 (February 1968).

[6.5] “A modest family has won a modern and spacious two-storey house in the lottery,” Vivienda 5, no. 51 (March 1969).


[6.12] Sol de Oro with the Villa Los Angeles site in the background. The Wichita Beacon, June 26, 1965; Rodolfo Salinas at Sol de Oro, August 1967. WHC.


[6.18] Leonard Oboler Engineers SA, Project 16: Plans for Paraboloid Roof House; Basic unit and Completed house, November 1962. WHC.


[6.20] Leonard Oboler Engineers SA, Project 16: Completed house in elevation and section, November 1962. WHC.


[6.35] “President Belaúnde inaugurates the first stage of San Felipe,” *El Arquitecto Peruano* 340 (1966); “President inaugurates Urbanización Santa Cruz”; At Santa Cruz “262 more families are homeowners due to savings in mutuals.” *Vivienda* 2, 18 (June 1966).


## Chapter 7. Building a Better Barriada


[7.5] Herbert Ohl, PREVI PP1 I-6: Site plan; Complete urban scheme; Model. *Baumeister* 67 (1970); *Summa* (December 1970).


[7.54] Experimental program B, housing prototype. JNV, Plan de inversiones en viviendas nuevas en Lima metropolitana (July 1963).


Chapter 8. Revolutions in Self-Help


[8.2] “Popular revolutionary work; Popular participation is revolution.” SINAMOS, Guía para la organización de los Pueblos Jóvenes (ca. 1971).


“You are SINAMOS.” SINAMOS, *8 preguntas a la revolución peruana* (ca. 1973); “This is SINAMOS.” SINAMOS, *¿Por qué se ataca al SINAMOS?* (ca. 1973).

“What are property titles?”; “Why is it prohibited to sell the lot?”; “Popular Revolutionary Work.” SINAMOS, *¿Qué son los títulos de propiedad?* (ca. 1971).

“Don't invade: The state will provide 50,000 lots!”; “The sturdy assault guards of the GC Special Services Unit did not hesitate yesterday in momentarily exchanging their weapons for spades and picks.” *Expreso*, May 13 and May 16, 1971. Collection of Ernesto Paredes.


Ministerio de Vivienda y Construcción and USAID, *El adobe establilizado* (ca. 1974); CENCIRA (Centro Nacional de Capacitación e Investigación para la Reforma Agraria) and CEPAC (Centro de Producción Audio-visual para la Capacitación), *Mejores construcciones con adobes: Guía del participante* (ca. 1979).


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1. Introduction: The Informal as a Project

The narrative of this dissertation 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 a foreign world of rapid demographic increase, very low-income populations, emerging economic modernization, and large-scale 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—not just in terms of the regional inflections of aesthetic forms, or in technical adaptations to different climates, building materials, and technologies, but also in the conceptual recalibrations required to respond to unfamiliar economic and social conditions. As the sheer scale of the housing deficit and the immense scarcity of resources (or more precisely, unevenness of access to resources) tested the limits of modernist housing reform, 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 labour).

The “informal” housing considered here covers different phenomena, which are often merged together in architectural discourse, but in practice do not always overlap. On the one hand, “informal” or unauthorized settlements: these are established by occupying land that does not belong to the residents; in addition, at least initially they do not conform to prevailing legal standards for the development of urban subdivisions (lacking basic amenities such as water and sewerage lines, electricity, or graded roadways). On the other hand, “informal” or improvised construction: in addition to being the primary method of building housing in unauthorized settlements, in Peru as elsewhere this may also be employed in legally established housing
settlements. In unauthorized settlements, dwellings are likely to be entirely self-built or improvised; in authorized settlements, they will often begin with conventional construction, but develop on an ad hoc basis without architects, engineers, building permits, or inspections.

Self-help practices provoke the question: what kind of contribution could architectural thinking make to housing in this context—that is, housing understood as low-cost, *Existenzminimum* dwellings provided with basic urban amenities? Following its disciplinary split, architecture’s loss of expertise and experience in this field to urban planning has been notable; while there is certainly a need for architecture to understand housing in the ways that planning does—not as an isolated design object, but integrated into larger urban systems—it is also worthwhile re-thinking how the knowledge specific to architecture could contribute to the effective provision of low-cost housing, which remains as urgent as ever globally. Furthermore, architecture’s loss of its own history in relation to aided self-help housing needs to be redressed before contemporary practice can mobilize the requisite knowledge to propose viable new solutions.

This research examines the history of aided self-help housing, or technical assistance to self-builders, through the case study of Peru, focusing on the period 1954 to 1986. While the postwar period saw a number of trial projects in aided self-help housing throughout the developing world—notably, US-sponsored projects in Puerto Rico, as well as various proposals by Charles Abrams and his collaborators in Ghana, Pakistan, and the Philippines—Peru was the site of significant (albeit sporadic) experiments in this field. Furthermore, as Julio Calderón Cockburn has pointed out, Peru was pioneering in its efforts to enact a large-scale policy of land tenure regularization in unplanned urban settlements, passing legislation to enable these efforts in 1961. Mexico passed similar legislation in 1971, and a handful of other countries in Latin
America (Chile, Brazil, and Argentina) followed suit after the United Nations Habitat conference in Vancouver in 1976.¹

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 informal building and directing it towards more accomplished outcomes in terms of design and construction. The contribution of the architect could encompass improvements to the planning of urban layouts, the design and production of building components and construction methods, and the structural engineering and spatial performance of the house (including the separation of functional zones, maximizing light and air, minimizing wasted space). More broadly, professional expertise could be deployed to produce efficiencies in the management of resources (usage of time, labour, materials, money) and to shape the social dimensions of the project (training, organization of work groups, community development). Finally, the housing agencies sponsoring such projects often facilitated the participants’ access to subsidized loans, in an effort to speed up the protracted process of self-help construction.

While many projects were aimed at coordinating the remediation and upgrading of existing squatter settlements, construction ex nihilo was regarded as far preferable, because with the advantage of a well-planned skeleton any subsequent installation of amenities would be more straightforward and therefore more affordable than working around improvised structures. Planned urban settlements took a variety of forms. They generally included the provision of an urban layout, graded roadways, and basic services—water, sewerage, electricity—but sometimes only on a shared basis at the outset, with standpipes and latrines but no residential plumbing connections, with street lighting but no residential electricity. At times these sites-and-

¹ Julio Calderón Cockburn, La ciudad ilegal: Lima en el siglo XX (Lima: Universidad Nacional Mayor de San Marcos, Fondo Editorial de la Facultad de Ciencias Sociales, 2005), 42.
services projects stretched the *Existenzminimum* to its extreme: in their most reduced form, known as *lotes tizados* (chalk-drawn lots), they offered residents only shared amenities and the outline of a lot, on the expectation that they would eventually consolidate themselves into more-or-less conventional urban areas.

Other architect-planned projects went beyond the sites-and-services minimum, including a basic dwelling unit or core house, which was intended to be expanded and completed over time by the residents, following the architect’s plans. Housing on this progressive-development model (also called the “growing house”) was appealing not just to low-income households, but also 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 was disbursed in stages, with the architect inspecting and approving each stage of construction before the next installment was paid out. This offered technical assistance at a remove—a more cost-effective use of the architect’s time—not managing or directing the entire process, but providing quality control by intervening at key junctures to ensure that the work was proceeding in the right direction.

Significantly, the terms used to designate “self-help housing” vary considerably in Spanish. The first key study on the methodology, 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 two terms: “ayuda propia” (self-help) and “ayuda mútua” (mutual help, or mutual aid)\(^2\)—underscoring the collaborative nature of the projects, that they were not realized by a single builder working in isolation, but a coordinated group mobilized to construct a neighbourhood of houses. Similarly, in Peru architect Eduardo Neira wrote a report in 1954 on measures to address unauthorized settlements in the city of Arequipa, in which he

\(^2\) Luis Rivera Santos et al., *Manual para la organización de proyectos piloto de ayuda propia y ayuda mútua en vivienda* (Bogotá: Centro Interamericano de Vivienda, Servicio de Intercambio Científico, 1953).
proposed housing construction using “ayuda mútua” (mutual aid); in his somewhat later study on Arequipa, English architect and theorist John F. C. Turner employed the term “ayuda mútua dirigida” (managed mutual aid). The designation “autoconstrucción” (self-building) first appeared in a government housing agency document from 1961, referring to two modes of self-help operation—collaborative and individualized: “ayuda mútua” (mutual aid) and “esfuerzo propio” (one’s own effort). In more recent publications, “autoconstrucción” appears alone—object-centred rather than process-centred 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 labour market while simultaneously using one’s labour to build one’s own house, obscuring the extent to which self-built housing requires drafting the labour of the entire family, including children, or is subcontracted to professional (or semi-professional) builders.

Self-help housing is a new area of study for architectural history; the half-dozen articles (in particular by urban geographer Richard Harris) published on the work of John Turner and others in developing aided self-help programs provide valuable background, but tend to view them from a global policy standpoint rather than situating them within a specific social and cultural context, as my research aims to achieve. Beyond these articles, the literature on self-help housing is dominated by practice-oriented handbooks, and evaluation reports on individual

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projects produced by sociologists and planners. However, there are two collections of essays that provide a useful overview of key debates at different junctures in the evolution of thinking about these programs: *Self-Help Housing: A Critique*, edited by Peter M. Ward (1982), and *Beyond Self-Help Housing*, edited by Kosta Mathéy (1992). These offer a starting point for the formulation of an intellectual history of the field, but their conclusions clearly need to be revisited after this period of time. Ijlal Muzaffar’s 2007 dissertation “The Periphery Within: Modern Architecture and the Making of the Third World” provides an account of the deployment of self-help housing methodologies as a tool of development in the postwar Third World, making the case for the centrality of these practices to the discipline of architecture over these decades. In contrast to this necessarily deterritorialized history, my research explores the complex and shifting social construction of “informal” urbanism and of self-help building as embedded in one particular site.

In the relatively few histories of modern architecture in Peru—such as Elio Martuccelli’s *Arquitectura para una ciudad fragmentada: ideas, proyectos y edificios en la Lima del siglo XX* (2000), Wiley Ludeña Urquizo’s *Tres buenos tigres: vanguardia y urbanismo en el Perú del siglo XX* (2004), and Sharif S. Kahatt’s “Agrupación Espacio and the CIAM Peru Group: Architecture and the City in the Peruvian Modern Project” (2011)—writers have presented unplanned urban development as a challenge to Peru’s investment in achieving a certain modernity (its “modern project”), and have not considered the pragmatic work of aided self-help housing an appropriate object of study. Nonetheless, Ludeña Urquizo’s methodical *Lima: Historia y urbanismo en cifras, 1821–1970* (2004) includes a useful tabulation of housing projects in the Peruvian capital (divided into three broad categories: produced by the state, private developers, or the residents themselves), which complements the earlier nationwide survey of state-sponsored housing projects compiled by the Instituto Nacional de Desarrollo Urbano, *Estudio de evaluación integral de los programas de vivienda ejecutados y/o promovidos por el Estado* (1991). In another vein, the Master’s thesis by Carlos Valladares and Eleodoro Ventocilla, “Para una concepción de la
vivienda de interés social" (1973), contains an invaluable resource of interview transcripts with architects involved in housing from the 1940s onwards, including those who worked on the design and implementation of self-help projects.

Studies that illuminate the socio-political context informing unplanned urbanism in Peru can be found across disciplinary boundaries. In addition to the ground-breaking anthropological research carried out by José Matos Mar in Lima—fieldwork conducted in the mid-1950s, and published within different conceptual frameworks as Estudio de las Barriadas Limeñas: Informe presentado a Naciones Unidas en diciembre de 1955 (1966) and Las barriadas de Lima, 1957 (1977)—a number of ethnographic studies have explored the histories of emerging urban neighbourhoods, notably Carlos Iván Degregori et al, Conquistadores de un Nuevo Mundo: de invasores a ciudadanos en San Martín de Porres (1986), as well as Jürgen Golte and Norma Adams, Los caballos de Troya de los invasores: estrategias campesinas en la conquista de la Gran Lima (1987). Studies from sociological and political science perspectives provide detailed analyses of the evolution of housing policy embedded in its domestic political considerations, including David Collier’s Squatters and Oligarchs: Authoritarian Rule and Policy Change in Peru (1976), Henry A. Dietz’s Poverty and Problem-Solving under Military Rule: The Urban Poor in Lima, Peru (1980), Abelardo Sánchez-León and Julio Calderón Cockburn’s El laberinto de la ciudad: Políticas urbanas del Estado 1950–1979 (1980), Susan Lobo’s A House of my Own: Social Organization in the Squatter Settlements of Lima, Peru (1982), Julio Calderón Cockburn and Paul Maquet’s Las ideas urbanas en el Peru, 1958–1989 (1990), and Jean-Claude Driant’s Las barriadas de Lima: Historia e interpretación (1991). However, this earlier research does not consider the architectural objects and urban interventions produced as a result of these policy shifts, still less of unrealized projects, which can be revealing of how design professionals framed this problem in material, constructional, and spatial terms. This very rich field of projects, both realized and unrealized, forms the basis of my research.
Over the decades covered by this research, the phenomenon of “informal” urban settlement has been described by a number of different terms within Peru. By using the linguistic denomination of the original documents throughout the text, the aim is to trace this shifting conceptual and ideological construction. For example, in the tradition of regarding unauthorized urban development as a form of “cancer” or another similar disease, one government document from 1956 uses the term “‘barrios hongos’ (insalubres)” (insalubrious, mushrooming or fungal neighbourhoods). However, more generally the terminology employed throughout the 1950s is less colourful, selecting more neutral descriptive modifiers: “barrio clandestino” (clandestine neighbourhood), “barrio espontáneo” (spontaneous neighbourhood), “barrio marginal” (marginal neighbourhood, being “structured at the margins of the law”\(^8\)), or “barriada” more colloquially. John Turner tends to use barriada, and also “squatter settlement”—a term that underscores the extra-legal status of the occupation of the underlying land. After 1968, the term “pueblo joven” (young town) was officially introduced to overcome the pejorative connotations of barriada,\(^9\) emphasizing their emerging economic and social potential, and anticipated future development. After 1980, the official term was changed again—in reaction to the political connotations that had developed around “pueblo joven”—to “asentamiento humano” (human settlement), this more technocratic denomination having been popularized by UN-Habitat in 1976. The usage “asentamiento informal” (informal settlement) seems to have been introduced by economist Hernando de Soto in his 1986 book *El otro sendero*. As Nezar

\(^7\) “La escasez de viviendas económicas ha dado por resultado el hac[i]namiento de las existentes y la formación de los llamados ‘barrios hongos’ (insalubres) en los alrededores de los centros poblados.” CNV, “Planteamientos generales sobre el problema de la vivienda social” (Lima: CNV, August 1956).

\(^8\) FNSBS, *La asistencia técnica a la vivienda y el problema de barriadas marginales* (Lima: FNSBS, November 13, 1958), 8.

\(^9\) Anecdotally, the term still seems to have pejorative connotations: in the Peruvian television subtitling for police procedurals set in the United States, “the projects” is rendered as *barriada*.
AlSayyad has pointed out, the term “informal” in this sense originated in economic discourse, thus de Soto’s employment of it underscores his broader arguments concerning the potential of spontaneous and free markets in housing (and other sectors) to contribute to the development of the Peruvian economy. As “informal” settlements have increasingly been formalized through the granting of legal property title, alternative terms such as “barrio popular” (working-class neighbourhood), and “ciudad emergente” (emerging city) have appeared. Perhaps these neighbourhoods—legally titled, but below established planning standards, and with improvised dwellings—could be best described as “non-conforming” settlements. Finally, while in English the recently revived and problematic term “slum” is frequently used to designate informal settlements, in Peru, both in popular usage and professional discourse, these are two very distinct urban phenomena: “tugurio” (slum) typically refers to degraded tenement housing in inner-urban areas, occupied on a rental basis, while barriadas et al. are self-built housing owned by residents—ownership in this case being “a matter of fact rather than law.”

The dissertation focuses on debates and proposals in three key spheres: the circumstances which made Peru a fertile site for innovation in low-cost housing under a

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10 AlSayyad argues that the “informal sector” emerged “as a concept in the early 1970s”—he traces the term to a 1973 article by economist Keith Hart—and that the term was not applied to urban development until the 1970s. Nezar AlSayyad, “Urban Informality as a ‘New’ Way of Life,” in Urban Informality: Transnational Perspectives from the Middle East, Latin America, and South Asia, ed. Ananya Roy and Nezar AlSayyad (Lanham: Lexington Books, 2004), 10.

11 This is one of the many aspects of de Soto’s approach that raised objections from sociologist Gustavo Riofrío: “El texto ... asume que sólo existe un actor social (los informales) (¿por qué no llamarlos marginales?) y no percibe el rol jugado por el estado.” Gustavo Riofrío, Producir la ciudad (popular) de los ’90: Entre el mercado y el Estado (Lima: DESCO, 1991), 134.


13 A study produced as part of the 1967–1980 Plan of Urban Development for Lima very precisely established a “typology” of six kinds of tugurios, defined in terms of their urban form, construction, and materiality. These were: casa subdividida, quinta deteriorada, callejón, corralón, tugurio de azotea, and solar. José Muñoz and Diego Robles Rivas, Estudio de tugurios en los distritos de Jésus María y La Victoria (Lima: ONPU, 1968).

14 JNV and Fabricio Negromonte, Análisis de la información organizada existente sobre las barriadas de Lima (Lima: JNV, January 1968), 15.
succession of very different political regimes; the influences on, and movements within, architectural culture which prompted architects to consider self-help housing as an alternative mode of practice; and the context in which international development agencies came to embrace these projects as part of their larger goals. A number of figures recur throughout this narrative—including economist Pedro G. Beltrán, and architects Fernando Belaúnde Terry, Adolfo Córdova, Federico Mevius, and Diego Robles—but the most prominent is the architect and theorist John F. C. Turner. Turner’s prominence in the narrative is partly due to his position as an influential writer on self-help housing, widely published and well-known internationally; partly it is due to the chance survivals of archival material. The breadth and richness of Turner’s own 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 ideas 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 comprehensive 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 and partial. In particular, there are no internal papers tracking debates about policy development, and the documentation of projects—whether proposed or realized—is scarce and often unreliable. Furthermore, these projects are presented in the standardized format of official reports which do not allow for the voices of individual architects. To a certain extent some of the policy issues can be traced through newspaper reports, particularly those in La Prensa, published by economist Pedro G. 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.

Turner’s writings about self-help housing, which had a widespread impact in the late 1960s and 1970s, were grounded in his experiences working in Peru (1957–1965). Despite the importance of this period on his subsequent development as a theorist of self-help housing, the
details of his working life as an architect in Peru have not been previously explored in any depth, and his own references to Peru tend to be framed as anthropological analyses of the squatter settlement phenomenon rather than describing his contributions to specific projects. The exception is Turner’s essay “The Reeducation of a Professional” (included in an anthology he edited in 1972, *Freedom to Build: Dweller Control of the Housing Process*), which is a selective, self-conscious account outlining how a handful of key experiences in the field transformed his understanding of architecture as a practice and as a process. This dissertation takes a wider view, explicating the influences on Turner’s approach to architecture, outlining his contributions to developing the techniques of aided self-help housing, and situating his work within the Peruvian context and in relation to his Peruvian colleagues. Turner provides a point of connection between the practices of aided self-help housing in Peru and the discourses of modernist architecture, urban planning, and international development theory beyond Peru. Turner’s shifting perceptions of the barriada phenomenon and of potential approaches to addressing it could be seen as emblematic of broader realignments in the architectural profession as it attempted to come to terms with emerging patterns of unplanned urbanization in the developing world, and with the complex and ambiguous relationship between architect and self-builder in this context. A prolific writer, Turner’s ideas around the topic shifted considerably over the decades, and the unfolding of these ideas delineates one chronology running through the text, providing a counterpoint to the primary narrative arc which is framed around the shifting politics, policies, and programs concerning low-cost housing and unauthorized urban development within Peru.

This arc begins with Chapter 2, “The Challenge of the Affordable House” which examines debates on housing reform within Peru in the mid-1950s. Three 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—are seen through the writings of three key figures, respectively architect-politician Fernando
Belaúnde Terry, economist Pedro G. Beltrán, and architect Adolfo Córdova. The issue of how to balance the competing demands of maintaining minimum standards while achieving affordability is crucial throughout these discussions, and is explored through specific projects such as the *unidad vecinal* (neighbourhood unit) housing developments devised by Belaúnde, and the “casa que crece” (growing house) designed by architect Santiago Agurto.

Chapter 3, “The Barriada under the Microscope” takes as its starting point the establishment of the “Ciudad de Dios” (City of God) squatter settlement on Lima’s southern edge on Christmas Eve 1954, an event that dramatized the capital’s shortage of affordable housing and prompted the government to introduce unprecedented legislative measures in an effort to solve the crisis. In addition, it considers the importance of anthropological research (particularly that of José Matos Mar) as a tool for understanding, and thereby managing, the dense cultural context of the barriadas into which aided self-help housing projects would be inserted beginning in the late 1950s, following the establishment of the first state-run “technical assistance offices” offering guidance to self-builders.

Chapter 4, “A Profession in Development” focuses on architectural culture through the lens of an individual career, exploring John F. C. Turner’s intellectual formation in England and his development of an architectural practice focused on aided self-help in Peru. As Turner arrived in Peru in mid-1957, he was entering an intellectual landscape closely informed by the ideas of José Matos Mar, and his immersion into this unfamiliar context was facilitated by Peruvian colleagues, initially Eduardo Neira, and subsequently Federico Mevius and Diego Robles. Turner’s work in Peru began in the southern city of Arequipa, where he organized an early trial project in aided self-help housing, and continued in Lima, where he worked initially as an administrator within—and subsequently an independent advisor to—state housing agencies charged with devising a response to the barriada problem on the national level. In this role his focus moved from on-the-ground projects to theoretical work, in particular studying efforts to systematize techniques of aided self-help housing. In addition, the richness of the materials in
Turner’s archive grants some insights into the perspective of participants in these programs, as relayed primarily through newspaper articles and Turner’s accounts and, more rarely, their own direct statements.

Chapter 5, “Mediating Informality” returns to the policy sphere, with a review of innovations in planning law that were deployed as a mechanism to manage unauthorized settlements and re-establish control over the development of urban land. Specifically, it analyses Law 13517 (enacted in 1961) which was conceived as a comprehensive effort to meet the challenge of the barriadas, envisaging large-scale organized self-help building programs to rehabilitate and remodel existing unplanned neighbourhoods, and to construct new planned neighbourhoods for low-income residents, thereby providing them with a viable alternative to improvised settlements. The discussion includes an analysis of a number of trial projects where this approach was implemented, and reviews their outcomes.

Chapter 6, “World Investments, Productive Homes” shifts to the international sphere, analyzing the political appeal of self-help housing during the Cold War, deployed as a tool both of development programs and of capitalist market-expansion. It concentrates on two projects, both of which were funded by US government aid agencies under the umbrella of the Alliance for Progress, and also involved the participation of John Turner. First, it examines the efforts of Wichita-based real estate developer World Homes to organize and finance the Villa Los Angeles project in Lima, which was to be built by the members of a housing cooperative employing aided self-help labour and the “growing house” model, which borrowed and formalized the incremental construction of barriada housing to lower upfront costs. The development of this project was closely tied to Pedro G. Beltrán’s endeavours to institute a mortgage financing system in Peru, promoting individual homeownership by facilitating access to credit. Second, it considers the Plan Bienal 1962–1963 Perú-BID, a government initiative to implement a nationwide program of self-help housing. The focus is on projects in the city of Chimbote, which were led in part by Turner’s colleague Diego Robles. The chapter concludes
with an assessment of these two approaches to housing provision as presented in evaluation reports commissioned by US funders in the mid-1960s.

Chapter 7, “Building a Better Barriada” returns to architectural culture, closely examining the PREVI (Proyecto Experimental de Vivienda, or Experimental Housing Project) PP1 international design competition held in 1969, which endeavoured to draw upon the experience of prominent avant-garde architects to address the provision of affordable housing in Peru. Organized in large part by English architect Peter Land, PREVI PP1 particularly foregrounded innovations in building technologies, construction systems, and urban planning theories. Once again the dwellings were to follow the “growing house” model: each architect was to present a two-fold 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. While this hybrid “growing house” model had been previously employed in Peru, PREVI PP1’s innovation was to transfer these techniques into the realm of high architecture—an experiment that ultimately brought the conflicts between affordable housing and “Architecture” into high-relief. The discussion also covers an associated project, PREVI PP3, conceived and organized by Turner’s collaborator Federico Mevius. Planned as an entirely self-build project, PREVI PP3 would begin with the provision of a sites-and-services lot, and subsequently offer assistance in the construction of a modest dwelling. Challenges in the implementation of these projects suggested that a workable, affordable form was yet to be found for aided self-help housing.

Chapter 8, “Revolutions in Self-Help” reflects on how the self-help housing model was pushed to its limits under contrasting political and economic systems, as a period of leftist, revolutionary experimentation within Peru (roughly 1968–1980) was followed closely by the emergence of neoliberalism in the 1980s. The extreme malleability of self-help in theoretical and ideological terms is demonstrated by the contrasting values and significance attributed to it in materials produced by state agencies working with barriada residents in the early 1970s (one of
which was coordinated by Diego Robles), as well as two key texts, John F. C. Turner’s anarchist-inflected *Housing by People: Towards Autonomy in Building Environments* (1976), and Hernando de Soto’s neoliberal manifesto *El otro sendero: La revolución informal* (1986).

The rippling influence of these debates becomes evident in the shifts in the discourse and philosophies of international development agencies—specifically the United Nations and the World Bank—which then played out in the ebb and flow of their support for differing approaches to the provision of low-cost housing.

Although aided self-help housing initially offered a means to solve a problem that could not be resolved via conventional architectural techniques, it quickly faced the spectre of failure at many levels: at the political level, shifting and unreliable support; at the organizational level, the complex social dynamics of intra-communal local politics; at the implementation level, the challenges of translating policies and regulations into design practice; 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 upwards to the higher end of the low-income spectrum—that is, to more manageable target populations.

Despite the promises of technical assistance to self-builders, in practice the needed resources and trained staff often failed to appear, suggesting that the rhetoric of self-help was frequently simply an effort to validate the state’s disengagement from housing provision (as Jean-Claude Driant has argued, in Peru the glorification of self-help building “has long served as

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a pretext for the inaction of the state). This withdrawal of the state (and as a result, of the architects it employs) from the provision of low-cost housing has seemed inevitable, as trial projects were overwhelmed by the demand for affordable shelter and the rapidity of unplanned urban development. Returning to examine the effectiveness of these experiments may open the way to reassess their potential and reframe their strategies for contemporary practice.

As much as self-help housing represented a challenge to modernist architecture, it also appealed to its imagination, suggesting the opportunity for a more grounded practice: direct collaboration with the end-user, direct engagement with the physical work of construction, and the promised mutuality of coordinated building—aspirations embedded in architecture at least since Schinkel’s Project for a Cathedral to the Wars of Liberation (1814), imagined as an act of collaborative community construction, citizens bringing their own bricks to contribute to the site. Self-help housing has often been more powerful as an idea than as a practice, since the realities have rarely met the hopes placed in it. The challenge remains for architecture to address its limitations, in order to reimagine its practices and strategies.

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2. The Challenge of the Affordable House

In 1949, Lima’s modernist apotheosis appeared imminent [2.1]: the Plan Piloto, the city’s first master plan, had applied the techniques of scientific planning to analyze the city at its various scales—from the historic core to the agricultural areas supplying it with food—and to establish a logical course for the “channelling [encauzamiento] of its urban development.”¹ But by the end of 1954, a follow-up study warned that “the overflowing vitality of the metropolis in its blind force of expansion” was setting in train problems which would only intensify over time, necessitating decisive action: “the traffic congestion endlessly increases; the number of accidents multiplies; delinquency grows; the city is choking itself in a dreadful ring of clandestine dwellings; the food situation is causing a crisis; a drop in the standard of living threatens.”² All this was the result of an unprecedented rate of population growth due to rural-urban migration: established planning processes were being overtaken by the rapid emergence of barriadas (squatter settlements), as authorized housing could not be built quickly and cheaply enough to meet demand. Reluctantly, the study confessed: “An economical system of urbanization and construction that would allow us to avoid the overcrowded and unsanitary conditions that appear in the ‘clandestine urbanizaciones’ has not yet been devised.”³

Two of the most influential figures in the development of housing policy in Peru differed sharply in their responses to the challenge of the barriadas and their proliferation of self-built housing. For Fernando Belaúnde Terry—architect, publisher of El Arquitecto Peruano, and politician, twice elected president of the republic (1963–1968, 1980–1985)—the barriada was an

¹ Oficina Nacional de Planeamiento y Urbanismo, Lima: Plan Piloto (Lima: ONPU, April 1949). The study was produced under the direction of Luis Dorich, who was the first Peruvian architect to formally study urban planning, completing his Masters in City Planning at MIT in 1944. Josep Lluís Sert and Paul Lester Wiener’s unrealized project for a new civic centre for Lima was one component of the Plan Piloto.

² ONPU, Lima Metropolitana: Algunos aspectos de su expediente urbano y soluciones parciales y varias (Lima: ONPU, December 1954), 5. This and all subsequent translations are by the author.

³ ONPU, Lima Metropolitana, 8.
anathema that should be eliminated and replaced by planned, regulated urban development.

For Pedro G. Beltrán—economist, ultraconservative owner/publisher of the national newspaper *La Prensa*, and (briefly) prime minister (1959–1961)—the primary goal was to promote home ownership, and the form of the dwelling was a secondary issue: low-cost conventional housing within planned neighbourhoods would be the ideal solution, but the individual initiative of barriada settlers, made concrete in their self-built housing, should not be dismissed out of hand.

For Belaúnde, an “economical system” to solve the crisis must necessarily be provided by modernist architecture, in the form of large-scale state-backed housing projects in the service of a developmentalist agenda; for Beltrán, an ideal “system” would emerge more indirectly, through reforms to mortgage finance that would encourage the flow of private capital into housing. From one perspective, the crisis called for a public sector powerful enough to drive the country’s economic and social modernization, implementing a coordinated developmentalist program in the spirit of the New Deal; from the other, it underscored the need to strengthen the operations of the free market—a debate that would foreshadow the discussions provoked by neoliberalism decades later.

A third position, advocating comprehensive structural reform, was articulated by architects associated with the Movimiento Social Progresista: formed in 1956, this progressive political movement involved figures such as anthropologist José Matos Mar, and architect Adolfo Córdova. Córdova is a pivotal figure here: he was a student of Belaúnde’s, but also carried out research for a national commission on housing organized by Beltrán in 1956. For Córdova—and the Movimiento Social Progresista in general—the reduced economic capacity of most Peruvians was the major cause of the housing crisis. In this view, rather than providing a solution, increasingly unregulated capital flows would only exacerbate existing inequalities; instead, the Movimiento Social Progresista argued for *planificación* (central planning) and wide-ranging structural reform—envisaging a powerful state with a redistributive role that was quite different from Belaúnde’s conception.
These three positions—New Deal-inspired developmentalism to stimulate growth, market liberalization to promote homeownership, and structural reform to raise living standards—begin to outline the politics of the affordable, modern house in this period, establishing the conceptual parameters for devising theoretical solutions and developing concrete policies towards housing provision. Negotiating the challenges of keeping costs low while maintaining acceptable standards would generate a range of contrasting proposals, which were at different moments in the ascendancy, reflecting the changing political fortunes of their various advocates.

2.1 A School to Form Citizens

Fernando Belaúnde Terry spent much of his youth outside of Peru, after his family was forced into exile in 1924; in 1935 he received his architecture degree from the University of Texas, and returned to Peru shortly thereafter to practice and teach architecture. At this time there was little government involvement in housing provision; instead, philanthropic organizations filled the gap at the lower-end of the market by sponsoring reform versions of traditional working-class housing, while government agencies oversaw the construction of a small number of model neighbourhoods [2.2-2.3]. Belaúnde quickly became an influential figure in the area of housing policy, due less to his work as an architect, than as an educator, a writer, a politician, and a publisher. He taught classes on housing at the Escuela Nacional de Ingenieros (National Engineering School), and publicized the poor state of inner-city tenement housing through denunciations in his magazine El Arquitecto Peruano [2.4]; in 1946 as a representative in the Peruvian congress he was responsible for introducing the founding

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4 See in particular the work of Rafael Marquina, as discussed by Luis Jimenez and Miguel Santiváñez, Rafael Marquina, arquitecto (Lima: Arquitectos Peruanos, 2005).

5 For examples of these projects see Alfredo Dammert and Wilfredo Pflucker, “La vivienda obrera en el Perú,” El Arquitecto Peruano 3, no. 26 (September 1939): unpaginated.
legislation for the new state housing agency, the Corporación Nacional de Vivienda (CNV, National Housing Corporation), and he subsequently vigorously promoted its work through *El Arquitecto Peruano*.\(^6\)

With a handful of exceptions, the CNV did not operate as a public housing authority per se, leasing and managing housing projects, but used the resources of the state to (in effect) construct subsidized housing for those with sufficient resources to purchase it through the system of “alquiler-venta” (rental-sale). The units were kept affordable by building on state land, and using state-backed loans to finance construction.\(^7\) Nonetheless, they were clearly aimed at the upper-end of the low-income population—“the middle-class and specialized blue-collar workers [clase media y obreros especializados]”\(^8\)—and thus effectively excluded many categories of workers.

In contrast to the tenements, the CNV promised multi-family housing that conformed to the universal standards established by modernist reformers, reducing overcrowding, improving light and ventilation to combat tuberculosis, providing “excellent sanitary services” in each apartment, and maximizing the separation of bedrooms and minimizing shared entryways to the dwellings in order to end both “internal and external promiscuity.”\(^9\) In the Peruvian context, another major innovation of the CNV was to consider housing as an element of coordinated urban development, framed within master plans that balanced residential, industrial, and agricultural zones in an effort to produce ordered and holistic growth. The primary model for the CNV’s initial projects was the *unidad vecinal* (neighbourhood unit) [2.5]—a self-sufficient city in

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\(^6\) Belaúnde was also instrumental in establishing the Oficina Nacional de Planeamiento y Urbanismo (ONPU) and the Oficina del Plan Regulador de Lima (responsible for devising the Plan Piloto), both agencies founded in 1946, the same year as the CNV.

\(^7\) Miguel Cruchaga, interview with the author, November 2008.


miniature, circumscribed by green space and containing all necessary community facilities. The
concept was introduced into Peru by Belaúnde. Wiley Ludeña has explored his key influences
leading back to Clarence Perry, and to projects such as Radburn and the New Deal Greenbelt
towns. In the latter case, Belaúnde was particularly impressed by the New Deal's demonstration
of the state's ability to implement large-scale projects, and to deploy such projects to effect
economic and social development. As Ludeña demonstrates, the immediate point of influence
was a project for Wayland, outside Boston, developed by students of Walter Gropius and Martin
Wagner at Harvard, and discussed in detail by Belaúnde in an article published in *El Arquitecto
Peruano* in 1944 [2.6]. For Belaúnde, in contrast to the chronic imbalance of the contemporary
city, with its dysfunctional polarities of overcrowding in the centre and ever-more diffused fringes
pushed outwards by population growth, this project for a rationally-planned, mid-sized
community presented a model for controlled urbanization through decentralization. The initial
*unidad vecinal* program in Lima was conceived precisely along these lines [2.7-2.8]. The CNV
selected a series of greenfield sites running parallel to the main industrial corridor connecting
central Lima and its port at Callao, where it would construct modern neighbourhoods for workers
drawn to these job sites. It anticipated that these new “neighbourhood units” would develop into
self-sufficient nodes of economic activity, in the process drawing population away from the
historic centre, relieving it from congestion in preparation for rehabilitation. This
decentralization strategy was in keeping with the 1949 *Plan Piloto*, but like much of the master

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10 Wiley Ludeña Urquizo, “Fernando Belaúnde Terry o los inicios del urbanismo moderno en el Perú,” in *Tres buenos tigres: vanguardia y urbanismo en el Perú del siglo XX* (Huancayo; Lima: Colegio de Arquitectos del Perú Regional Junín; Urı̈bes, 2004), 131. According to Ludeña, Belaúnde first mentioned Perry and Radburn as points of reference for the *unidad vecinal* in articles published in the mid-1950s.


plan for the city, it remained incomplete, as only four of the seven unidad vecinal projects were realized. Belaúnde acted as consultant designer on the first of these, Unidad Vecinal No. 3 (1949), which included a characteristic mix of walk-up blocks and single-family houses (high-rise construction being too expensive to consider as a solution).  

Belaúnde’s 1944 article argued that although the unidad vecinal model was developed in the United States, its strategy of decentralized development, making use of inexpensive sites beyond the urban periphery, made it widely suitable:

for countries of great culture and wealth, but above all for those which have to measure out their resources and which find themselves, like Peru, with the unavoidable duty of educating their popular masses and raising their degrading level of present-day life.

The full significance of the unidad vecinal was explored more fully in a document emerging from the VI Congreso Panamericano de Arquitectos, held in Peru in 1947. At Belaúnde’s instigation, the congress endorsed it as a quasi-canonical urban model, passing a resolution that “all the countries of the Americas should formulate master plans for their cities that establish unidades vecinales as basic elements for their structuring.”  

As an organizational device for the urban territory, it could also be applied retroactively in renewal projects: “planning in the form of unidades vecinales refers not only to new areas to be urbanized, but furthermore involves the transformation of parts of the city already built.”  

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13 See Oficina Nacional de Planeamiento y Urbanismo, Construcciones efectuadas por particulares y por entidades estatales en Lima Metropolitana, durante el periodo 1949–1956 (Lima: ONPU, March 1957), and Victor Smirnoff, “25 años de vivienda en el Perú,” El Arquitecto Peruano, no. 306-308 (January-March 1963): 47. Smirnoff lists the designers of Unidad Vecinal No. 3 as Fernando Belaúnde Terry, Alfredo Dammert Muelle, Carlos Morales Macchiavello, Manuel Valega, Juan Benites, and Luis Dorich. The completed projects were (according to Smirnoff): Unidad Vecinal No. 3. (1949, 1,112 units), Unidad Vecinal Matute (in the approximate location of project No. 7 on the September 1945 plan; 1952, 484 units), Unidad Vecinal Rimac (No. 4 on the 1945 plan; 1952–1953, 430 units) and Unidad Vecinal Mirones (No. 1; 1952–1953, 436 units).

14 “Conclusiones aprobadas por el VI Congreso Panamericano de Arquitectos,” El Arquitecto Peruano 11, no. 123 (October 1947): unpaginated. Even if not written by Belaúnde himself, this text certainly reflects his views since he helped to promote the resolution and the text was published in his magazine.

15 Similarly, Gabrielle Esperdy has documented discussions in the United States around the employment of the neighbourhood unit in the context of urban redevelopment projects in the 1930s. For example, in reference to New York’s Lower East Side, businessman and “slum clearance advocate” Joseph Platzker
organization had social implications that resonated far beyond the technics of functional zoning and rational planning. With humanism under threat in modern industrial society, the resolution argued, a weakened sense of individuality had led to an impoverished culture of citizenship, where “mass spectators” had taken the place of active participants in collective life. The antidote for this urban alienation was to foster civic engagement and “cooperation based in individual responsibility”—qualities which would provide the foundations for achieving “a high level of Democracy and social well-being, ultimate objective of the republican system common to all American countries.” In this context, the special promise of the unidad vecinal was its potential to rebuild community life. Deliberately self-contained—its scale determined by the distance that could be comfortably walked in carrying out daily tasks—the unidad vecinal shaped opportunities for the citizenry to interact, moving through their micro-urban enclave focused around the elementary school, close to but separated from centres of work, shielded from through traffic, and furnished with sufficient communal facilities to satisfy immediate needs. The unidad vecinal was anti-urban in order to be pro-community.16

The influences of Perry and Radburn notwithstanding, these characterizations of the unidad vecinal suggest Lewis Mumford as a major point of inspiration,17 reflecting a deeply-held

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16 In his later writing Belaúnde instead emphasizes the “Peruvian” nature of the unidad vecinal, drawing parallels between Inca territorial planning, the theories of Gaston Bardet, and of Ebenezer Howard. In the latter case, Belaúnde views the Inca system of collective land ownership and of “minka” (the ritual/festive exchange of labour, often characterized as an Inca “mutual self-help”) as analogous to the cooperative principles of the garden city, which in fact, he claims, “seems to have been inspired by ancient Peru.” He is careful to clarify that “the ancient Peruvians were not communists but cooperativists,” reclaiming the Inca heritage from José Carlos Mariátegui’s Marxist reading. Fernando Belaúnde Terry, “El planeamiento en el antiguo y moderno Perú,” El Arquitecto Peruano 18, no. 202 (May-June 1954): unpaginated. For resonances between Bardet’s urban theories (especially “a size of community adapted to the scale of man”) and those of Geddes and Mumford, see Nicholas Bullock, “Gaston Bardet: Postwar Champion of the Mainstream Tradition of French urbanisme,” Planning Perspectives 25, no. 3 (July 2010): 354.

belief in the potential of architecture to reconstitute a modern communal life. Belaúnde’s references to Mumford are rare but telling. In particular, in a 1953 article on barriadas (which Belaúnde labels “a plague” and “an obstacle to urban expansion”) Mumford’s research on cities is evoked to condemn the current situation in Lima, where rural migrants unable to find affordable housing were occupying vacant sites to create their own improvised, self-built neighbourhoods; for Belaúnde, this demonstrated that “the advances derived from urbanism are now threatened by what we could call LA INCULTURA de las ciudades”—the lack of culture, or the uncultured-ness of cities. This “incultura” is revealed both in the actions of those building these chaotic and illegal settlements (which for Belaúnde, only replicated the horrors of the tenement slum), and the inaction of “those who tolerate such agglomerations, … the entire community that sees this public danger with indifference.” For his part, Belaúnde proposed the demolition of substandard neighbourhoods in order to facilitate urban renewal, synchronized with a resettlement program involving “the construction, on a vast scale, of Unidades de Emergencia [Emergency Units].” Here Belaúnde revealed himself to be a somewhat authoritarian and technocratic New Deal true believer, whose sincere commitment to the shared social responsibility of providing decent housing for all materialized in interventions very definitely directed from above.

Nonetheless, the rhetoric of the unidad vecinal as training ground for democracy reappeared more than once. As characterized in 1945 with the announcement of the CNV’s first building program, the unidad vecinal was a “cradle for the new generations which must build a

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18 Thanks to Luis Castañeda for his thoughts on this issue, particularly concerning the role of Josep Lluís Sert in the transmission of Mumford’s ideas to Belaúnde, and to Latin America more generally; see also Eric Mumford, “CIAM and Latin America,” in Sert, Arquitecto en Nueva York, ed. Xavier Costa and Guido Hartray (Barcelona: Museu d’Art Contemporani de Barcelona; ACTAR, 1997), 48-75.

19 Fernando Belaúnde Terry, “La incultura de las ciudades,” El Arquitecto Peruano 17, no. 192-193 (August 1953): unpaginated, emphasis in original. These “Emergency Units” would make use of the prototype house developed by Morales and Montagne for the CNV (featured in La Prensa on June 7 and June 20, 1954).
better Peru; in 1948, Belaúnde announced that Unidad Vecinal No. 3 “is and will be a school to form citizens”—a quality it would maintain even if its architectural style came to be outmoded. Further, a CNV report from 1958 noted that in each of its Unidad Vecinal projects it had established “una Superintendencia” (an office of supervision); at Unidad Vecinal No. 3 (which had the most complete services) this functioned as arbiter and enforcer of civility, with a range of responsibilities:

Watches over the good use of the dwellings, and the observance of the Internal Regulations ...; Promotes and encourages cultural, social, educational, and sporting activities, and those of mutual aid [de auxilios mutuos] within the community, and of social assistance and social hygiene in coordination with the Sanitary Post.

Here the general modernist article of faith that an improved living environment would transform residents’ lives met the particular conditions of postwar Peru: on one side, an urban elite of técnicos having the “unavoidable duty of educating their popular masses,” and on the other, waves of rural migrants bringing a radical shift in the class, racial, and cultural identity of coastal cities—a transformation felt most acutely in Lima. In this era of mushrooming squatter settlements, the unidad vecinal’s civilizing mission was clear: “educating” those recently arrived in the behaviours appropriate to urban life, and in the civic responsibilities of modern citizenship—in the terms of the archetypal dichotomy of Peruvian national identity, remaking

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20 “¿Qué es una unidad vecinal?” El Arquitecto Peruano 9, no. 98 (September 1945): unpaginated.

21 Fernando Belaúnde Terry, “La ciudad risueña: Significado y misión de la Unidad Vecinal No. 3,” Turismo (October 1948); reprinted in El Arquitecto Peruano 13, no. 146 (September 1949): unpaginated.

22 CNV, Experiencias relativas de la vivienda de interés social en el Perú (Lima: CNV, December 1958), 22. The qualification process for residency in CNV properties was based on a detailed points-system, awarded both for the degree of awfulness of the applicant’s existing housing as well as their potential to perform as a model tenant. Under the category “Cultural level of the family estimated by the care and order of the house they inhabit,” the applicant presenting a “High cultural standard (upkeep, cleanliness, order, arrangement, habits)” could earn 150 points, equivalent to the score for “Total lack of sanitary facilities” (individual or communal), or overcrowding Level 5 (five people per room) without “promiscuity”—i.e. mixing of genders—or overcrowding Level 3 (three people per room) with promiscuity. CNV, “Qualification Table,” Experiencias relativas, 20-21.

23 Strikingly, while evaluation reports on the unidad vecinal program would subsequently critique the “paternalistic” approach of the Superintendencia, they did not dismiss the “training” concept in principle, but rather argued that these efforts should have focused more on promoting the “self-sufficiency” of
the *paisano* (peasant, primarily of indigenous descent) as *criollo* (urbanite, of European descent).

While Belaúnde’s proselytizing efforts on behalf of the *unidad vecinal* may not have had much impact outside Peru (despite his international ambitions for the 1947 resolution), it would be difficult to overestimate its influence, particularly in theoretical terms, on planning professionals within Peru, largely due to Belaúnde’s prominence as an educator and a writer on housing and urban issues. Indeed the concept of the *unidad vecinal* recurs throughout urban planning discourse at least until the mid-1960s, even in contexts where its application would initially seem unlikely.

On the other hand, Belaúnde’s only realized housing project was relatively modest in scale and influence alike, although it was significant in being the first urban renewal project carried out by the CNV [2.9-2.10]. Too small to function as a *unidad vecinal*, Agrupamiento Alberto Alexander (1950) included 112 apartments, as well as sixteen shops: the CNV intended to take advantage of the project’s central city location by charging high commercial rents in order to subsidize the rent on the housing itself. Belaúnde had first proposed this solution in a conceptual scheme published in 1948, arguing that under this principle “the problem of reconstruction in Lima can be resolved on a commercial basis.”

Agrupamiento Alberto Alexander was particularly focused on cost reduction, acknowledging that the CNV’s previous projects had “prices a little high for the economic capacities of the labouring classes.” In addition to the rent subsidy, costs were to be kept low by reducing the size of the apartments (in comparison to the standards employed at Unidad Vecinal No. 3), and making a small alteration.

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to simplify the layout: “the elimination of garbage via ducts, without having to leave the apartment, which makes the service door unnecessary.” This technological fix obviated the traditional middle-class requirement for two entrances—an innovation of doubtful value for the project’s future working-class residents. Changes of this nature appeared to be the limit of Belaúnde’s willingness to compromise on standards in the search for an “economical system” for low-cost housing. Characteristically, in a “Charter of the Home” Belaúnde published in 1949, which was to be presented for discussion at the upcoming CIAM 7 meeting in Bergamo, the lack of affordable, decent housing was framed as a global issue, which required the establishment of “definite global standards for the solution of a problem that affects the entire face of the earth.”

From a position on the margins of modern architecture, Belaúnde insisted on the importance of universal standards, which the CNV would presumably be expected to apply in all its projects, thus proving Peru’s adherence to a shared vision of modernity. As with Lima’s Plan Piloto—also published in 1949—the realization could not meet the aspirations.

2.2 A House that Grows

Pedro Beltrán graduated from the London School of Economics in 1918. Through his connections at this institution he cultivated personal and professional relationships with a number of prominent free-market economists, most notably Ludwig von Mises, Friedrich Hayek, Milton Friedman, Wilhelm Röpke, and Ludwig Erhard; Beltrán popularized their thought through his newspaper La Prensa, and in some cases, facilitated their visits to Peru. In June 1954

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26 The “Charter of the Home” advocated “ATTAINABLE HOUSING FOR ALL who contribute to the economic life of the universe,” assisting households that “the free market in housing cannot satisfactorily attend to”; “the inactive, mendicant, and invalid population” (i.e. the non-worthy poor) were to be dealt with separately on a philanthropic basis. Fernando Belaúnde Terry, “Nuestra proposición al Congreso del CIAM: La Carta del Hogar,” El Arquitecto Peruano 13, no. 141 (April 1949): unpaginated, emphasis in original. It does not appear that any Peruvian representatives attended the CIAM 7 meeting in person (ETH gta Archiv, Zürich, 42-X-116), and the reception given to the “Charter of the Home” is unknown.

27 Beltrán was later named an honorary fellow by the LSE, and given similar honours by Yale, UCLA, and Harvard. Arturo Salazar Larraín, “Introducción,” in Pedro G. Beltrán: pensamiento y acción (selección de textos), ed. Salazar Larraín (Lima: Instituto de Economía de Libre Mercado, 1994), 7, 25.
Pedro Beltrán launched a major campaign to address the intensifying housing crisis via *La Prensa.* Following Beltrán’s pro-market views, the newspaper argued that the government could not solve the problem single-handedly through the direct construction of low-cost housing. While the private rental market could make a valuable contribution (if given sufficient incentives to invest in the low-income sector), an alternative solution warranted greater support: the promotion of individual home ownership. Arguing that “the desire to have one’s own home is very natural, human, ... understandable, and socially beneficial,” *La Prensa* proposed a series of reforms to the mortgage financing system. The Banco Central Hipotecario (Central Mortgage Bank) had a monopoly on mortgage financing, but was unable to meet a wider demand because it had insufficient funds to lend, and its policy of financing no more than 50 percent of the property’s value placed its terms beyond the capacity of most low-income households.

Meanwhile, the Fondo Nacional de Salud y Bienestar Social (FNSBS, National Fund for Health and Social Welfare), one of the main government agencies charged with the provision of low-cost housing, could make better use of its funds by diverting them away from construction programs and into “the mobilization of private capital towards mortgage loans.” Specifically: if the Banco Central Hipotecario lowered its minimum downpayment to 10 percent, the loans would be subject to a considerably higher interest rate, making them more attractive to private investors; with additional capital at its disposal, the bank could increase its lending to low-income households—however, the higher interest rate need not be passed on to the prospective homebuyer, because FNSBS funds could be used to subsidize the mortgage repayments. Under this new policy—“favourable to investors as well as to those ... interested in having their own house”—a “decent but not lavish dwelling” costing S/.20,000 could be had for a

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28 According to José Matos Mar, Beltrán’s afternoon tabloid *Ultima Hora,* was also involved in promoting this campaign, but *La Prensa* seems to have led the charge. José Matos Mar, *Las barriadas de Lima,* 1957 (Lima: Instituto de Estudios Peruanos, 1977), 16.

29 “Casa propia al alcance de todos y no solamente de unos cuantos,” *La Prensa,* June 6, 1954.
S/.2,000 downpayment and S/.150 per month from the homeowner, with the balance of the monthly payment (roughly 35 percent) being paid by the FNSBS. In short, public funds would facilitate the purchase of housing built by private contractors and subsidize loan repayments to the ultimate benefit of the bank’s private bond-holders. *La Prensa* argued that this proposal would facilitate the construction of thousands of additional low-cost dwellings per year, and “[w]ith a monthly payment equivalent to rent, anyone could become the owner of an economical, healthy, and well-built house.”

In its extensive coverage of the housing crisis, *La Prensa* hosted commentary that was hostile to the barriadas—notably, the opinions of the Asociación Nacional de Propietarios (ANP, National Association of Property Owners) which variously condemned them as presenting “deplorable conditions”; providing “the preferred hideout and residence of thugs pursued by the law”; constituting “a centre of infection” and “a danger to society”; which moreover had in no way “managed to solve the housing shortage.” Touching on every anxiety the barriadas could possibly evoke—filth, lawlessness, disease, chaos—these articles reinforced the belief that squatters were beseiging the city on all sides. Elsewhere *La Prensa* offered a far more sympathetic viewpoint. In a July 1964 article on the prominent Cerro San Cosme barriada, one of Lima’s oldest, the language of invasion was redeployed to describe the challenges faced by “the invaders, the conquistadors of the hill” in their assault—“armed with sticks, iron, pieces of matting, cartons, spades, and courage”—on the unforgiving terrain where they fought “to repair and improve their dwellings ... in an indescribable battle against the hill and against adversity.” Regrettably, these dogged efforts were undermined by “their limited economic means and

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30 “Casa propia al alcance de todos y no solamente de unos cuantos,” *La Prensa*, June 6, 1954.


technical ability." However, the account concluded with some optimism, noting that *La Prensa* had already identified a solution to the nation's housing problem, which had been endorsed on all sides and only awaited implementation. In this way Beltrán appealed directly to low-income families by articulating moral support for self-help builders, framed as noble warriors who struggled to improve their housing situation, rather than the destroyers of urban culture depicted by Belaúnde, along with the ANP.

In relentless coverage in support of its plan, *La Prensa* published numerous articles over the succeeding weeks, presenting the testimony of various experts vouching for its economic viability and social necessity in curtailing the spread of the barriadas. Photographs of simple, low-cost dwellings were also published, allowing readers to envisage in concrete terms what could be achieved. These included a group of experimental patio houses built by the CNV, using “a revolutionary construction system”\(^3\) that promised to cut construction costs by 20 percent: a series of free-standing columns would each support a six-by-six metre roof slab, raised into position using small jacks, thereby eliminating the need for formwork \([2.11]\). An article on recent projects in Puerto Rico presented a contrasting approach: in addition to conventional large-scale housing projects, the newspaper described the construction of more than 1,000 “rural and working-class” houses by means of a “cooperative system”—that is, mutual aided self-help—with “the technical and economic assistance” of the state providing the resources of architects, machinery, “directing technicians” (*técnicos dirigentes*), and loans \([2.12]\).\(^4\)

\(^3\) “La casa propia puede dejar de ser en sueño: Es posible construir viviendas a baja precio: Construyen en Lima casa de S/.17,000,” *La Prensa*, June 7, 1954; “Un nuevo sistema de construcción baja los costos,” *La Prensa*, June 20, 1954. The article reported that the construction system was inspired by the Youtz-Slick Lift-Slab Construction Method which had been developed in the United States; the house was designed by architect Carlos Morales Macchiavello and engineer Eugenio Montagne.

Fernando Belaúnde Terry also contributed an article to the newspaper’s campaign. In a rare moment of collaboration between the two men, he endorsed Beltrán’s call for public-private partnership in solving the housing problem, and confirmed that La Prensa’s projected budgets were realistic for building low-cost housing. However Belaúnde’s article focused on the model of the unidad vecinal, translating Beltrán’s campaign into his own terms. Emphasizing the achievements of the CNV—the state agency closest to his heart—he nonetheless accepted the need to multiply its achievements, and agreed that FNSBS resources could be usefully employed in subsidizing mortgages. A map accompanying his article illustrated the many sites in the greater Lima area where housing development could be carried out economically because the land was of little value, being distant from the city centre, unsuitable for farming, or crossed with significant ravines [2.13]. The large-scale development of planned settlements would make the installation of infrastructure on these peripheral sites affordable, and their relative isolation would facilitate their evolution into “self-sufficient satellite nuclei,” in line with the decentralization policy established in the 1949 Plan Piloto. These urban “nuclei” would take the form of “unidades and sub-unidades vecinales” which, he argued in an echo of the 1947 resolution, offered “a splendid opportunity for an urban structuring with a view to reestablishing communal life, which our era tends to destroy.” Despite his careful determination of the most rational solution, the technical rationality of Belaúnde’s decentralizing policy was completely at odds with the practical logic of barriada settlers, who preferred to establish their neighbourhoods closer to the city centre, accessible to jobs and urban amenities, without the challenges (and time and money) required to arrange daily transit back and forth to “satellite nuclei” in the urban hinterland.

35 These specifics of Lima’s topography played a large part in shaping the particular patterns of its squatter settlements.

36 Fernando Belaúnde Terry, “Construyamos hoy para no tener que sanear mañana,” La Prensa, June 13, 1954. The article was reprinted in El Arquitecto Peruano accompanying coverage of La Prensa’s “La casa barata competion”: “Construyamos hoy para no tener que expropiar y demoler mañana,” El Arquitecto Peruano 18, no. 204-205 (July-August 1954).
Concluding his article, Belaúnde proposed a design competition for “la casa elemental” (the basic house), which he believed would both encourage industry to develop cheaper building materials, and provide architects with the opportunity to devise a range of different housing prototypes, which could be deployed in combination to reduce the monotony of mass housing projects. Two weeks later, as the grand finale to its housing campaign, *La Prensa* adopted Belaúnde’s proposal and announced that it would sponsor a competition for “La casa barata” (the low-cost house). Although Beltrán’s and Belaúnde’s interests coincided here, their motivations did not: while Beltrán saw a further opportunity to publicize his drive to expand the market for private home ownership, Belaúnde aimed to demonstrate that architects could meet the challenge of creating an “economical system” of minimum standard modern housing, even (or especially) within the constraints of a developing economy.

The competition brief called for an ensemble of four houses, comprising two examples of two different models—a two-bedroom house (costing S/.15,000) and a three-bedroom house (costing S/.20,000). The Asociación Nacional de Propietarios—already allied with Beltrán’s call for reform—offered to finance the construction of the winning project. In order to demonstrate the viability of the design, construction was to begin immediately after the selection of the winner, to be completed within sixty days and within the specified budget. To this end, all competing architects were to name a contractor willing to undertake the work on these terms.37

On August 12, Mario Bernuy Ledesma was announced as the winner out of a field of twenty-one entries, with Santiago Agurto Calvo as runner-up. Twelve days later the newspaper reported that construction had begun on Bernuy’s project, making use of a site on the campus of the Escuela Nacional de Ingenieros. The plan was based on the division of the lot into three-by-three metre grid squares [2.14]: eight squares for the two-bedroom house (two wide, four

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37 “Bases a las que se sujeterá el concurso arquitectónico que organiza *La Prensa*,” *La Prensa*, June 29, 1954. In addition, the competition was to award cash prizes to the winning architects, starting with S/.20,000 for first place—an amount equal to the cost of the three-bedroom house.
deep), and ten squares for the three-bedroom house (two wide, five deep); the floorplans of the two houses were identical but for the additional bedroom at the back of the larger house; in each case, part of the backyard area could be appropriated for additional extensions. Although the houses were small, maximum use was made of built space by eliminating corridors in favour of providing access to all rooms from the living-dining area. Seeing virtue in its simplicity of expression, the jury praised the design for its “frankness” and lack of “false ostentation” in the use of unfinished cement block, and for its attention to construction details, which promised to streamline and lower the cost of production. Once construction was underway, the newspaper closely covered its progress, featuring front-page photographs of the growing walls and the raising of the roof, and reporting on the interest sparked by the project among La Prensa’s readers [2.15]. In the end, the houses were finished in thirty days, half the estimated time, and on October 17 they were handed over to the Director of the Escuela de Ingenieros. It is not clear what happened to the houses afterwards.

One week later, La Prensa announced the details of a new undertaking emerging from the competition: the construction of a second set of low-cost houses using the design by runner-up Santiago Agurto [2.17]. This time, the five houses would be given away to readers in a lottery. Agurto studied civil engineering and architecture in Lima, completing his postgraduate studies in architecture at Cornell University with a thesis project proposing a housing

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38 “Arquitecto Bernuy ganó el concurso ‘La casa barata’ demostrando quye el pueblo puede tener su casa propia,” La Prensa, August 12, 1954; “Así son los planos de las casas de 15 y 20,000 soles del concurso de La Prensa,” La Prensa, August 14, 1954.


40 One article mentioned the possibility of extending the project by constructing a larger group of low-cost houses at the Escuela de Ingenieros “for the personnel of its various departments,” but it does not seem that this was carried out. “Agrupación de viviendas baratas levantaría la Escuela de Ingenieros,” La Prensa, September 2, 1954.
development for Lima. When he returned to Peru in 1947 he immediately started work as the lead architect on many of the CNV housing projects, beginning with Agrupamientos Angamos and Miraflores (1948–1950) and Unidades Vecinales Matute [2.16], Rímac, and Mirones (1952–1953). He was also a partner in the architectural firm Agurto-Cayo-Neira with Javier Cayo Campos (who likewise enjoyed a long career within the CNV) and Eduardo Neira (a close colleague of John F. C. Turner, discussed in chapter four). Agurto was active in progressive politics for many years, serving as secretary general of the Movimiento Social Progresista, and was discussed as a possible presidential candidate for the Frente de Unidad de Izquierda (United Leftist Front) in the 1962 elections.

Agurto’s design, entitled “La casa que crece” (the growing house) [2.18] was conceived as a “célula habitacional flexible” (flexible dwelling unit) that could be developed over time as the family’s needs and available resources changed. Stage one comprised a compact dwelling with a small kitchen and bathroom, a bedroom for a couple with young child, and a living-dining room that could be transformed into an extra bedroom at night (a pragmatic move that contravened the strict functional separation essential to modernist reform housing, but reflected

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Agurto recalled that he had first met Belaúnde to discuss the possibility of working with the CNV in 1946, but decided to continue his studies by going to the United States. Rafael Marquina, then head of the architecture school in Lima and Agurto’s teacher, had studied at Cornell fifty years earlier, so recommended that school to him. When Agurto returned to Peru, the architecture profession was still very small, with only fifty or so architects in practice; since none had specialized or been trained in social housing, Agurto immediately assumed a key role with the CNV. Santiago Agurto Calvo, interview with the author, October 2008. According to Henry Russell Hitchcock’s assessment, Unidad Vecinal Matute was “perhaps the best” of the CNV’s housing projects: “The open layout with moderately tall walk-up blocks alternating with groups of one-storey houses is orderly and yet pleasantly varied…. Without the somewhat aggressive monumentality of [Mario] Pani’s Mexican housing projects or the lyrical delicacy of [Affonso] Reidy’s work at Pedregulho, Agurto’s competent and straightforward housing is about the best new architecture in Peru.” Hitchcock, Latin American Architecture since 1945 (New York: Museum of Modern Art, 1955), 133. Thanks to Patricio del Real for pointing out this reference.

Other candidates for the presidency that year included Belaúnde (representing the Acción Popular party), and Beltrán, who quickly ended his campaign after attracting little support.

actual practice in low-income Lima households). The 130-square-metre lot provided space to store a vehicle, and ample room to extend the house over three successive stages, adding one or two bedrooms, followed by a second, separate living space, a second bathroom, an expanded kitchen, and finally an all-purpose room at the front that could be used as bedroom, study, workshop, or even a shop, depending on the location of the lot. Agurto’s design maintained a sense of spaciousness throughout its evolution: with the L-shaped core of the dwelling placed in the centre of the lot, additional rooms were aggregated around three sides while preserving space for a small garden framing the front door and a rear patio [2.19]. In this way, Agurto argued, the house would follow a pattern of “organic growth”45—not simply increasing the number of bedrooms but enhancing the service and living areas that supported its overall functioning as it evolved. Agurto believed that this flexibility was especially important for low-income families, since they did not have the resources to sell and move when they outgrew their house, and as a result would be forced into overcrowding. Agurto claimed the Cerro San Cosme barriada as the point of inspiration [2.23]; in familiar terms, he praised the innate architectural abilities of self-builders (like mutual aid, this was frequently invoked as an essentially Peruvian trait and point of connection to the Inca heritage). As Agurto observed:

There one appreciates, as in no other place, the obstinate constructive instinct of Peruvians. There they have built painstakingly, without having any technical knowledge, erecting houses on the rugged and steep foothills, making extraordinary works of engineering. And there’s no Peruvian worker—driver, sweeper, labourer, or baker—who doesn’t know how to handle a trowel, to place bricks one on top of another, to raise the walls of a house. And it’s exactly this that must be made use of in the solution to the housing problem.46

45 Santiago Agurto, “¿Por qué debe crecer la casa?” La Prensa, October 24, 1954.
46 “Arq. Augurto expone su plan.” It is worth noting here that only a few months earlier, in February 1954, Agurto’s office-partner Eduardo Neira had completed his first report on the barriadas in the southern city of Arequipa for the Ministerio de Fomento y Obras Públicas (Ministry of Development and Public Works). For further discussion of this issue, see chapter four.
Accordingly, “La casa que crece” was “able to be extended and improved by its own occupants”—a measure that would further contribute to the house’s affordability. If this principle of actively engaging self-help labour were applied to the problem of housing provision at the national level, Agurto argued, the average 30 percent of construction budgets that covered labour costs could be eliminated; further, the 10 percent dedicated to “technical direction” could also be saved, provided that the self-builders were “under the supervision of a competent organization.”

Although probably unrealistic about the potential cost savings, and in his assessment of the willingness, ability, and sheer physical stamina of Peruvians in contributing to the construction of their own dwellings, Agurto’s project was nonetheless a genuine effort to understand the economic necessities driving the protracted construction in barriadas, and to devise a model house that responded to this reality. At the same time, the sketches present a strange disjunction between the unabashed austerity of the house’s exterior and the interior’s studied minimalism [2.20]—sparsely appointed in tasteful fashion, it evokes urbane modern living rather than the busy, well-populated spaces of a low-income household, as if Agurto had not quite succeeded in imagining the lives of the inhabitants of the modest house.

A precedent of sorts for this employment of progressive construction can be found in early 1930s Germany: in the midst of the acute postwar housing shortage and concurrent economic crisis, Martin Wagner’s concept of “Das wachsende Haus” (the growing house) was developed explicitly in opposition to the Existenzminimum, so enthusiastically promoted by his colleague Ernst May in the housing program for Frankfurt. Wagner, head of Berlin’s municipal housing program, argued that these minimum standards—which were continually being revised downwards due to the deteriorating economic situation—would permanently tie residents to

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47 Santiago Agurto, “¿Por qué debe crecer la casa?” La Prensa, October 24, 1954.

48 “Arq. Agurto expone su plan.” According to Agurto’s estimate, with S/.200,000,000 invested annually to build 10,000 houses, the total potential savings of 40 percent would amount to S/.80,000,000.
barely livable conditions imposed in the throes of a national crisis. Instead, he proposed a simple Kernhaus (nucleus or core-house), built around a Wohnungskern (dwelling-core) which would evolve into a complete dwelling over time [2.21], thereby surpassing the constraints of the “minimum” as the family’s financial circumstances improved. Wagner’s conception of the “growing house” showed the influence of the Laubenkolonien (summerhouse colonies) found 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. Just as Agurto claimed the inspiration of San Cosme, Wagner adopted the prevailing form of emergency housing as a model, promising to offer Laubenkolonien-inspired dwellings with enough design integrity to function as decent permanent housing. However, while they shared this general approach to the problem, as well as the language of cellular structures and organic growth, in contrast to Agurto, Wagner’s “growing house” assumed a technological solution—prefabricated, modular design rather than self-help construction. In fact, Wagner’s proposal 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.”

Ironically—but almost inevitably, in an eloquent demonstration of the complications of acquiring land for housing in Lima—the day after La Prensa announced that the construction of

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49 Wagner publicized the concept through a conference and design competition, culminating in a presentation of prototype dwellings as part of the 1932 Deutsche Bauaustellung Berlin. From over 1,000 submissions, 24 designs for single-family dwellings were selected for exhibition and publication in the accompanying catalogue. These included projects by a number of prominent modernist architects, including Hans Poelzig, Otto Bartning, Walter Gropius, Hugo Häring, Ludwig Hilberseimer, Erich Mendelsohn, Hans Scharoun, Bruno Taut, and Max Taut, as well as landscape architect Leberecht Migge. Martin Wagner, Das wachsende Haus: ein Beitrag zur Lösung der städtischen Wohnungsfrage (Berlin: Bong & Co., 1932).

50 Wagner, “New Paths to the Construction of the Smallest Dwelling” (1924), quoted in Wagner, Das wachsende Haus, 4. Wagner’s (socialist) critique is that self-help does not in fact produce any savings, and is destructive to the building economy as a whole: do-it-yourself builders make it more difficult for trained construction workers to find employment, they produce poor-quality work which lowers the overall standards of the dwelling; furthermore, the sophistication of modern construction systems is “incompatible with self-help.”
“La casa que crece” had begun, efforts to start work on the selected site were obstructed by the arrival of a crowd of women and children armed with sticks and stones, claiming that the land was theirs. The 900 or so families had been there for over twenty-five years, and for the last ten they had been fighting to prove their legal claims. Court proceedings to determine the ownership of the site were still in process, but as far the the residents were concerned the legitimacy of their claim was clear: “we have been property holders [poseedores] of this land for a long time, before anyone bought it.”

In this conflict of de facto and legal ownership, the residents claimed a moral right to the land not just by precedence, but by virtue of having made something out of nothing by “urbanizing” a site that was initially little more than farmland. No doubt wary of engaging in a prolonged legal dispute with a group of people who represented the core constituency of its low-cost housing promotion campaign, La Prensa swiftly moved to purchase an alternative site (while complaining in print about the expense).

Once construction was underway at the new site, progress was again closely followed in La Prensa, along with the drama leading up to the drawing of each of the five lottery winners. Although it took only twenty-two days to build the houses, the lottery to give them away was staged over nine months—excellent publicity for Beltrán’s plan to solve the housing crisis, and good business for his newspaper, since entry into the lottery required cut-out coupons from La Prensa. The winners included a twenty-five-year old bachelor from Lima (“a poor and dignified person .... a young worker, studious and without vices”); a provincial police officer and father of three, ready to move to the capital to further his career; and a woman who had spent the last ten years of her “exemplary life” in the El Agustino barriada, gamely brightening up her

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51 “Alegando ser dueños de los terrenos pobladores de Matute impiden iniciar construcción de casas de La Prensa,” La Prensa, October 26, 1954.
surroundings with a flower garden, her assiduous domesticity now rewarded with a fully furnished residence for her mother and four other relatives [2.22].

With the success of the lottery in material terms (for the winners) and in propaganda terms (for the newspaper), Beltrán's campaign had proved its point, but for the time being the experiment remained an isolated achievement. His focus now turned to the policy sphere.

2.3 Affording a House, or Not

In the 1956 presidential elections that marked the end of the dictatorship of General Manuel Odría (1948–1956), Fernando Belaúnde Terry expanded his political ambitions by running as a strong candidate for the reformist Acción Popular party, but ultimately lost to Manuel Prado, a centrist and political ally of Pedro Beltrán. Inaugurated as president in July, within weeks Prado responded to the intensifying concern over the barriadas by establishing a high-profile Comisión para la Reforma Agraria y la Vivienda (CRAV, Commission for Agrarian Reform and Housing), appointing Beltrán as its head [2.23]. Architect Adolfo Córdova (as already noted, a member of the Movimiento Social Progresista) compiled a comprehensive study on the nationwide housing deficit on behalf of CRAV, while a fellow member of the MSP, anthropologist José Matos Mar, contributed a brief summary of his current research on the

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53 In addition engineer David Vega Christie was Technical Secretary and Housing Adviser to the commision, while Eduardo Neira was the only architect among the nine experts and political appointees on the commission itself. Several other architects were credited with assisting the commision’s work, including Santiago Agurto, Javier Cayo, Alfredo Dammert, Luis Dörich, Luis Miró Quesada Garland, Manuel Valega, and Carlos Williams. “Apendice No. 7. Personas e instituciones consultadas o que han proporcionado informes o cooperado en alguna forma con relación al informe sobre vivienda,” in CRAV, Informe sobre la vivienda en el Perú (Lima: CRAV, 1958), 339-340.
barriadas—an indication of the influence of his 1955 barriada study (discussed in chapter three) on subsequent policy development.

In its initial report opening the commission, CRAV identified its fundamental objective as promoting small and medium property ownership—both in the form of rural landholdings and the single-family home—arguing that this would foster initiative and personal responsibility, in turn increasing productivity, improving the standard of living, and stimulating the country’s economic development. It articulated the links between urban housing and agrarian reform, arguing that the best means of controlling unauthorized urban settlements was to address their main cause—the rapidly increasing rate of rural-urban migration—by improving conditions in the provinces, establishing strong regional centres and facilitating access to cultivable land.

On this last point, however, CRAV revealed the limitations of its vision: while the commission’s final recommendations on housing included some important and far-reaching innovations, its approach to agrarian reform is widely regarded as having been retrograde—slow-moving, limited, and cautious, reflecting the conservative interests of large landowners among the Peruvian elite (such as Beltrán himself). Thus, according to CRAV, increasing access to cultivable land was to be achieved through irrigation, internal colonization, and reallocating unproductive public and private lands, rather than via the redistribution of existing cultivated land. Just as the poblador (settler, or barriada resident) was welcome to “invade” around the urban fringe but not in the city centre, the promise of colonization in remote areas of the Peruvian Amazon was expected to provide sufficient land for all, on the premise that the

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54 See José Matos Mar, “Informe preliminar sobre el estudio de las barriadas marginales,” in CRAV, Informe, 334-338.

55 The commission also counted on the advice of two US experts, provided through the International Cooperation Administration: Neal J. Hardy of the National Housing Center (connected to the National Association of Home Builders) and Lawrence M. Cox of the Norfolk Redevelopment and Housing Authority. In addition, Morton Bodfish of the US Savings and Loan League helped the commission to produce draft legislation for establishing a savings and loans system in Peru. Pedro G. Beltrán, “Oficio de remisión,” in CRAV, Informe, 291.

problem of access to land (both rural and urban) could be solved without significant disruption to the existing socio-economic order.

In a memo accompanying the commission’s final report on housing, delivered in January 1958 (its report on agrarian reform appeared in 1960), Beltrán emphasized that no extraordinary government funding would be needed to solve the housing problem; rather, the Peruvian people’s “ordinary powers, duly channeled and protected” could more than meet the challenge, once given a “systematic orientation” in technical and financial matters.57 Likewise, the problem of the barriadas could be solved through “technical assistance and financial cooperation”—taking care that these initiatives were framed in such a way that allowed barriada residents “to acquire their own dwellings through their own efforts [su propio esfuerzo] and with their own means, which is what they desire.”58

To promote “financial cooperation” CRAV advocated establishing a system of savings and loans institutions to provide small-scale housing finance: this resulted in the Asociaciones Mutuales de Crédito para Vivienda (Savings and Loan Associations for Housing, 1957) and the Banco de la Vivienda (Housing Bank, 1962). On the other hand, systematizing the provision of technical assistance was to be achieved through the creation of a national system of Oficinas de Asistencia Técnica (OATs, Technical Assistance Offices, 1957). According to the CRAV report, barriadas were a prime example of the potential of individual effort, at once providing effective shelter, creating the foundations for economic development, and cultivating the moral improvement of the individual character. However a lack of competent direction had led to wasted efforts, with the selection of unsuitable sites, materials, systems, and designs from the point of view of urbanism, architecture, and engineering. As a consequence of such errors this valiant collective contribution which could be translated into decent dwellings has

produced a large part of the slums and of the *barrios marginales* that are found in the country.\(^{59}\)

In CRAV’s view, the barriada problem was technical, not socio-economic, in nature; self-built housing was deficient due to inept production, and could therefore benefit from professional expertise. To this end, the OATs would advise barriada residents on the construction and financing of their housing, as well as urban design and infrastructure provision, property law, and the management of collective improvement projects. OATs were immediately established in Lima as well as the rapidly growing cities of Chimbote and Arequipa. The latter office, coordinated from mid-1957 by the English architect John Turner, produced the earliest tangible successes of this new approach, while also encountering considerable resistance from *pobladores* (as discussed in chapter four).

According to CRAV’s conception, the technical assistance programs would offer job training and contribute to improving Peruvians’ “systems of communal life (*vida en comunida*)”; in practical terms, it particularly recommended the employment of *ayuda mútua dirigida* (managed mutual aid), through which, it was hoped, Peru’s ancient tradition of communal building practices would compensate for its lack of capital and savings. The assistance came with the expectation that residents would work towards the “regularization” of their residential situation, and to this end the program established a process for eventual ownership of the lot, contingent upon timely construction of “at least a minimal dwelling” which should have sufficient bedrooms to adequately house the family, as well as a kitchen and a lavatory, with the entire structure covering at least 30 sq. m., and construction “in a stable and permanent manner with suitable materials.”\(^{60}\) Property title would only be granted once “the dwelling is totally finished and ready for occupation.”\(^{61}\) Despite the fact that Peru is highly prone to earthquakes, nowhere

\(^{59}\) CRAV, *Informe*, 60.

\(^{60}\) “Decreto Supremo sobre las Oficinas de Asistencia Técnica,” in CRAV, *Informe*, 331.

was seismic engineering—creating safer houses and minimizing likely damage to property and
person—advanced as a rationale for technical assistance.\textsuperscript{62} Instead, particular emphasis was
given to the “social aspects” to be addressed by the OATs:

It will be of little use to put at people’s disposal suitable housing and the
the corresponding communal services if they do not know how to use them as they
should be, and if these don’t form hygienic and orderly habits, and stimulate
human improvement [\textit{superación humana}].\textsuperscript{63}

This rhetoric recalled that of the \textit{unidad vecinal} program, intensified to a higher degree:
managed self-help housing would serve as a training ground to prepare residents for their
responsibilities as independent citizens, and as actors in the private market—fostering a certain
self-sufficiency, creating “aware and progressive communities ... utilizing the many or few
resources at their disposal, without expecting everything from the government and the
authorities.”\textsuperscript{64} In order to achieve this ideal self-sufficiency, residents would be required to buy
their properties at a price covering the original value of the land plus any improvements
undertaken by the government, such as re-drawing the urban layout, grading roadways, or
installing services. As the commission’s initial report had noted: “‘Helping them to help
themselves’ should be the principal idea and the constant practice of this work”—offering
everyone, no matter their situation, “the possibility of creating their well-being with their own
effort [\textit{esfuerzo propio}].\textsuperscript{65}

Adolfo Córdova’s study for CRAV presented a very different perspective on the housing
crisis, which in large part reflected the views of the Movimiento Social Progresista.\textsuperscript{66} Córdova

\textsuperscript{62} In 1959 CINVA produced a manual on anti-seismic construction techniques for low-cost housing, based
on research conducted by the Universidad Católica de Chile, a leader in this field. See \textit{Asismicidad en
viviendas económicas: Estudio} (Bogotá: CINVA, 1959).

\textsuperscript{63} CRAV, \textit{Informe}, 66.

\textsuperscript{64} CRAV, \textit{Informe}, 66.

\textsuperscript{65} “Apendice No. 2. Informe preliminar de la Comisión, Agosto de 1956,” in CRAV, \textit{Informe}, 298.

\textsuperscript{66} The Movimiento Social Progresista’s housing policies were further explored in articles published in \textit{El
Comercio} (\textit{La Prensa}’s main rival) in late 1960: Adolfo Córdova and German Tito Gutierrez, “Lo que Ud.
argued that the most serious problem facing Peru was not housing, but poverty: raising the
economic capacity of low-income families as part of a comprehensive program for the economic
development of the country was the only path to a sustainable solution. Córdova’s detailed
assessment established that in order to meet the current housing deficit (both quantitative and
qualitative), it would be necessary to build a total of 728,700 new dwellings, and repair around
1,011,500 deficient dwellings—the latter figure representing over half of the country’s existing
housing stock. While the most acute housing shortage was in the largest metropolitan areas
(Lima and Arequipa), overall the housing situation in rural areas was far worse, with 60 percent
of housing needing repair and only 5 percent in good condition.\textsuperscript{67}

Córdova’s approach to meeting the housing deficit envisaged a construction program to
be carried out over thirty years. Taking into account the continued deterioration of existing
housing stock as well as projected population growth (Córdova estimated the population in 1986
at 18,225,000, not far from the actual number, which was just under 20,000,000) he argued that
to meet the total housing deficit would require the annual construction of 81,570 new dwellings,
and the rehabilitation of 33,720. Given that total housing production in Lima over the previous
eight years averaged less than 6,000 units per year, the most optimistic estimate for housing
construction nationally was 9,000 units per year—only a fraction of that needed. Only a nine-fold
increase in housing production would meet the target of 81,570 dwellings, and—as Córdova
noted—the investment required to carry out this task would absorb around half of the national
budget. Nonetheless he expressed the extraordinarily optimistic hope that if addressed as part

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\textsuperscript{67} Adolfo Córdova Valdivia, \textit{La vivienda en el Perú: Estado actual y evaluación de las necesidades} (Lima: CRAV, 1958), 144. These percentages were based on an imagined 100 percent made up of all existing housing stock and all housing that needed to be built in order to meet the quantitative deficit. By comparison, in Lima and Arequipa 25 percent of housing needed repair, and 21 percent was in good condition; nationally on average 52 percent needed repair, and 11 percent was in good condition.
of a “radical transformation” of the Peruvian economy through a long-term, wide-ranging development program, the housing deficit could certainly be reduced, although not eliminated. However, in an oblique reference to Beltrán and the enticing headlines of La Prensa, Córdova warned that there were no quick and simple solutions to this problem:

the offers of a “home of one's own for each Peruvian family” that are made from time to time are fallacious and dangerous, evidently with obscure political aims or, in the best-case scenario, are due to complete ignorance of the situation. As appealing as this slogan may be, “it is not honest to play with it, because the economic capacity of the Peruvian family precludes it.” Córdova also observed that the housing crisis had been aggravated by unrealistic expectations on the part of the authorities concerning what kind of housing should be provided—insisting on “high standards of construction and urbanización,” which needlessly inflated costs—an apparent reference to Belaúnde. It would be far better, he suggested, “to establish a balance between the cost of these dwellings and the economic capacity of the population”—adopting a more flexible approach to minimum standards.

A contemporaneous study assessing the state of housing construction in Lima underscored why a reappraisal of policy was justified: while the city’s population had increased by 76,000 families over the period 1949–1956, fewer than 46,000 new dwellings had been built in this time, and only 5,476 by public agencies such as the CNV which targeted lower-income residents. Meanwhile, over 26,000 families were now in the process of building their own

68 Córdova, La vivienda, 13, 148.
69 Córdova, La vivienda, 13.
70 ONPU, Construcciones efectuadas por particulares y por entidades estatales en Lima Metropolitana, durante el periodo 1949–1956 (Lima: ONPU, March 1957), 5. In a follow-up report the statistics were slightly less discouraging: in the period 1949–1960, 78,037 dwellings had been constructed, 7,906 by the public sector. With a total population increase in the period of 465,000, or 93,000 families, this meant the running deficit had decreased to 15,000. (However it should be noted that this figure does not include families without housing prior to 1949; nor does it address the “qualitative” housing deficit identified by Adolfo Córdova in La vivienda en el Perú.) ONPU, Construcciones efectuadas por particulares y por entidades estatales en Lima Metropolitana, durante el periodo 1949–1960 (Lima: ONPU, June 1961), 7.
housing in barriadas—leaving the *unidades vecinales* as isolated outposts in an increasingly improvised city [2.24]. An evaluation report on the *unidad vecinal* program further illustrated the limits of conventional construction: the small number of units available through the CNV led to a highly selective screening process for residents. In addition to income benchmarks and home visits to assess domestic habits, all prospective residents were required to submit certified x-ray and blood tests, in an effort to keep tuberculosis at bay. As one consequence, many of the workers actually building the *unidad vecinal* projects were unable to meet the requirements to live in them. Instead, the CNV “provided the most suitable [acertada] solution, giving them land to build their houses”—in this way, the state housing agency enabled the construction of their un-aided self-help dwellings “in a clandestine manner in the areas next to where they work.”

This account suggests that by the early 1950s the CNV had already reconciled itself to shanty towns for its low-income workers adjacent to its showcase projects as the best it could achieve for these households. Finally, the *unidad vecinal* projects themselves quickly showed signs of strain, particularly due to overcrowding: by 1954 Unidad Vecinal No. 3, designed for 5,000 residents, had a population of around 6,196, an excess of 24 percent; by 1966, the population was 7,151, an excess of 43 percent. Partly this overcrowding was due to the demise of the “superintendencia” which had been responsible for the regular inspection of apartments and

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71 Córdova, *La vivienda*, 78. Córdova also noted that 132,500 families in Lima were living in dwellings that were so substandard they needed to be replaced (54 percent of families), while an additional 62,000 families required significant repairs to their homes (25 percent of families). The report continued: “Only 21 percent of the population, equivalent to around 52,000 families, live in adequate lodgings.” Córdova, *La vivienda*, 77.

72 CINVA, *Unidad Vecinal No. 3 Lima-Callao de la Corporación Nacional de Vivienda del Perú* (Bogotá: CINVA, 1958), 104-105. Regarding the class conflicts that could emerge in such situations, the report added that while in some cases, the siting of model neighbourhoods next to low-income settlements had created tensions, at Unidad Vecinal No. 3 “the neighbouring rancherías [shanty settlements] … use all their community services but do not attend the dances in the Community Hall organized by the residents’ associations, maintaining a respectful reserve towards them and they have never presented problems.” *Unidad Vecinal No. 3*, 104.

73 Carlos Delgado, *La Unidad Vecinal No. 3 y Matute: estudio social comparativo referido a problemas de planeamiento físico* (Lima: Oficina de Planificación Sectorial de Vivienda y Equipamiento Urbano, July 1966), 90.
organizing the transfer of families to larger units as they grew. In addition, residents’ modifications to the dwellings—transforming the patio and terrace areas into additional living space was widespread—effectively overrode the CNV’s efforts at housing reform, and reproduced the confined spaces of inner-city tenements.

Efforts to devise an “economical system of urbanization and construction” for Peru’s cities had resulted in contrasting responses: Belaúnde’s conventional modernist reform housing, achieving some cost reductions through mild modifications to the *Existenzminimum*, but failing to cut costs sufficiently to match the reality of low incomes; Agurto’s “house that grows” hybrid, revolutionizing the issue of standards by cutting the house to its core, but remaining at the level of an experiment with an uncertain fate in the wider housing marketplace, without the financial support of its sponsor, *La Prensa*; and the OAT’s aided self-help approach, promising to uphold the principle of the “minimum” dwelling, but as yet untested. Short of raising overall incomes, or the major structural reforms advocated by Córdova as the foundation for any lasting solution, the widespread provision of the affordable, modern house remained elusive. Meanwhile, the formation of new squatter settlements only intensified.
3. The Barriada under the Microscope

While squatter settlements had been part of Lima’s urban fabric since at least the 1920s, the scale of these settlements changed dramatically in the 1950s, making them a more prominent—and unsettling—aspect of the city. Political scientist David Collier has observed that the formation of barriadas in Peru has followed three distinct patterns. First [3.1], through the gradual occupation of a site, often as provisional or temporary housing comes to be used for full-time shelter. Second [3.2], through invasion—an organized mass occupation involving hundreds and occasionally thousands of people, generally dues-paying members of a residents’ association, who are armed in advance with a site survey and trace out a basic urban layout immediately following the invasion. Prior to the regime of General Manuel Odría (1948–1956), the vast majority of barriadas were formed through gradual occupation. Invasion became more prevalent in the late 1940s, and increased dramatically in the 1950s, along with a third means of formation: government authorization, which was especially prevalent in the capital, Lima [3.3].

Courting the loyalty of low-income urban dwellers (an increasingly important constituency), and in any case lacking the resources to implement an effective slum clearance policy, Odría acted as patron to numerous groups seeking land for housing in anticipation of earning their electoral

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1 According to José Matos Mar, the small settlement of Armatambo, formed on Lima’s southern edge in 1924, “perhaps constitutes the first antecedent of what we call barriadas.” José Matos Mar, Las barriadas de Lima, 1957 (Lima: Instituto de Estudios Peruanos, 1977), 57.

2 As Eric Hobsbawm has noted, Peru has a long tradition of rural land invasions, impelled by various motivations, the most germane in this context being the perception that unused land belongs to nobody. Technically, it may belong to the state, but in practical terms the logic—inherited from the Spanish colonial imperative to expand settlement—is that “the land belongs to him who cultivates it by means of his labour.” Eric Hobsbawm, “Peasant Land Occupations,” Past and Present 62 (February 1974): 121.

3 David Collier, Squatters and Oligarchs: Authoritarian Rule and Policy Change in Peru (Baltimore: Johns Hopkins University Press, 1976), 151, Table 11.9. Analysing 136 barriadas in existence in Lima in 1972, with a combined population of 759,000, Collier determined that only thirteen of them had been formed before 1940, with twenty-nine formed from 1940–1948 (i.e. following the devastating 1940 earthquake), and thirty formed under Odría. Prior to Odría the vast majority of barriadas were formed by gradual occupation (25/42), with a quarter formed through invasion (11/42), and only three by government authorization. Under Odría eight were formed by gradual occupation, eleven by invasion, and eleven by government authorization.
support. These settlements were therefore fully authorized, but nonetheless extra-legal, founded on little more than the strategic benevolence of Odría as political sponsor. The largest of these settlements, the 27 de Octubre in Lima, commemorated the date he seized power in a military coup;⁴ later renamed Urbanización San Martín de Porres, by 1960 it had a population of over 57,000 people. Other settlements were named in honour of Odría’s wife.⁵

This chapter takes as its starting point the establishment of the improvised “Ciudad de Dios” (City of God) on Lima’s southern periphery, achieved through a large-scale invasion on Christmas Eve 1954. Although this method of establishing new settlements had been normalized under Odría, the Ciudad de Dios invasion was by far the largest to date, and as such tested the limits of the state’s tolerance for extra-legal urban development. The chapter begins with a narration of the events as outlined in the (far from disinterested) account of Pedro Beltrán’s newspaper, La Prensa. It then shifts to the perspective of anthropologist José Matos Mar, whose ground-breaking research on the barriadas brought insights into their structure and dynamics that would influence government policy and architectural and planning practice alike. Finally, it examines the unprecedented legislative measures—and the resulting, tentative urban projects—that were devised in response to the Ciudad de Dios invasion, as experts and officials, policy-makers and politicians were forced to come to terms with the realities of this new urban landscape.

3.1 A City Overnight

While the front page of the Christmas Day 1954 edition of La Prensa featured the latest image of Pedro Beltrán’s “growing house” initiative (discussed in chapter two), the previous

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⁴ Collier, Squatters and Oligarchs, 64.

⁵ This practice was so widespread that on August 2, 1963 the government of Fernando Belaúnde Terry issued Resolución Suprema No. 82 banning it: “Using the name of the head of state and those of his family members to name associations, barriadas, or other entities is prohibited.” Compilación legal de Pueblos Jóvenes (Lima: SINAMOS, Dirección General de Pueblos Jóvenes y ASDUI, 1978): 115.
evening had seen 8,000 people occupy state-owned land on the pampas (treeless plains) sixteen kilometres from Lima to found the new squatter settlement of Ciudad de Dios—a so-named, according to the settlers, because “it was born on the same night the Lord was born.”

The date was no doubt carefully selected: land invasions frequently took place on religious or national holidays in order to emphasize the pious and patriotic sentiments of the citizen-settlers in mitigation for the threat raised by their mass law-breaking; it also provided the invaders with a tactical advantage, since it took longer for the police or armed forces to organize an effective response on a public holiday.

La Prensa’s first mention of the event came on December 28, with a description of the would-be settlers of the new “pueblo clandestino” (clandestine town) arriving by night carrying all their belongings, “like a group of refugees from some war, or a strange caravan of twentieth-century nomads.” As soon as they arrived at the determined location, they selected their lots and set up shelters made of straw mats [3.4]; those lacking even these basic materials simply “traced the boundaries of their lots with rows of small stones and lines made with chalk.”

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7 Further auspicious resonances for the settlement’s name and foundation date: when Francisco Pizarro founded Lima in January 1535, he gave it the name “Lima, La Ciudad de los Reyes” (City of Kings) in reference to the three Magi who visited Bethlehem on Christmas Eve, saying that “the beginning of any town or city must be both in God and for God.” Richard L. Kagan, Urban Images of the Hispanic World, 1493–1793 (New Haven: Yale University Press, 2000), 169. Most likely not coincidently, La Prensa’s early coverage of Ciudad de Dios drew parallels between the settlers and the conquistadors more than once: “As in the time of the conquest, each one who traced his lot raised his hut and planted his flag” (December 29); “As in the time of the conquest, the land is shared between the invaders” (January 4).
settlers told the newspaper that the invasion had been organized by a registered association of some 5,000 would-be home-owners, who had been petitioning the authorities for the right to occupy this site for some time. With their attempts to follow the lawful procedure frustrated by an unresponsive bureaucracy, they had been forced to take dramatic action and decided to invade on Christmas Eve, “assisted by God.” According to an association official, they would soon begin looking for an engineer to trace out “the streets, the park, the market, and the church” of the new city, intending to carry out the physical work themselves in order “not to cause the state any expense.”

The newspaper’s coverage continued daily until mid-January, in sympathetic accounts that appeared to give tacit support to the invasion. (By contrast, the only mention of the events in _La Prensa_’s main rival, _El Comercio_, was a brief two-paragraph description of a meeting between the President and association leaders in early January.) On December 29 _La Prensa_ reported that two government officials from the Ministerio de Trabajo (Ministry of Labour) and the Ministerio de Fomento y Obras Públicas (Ministry of Development and Public Works), whom the settlers wouldn’t name, had “authorized them to occupy nine hectares of the _pampas_”—however they had decided to take possession of substantially more land than this in order to accommodate all the association’s members; they acknowledged that they had no written proof to back up this claim. Meanwhile, on the previous day some of the association leaders had been detained by the police for several hours, suspected of having ties to the outlawed Communist Party or the Alianza Popular Revolucionaria Americana whose formidable organizing skills among the popular classes made it a significant threat to the government. On the other hand, the settlers had already started digging to secure a water supply, and the orderliness of the

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8 On the ritual nature of these claims about not looking for hand-outs see José Matos Mar, _Estudio de las barriadas limeñas: Informe presentado a Naciones Unidas en diciembre de 1955_ (Lima: Instituto de Estudios Peruanos, 1966), 49.

whole process impressed La Prensa's reporters, as the community effectively policed itself: “Up until now the law of the fittest has not prevailed, since wrangles to snatch up the ‘lots’ have been warded off by the members of the association.” On December 30 the newspaper disclosed that the settlers had been ordered to leave the site by January 3—however the association leaders had already acted to circumvent this by writing directly to President Odría and his wife (frequent patrons of such enterprises) asking for the land to be granted to them. In the meantime, the population had risen to 10,000, and armed police were preventing trucks carrying construction materials from entering the site. Still, people continued walking towards the “promised city”; La Prensa helpfully published a map showing its readers how to reach the site.

December 31 featured an extended interview with Alejandro López Agreda, president of the settlers’ association (later dubbed by La Prensa “the leader of the 10,000”). Described as “affable” and sparing but affecting with his words, López emphasized that they were ordinary people, essentially law-abiding and hard-working. Fed up with living in the inner-city slums, they had simply run out of options and elected to take action on their own rather than waiting for the state to solve their problems:

Should we have continued waiting? We decided no. We have strong arms and we can build our houses with our own effort [nuestro propio esfuerzo]. The people are no longer how they were before. The people now understand and assess and know a lot of things. The people now know how to make sacrifices and to save for a better life. The people understand unity, brotherhood, mutual aid [ayuda mútua], and that with this they can achieve a lot to improve their circumstances.

López reiterated that all they wanted from the state was access to the land—they were even willing to purchase it, “provided that the prices are reasonable” and that the state establish some kind of loan system to facilitate payment, “since we gave up trying to obtain any credit, because they don’t lend money to us poor people.” Beltrán’s campaign for mortgage-financing reform, launched via La Prensa six months previously, could hardly have found a better advocate.

On January 3, the newspaper duly reported on the visit of Odría and his wife to the settlement, where they were warmly welcomed by patriotic crowds. Two students from the
Escuela Nacional de Ingenieros (one of whom, Luis Felipe Calle, later worked with John Turner in Arequipa) had completed their first sketch for the future “ciudad tipo popular” (working-class city). Estimating that the 300-hectare site would be suitable for a population of 30,000, the city would feature a civic and commercial centre ringed by a residential zone, sustaining its own industrial sector on an adjacent site. According to the student architects, this constituted “a useful large-scale trial” that would demonstrate the viability of establishing “autonomous satellite cities of the unidad vecinal type” in various locations around Lima. In conclusion they endorsed La Prensa’s “casa barata” (low-cost house) as “ideal” for this kind of city, “because they have been planned by the técnicos especially for cases like this”—that is, for working-class neighbourhoods. Furthermore, in this location, with the land cheap or even free, the cost of the housing would certainly be manageable. That their planning concepts and arguments echoed those of Fernando Belaúnde Terry was no coincidence, since he was head of the architecture department at the Escuela Nacional de Ingenieros and led classes on housing and urbanism.

By January 4 the eviction deadline had passed with no attempt to enforce the order; instead, the association leaders had been invited to meet President Odría at the Palacio de Gobierno. The students were now overseeing the preparatory works for the construction of a small market, as the settlers made good on their promise to build the city themselves, “raising clouds of sand in the desert” [3.5]. Meanwhile a new set of invaders had arrived, an association of residents recently dislodged from their neighbourhood, because—the newspaper noted—they had “invaded private property right in the urban centre of Lima”: clearly, from La Prensa’s viewpoint, the seizure of unused state land beyond the urban fringes could be sanctioned, even encouraged, but taking possession of privately owned, prime real estate in the central city could not.

On January 5 the newspaper announced a significant development: the meeting with Odría had resulted in the promise of a “symbolic sale” of the Ciudad de Dios site to the settlers, essentially granting them security of tenure. In addition, the Ministerio de Fomento was to set up
an office on the site; its first task would be to carry out an empadronamiento (official registration) creating a record of all those hoping to be granted a lot. At this point, the government was effectively committing its resources and its técnicos to the process of developing the new settlement, taking over official responsibility for its administration from the association leaders.

Two photographs flanking the main story sought to illustrate the newspaper’s key role in the happy resolution of the affair [3.6]: one documented the leaders’ meeting with Beltrán in the offices of La Prensa, expressing their gratitude for “the objective information” the newspaper had published about their settlement, while the other showed their visit to the “growing house” building site, bestowing their seal of approval via “their enthusiasm for the layout of the houses and for their form of construction.” In the accompanying interview, the settlement leaders claimed La Prensa’s campaign to promote low-cost housing as the point of inspiration for their invasion; it had demonstrated that “raising a ciudad popular with their own effort and with the help of the state and of private capital … was not impossible.” The leaders claimed high ambitions for their project: disassociating themselves from the negative connotations of squatter housing, they were determined to build “a city with hygienic houses and perfectly organized, and not simply one more clandestine barriada, unhygienic, without electricity, water, or sewerage.”

Over the next few days, coverage focused on the empadronamiento. A report on a disturbance between earlier groups of settlers and more than 2,000 new arrivals fearful of being excluded from the registration process emphasized the quick resolution of the conflict in “rejoicing” and “perfect order” and “a great desire to collaborate in any possible way with the authorities.” The threat of chaos (the spectre of lawlessness raised by the invasion, the latent fear of massed crowds of urban poor) was set to rest with images of long queues of people “waiting patiently for their turn for hours and hours” in weary resignation.

10 According to El Comercio’s account on January 2, 1955, two other associations were also involved in the meeting: the Asociación de Pobladores de Mendocita y Matute (who had come from the inner city to join the invasion) and Asociación de Padres de Familia Arenales de San Juan de Miraflores, a third group hoping to establish themselves at the Ciudad de Dios site.
Gradually more details emerged of the government’s intentions concerning what it now termed “the authorized occupation of state land in the Pampas de Atocongo.” In an effort to confront Lima’s growing housing deficit, the government would develop a comprehensive “Plan General de Urbanizaciones de Tipo Popular”: this master plan for “working-class subdivisions” would make use of state land “in selected zones bordering the city” to site the new settlements—a plan apparently inspired by Belaúnde’s 1954 proposal for the establishment of “self-sufficient satellite nuclei.” The reformulation of Ciudad de Dios as an urbanización popular would act as a pilot project: the state would replace the squatters’ improvised efforts with considered solutions developed by its técnicos; this would be supplemented by a program of “technical assistance for the construction of houses” (presumably on the aided self-help model).

La Prensa’s view, the state had devised a series of reforms that would effectively re-regulate improvised and unauthorized urban development, allowing it to guide the city’s further evolution with a minimum outlay of public resources. Promises of state assistance to the new urbanizaciones populares would attract law-abiding and hard-working settlers. As an enforcement mechanism, “those who invade land in the future—even if it is state property” would be excluded from the official programs and face the full force of the law. La Prensa confidently predicted that “scenes such as Ciudad de Dios will not be repeated”: after the steady drip of unauthorized occupations and mushrooming barriadas that had brought the housing issue to the forefront of public concern, it seemed to believe that the drama of Ciudad de Dios literally marked the invasion to end all invasions. Underscoring the newspaper’s key role in resolving the crisis, the following day La Prensa’s front page featured residents of Ciudad de Dios learning details of the government’s plans in the pages of La Prensa, neatly tying up the story’s narrative arc [3.7].

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3.2 The Anthropology of Improvement

A more complex account emerges in José Matos Mar’s *Estudio de las barriadas limeñas*, which drew upon the research and analytical methods of anthropology to produce the first comprehensive survey of the barriada phenomenon.

Anthropology was recognized as an academic discipline in Peru in 1946 with the establishment of the Instituto de Etnología y Arqueología at the Universidad Nacional Mayor de San Marcos in Lima under influential *indigenista* Luis Valcárcel, and the launching of a similar program in Cuzco in the same year. Matos Mar was one of the first graduates of the Instituto, and during his time there he had the opportunity to study with art historian George Kubler, who was in Lima in 1948–1949 as a representative of the Smithsonian’s Institute of Social Anthropology.\(^\text{12}\) Valcárcel’s ambition for the Instituto was to promote anthropology as a scientific discipline whose specialist knowledge and techniques could be deployed beyond the academic enclave, specifically by policy-makers concerned with the “development and integration” of the indigenous population—that is, their re-formation as productive citizens of a modern Peru.\(^\text{13}\) To the same end, Valcárcel also became director of the Instituto Indigenista Peruana (IIP), a research and advisory body within the Ministerio de Justicia y Trabajo (Ministry of Justice and Labour) that had been modelled on a Mexican precedent.\(^\text{14}\) Despite Valcárcel’s enthusiasm for


\(^{13}\) The importance of this project had been recognized and discussed for decades, but was not institutionalized until 1966 with the establishment of the Proyecto de Desarrollo e Integración de la Población Indígena (superceding the 1959 Plan Nacional de Integración de la Población Aborigen, which had been funded with a US $20,000,000 loan from the Inter-American Development Bank). See Jorge P. Osterling and Héctor Martínez, “Notes for a History of Peruvian Social Anthropology, 1940-1980,” *Current Anthropology* 24, no. 3 (June 1983): 343-360, and Carlos Iván Degregori and Pablo Sandoval, “Peru: From Otherness to a Shared Diversity,” in *A Companion to Latin American Anthropology*, ed. Deborah Poole (Malden, MA: Blackwell, 2008), 150-173.

\(^{14}\) The first Congreso Indigenista Interamericano, held in Mexico in 1940, had endeavoured to coordinate and promote “indigenist policies” throughout the region; to this end, the signatory states would be required to set up their own associated national offices, creating a network of agencies focused on indigenous issues. Osterling and Martínez, “Notes,” 345.
the project, the IIP never achieved the same level of influence in national affairs as its counterpart in Mexico. Nonetheless, many of the first wave of San Marcos graduates were active in producing reports for the Ministerio de Justicia y Trabajo, and on its own account the Instituto de Etnología y Arqueología developed “more than forty research papers on indigenous communities and three projects of technical assistance and cultural promotion” in its first decade. This work included the Huarochirí Project, led by Matos Mar while he was still in his early twenties and had yet to complete his doctorate.

The Huarochirí Project was focused on a group of villages in the province of Huarochirí, involving multiple research visits beginning in 1952. As described by Matos Mar, the project shifted from its initial “purely ethnological character” into a planned “improvement project” in mid-1953 when a number of técnicos—professionals with specialized technical knowledge, a category that in this case included psychologists, doctors, and engineers as well as architects and urban planners—became interested in the work. (This group included Adolfo Córdova, whose housing study was discussed in chapter two, and Eduardo Neira, colleague of John F. C. Turner, discussed in chapter four.) Now framed as an experiment in “applied ethnology,” a complete plan of action would be developed, drawing upon information gathered by the anthropologists in census and cadastral surveys, which included proposals to establish a health

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15 In Mexico, anthropology played a central role in the postrevolutionary state’s promotion of mestizaje — the cultural and racial fusion of the indigenous and Spanish elements of society to forge a higher, more powerful, radically new yet uniquely Mexican identity, with the ultimate goal of developing the nation. See Alan Knight, “Racism, Revolution, and Indigenismo: Mexico, 1910–1940,” in The Idea of Race in Latin America, 1870–1940, ed. Richard Graham (Austin: University of Texas Press, 1990), 71-113.

16 Degregori and Sandoval, “Peru: From Otherness,” 156.


18 Sebastián Salazar Bondy, “Huarochirí: ensayo actual de etnología aplicada: Etnólogos y técnicos diversos intentan mejoramiento social,” La Prensa (May 15, 1955). Salazar Bondy was a philosopher and literary figure who was a founding member of Agrupación Espacio; according to Ludeña Urquizo, he led the “social-progressive” schism within the group. Ludeña Urquizo, “Orígenes,” 176.
post, support artisanal production, and improve agricultural yields. The researchers were to live in the community for two years, directing the projects and testing the results via “ethnological verifications,” while training community members for an eventual hand-over of the programs. Meanwhile, sociologists and psychologists would study “the shape of the groups’ reactions, their behaviour and attitude towards change.” In short, scientific study would provide data for the técnicos to synthesize and translate into culturally appropriate proposals for “social improvement”: modern technical knowledge would be rallied to produce a better version of everyday life in the Peruvian hinterland. By 1955, architects had already completed plans for improving village housing, using locally-available materials combined with “modern construction techniques”; the designs were adapted to the conditions of the region, but provided with appropriate amenities, including “functional, although rustic, furniture,” and a reform kitchen where “the woman doesn’t need to be bending over all the time.” Matos Mar anticipated that the ultimate effect of these reforms would be to change the very essence and experience of the house:

Up until now, the house as a pleasant place to stay, in which family life develops, has not been a reality for Peruvian comuneros; it only represents a place to sleep and to keep things, and the negligence in respect to its care is traditional. The woman’s infrequent stay [permanencia] in the home is one of the causes.

This realignment of household arrangements is the key to an improvement—even a kind of awakening—of family life, by encouraging women to spend more time at home; this in turn would achieve a “full restructuring” communal life. The house is transformed from an object of utility into a place of sociability, offering a symbolic assimilation into the bourgeois domestic sphere.

Though never implemented, the Huarochirí Project was typical of the applied

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19 Matos Mar, “Una experiencia de mejoramiento de comunidades indígenas en el Perú,” 12.
20 Salazar Bondy, “Huarochirí: ensayo actual de etnología aplicada.”
21 Matos Mar, “Una experiencia de mejoramiento de comunidades indígenas en el Perú,” 11.
anthropology programs that emerged as a tool of development professionals in this period.\textsuperscript{22} It could even be seen as a self-conscious response to the long-running Vicos Project, centred on a hacienda in the northern Andes from 1952 to 1966.\textsuperscript{23} While Vicos was largely run by US graduate students,\textsuperscript{24} the Huarochirí Project was designed by a multi-disciplinary group of Peruvian professionals—although it did receive funding from a US-based foundation, a reminder that such research, at once highly localized in its focus on remote communities, also operated within an international network of applied research and policy-making.\textsuperscript{25} It is not by chance then that Matos Mar elected to publish his first report on the project in a UNESCO publication.

In 1955, Matos Mar completed a second major research project, presenting to the United Nations his \textit{Estudio de las barriadas limeñas}, which shifted his focus from the underdevelopment of the countryside to the misdevelopment of the city [3.8]. However the two contexts were deeply interconnected: beginning in the early 1950s, an explosion in rural-urban migration had dramatically increased the population of cities throughout Peru, leading to the


\textsuperscript{23} The Vicos Project was part of the Cornell University Program on Culture and Applied Social Sciences, a comparative study in international development that also included projects in Bang Chan, Thailand and Senapur, India, as well as communities of Inuit in Canada, and Navaho in the United States. One account notes a certain hostility towards Vicos from anthropologists based at San Marcos, which was apparently led by Matos Mar. The criticism was two-fold: “it was considered by some intellectuals as imperialist,” and it was suspected of having links to the outlawed leftist political party Alianza Popular Revolucionaria Americana (APRA). John V. Murra and Mercedes López-Baralt eds., \textit{Las cartas de Arguedas} (Lima: Pontificia Universidad Católica del Perú, 1996), 27, quoted in William W. Stein, \textit{Deconstructing Development Discourse in Peru: A Meta-Ethnography of the Modernity Project at Vicos} (Lanham: University Press of America, 2003), 24.

\textsuperscript{24} William Mangin, an anthropologist who was a close colleague of John Turner’s (see in particular his contribution to the August 1963 issue of \textit{Architectural Design} edited by Turner: William Mangin, “Urbanization Case History,” 366-370), and was later deputy director of the Peace Corps in Peru, was at one time a field director with the Vicos Project. See William P. Mangin, “Thoughts on 24 Years of Work in Peru: The Vicos Project and Me,” in \textit{Long-term Field Research in Social Anthropology}, ed. G. C. Foster (New York: Academic Press, 1979), 65-84.

\textsuperscript{25} Osterling and Martínez, “Notes,” 347. The Huarochirí Project received funding from the Wenner-Gren Foundation; the primary funding for the Vicos Project came from the Carnegie Corporation, with the Wenner-Gren Foundation providing additional support.
proliferation of self-built housing clustered in improvised squatter settlements. The problem was especially acute in key economic centres such as Lima, Arequipa, and Chimbote. Underscoring the urgency of the situation, Matos Mar pointed out that the population of the capital had doubled over the previous fifteen years to approximately 1.2 million; at the same time, a major earthquake in 1940 had eroded the supply of affordable housing, leaving around 10 percent of Lima’s residents to make their homes in barriadas. 26 Matos Mar’s report collated census data on Lima’s thirty-nine recognized barriadas, mapping sample house plans and urban configurations, and tracing the economic and socio-cultural factors underlying their increasing prevalence [3.8-3.9]. As with Huarochirí, the structure of the 1955 report clearly announced its interventionist approach: divided into two sections, “the problem” of the barriadas was first measured and assessed, laying the groundwork for scientifically derived “solutions”; and once again, the report recommended further study by “teams of técnicos” (an architect-urbanist, a geographer, an economist, and a social anthropologist) and the completion of more extensive census and housing surveys. 27

Matos Mar began by defining eighteen key characteristics of the barriada—the first being that they “appear through spontaneous or organized invasion” on the urban periphery. Ultimately, while they may resemble other areas of low-income housing such as inner-city slums, the barriadas were unique because they were formed by squatters who “occupy fallow

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27 Matos Mar, Estudio, 62. Much of this research was republished in a revised form in 1977, with the addition of case histories and detailed maps of individual barriadas, and with biographies of residents to complement the demographic data. The later publication does not include prescriptive recommendations for intervention in barriadas, and does not define them as a phenomenon requiring normalization or as likely to respond to post-facto efforts at remediation, but as the all-but-inevitable expression of structural inequality in Peruvian society. With a section on “Participación de los pobladores en la solución de sus necesidades,” the publication also attributes greater agency to residents themselves in improving their situation rather than insisting that the state must manage or direct any solutions. José Matos Mar, Las barriadas de Lima, 1957 (Lima: Instituto de Estudios Peruanos, 1977).
lands, pay no rent, and, on the contrary, try to become owners of the land that they occupy.\textsuperscript{28}

Emerging as an “urban and local expression” of the “inefficient” socio-economic structure of Peruvian society, real, long-term solutions to the barriadas would, according to Matos Mar, only come by stimulating economic development on a national level. Judging that Peru was not yet ready to take such action, he recommended that, in the meantime, the shape and impact of the barriadas should be managed more assiduously: barriadas develop “following a natural course and it is neither prudent nor advisable that this situation continue…. it is necessary to tackle the problem and try to channel it [\textit{encauzarlo}].\textsuperscript{29} The most powerful mechanism for “channelling” the barriadas would be to use legal recognition—the granting or withholding of property title—as leverage over residents:

\begin{quote}
this is the principal weapon that must be wielded and utilized effectively. We have already seen that the barriada \textit{poblador} [settler] suffers a tremendous psychological anxiety ... thinking that he can be evicted at any moment.\textsuperscript{30}
\end{quote}

Given this fact, the authorities were in the position to mandate a series of behaviours in exchange for recognition: joining an official barriada association (under the control of “a state-run technical organization”), participating in running the group, making monthly payments to cover the cost of the granted property, and contributing to cooperative public works projects within the barriada. The principle articulated here of a coercive guiding hand, backed by the requirements of sweat equity, user-pays, and compliance with the rules, formed the Peruvian government’s primary approach to barriadas throughout the late 1950s.

For their part, Matos Mar warned, \textit{pobladores} are vigorous and politically astute in their efforts to achieve support and de facto recognition for their situation, making constant and multifarious appeals to the authorities, with invitations to inauguration ceremonies for amenities they have constructed, and arranging for visits by social workers, nurses, and schools

\textsuperscript{28} Matos Mar, \textit{Estudio}, 13, 15.

\textsuperscript{29} Matos Mar, \textit{Estudio}, 61.

\textsuperscript{30} Matos Mar, \textit{Estudio}, 62.
inspectors. They are also “attentive to changes of the authorities and alert to electoral processes and fluctuations in national politics”; one popular tactical manoeuvre was to name streets after the head of state, his wife, or other influential people “who have done or are thinking of doing something for them.” They will even agree to pay property tax on all the lots that the barriada occupies—unthinkable under any other circumstances—if it is seen to bolster their position. Furthermore:

they give a full welcome to every person who comes to get information. We never had any difficulty in our fieldwork; on the contrary we were treated cordially and furnished with every type of information, even the most private.31

Matos Mar’s concern about settlers’ lobbying skills seems to reflect an awareness that the authorities were not completely in control of the situation—or rather that the técnicos were not in control of the authorities, since certain officials were evidently quite vulnerable to the solicitations of the settlers when it was to their own advantage. This aspect of the barriada “problem”—the symbiosis of illegality between clientelistic politician and poblador—could be observed with the finest scientific rigour, but even the best technical solution risked being outmanoeuvred in this urban realpolitik.

The flipside of the report’s evident distrust of residents—in particular, of the power of residents left to their own devices—was that ultimately the “key to success” in fixing the barriadas would come by taking advantage of the “marked communitarian spirit” that was one of their defining characteristics. Matos Mar claimed that the Sunday faenas (work teams) regularly organized for building roads, cleaning streets, installing water reservoirs, and so on, were part of a “communitarian system, which corresponds to old Peruvian cultural patterns.”32 The Huarochirí study had documented exactly such practices of cooperative work within rural

31 Matos Mar, Estudio, 49.
32 Matos Mar, Estudio, 63.
comunidades indígenas (indigenous communities)\textsuperscript{33} whose recognized members were required to contribute a designated amount of labour and/or building materials (such as handmade clay bricks) each year for communal improvement projects. Fostering this communitarian spirit in the urban barriadas could lead to significant results, provided that the state exercised proper control over residents’ efforts through technical assistance programs. On the other hand the extra-legal initiatives of the pobladores in housing themselves could not be rewarded outright, and each resident should be required to pay what they owed for their dwelling: “it is necessary to iron out the difficulties for him, but not to make him a gift. Nothing for free.”\textsuperscript{34}

Matos Mar’s suggestion, frequently repeated elsewhere, that forms of cooperative work or “mutual aid” were indigenous to traditional Peruvian society, ultimately reaching back to the Incas,\textsuperscript{35} naturalized these practices and effectively set the stage for the adoption of managed mutual-aid self-help schemes as a key element of housing policy. A situation of crisis, with citizens forced into the arduous, protracted process of constructing their own dwellings, was given the reassuring patina of tradition, enabling the focus to remain on the settlers’ undoubted resourcefulness and creativity rather than the structural inequality that had created the necessity for it in the first place.

Underlying this entire discussion was the vexed question of the proper place of the provincial migrant in this newly developing urban world. As earlier argued by Luis Valcárcel, the traditional Andean village (ayllu) encapsulated the integrity of rural, indigenous culture: “The

\textsuperscript{33} A legal category established by the Spanish colonial authorities (eroded in the Republican period but revived in the 1920s), the comunidad indígena was intended as a mechanism to facilitate the collective ownership and management of the land in and around traditional rural settlements, based on small-scale agricultural holdings.

\textsuperscript{34} Matos Mar, \textit{Estudio}, 63.

\textsuperscript{35} As Ray Bromley notes, Peruvian thinkers as diverse as the socialist José Carlos Mariátegui and the conservative Víctor Andrés Belaúnde made similar arguments: “Both from left and right, therefore, there is extensive Peruvian scholarship that links the nation’s indigenous traditions and rural communities with communal organization and land ownership.” Ray Bromley, “Peru 1957–1977: How Time and Place Influenced John Turner’s Ideas on Housing Policy,” \textit{Habitat International} 27, no. 2 (2003): 281.
little Indian village forms spontaneously, grows and develops like the countryside trees, without subjection to any plan; the little houses group together like sheep in a herd. By contrast, from the colonial period onwards the city in Latin America has been coded as the redoubt of criollo (European-descended) civilization and power, set against the untamed realm of the indio and the paisano (with “Indian” and “peasant” often treated as interchangeable). In this context, the indio-paisano was framed as utterly foreign to the city—in ethnicity, race, class, and frequently linguistic background. As a result, for many among the metropolitan elites, the waves of migration of the 1950s entailed a radical and disconcerting shift in the constitution of Lima, the Ciudad de los Reyes (City of Kings) and former centre of the Spanish empire in South America. The barriada, then, represented not just the invasion of unused real estate on the urban periphery, but of the city as a whole, marking an assault on criollo urbanity itself.

For his part, Valcárcel argued that the Indian transplanted to an urban setting could only become a degraded hybrid, irrevocably alienated from an original, essential identity yet unable to adapt to criollo culture; discouraging rural-urban migration, the solution would be regional development programs, improving the indio-paisano in situ, as at Huarochirí. An alternative position (held among others by architect Fernando Belaúnde Terry, discussed in chapter two) viewed the city as a civilizing mechanism: the Andean “invaders” could, with due care, be


38 Furthermore, according to one government report, indigenous highlanders moving to coastal cities would inevitably suffer as “victims of climatic illness due to the change of altitudes and ill-adapted for the socio-economic-cultural reality of urban areas”; unable “to compete on an equal footing with a capable work force,” they constituted a substratum of citizens literally and figuratively unfit for urban life. FNSBS, La asistencia técnica a la vivienda y el problema de barriadas marginales (Lima: FNSBS, November 13, 1958), 53.
acclimatized to its norms—a challenge was to facilitate their integration while mitigating adverse effects. One influential study sought to employ “social psychiatry” to assess the emotional impacts of migration, noting with concern “the tragedy of a huge rural population, experiencing transculturation, which does not always satisfy their expectations of social elevation.” In this case, practices of cooperative work and mutual aid were specifically singled out as “unexpected integrative phenomena,” representing “stabilizing factors for the individual and the group.” In a similar vein, a few years after his initial study Matos Mar observed that these emerging metropolitans were “underdeveloped people of peasant mentality” who faced great challenges integrating themselves into the city. Nonetheless he reiterated his earlier endorsement of the cooperative practices which they brought with them: “The help which they give to projects for the common good is steady and effective and is perhaps their most valuable contribution.” Such ambivalent, highly charged assessments formed the deep background of later government policies promoting cooperative self-help housing.

39 Victor Andrés Belaúnde (Fernando Belaúnde Terry’s uncle) was key in articulating this position, viewing “the Hispanic city as a ‘source of social mestizaje’ … [which] was the ideal environment to educate and incorporate the Indian to the dominant ‘spiritual life.’” Belaúnde, _La realidad nacional_ (Lima: Universitaria, 1964), 96, quoted in Marisol de la Cadena, “Silent Racism,” 151.

40 Baltazar Caravedo, Humberto Rotondo, and Javier Mariátegui, “Preface,” in _Estudios de psiquiatría social en el Perú_ (Lima: Ediciones del Sol, 1963). For example, one of the studies administered the Rorschach test to a group of migrants in the Mariscal Castilla barriada in an effort to understand “the phenomena of cultural shock and the process of integration or disintegration of the personality” at work within this group; it determined that after arriving in Lima, “slowly, they had come to experience a process of transculturation thanks to the civilizing influence of the metropolis.” _Estudios_, 263, 264. The editors acknowledged the contributions of social anthropologists William Mangin and José Matos Mar, as well as novelist and anthropologist José María Arguedas, in the development of their research. In turn, Hélan Jaworski, who as a law student specializing in land titles was recruited by Turner to assist in planning and developing a self-help housing project for the Grace Company at Paramonga, cited this volume as an important resource for understanding the cultural background of migrants, and their traditions of mutual aid; interview with the author, October 2008. A copy of this publication is in Turner’s archive.

41 Matos Mar even raised the possibility that the city itself would change under the influence of this “new class … which has its own values and its own particular concept of urban living.” José Matos Mar, “Migration and Urbanization: The Barriadas of Lima, an Example of Integration into Urban Life,” in _Urbanization in Latin America_, ed. Philip M. Hauser (New York: Columbia University Press; UNESCO, 1961), 174, 176. The paper was originally presented at a UN-sponsored seminar in July 1959.
3.3 Reforming Ciudad de Dios

In the aftermath of the Ciudad de Dios invasion, the Odría government revised its tacit policy of tolerance towards extra-legal urban settlements, judging that this organized and willful flouting of established property rights demanded a more proactive response. Recognizing that it was not politically expedient to forcibly close down the Ciudad de Dios settlement, Odría at once needed to confront the housing shortage exposed so dramatically by the invaders, and to reassert control over the processes of urban development. Planning law offered the opportunity to broker a solution, if new guidelines could be devised that would better accommodate—but also more effectively regulate—these emerging patterns of urban development.

Barriadas were extra-legal in two distinct senses, being established through unauthorized occupation of land (in violation of property law), and by failing to meet minimum standards in the provision of urban amenities such as water and sewerage lines, electricity, and roadways (in violation of planning law). Beginning with the 1955 legislative reforms passed in the wake of the Ciudad de Dios invasion, the state endeavoured to utilize the barriada resident’s desire for recognition under property law (and its inverse and complement, the anxiety over eviction) as a “weapon” to demand conformity with planning law—a strategy that Matos Mar’s research suggested would likely prove effective.

The first task was to define the contours of the new category of urbanización de tipo popular (working-class subdivision) which the Odría government had proposed to use as the basis of a trial program to provide housing for low-income families, beginning with the residents of the improvised Ciudad de Dios settlement. To this end, the government announced revisions to the planning regulations that had been in force since 1941. Specifically, the new regulations established two basic categories of residential subdivisions: standard subdivisions (“Class B”) entailed the provision of road, water, and sewerage infrastructure; the requirements for urbanizaciones de tipo popular (“Class C”) were far less demanding, as the services to be provided would be determined on a case-by-case basis by a commission of planning experts.
Additional measures would further reduce costs: smaller lots would be more affordable, and also discourage land speculation (they would be impossible to subdivide); the amount of open space within the urbanized area would be decreased; narrower streets with thinner or less expensive surfacing material would be permitted; and the maximum length of the blocks would be extended from 100 to 300 metres—the resulting superblocks were intended to facilitate circulation and further reduce paving costs. Any existing unregulated settlements would have to reformulate themselves in compliance with these new guidelines; those that failed “to regularize their situation will be declared ‘clandestine’ and as a consequence their elimination will be ordered.” Essentially, it was assumed that downgrading the minimum standards set by planning law—codifying the new officially substandard city—would be sufficient to “channel” future urban development. Those residents who were unable to afford basic services would at least be living within the law, if not within the norms followed by the rest of the city.

On a practical level, the Oficina Nacional de Planeamiento y Urbanismo (ONPU, National Office for Planning and Urbanism) engaged architect Carlos Williams to draw up an urban plan for a new Ciudad de Dios. The “clandestine” settlement would be reformed by transferring the entire population to an adjacent, fully planned site. The bulk of the housing was to be built by residents themselves (as was the case at “clandestine” settlements), but to introduce variety into the urban scheme there would also be zones of multi-family housing.

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42 However the lots had to be large enough to meet basic conditions of livability, in line with the guidelines set out in the American Public Health Association’s Planning the Neighborhood: Standards for Healthful Housing (Chicago: Public Administration Service, 1948). See Salvador Boza Ezeta, Eduardo Neira Alva, Luis Dórich, and Carlos Williams, “Lote mínimo: Informe presentado a la Comisión Calificadora de Urbanizaciones y Subdivisión de Tierras,” July 31, 1956, CDI-MVCS.


44 According to an article published in La Prensa on January 9, “el Ing. Neyra está a cargo de los estudios”—possibly a reference to Eduardo Neira, who was head of the Departamento de Urbanismo at the Ministerio de Fomento y Obras Públicas, the agency that was given primary responsibility for dealing with the situation on the ground in Ciudad de Dios; the Ministerio de Fomento asked ONPU to draw up an urban plan.
constructed by conventional techniques. 20,000 families had registered their interest in acquiring a lot in the future settlement, so the ONPU scheme envisaged a city of 45,000-60,000 residents, with industrial zones, as well as areas of agricultural land so that the city could be self-sufficient in food production. This was to be a rationally organized and “self-sufficient satellite nuclei” as envisaged by Belaúnde, but governed by the standards of the *urbanización de tipo popular.*

Actual construction, however, was slow in coming. More than a year after the government announced its plans, *La Prensa* reported on residents’ frustration at the lack of progress at the site. Matos Mar’s *Estudio de la barriadas limeñas* provides a vivid account of the evolving situation on the ground. At the outset of the invasion the families had claimed small lots in a concentrated area, for tactical purposes, in order “to establish a compact group which could jointly defend itself.” Once assured they would not be evicted, they devised an urban layout for their provisional settlement, while the government proceeded with its own studies for the envisaged permanent city. Following the pattern familiar from any number of Peruvian towns, the provisional Ciudad de Dios reserved space in the centre for a plaza, around which were located key public amenities: the association meeting hall—performing an analogous function to the *cabildo* (municipal council)—along with “the infirmary, the first-aid station, the cinema, and some shops.” By mid-February 1955 the settlement had ninety-four businesses serving residents. Matos Mar found the settlement association and its president, Alejandro López Agreda, to be unusually well-organized, with a considered, ambitious plan for its development. In certain aspects, the association’s plan even coincided with that of the government, since it also advocated the creation of a self-sufficient city, to be based around “a

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45 Matos Mar, *Estudio,* 66.
47 Matos Mar, *Estudio,* 82.
group of supply services for housing construction”: these were apparently intended to operate on a cooperative basis for the benefit of association members rather than as conventional businesses. First would be a brick works, established through members’ financial contributions, loans, and “organized work”; then a factory for doors and windows, and another for the fabrication of glass, “taking advantage of the quality of the sand in the area.” With these services in place, construction would be carried out in a highly organized fashion, with “teams of specialists who would build mass-produced housing, designed by architects and overseen by two engineers who were members of the Association.”

The final Ciudad de Dios was entirely different in scale and scope to all these schemes. Beginning construction only in 1957 under the direction of the state housing agency, the Corporación Nacional de Vivienda (CNV), the project comprised 1,400 dwellings and was alternatively called “Urbanización Popular de Atocongo” or “Ciudad de Dios”; although the documentation is incomplete, it seems likely that Santiago Agurto (as discussed in chapter two, the originator of the “growing house” concept within Peru) was the primary architect. It is also possible that this realized project had some connection to the much larger scheme developed

48 Matos Mar, Estudio, 47.

49 “El Presidente dice que la Ciudad Satélite de San Juan prueba la preocupación del gobierno por la vivienda,” January 3, 1961. This date is confirmed by the caption on a photograph of Ciudad de Dios that appears in Walter D. Harris and H. A. Hossé, La Vivienda en el Perú/Housing in Peru: A Research Study Conducted in the Department of Social Affairs, Pan American Union (Washington: Pan American Union, Deptartment of Social Affairs, 1963), 416.

50 A CNV document from late 1958 mentions a project for “Unidad Popular de Atocongo” described as part of the “social welfare program for Ciudad de Dios” and comprising 1,000 dwellings (instead of 1,400), built by the CNV for the FNSBS, 1956–1958. CNV, Experiencias relativas de la vivienda de interés social en el Perú (Lima: CNV, December 1958), 76-77. An inventory compiled in 1991 of all the housing projects built by state entities from 1946 onwards lists “Urbanización Popular Atocongo” completed in 1959, built by the CNV with FNSBS funding, again only 1,000 dwellings. INADUR, Estudio de evaluación integral de los programas de vivienda ejecutados y/o promovidos por el Estado, vol. IV, Inventario de proyectos con participación del Estado, 1946–1990 (Lima: INADUR, 1991). Given that the documentation produced by the Peruvian housing agencies is frequently inconsistent in details such as the number of units in a development or construction dates, it seems likely that the CNV’s Ciudad de Dios development and Unidad/Urbanización Popular de Atocongo are the same project. INADUR lists the designers for the project as Santiago Agurto and “L. Vasquez”; as further confirmation, Agurto recalled that he had generalized the idea of the “casa que crece” in a project for the CNV, using a basic housing unit which could subsequently be expanded. Santiago Agurto, interview with the author, October 2008.
by Carlos Williams, since a CNV document from late 1958 describes it as the “first stage of a project destined to furnish affordable housing to a population of 46,000 residents.”

The reformed Ciudad de Dios was located on a site opposite the original improvised settlement and was “urbanized” to the extent of being provided with paved roads, water, and sewerage systems, which served simple dwellings of a “casa-núcleo” (core house) type. The dwelling was described as being “based on the concept of ‘progressive development’ [desarrollo progresivo]” and was available for purchase at different stages of its evolution, costing from S/.11,000 to S/.35,000, allowing residents to choose the version that best suited their immediate needs and their financial resources [3.10]. The core units were constructed on a mass scale by the CNV [3.11-3.12], but could be extended using aided self-help labour to a maximum of four bedrooms.

House A, the most basic unit, consisted of a cerco (perimeter wall) and a sanitary core with kitchen and bathroom in one corner of the lot, making for a total built area of 14 sq. m. This conformed to the typical construction pattern in Lima barriadas, where the almost complete absence of rainfall and a generally mild climate obviates the need for a roof, so that a perimeter wall demarcating territory and providing a basic level of privacy was generally completed before any enclosed spaces for living or sleeping. House B added a dining room at the front of the lot, and House C included a second, adjacent living space. In the next stage, two bedrooms could be added at the front, with another two at the back, framing an interior patio; once fully developed, the house covered a total built area of 95 sq. m. The descriptions of the basic houses (A, B, and C) do not mention a bedroom. Perhaps the housing agency expected that the owner/resident of House A would build some kind of temporary shelter within the lot as was the

51 CNV, _Experiencias relativas_, 76. Similarly, a 1961 article described the 1,400 houses as the “primer núcleo” of the “Ciudad de Dios project.” “Prado expone el plan para afrontar crisis de vivienda popular,” _La Prensa_, January 8, 1961.

52 “Construcción en masa ha permitido hacer 1,400 casas a un costo de 11 y 35 mil soles,” _La Prensa_, December 17, 1959.
practice in barriadas. In Houses B and C, areas designated as the living or dining room could have been treated as multi-use spaces and used for sleeping (as would often be the case in incipient barriada dwellings, or in inner-city tenement housing, which generally consisted of only one room). Despite the very basic nature of the core house, from the outset the dwelling was designed with two entrances, planned as openings in the cerco. In House A, one of these led into an unbuilt section of the lot, but in the more developed stages of the house their usage followed the preferred Peruvian pattern of separating the main entrance (opening into a sala, or formal living room) and the service entrance (opening into the kitchen).

At first glance the scale of this project seems completely inadequate given the many thousands of prospective settlers who had made their way to the desert site. However a survey carried out in mid-February 1955, less than two months after the invasion, found a resident population of just 936 families, or 4,841 people. Many others had left due to the difficult living conditions. Especially challenging were the daily tasks of obtaining water and disposing of waste, as well as dealing with the extreme climate with barely any protection. As La Prensa had reported:

> The families live huddled under their tents of mats, suffocated by the sand and the sun during the day, and bitten by the intense desert cold at night. Since there is no electric light, sometimes the pampas wind blows out all the torches, and the town of 10,000 souls is left sunken in the most dreadful darkness, in which only the crying of children and the whistling of the wind is heard.

One can only assume that the majority of these families simply returned to the inadequate rental housing that they had hoped to leave behind, and waited for their next opportunity. Those who did remain (and who could afford the CNV housing) were eventually transferred to the reformed Ciudad de Dios, and the improvised settlement disappeared altogether sometime in 1959. Subsequently the site of the original 1954 invasion was re-invaded in 1968 as part of a new

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53 Matos Mar, Estudio, 66.

54 “No fueron desalojados al cumplirse el plazo,” La Prensa, January 4, 1955.
wave of urban expansion.\footnote{José Matos Mar, \textit{Las barriadas de Lima, 1957}, Lima: Instituto de Estudios Peruanos, 1977, 16.}

If not bringing better housing for its participants, what did the Ciudad de Dios invasion achieve? Matos Mar observed in 1966 that it “was planned and encouraged by powerful people and groups”; writing ten years later, he was more explicit, linking it to political struggles at the end of Odría’s regime.\footnote{Matos Mar, \textit{Estudio}, 66; Matos Mar, \textit{Las barriadas de Lima, 1957}, 16.} This is confirmed by David Collier: Beltrán had initially supported Odría’s 1948 coup, but as his policies began to conflict with elite interests, Beltrán and others “became concerned with establishing a viable basis for opposing Odría,” and seized on the issue of low-cost housing as a means of gaining popular support.\footnote{Collier, \textit{Squatters and Oligarchs}, 70.} According to this account, Beltrán sponsored the Ciudad de Dios invasion in order to dramatize the housing problem and gain support for his solutions—hence a certain convergence between the invasion and the “growing house” give-away in \textit{La Prensa}’s coverage. In challenging Odría (the master of clientelistic politics) Beltrán sought to establish himself as a populist defender of the aspirational barriada resident: “He thus chose to fight Odría on his own ground by supporting settlement formation.”\footnote{Collier, \textit{Squatters and Oligarchs}, 70.} This dynamic is eloquently expressed in \textit{La Prensa}’s self-reflexive coverage of the crowds in Ciudad de Dios reading in \textit{La Prensa} of the government’s promises of assistance for their new \textit{urbanización popular}. In this context, Beltrán (apparent friend and advocate of the settlers) begins to appear not just as the bearer of good news but as the very agent of these reforms.

As narrated by Matos Mar, plans for the invasion—seen, in part, as a performance to further Beltrán’s agenda—had been percolating since 1939, when Alejandro López Agreda first visited a barriada nearby, and with others began to consider the Pampas de San Juan as the possible site for an urban settlement based on an agricultural economy. As this idea matured,
López carried out “a meticulous study” to determine the ownership of the site (it belonged to the Ministry of War) as well as available transport options, the local availability of raw materials useful to construction, and the possibilities of irrigating the land. Equally importantly: “they thought about the repercussions and the effects that this type of invasion would have, not only within the country but internationally.”\textsuperscript{59} This certainly provides another dimension to López’s observations that “[t]he people now understand and assess and know a lot of things.” Nonetheless, despite their organizational and political sophistication, ultimately the settlers were more successful in shifting the political terrain on Beltrán’s behalf rather than securing significant, concrete assistance for all the association members.

Beyond the reduced, reformed Ciudad de Dios, the revisions to planning law enacted in 1955 produced little in the way of concrete results. The government had downgraded its regulations in the hope of qualifying more low-income settlements as regularized, but it committed no more of its resources to constructing new urbanizaciones de tipo popular. On the other hand, residents of existing barriadas complained of the excessive costs of preparing the revised urban plans required “to regularize their situation” and as a consequence, by September 1957—two and a half years after the legislation was enacted—Urbanización Dolores in Arequipa was apparently the only urbanización “de tipo popular recognized and authorized in all of Peru.”\textsuperscript{60}

The establishment of technical assistance offices in 1957, on the recommendation of the Comisión para la Reforma Agraria y la Vivienda (discussed in chapter two) was intended to facilitate this process by providing the necessary expertise to barriada settlements seeking to

\textsuperscript{59} Matos Mar, \textit{Estudio}, 65, 66.

\textsuperscript{60} It is not clear when Urbanización Dolores had begun the regularization process, how long it had taken, or how much it had cost the residents’ association. Typescripts of newspaper articles, JFCT-UW: Habrá reunión de urbanizadores en diario \textit{El Deber} el próximo sabado 14, \textit{El Deber}, September 11, 1957; “Urbanizadores exigen labor a Oficina de Ayuda Técnica,” \textit{El Pueblo}, September 9, 1957.
become regularized. However, these new agencies faced their own challenges. In Lima, for example, the new office was immediately responsible for 135 settlements with a combined population of over 180,000. At first, most of its efforts were focused on the time-consuming, resource-intensive work of data collection and management, which took precedence as the essential foundation for preparing any redevelopment projects [3.13-3.14]: numbered houses in the field and filing cabinets in the office—“laboratory” signified the chaos of Lima’s barriadas being brought to order, but no concrete projects emerged from this labour.

The situation of the technical assistance office in the southern city of Arequipa was more promising: an office of this kind had been in operation since 1952, and the city’s relative isolation and insulation from the intense politicking in the capital around the issue of barriadas seemed to offer a more conducive working environment. As architect John F. C. Turner took charge of this office in mid-1957, the growing body of scientific knowledge on barriadas and the recent innovations in planning legislation provided a solid platform for new efforts to tackle unregulated urban settlements, this time through exploring the potential of the aided self-help methodology. These efforts and explorations are the subject of the next chapter.

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4. A Profession in Development

On the cover of its August 1963 issue, *Architectural Design* presented a striking view of the city of Lima, with its barriadas dominating the foreground [4.1]. Focusing on the theme of “Dwelling Resources in South America” [4.2], the issue juxtaposed modernist mass-housing blocks with the resident-built housing of barriadas and aided self-help schemes, thereby positioning these heretofore marginal practices as equally viable solutions warranting serious consideration by a new vanguard of architects and planners. For guest editor John F. C. Turner, the aim was to shift the barriada and self-help housing away from the realm of technical reports and sensational reportage and into mainstream architectural discourse. In contrast to explorations of the bidonville at CIAM IX a decade earlier—framed as an object of sociological study and aesthetic appreciation, its spare, function-driven forms sourced as local colour for a universal modernism—for Turner the squatter settlement was a valid urban form whose innately logical processes of evolution did not require reformulation by an outside expert. Despite its “apparent chaos,” it was, as its residents saw it, “an achievement whose existence is self-justifying and whose appearance is irrelevant.”

At the same time, Turner suggested that a genuine engagement with these practices would require a revision of the very definition of the architect, raising the question of what,

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1 The issue included an article on Carlos Raúl Villanueva’s *superbloques* in Caracas, built 1951–1958. Turner visited the projects in late 1962 after some remediation measures had been taken in line with the recommendations of a 1959 evaluation report: see Banco Obrero, *Proyecto de Evaluación de los Superbloques* (Bogotá: Centro Interamericano de Vivienda y Planeamiento, 1959). Perhaps surprisingly in light of his later writings, his assessment was largely positive: “In a country with as much money available as Venezuela had at the time, in a city with very little building land in which the government owned suitable sites, and with an adequate proportion of the blue- and lower white-collar class able to buy or rent this type of dwelling, a strong case can be made for the superblock solution.” John F. C. Turner, “Mass Urban Re-housing Problems: Superblock Program of Banco Obrero, Caracas, Venezuela, 1954-1958,” *Architectural Design* 33, no. 8 (August 1963): 374.

2 John F. C. Turner, “Lima Barriadas Today,” *Architectural Design* 33, no. 8 (August 1963): 376. The resident sees the barriada “as the architect sees his building in the delicate stages of its birth – not as a present mess, and, for the uninitiated, an apparent chaos, but rather as the promise of things to come, and, above all, as an achievement whose existence is self-justifying and whose appearance is irrelevant.”
exactly, would be the profession’s “functions and responsibilities” in this new mode of architectural production. Turner’s own answer to this question evolved as he moved progressively further away from the conventional wisdoms of his education at the Architectural Association in the search for a different kind of architectural practice. This was only fully crystallized with his move to Peru in 1957, where he gained experience and a certain expertise in aided self-help housing projects, providing technical assistance and community organizing skills to groups of self-builders. Eventually he would abandon even this minimal approach as excessively interventionist, instead advocating what he termed “housing by people” or user control over the production of housing, arguing that “who decides what for whom is the central issue.”

Although it may seem paradoxical to begin a discussion of self-help housing with the professional formation of one individual architect, it is through this singular figure that Peru and self-help housing—a marginal location and a marginal mode of practice—became legible to the larger world of architectural discourse. Seeming to emerge as if from nowhere, in fact Turner’s metropolitan connections were crucial in providing the initial platform for his work, specifically through the aegis of Monica Pidgeon, editor of Architectural Design. Still, Turner’s ideas were

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6 According to Turner’s recollection, Monica Pidgeon, who was Chilean, visited Peru on a trip to see her family in Chile: “I think she’d heard a little bit about what we had been doing, what I had been doing ... and stopped over to see the barriadas for herself. So I took her round and she was enormously impressed, and said, ‘We must do a special issue on this.’” Turner recalled that he subsequently handed out copies of the AD issue at the 1963 International Union of Architects meeting in Cuba, adding that his friend Patrick Crooke—who had been working in Peru on related projects—“surprised me by saying, ‘This is really going to knock things sideways.’” It was a catalyst for moving along the change of paradigm that
not formed in isolation, so this chapter also discusses the contributions of his key collaborators—in particular architect Eduardo Neira, who was pivotal in arranging Turner’s migration to Peru and laid the groundwork for Turner’s initial work in the southern city of Arequipa.

4.1 Architecture, Anarchism, and the Artist-Technician

By his own account, Turner’s education at the Architectural Association was significant less for the influence of the official curriculum than for discussions with fellow students. Turner first enrolled at the AA in 1944 at the age of seventeen, completing just one year before being drafted into the British army for two years of national service. This proved to be a seminal experience for an unlikely reason: Turner came across a copy of the anarchist newspaper Freedom which had been left behind in his barracks, and was inspired to explore the philosophical underpinnings of the movement, reading the work of Peter Kropotkin, Herbert Read, and Eric Gill. Turner also had a close family connection to English radical thought through the figure of William Morris, since his maternal grandfather Arthur Gaskin worked as an assistant to Morris, and May Morris was Turner’s mother’s godmother. The influence of anarchism is evident in Turner’s approach to aided self-help from the outset, with its emphasis on self-generated community development and local action (an implicitly anti-state position),

was already taking place.” John F. C. Turner, interview with the author, June 2007, transcript, Oral History Research Office, Columbia University, New York.

7 Turner began his military training towards the end of the war, but was moved to claim conscientious objector status in protest at the Allies’ use of nuclear weapons at Hiroshima and Nagasaki. As a result he served out his period of national service doing farm work. Turner, interview with the author, June 2007.

8 Turner recalled: “I knew the people in Chipping Camden as a child growing up, because my grandmother was still alive.... So there was an influence there—the whole feeling of the vernacular was always important, I think, in the background.” There was also an Arts and Crafts influence on his father’s side of the family, since Turner’s own father was an architect, who designed and built the house in Kent where Turner grew up. Turner described his father’s practice as “contemporary vernacular,” in the manner of Lethaby or Voysey, and he worked closely with local builders: “So the scale of the work was local, and my interest has really remained at that level. That's where I feel that things really happen, between people locally.... That, I think, was a major influence.” Turner, interview with the author.
and, echoing Kropotkin, the principle of mutual aid. Turner’s enthusiasm for self-organizing groups of builders recalls Read’s comparative assessment of Kropotkin and Rousseau:

> the anarchist recognizes the uniqueness of the person, and only allows for organization to the extent that the person seeks sympathy and mutual aid among his fellows. In reality, therefore, the anarchist replaces the social contract by the functional contract, and the authority of the contract only extends to the fulfilling of a specific function.⁹

The fullest expression of Turner’s interest in anarchist ideas appears in the distinction between “heteronomous” and “autonomous” approaches to housing provision outlined in *Housing by People* (1976), his most expansive theoretical text. While heteronomous systems (centrally-administrated and “other-determined”) present a top-down dynamic familiar from traditional architectural practice, autonomous systems (locally self-governing and “self-determined”) imply a network of end-users making decisions for themselves, following the anarchist model. The collectively self-managed and apparently spontaneously-organized barriada presents an exemplary case—as opposed to government-built mass public housing—but theoretically the principle of autonomy could be translated into other contexts, other techniques and modes of architectural production.

Turner returned to the AA in 1947, and early that year, in another fortuitous encounter, a neighbour who had been a personal friend of Patrick Geddes gave him a copy of *Town Planning towards City Development: A Report to the Durbar of Indore* (1918), along with sheaves of Geddes’ hand-written notes. Already familiar with Geddes through the writings of Lewis Mumford, this discovery led Turner into several months of intense research as he focused on deciphering the notoriously complex elaborations of Geddes’ “Notation of Life” diagram [4.3]. Letters and notes of meetings in Turner’s papers document exchanges with fellow AA students Paffard Keatinge-Clay and Bruce Martin as they discussed various iterations of the diagram and considered its applicability to their own studies. With the encouragement of Jaqueline Tyrwhitt,

then preparing a new edition of Geddes’ *Cities in Evolution*, Turner and Keatinge-Clay developed these ideas into a short paper which Tyrwhitt then included as an appendix to the volume.  

Although Geddes’ Indore Report has been credited as the first text to propose aided self-help housing, the paper is not concerned with this issue, but rather celebrates the “new universality” offered by Geddes’ synthetic approach, with its potential to reintegrate the fragmented and partial conceptions of reality resulting from the increasingly specialized forms of contemporary knowledge. While analysis (breaking apart phenomena into their constituent elements for closer, specialized study) is a necessary stage of thinking, a complete understanding of the “life-process” can only be achieved through synthesis (the “integration and coordination” of discrete observations into a holistic worldview). Geddes’ Notation of Life diagram provides the paradigm for this “unitary form of thought”: at its core is a three-by-three grid demonstrating the reciprocal actions of Place and Folk on each other via the medium of Work (elsewhere identified as the actions of Environment and Organism via Function). Geddes proceeds to elaborate this field of nine relationships through the four interrelated “Chambers of Life” (designated Acts, Facts, Thoughts or Dreams, and Deeds), so that taken as a whole, the resulting 36-square “thinking-machine” is seen as mapping an ecology of the vast complexities of human life. For Turner and Keatinge-Clay, the diagram is emphatically not an analytical

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12 For further discussion of the Notation of Life, see Volker Welter, *Biopolis: Patrick Geddes and the City of Life* (Cambridge, MA: MIT Press, 2002), 31-46. Welter’s critique of Geddes’ schema is pertinent to Turner’s employment of Geddes: “To understand human life as a mystical glorification of a mechanical process taken from simple organic life is ... no explanation at all. Together with social classes, Geddes also dismisses notions of human activity as driven by individual and class-determined needs of all kinds—material needs such as shelter and food, and immaterial needs such as the desire for prestige derived
tool; rather its synthetic vision fulfills a longing for wholeness, relatedness, and universality—values that are repeatedly evoked throughout the text.

As a measure of the importance of the Geddes diagram to Turner, around this time he also made use of its basic structure to draw up a model for his own education in architecture [4.4], conceived as a “balance of four elements” echoing the Chambers of Life: Experience (to be anchored in material reality); Theory (to be disciplined by factual truth); Design (to be energized by personal formulation); and Practice (to be humbled by personal expression). The resulting program of study weaves together various facets of the four elements into an integrated curriculum culminating in a period of travel and practice. This diagramming of the “perception of a four-fold reality” recurs repeatedly throughout Turner’s thinking: it appears as a holistic ideal in the explorations of the late 1940s; as a structuring device for his first program of works in Peru; and, in Housing by People, as a model to demonstrate the interconnected reality that must be grasped before informed and effective action can be undertaken [4.6].

from wealth and power—all of which might result in adaptation of the environment in order to satisfy these needs.” Welter, Biopolis, 46.


14 The phrase is from a recent manuscript that continues Turner’s interest in devising a workable adaptation of the Geddes diagram, developed in part through a recently resumed correspondence with AA colleague Bruce Martin. John F. C. Turner, “A Framework for Mapping Activity with a Faceted Index,” April 25, 2007, JFCT-UW. From his earliest research on Geddes, Turner explored parallels with other “quaternities” (“Framework,” 8), for example playing with correspondences between the Acts-Facts-Dreams-Deeds schema and the primary colours, around March 1948 settling on a green-blue-red-yellow sequence. Another document from this period employs the colour sequence in a table drawing parallels to other quaternities: Jung (the psychological functions: sensational, feeling, thinking, intuition), Steiner (the four temperaments: melancholic, phlegmatic, sanguine, choleric), Saarinen (sociological fields: physical, social, cultural, aesthetic), as well as Frank Lloyd Wright (the tripartite perceive, conceive, create being matched to the last three elements of the Geddes sequence). John F. C. Turner, “Geddes Formula: Acts, Facts, Dreams, Deeds,” n.d., ca. 1947–1948, JFCT-UW.

15 Two versions of the Geddes diagram appear in the book. The first is used to describe the “Four Elements of Action”: problems, issues, principles, and practices. A more complex iteration appears in the final chapter as “The Elements of Change,” its sectors enumerated as information, theory, legislation, and administration describes the “complementary and mutually dependent” relationships of all the actors involved in housing production, as demonstrated by the diagram. Turner, Housing by People, 109, 169.
In early 1948 Turner’s two key influences converged when he gave a lecture on Geddes at an anarchist meeting and published a short article on his work in *Freedom*. Turner argued that the bridge connecting Geddes and anarchism was their shared understanding of the “organic nature of society”—governed by the laws of nature, not the arbitrary rules of human institutions: “One can, in fact, attribute the failures of all political and philosophical systems to the use of inorganic or unbiological approaches.”

Geddes’ broad synthetic approach, his ability to think across the disciplines of economics, “bio-sociology” and “the science of region and city” gave his work both intellectual authority and wide applicability.

The clearest sense of how these intellectual influences translated into Turner’s ideas on architecture emerges in the AA-based student journal *Plan* no. 6 (1949) [4.7]. Turner served on the editorial board for this and the next two issues with a group of close collaborators including Patrick Crooke, Andrew Derbyshire, and John Voelcker. While no individual writing credits are given, many of the ideas draw directly on Turner’s reading list of the late 1940s: Mumford’s *The Culture of Cities*, Read’s *The Education of Free Men*, Kropotkin’s *Fields, Factories, and Workshops*, L. L. Whyte’s *The Next Development in Man*, as well as Sigfried Giedion’s *Mechanization Takes Command*. More general cultural references include Karl Marx, William Blake, and the Bible. The issue consists of three parallel critiques aimed at the building industry, architectural practice, and childhood education, revolving around the themes of

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17 A few months later *Freedom* published two short articles by Giancarlo de Carlo outlining an anarchist approach to housing provision. Arguing that the problem of substandard housing could only be resolved by giving control to residents, De Carlo proposed direct, collective action such as the occupation of abandoned buildings by squatters; he did not, however, advocate self-help housing, which he believed resulted in poor workmanship and high costs. Ultimately, a solution to the underlying issues would require a reassertion of “communal collaboration” through urban planning; the city, a collective home, should also be controlled by its users, for its users. Giancarlo de Carlo, “The Housing Problem in Italy,” *Freedom: Anarchist Fortnightly* (June 12, 1948), and “The Housing Problem and Planning,” *Freedom: Anarchist Fortnightly* (June 26, 1948).

18 *Plan* was the journal of the Architectural Students Association, a group affiliated with the National Union of Students, and was based at various architecture schools over the course of its life. It was first published in 1943 in Cheshire, then moved Liverpool in 1946, and to the AA in London in 1948. In 1951 it moved to Birmingham and seems to have ceased publication shortly thereafter.
fragmentation, isolation, and the destruction of community [4.8]. The potential for recuperation appears through an appeal to nature as holistic model, strongly recalling Geddes.\textsuperscript{19} The architectural heroes of the text are Peckham’s Pioneer Health Centre (architect Owen Williams, 1935) [4.9] and the Hertfordshire schools program, on which both Turner and Pat Crooke worked as students through their friend Bruce Martin.\textsuperscript{20} While conventional practice has left the architect isolated within a sea of facts, Peckham and Hertfordshire show the potential of an architecture attuned to human biology, industrial techniques, and the needs of the community. To realize such projects, this new architect (again reflecting Geddes) must learn to study “the relationship between man and environment—a study of a living process rather than a static form,” and as an “artist-technician” he must synthesize this knowledge into building.\textsuperscript{21}

The discussion of the building industry negotiates a more complex path between a Marxist critique of work under contemporary capitalism and enthusiasm for the flexibility and variety offered by mass-produced prefabricated components. Most presciently, “building” is also considered in social terms, as a collaborative human activity grounded in everyday life: “if a man feels himself to belong to a community, he wants to work for that community.” The connection to mutual-aid self-help projects is explicit, as the demoralizing “decentralization of work” is to be replaced by the “spontaneous formation of work teams” operating autonomously, their “actions ... the result of collective control and responsibility.” Examples include guild-like clock-making communities in rural France, decentralized Czech industries, Israeli settlements, and the English Midlands, where “fifty families ... are building their own community—a work


Concurrently with this engagement with Geddes and anarchism, Turner maintained connections with CIAM-related projects and practitioners, attending the Bergamo and Hoddesdon conferences, touring the Unité d’Habitation construction site with Shadrach Woods, and undertaking a year’s internship with BBPR, at the end of which he travelled to Venice to attend the 1952 CIAM summer school. It was there that Turner met the Peruvian architect and planner Eduardo Neira, who was fresh from his own pilgrimage to the Unité, and, as it turned out, also shared Turner’s interest in Geddes, having translated the 1949 paper on the diagrams into Spanish. On the basis of this intellectual connection, Neira subsequently suggested that Turner move to Peru to practice architecture, an offer Turner readily accepted since England offered few opportunities for the kind of work in community development that interested him. As Turner described the decision in 1972: “I felt that if I could get out from

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23 Turner noted of his visit to the Unité: “Woods was there ... he was very happy about the way it went and the way they worked, and I felt quite envious of that at the time. That would have been nice to work on, it was a very interesting project.” Turner, interview with the author. Turner’s visit was facilitated by his friend Paffard Keatinge-Clay, who was married to Sigfried Giedion’s daughter Verena, and worked for a time in Le Corbusier’s office. Through this connection Turner and fellow AA-student Pat Crooke were able to spend some time with Giedion and his wife Carola Giedion-Welcker on a trip to Europe in 1948. Turner recalled that Giedion-Welcker was an enthusiastic supporter of anarchism, and strongly encouraged them to read Kropotkin: “We didn’t manage to get a word in edgeways, but we had been anarchists for about three years.” On the same trip they also stayed with Giancarlo de Carlo in Milan; this introduction had come through the English anarchist writer Colin Ward, who had met de Carlo “when talking [about] art in the Resistance.” Turner, interview with the author, 2007.

24 Turner’s name appears on the list of student attendees at the 1949 CIAM 7 conference in Bergamo, along with Joseph Rykwert, Andrew Derbyshire, and Mary Crittal; Turner, along with Derbyshire and Rykwert, is also listed as a participant in the discussions of the commission on “Réforme de l’enseignement de l’architecture et de l’urbanisme” at that conference, which was chaired by Ernesto Rogers and Jane Drew. ETH gta Archiv, Zürich, 42-X-116.


26 Turner had also considered moving to Australia to work as a furniture-maker, but decided that Peru would be “a better bet, a more interesting one. It was more in my own line.” Neira’s invitation to Turner came around 1956, when the prominent Peruvian architect Fernando Belaúnde Terry was running for
among the underbrush of technological innovations and intellectual formulations and into the much simpler situation described by Neira, I might be able to see my way.”27 Whether the situation in Peru really was “much simpler” or its unfamiliarity simply allowed Turner to work with fewer distractions, on a pragmatic level it was a much more receptive environment for a young architect interested in exploring new ideas.

4.2 Towards a New Social Architecture

Eduardo Neira’s own path to the meeting in Venice offers an interesting parallel to Turner’s early career. Three years older than Turner, Neira studied architecture in Lima before travelling to England in the early 1950s to study urban and regional planning in the Department of Civic Design at the University of Liverpool. In 1947 he had been a founding member of Agrupación Espacio, a self-consciously vanguardist architectural group which also included in its membership Adolfo Córdova (whose 1956 housing study is discussed in chapter two), along with artists, literary figures, and musicians.28 Opposed to the eclecticism of mainstream architecture in Peru, where the “modern” was treated as just another style, deployed fluidly in alternation with the neocolonial, the group’s key points of reference were CIAM and Le Corbusier; they were particularly vocal in their support for Sert and Wiener’s projects for Lima [2.1] and Chimbote [6.26].29 The group promoted its ideas through articles in the newspaper El Comercio (owned by the family of Luis Miró Quesada Garland, an architect and leading member


28 For a list of signatories to the group’s founding manifesto, see “Expresión de principios de la Agrupación Espacio,” El Arquitecto Peruano 11, no. 119 (June 1947).

29 For coverage of the Lima and Chimbote projects see Paul Lester Wiener and Josep Lluís Sert, “Five Civic Centers in South America,” Architectural Record 114 (August 1953): 121-136.
of the group) as well as its own journal *Espacio*, which included Neira on its editorial board in the early 1950s [4.10]. In 1955 those members interested in pursuing a more socially engaged practice (including Neira) precipitated a split in the group. This was apparently spurred by their involvement in a research project led by anthropologist José Matos Mar to study the harsh living conditions in the indigenous communities of Huarochirí, near Lima (discussed in chapter three). This realignment of Neira’s own architectural practice provided the impetus for the invitation he extended to Turner. Rather than being the passive recipient of imported expertise, Neira solicited Turner's immigration as a like-minded colleague and a potential collaborator, seeing in their shared interest in Geddes the potential to shift away from an architectural knowledge rooted in the ideas of the Modern Movement, to devise an alternative approach better suited to the social and economic conditions of postwar Peru.

After Eduardo Neira returned from Europe he joined the Ministerio de Fomento y Obras Públicas (Ministry of Development and Public Works) as the head of its Departamento de Urbanismo. In early 1954, he visited the southern city of Arequipa to report on its problems of unregulated urban development. As the second largest city in Peru, by the mid-1950s Arequipa had a population of around 125,000, and the area covered by its squatter settlements was larger than the planned city. While part of this urban expansion was due to newly arrived migrants, apparently much of it was caused by speculation. In 1950 a commission established by the Ministerio de Fomento y Obras Públicas had investigated 160 complaints in relation to illicit urban subdivisions—for commercial real estate developments as well as squatter settlements—most of which had been approved by the mayor of a neighbouring peri-urban

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30 In addition to Neira, other architects involved in this project included Adolfo Córdova, Juan Luís Pereira, Celso Garrido Lecca, and Emilio Castañón. Wiley Ludeña Urquizo, “Orígenes del urbanismo moderno en el Perú: el aporte de la Agrupación Espacio,” in *Tres buenos tigres: vanguardia y urbanismo en el Perú del siglo XX* (Huancayo; Lima: Colegio de Arquitectos del Perú Regional Junín; Ur[b]es, 2004), 152. A copy of a publication documenting this project is in Turner’s archive: José Matos Mar et al, *Investigaciones etnologicas en Huarochirí, Perú* (Lima: Universidad Nacional Mayor de San Marcos, Instituto de Etnología, 1953).
district who was eager to capitalize on Arequipa’s anticipated future growth. In 1952 the Ministerio established a branch office, the Departamento de Inspección de Urbanizaciones y Obras Públicas de Arequipa (IUP), to bring some order to the situation, charging it with creating a register of land claimants, carrying out topographical surveys, and preparing and implementing development plans. However, a lack of resources and competent staff rendered this office completely ineffective; hence Neira’s task in 1954 was to reassess the situation in Arequipa and to reorganize the IUP office.

Neira’s initial report sought to clarify the distinction between two types of illicit settlements, the “urbanización popular” (working-class subdivision) and the “urbanización clandestina” (clandestine subdivision): the first emerged out of organized land invasions by groups of pobladores, who then petitioned the authorities to grant them the site, while the second involved the illegal subdivision and sale of private land for private profit. Neira argued that the government’s purpose in establishing the IUP had been to assist this first group, which, he implied, acted outside the law out of desperation but were scupulous in approaching the state post-invasion in order to regularize their situation. The second group simply flouted the law for personal gain, a situation that had been overlooked in the IUP’s original brief and needed to be addressed. In any case, the need for intervention was clear: “[i]t is precisely a function of the state to protect and direct private invasions, especially in those groups of limited economic potential”; specifically, there was “an official obligation” to ensure that settlements were established as economically as possible, on sites that were amenable to the installation of essential urban services and free from competing legal claims requiring lengthy litigation. This somewhat surprising approach—positioning the government as protector of the unauthorized settlements rather than the agent of their removal—was strangely congruent with the

paternalism of President Odría, and reflected the widely held belief that the *pobladores* needed to be kept safe from the predations of real-estate speculators and self-seeking barriada leaders. Neira’s interest in assisting the settlers emerged from the position of his socially committed and scientifically informed practice rather than any political calculation (as was the case with Odría), but nonetheless these discordant motivations converged at the same policy outcome.

Neira recommended that the IUP begin by determining which households had the right to keep a lot—this being their only place of residence, occupied for at least a year and a day. Eligible residents should then be relocated from their “‘non-conforming’ urbanización” to a new settlement properly prepared by the state and provided with basic services; any remaining “non-conforming” constructions would be demolished. Neira judged that the office should endeavour to take advantage of the “enormous effort” that was evident in the squatters’ self-built houses: with an “intelligently directed technical assistance” that was focused on *ayuda mútua* (mutual aid), residents could be shown how to work together as a group under the guidance of an appointed expert, constructing their houses as efficiently and economically as possible.  

Neira’s final co-authored report provided additional details: lots would be offered to families in usufruct of extendable 99-year periods, granting the right to extended habitation, but not the option to purchase the lot and become its legal owner—a measure that was intended to circumvent land speculation. This offer would be valid for a year, “within which time the benefitting family should commit itself to building their house,” or lose the option to the lot altogether.

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33 Neira and Dulanto Pinillos, “Informe,” 7, JFCT-UW. Even though this report was apparently written for the Ministerio de Fomento, the suggestion was that this project should be overseen by the FNSBS.
Although it does not appear that Neira had an active role in Arequipa following this report,\(^{34}\) these recommendations did result in a substantial reorientation of the IUP, giving it a more ambitious and assertive agenda that brought it into much closer contact with barriada residents. For his own part, Neira continued his interest in these issues, closely following the ongoing research of anthropologist José Matos Mar and of geographer John P. Cole into the barriada phenomenon.\(^{35}\) In 1955 he undertook a study trip to Puerto Rico, under the aegis of the United Nations Technical Assistance Program,\(^{36}\) where it seems that he met Luis Rivera Santos, director of that country’s pioneering program in aided mutual self-help housing, which involved small groups of families working together to build their dwellings.\(^{37}\) (As noted in chapter two, the national newspaper *La Prensa* had published an article on this program in 1954, based on information provided at a press briefing at the US embassy.\(^{38}\) In 1956 Neira published a long article on “The Housing Problem in Peru” in the specialist magazine *El Arquitecto Peruano*, in which—along with suggestions on dealing with the high cost of urban land, the difficulties of

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\(^{34}\) Unfortunately, I have not yet been able to trace Eduardo Neira’s own papers (if indeed, they still exist).

\(^{35}\) John Turner recalled that Neira “was helped a lot, at this time, by the English geographer John Cole who did very good work in the amazingly short time he was in Peru—including a pioneering report on the development of barriadas at that time for ... ONPU [National Office for Planning and Urbanism].” Barbara Goldstein, “The Originators: John F. Charlewood Turner,” *Architectural Design*, no. 9 (September 1975): 524. For Cole’s research see John P. Cole, *Estudio geográfico de la Gran Lima* (Lima: ONPU, 1957), and “Some Town Planning Problems in Greater Lima.” *Town Planning Review* (Liverpool) 26 (1956): 242-251.

\(^{36}\) Author’s biography in Eduardo Neira Alva, *La transformación del habitat humano* (Caracas: Facultad de Arquitectura y Urbanismo, Universidad Central de Venezuela, January 1961). This research trip also included France, Algeria, and the Netherlands. In 1958 he undertook a similar study trip (this time sponsored by the International Labour Organization) to Israel, India, and Japan.

\(^{37}\) John Turner’s archive contains a copy of a draft contract for participants in a program of housing construction through *ayuda mútua*, dated 1955, typed on the letterhead of the Peruvian Ministerio de Fomento y Obras Públicas, where Neira was an official. Also in 1955 an article by Rivera Santos discussing this program appeared in *El Arquitecto Peruano*, where Neira likewise published a number of articles: see Luis Rivera Santos, “Experiencias de Puerto Rico en ayuda propia y ayuda mútua,” *El Arquitecto Peruano* 19, no. 216-218 (July-September 1955).

housing finance, and the dire state of the Peruvian construction industry—he argued that mutual
aid was a “thousand-year old tradition” in Peru that had great potential to combatting the
housing shortage, particularly in parts of the country “where the simplicity of the dwellings
makes possible the employment of non-specialized labour.”

He returned to the theme in a 1957 article published in *La Prensa*, advocating the
adoption of technical assistance as a key element of national housing policy: it represented a
realistic use of the country’s limited resources, and possessed a unique ability “to liberate the
potential of collective action via the technical direction [canalización técnica] of communal
effort,” thus offering a way ahead “towards a new social architecture.” Once again Neira
argued for the cultural appropriateness of techniques of ayuda mútua and trabajo en común
(cooperative work) for Peru, “a country where for centuries no other form of work existed.” For
Neira this was an organic and autochthonous form of building for Peruvians—yet he also
identified the specialized practices of “aided” self-help as thoroughly modern, having been
rigorously tested in a diverse range of countries (India, Israel, Mexico, El Salvador, and
Colombia, in addition to Puerto Rico).

In this sense, Peruvian experiments with self-help housing represent a form of imported
knowledge. During the 1950s, the United Nations, the International Labour Organization, and
the Pan American Union all promoted the “aided” self-help approach, and in 1953 the Centro
Interamericano de Vivienda (CINVA, or Inter-American Housing Center) in Bogotá published a
manual on aided mutual self-help housing based on the trial projects in Puerto Rico run by Luis

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39 Eduardo Neira Alva, “El problema de la vivienda en el Perú,” *El Arquitecto Peruano* 20, no. 224-225
(March-April 1956): unpaginated.

40 Eduardo Neira, “Ahorro de Esfuerzo y Capital,” typescript of article published in *La Prensa*, April 7,
1957, JFCT-UW.

41 Neira, “Ahorro de Esfuerzo y Capital,” JFCT-UW.

42 Richard Harris, “A Double Irony: The Originality and Influence of John F.C. Turner,” *Habitat
Rivera Santos [4.11-4.12]. In this context Neira acted as a conduit for the importation of knowledge about self-help housing into Peru—encouraging the Comisión para la Reforma Agraria y la Vivienda (CRAV, Commission for Agrarian Reform and Housing) to recommend the creation of technical assistance offices (as discussed in chapter two), and passing on information about the earlier trial projects to colleagues such as John Turner. Inevitably, regardless of Neira’s own political position or ideological framing of these techniques, they were suffused with the Cold War politics of the various agencies that endorsed their promotion of individual property ownership and self-improvement through work, as opposed to the “handouts” and latent socialism of public housing.

However, as Richard Harris has shown, the deeper history of aided self-help housing extends far beyond the postwar programs in the developing world generally associated with the term. Promoted in Sweden as early as 1904, it first emerged as a widespread solution to housing provision in the wake of the First World War, 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 efficiency, invented a manually-operated brick-press, and produced pamphlets for self-builders demonstrating simple

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43 See Luis Rivera Santos et al, Manual para la organización de proyectos piloto de ayuda propia y ayuda mutua en vivienda (Bogotá: CINVA, Servicio de Intercambio Científico, 1953).

44 Neira (who was the only architect appointed to CRAV) noted in his 1957 article that the commission “has welcomed an initiative of the Ministerio de Fomento”—where Neira worked—for the establishment of “a Technical Assistance Service, directed towards offereing the advantages of technical guidance to the pobladores of the barriadas who want to regularize their situation … and substantially improve their living conditions.” Neira, “Ahorro de Esfuerzo y Capital,” JFCT-UW.

45 For Turner’s knowledge about these programs, see his “Reeducation of a Professional,” 127-130. In addition, Turner’s archive contains a small number of related documents in (or adjacent to) a folder labelled “Self-help—Puerto Rico, Precedents” JFCT-UW.

46 For a detailed history of these programs, see Harris, “Slipping through the Cracks.”
construction techniques.\footnote{Susan R. Henderson, “Self-Help Housing in the Weimar Republic: The Work of Ernst May,” \textit{Housing Studies} 14, no. 3 (1999): 311-328.} Further back, as already noted, Geddes’ 1918 Indore Report does include an important, if brief, theoretical discussion of aided self-help housing. While Geddes addresses the topic in only a few pages of his lengthy and wide-ranging two-volume report, the passages are worth examining in detail as they foreshadow many of the arguments that were made in favour of aided self-help housing in the postwar period. Addressing the issue of providing mass housing for workers in the cotton industry, Geddes argues:

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 \textit{pukka} [first-class, complete construction]. We must even be content in a good many cases with \textit{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 \textit{kucha} construction, labour can often, at least partly be given by the worker himself.

Geddes continues by suggesting that the state should further assist 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: “both State and City are themselves 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 short Co-operation means good business all round; and in Housing peculiarly so.” Finally, better housing will make for a more stable workforce: “nothing fixes people like a good house.”\footnote{Patrick Geddes, \textit{Town Planning towards City Development: A Report to the Durbar of Indore}, 2 vols. (Indore: Holkar State Printing Press, 1918), 1:70-71.} Returning to the subject in a subsequent chapter, Geddes observes: “sweepers and carters have some spare time: and they are 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 is complicated, Geddes laments, by the fact that the processes of modernization in India have transformed housing construction from “one of the most widely diffused aptitudes” into a specialized occupation; therefore the authorities must find
“some capable overseers, for such work of housing—men who could keep up the standards of planning and execution, yet utilize and train the more or less unskilled labour of its employees into satisfactory house-building.”

Here are many themes familiar from postwar debates: the reduction of construction costs through self-help; the importance of sound technical assistance to direct the work; the deployment of state-backed deposit insurance to extend credit markets, and thereby stimulate overall economic growth; the increased work-discipline of the industrial labour-force, and the moral improvement of the self-builder/home-owner. The key point of connection between Geddes and postwar practice is Jacob Crane, director of the International Office of the United States Housing and Home Finance Agency (1945–1954). As documented by Richard 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 Patrick Geddes, whom he had met in 1921 shortly after Geddes returned from India. Crane’s first-hand 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 Ponce, whereby the housing authority drew up lots, paved the streets, and at the intersection of every four-lot group installed a utility unit with individual toilet, shower, and laundry facilities for

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50 Geddes’ plan for the “city development” of Indore included modernizing its cotton production. In addition to improving workers’ housing this involved the construction of a new industrial town and factories designed according to “American ‘Efficiency Methods’” in industrial management. Geddes, *Indore*, 1:36.

51 Richard Harris, “‘A Burp in Church’: Jacob L. Crane’s Vision of Aided Self-Help Housing,” *Planning History Studies* 11, no. 1 (1997): 4. Crane believed that the two key issues in providing low-income housing were sanitation (potable water and waste disposal facilities) and land (“with secure tenure, in a reasonable location”). Crane, “Huts and Houses in the Tropics,” *Unasylva* 3, no. 3 (May-June 1949): 104.

52 Harris argues that it is likely that Crane was familiar with the Indore Report, including its support for a form of aided self-help housing, since he observed in a 1951 report written for the United Nations that “this individual, self-help approach corresponds to the Geddes method.” Harris, “A Burp in Church.” 6; citing United Nations Department of Social Affairs, *Low Cost Housing in South and South East Asia* (New York: United Nations Secretariat, 1951), 67.
each family. The housing itself was provided either “in the traditional way” by self-building, or by moving the family’s existing house to the newly appointed site. The next logical step was to improve the outcomes of these “traditional ways” of housing construction through technical assistance, enhanced by cooperative work—hence aided mutual self-help, as it would eventually be codified. Crane became a key promoter of the practice and the professionalization of its techniques, using his office at the HHFA to gather and disseminate information via a network of “well-placed individuals throughout the developing world.” Thus when Neira first proposed this approach for Peru, this was an emerging technique in the new field of community development, comparatively untested but well-regarded.

4.3 Arequipa: The Ecology of Man and Environment

Turner arrived in Peru in early 1957, staying briefly in Lima where he lectured on planning theory at the Instituto de Urbanismo in collaboration with Eduardo Neira. From the


54 Harris, “The Silence of the Experts,” 174. In the case of Peru, his closest contact was David Vega Christie, a senior housing official from the late 1940s onwards, and Harris suggests that the rapid acceptance of self-help methods in Peru was due to this connection. In 1947 Crane organized a study trip to the United States for Vega Christie—see “Impresiones del Ingeniero Vega Christie a su retorno de los Estados Unidos,” *El Arquitecto Peruano* 11, no. 119 (June 1947)—who was at that time head of urbanization in the Ministerio de Fomento (the position later occupied by Niera). Around 1949 he became the director of the Corporación Nacional de la Vivienda, and subsequently he acted as Technical Secretary and Housing Adviser to the Comisión para la Reforma Agraria y la Vivienda set up in 1956.

55 For example, the first report produced by Charles Abrams and associates for the United Nations that promoted self-help construction was *Report on Housing in the Gold Coast*, published in 1956. The report characterizes self-help as an effective solution for rural housing, advocating that the government “preserve and encourage the traditional self-help methods still practised” which were in danger of disappearing with increasing urbanization. Measures to promote its use included establishing “satellite villages around the important towns” where traditional self-help housing construction could be replicated. For the authors, mutual self-help construction was only possible in these simulated villages, outside the city itself; in Peru, it seems that the figure of “Inca cooperation” breached this cultural divide between city and village, with indigenous “urban villagers” maintaining a cooperative spirit that could be drawn upon.

56 In this period Turner also worked on two unrealized projects for Eduardo Neira’s architectural firm, Agurto-Cayo-Neira: designing houses for a seaside development at Supe, north of Lima, and preparing a consultants’ report on improving company housing for a textile mill at Huayco.
extant notes it appears that Turner gave at least two lectures—on the “Definition of Planning” and “Geddes’ Basic Theory”—while Neira gave at least one lecture on Geddes.57 Turner’s preparatory notes reveal a wide range of sources: assembled in a comparative table are quotes from Patrick Abercrombie’s *Town and Country Planning*, Ludwig Hilberseimer’s *The Human Environment*, Robert E. Dickinson’s *City Region and Regionalism*, Percival and Paul Goodman’s *Communitas*, as well as Geddes’ Indore Report. However, the brief selected quotes all tend to reinforce a Geddesian outlook: thus in Turner’s selection from Abercrombie, planning is “the accommodation of several units to make a complete but harmonious whole”; in Hilberseimer, its aim is “to bring about a harmonious relationship between man, technics, and nature”; and in Dickinson, it serves to create an ecological balance, “designing a pattern of human works ... which will bear harmonious relations to the underlying resources.”58

Turner’s own definition of planning closely followed Geddes: “The science of planning is the ECOLOGY of Man and Environment,” whose elements of place, work, and folk operate in “an organic process of interaction.” Expanding on the theme, he explained that planning was: “a process of ordering ... the physical environment (in its present and future conditions and at all scales, from region to dwelling) for the well-being of man (at all scales, individual to collectivity).”59 Again reflecting Geddes, this was to be enacted through a dynamic four-phase process—survey, plan, administration, and “the plan in action”—before beginning the cycle

57 The notes suggest that Turner’s Geddes’ lecture focused on “The Ecological Approach” and “The Valley Section” while Neira discussed Geddes’ views on “City Surveys” and “Civics.” Since Turner’s Spanish was still fairly rudimentary at this stage, additional assistance was provided by Ernesto Paredes, a Peruvian architect who had met Turner while working towards a postgraduate degree at the AA.

58 John F. C. Turner, two pages of quotes on planning from Abercrombie, Hilberseimer, Dickinson, the Goodmans, and Geddes, and “Materials & Elements: Systems & Results,” n.d., ca. 1957, JFCT-UW.

again, as the “solution ... of PAST problems [is] actually the creation of new ones.” This cycle of “continuous adjustment” is represented by Turner as a line breaking out of the four-square grid of the Geddes diagram [4.5], only to continuously retrace the same path, its circularity unfolded across the page with no dialectical intersection or point of conflict to invite an alternative outcome. At first glance it is perhaps difficult to reconcile Turner’s work with squatter settlements with this profound sense of order; yet the fundamental equilibrium of a holistic, harmonious organic world is an important recurring element in Turner’s thought—reflecting what is perhaps an inherent ambiguity of the Geddesian “ecological”: conservative in its outlook but pragmatic and progressive in its practice. This conservative outlook is founded on the notion of an organic unity, whose fundamental structures and relationships do not change; in the closed system of a Geddesian world, every action is an interaction, modifying the exact content of a situation while maintaining its overall form and balance of elements. Its pragmatic practice is non-ideological, suspicious of universal solutions, responsive to the local specificities of the situation on the ground, and predicated on the need to review and recalibrate action based on the outcomes of the initial interventions.

In Turner’s experience of contemporary Peru, the equilibrium of the everyday world appeared to be shaken and disturbed, in need of being righted through the interventions of the architect/planner. His lecture notes on Geddes’ “Valley Section” express concerns about a violation of the balance of village-town-city through the recent modernization of agriculture and manufacturing (especially the factory production of cotton):

The town is the urban reflection of the country.... Overgrowth development of urban economy and attitudes producing many of the contemporary problems planners are concerned with: the depopulation of the countryside and the

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cancerous growth of cities.... Conversion of Indian farmer into depressed industrial proletariat.  

Recalling the horror of Ruskin or Blake at the distortions of the natural and human environments caused by Britain’s industrial revolution (both are cited in Plan 6), the task of the planner is to manage the adverse effects of industrial and technological change, and reinstate a sense of order into the chaos of unplanned urban development.

In June 1957 Turner took up a position in Arequipa with the government office responsible for regulating and improving barriadas [4.13]. The situation in which he found himself was already highly charged, in sharp contrast to the “much simpler situation” that he evoked years later. As already noted, the recommendations in Neira’s 1954 report had led to a substantial reorientation of this office, bringing it into closer contact with the barriadas. Almost immediately it became embroiled in political struggles with the residents’ associations representing the twenty different squatter settlements throughout the city. Officials were wary of the association leaders, convinced that they were operating against the interests of ordinary residents by misappropriating association funds and inflating the real estate market. Effectively controlling access to all vacant land near the city, it was argued, association leaders frequently assigned lots to multiple owners to create the illusion of scarcity, and did little to prevent speculators from accumulating multiple lots that they had no intention of developing. On the other hand, officials were engaged in their own struggle for legitimacy, attempting to gain the trust of residents while lacking sufficient resources to respond to the real scale of the housing crisis. Neira’s final report had recommended curtailing the power of the associations through a

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62 When Turner arrived in Arequipa, the office was in a period of administrative flux: for the first few months he worked for the Departamento de Inspección de Urbanizaciones y Obras Públicas (IUP), within the Ministerio de Fomento y Obras Públicas. In September 1957 this was replaced by the Oficina de Asistencia Técnica de Arequipa (OATA), administered by the Fondo Nacional de Salud y Bienestar Social (FNSBS, National Fund for Health and Social Welfare) of the Ministerio de Salud Pública y Asistencia Social (Ministry of Public Health and Social Welfare).
policy of “obligatory cooperation”: eliminating the membership fees that funded their activities, and transferring the responsibility for maintaining the empadronamiento (official register of residents) to the IUP—neither of which measures the office had the effective power to carry out. The conflict came to a head in late 1956: with the IUP committed to suppressing the associations, its policy towards the barriadas was now “to paralyse and prohibit all building activity” while it devised a comprehensive plan for urban development. In this way the IUP attempted to assert its authority to regulate and normalize the settlements, superposing the clear vision of official planning over residents’ ad hoc construction efforts.

As soon as the associations became aware of this policy they published a broadsheet outlining their objections to it—and to the IUP itself—through their recently-formed umbrella organization, the Asociación de Urbanizadores Populares de Arequipa (AUPA). Claiming to represent over 30,000 families, the AUPA statement asserted residents’ right to housing, their willingness to cooperate with authorities, and their competence in managing their own affairs. Through their own efforts and savings, they had selected suitable land for their settlements and had “engaged the necessary technical guidance and set out zones that were perfectly habitable.” By contrast, they had expected much but had received nothing from the IUP, which was “squandering a good part of the national budget” supporting an inadequate and incompetent staff which had little understanding of the situation, as was evident in their efforts to hinder rather than assist construction in the barriadas. Not just responsible citizens concerned over the waste of government money, AUPA members also claimed to be trustworthy partners ready to work towards resolving the housing crisis:

[AUPA] understands completely—because it is living it—the serious situation of the housing problem, and we are in favour of banishing the “old paternalistic

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63 Neira and Dulanto Pinillos, “Informe,” 7.
64 Turner, Housing and Planning Arequipa, 27.
65 “La Asociación de Urbanizaciones Populares de Arequipa (AUPA) Plantea sus necesidades,” September 17, 1956, JFCT-UW.
criteria of the state” and agree that our principal idea and constant practice should be “Helping them to help themselves,” without expecting give-aways, that is why we have come together “to obtain the cooperation of the state and this is ACTING BEFORE BEGGING.”

AUPA’s position here directly referenced the preliminary report of the Comisión para la Reforma Agraria y la Vivienda that had been released the previous month:

“Helping them to help themselves” should be the principal idea and the constant practice of this work. Nothing should be given away or imposed. As resourceful in their politicking as they were in their building practices, the self-styled urbanizadores (urbanizers) salvaged and repurposed elements of the commission’s classic liberal rhetoric in order to reinforce their claims for shelter.

The tactical sophistication of this media campaign reflects the force of need, but also demonstrates the organizational abilities and negotiating skills of the barriada residents, which were needed to manage intra-communal affairs as much as to navigate the arenas of local and national politics. As indicated by census data and membership records from this period, barriada residents typically came from a range of socio-economic backgrounds, including some white-collar and public sector workers—even members of the police and military—as well as tradespeople, the self-employed, and itinerant and part-time workers. As Turner observed in 1960, contrary to frequent assumptions that barriada residents were helpless and “the most destitute section of the community,” in fact “[i]t requires initiative, intelligence, and a little capital” to construct a house in a squatter settlement.

The AUPA statement concluded with a demand for the removal of incompetent staff at the IUP, and the hiring of a new team (a sanitary engineer, “another engineer architect-urbanist,” and an accountant) to work under the supervision of AUPA. Further, the state should

66 “AUPA Plantea sus necesidades.”


68 Turner, Housing and Planning Arequipa, 12.
provide earth-moving equipment as well as the materials necessary for installing water and sewerage systems. A couple of years later, Turner noted that AUPA’s demand for oversight “would be unacceptable to any Administration and also most unlikely to produce good results if it were tried.” Nonetheless, he believed that the declaration was in general terms “sound and justified” and that an advisory board including AUPA “could do no harm.” While more open to the participation of residents in decision-making roles than other officials, a certain distrust of popular power still remained; Turner was not yet ready to embrace full “user-control.” For their part, AUPA’s “implied willingness to collaborate with the Authorities” did not in fact lead to any concrete cooperation, a situation that continued in the months following Turner’s arrival.

Despite this contentious atmosphere, from the outset Turner projected an ambitious vision for the office. In a report written around September 1957, as he was preparing to take over the directorship of the office, he argued that the program should not be blinkered by short-term goals, but “must be orientated to the actual scale and the real nature of the problem and the first projects must be a conscious initiation of a process which may take a generation to mature." Reflecting his Geddesian worldview, Turner’s proposal consisted of a quartet of interrelated aspects which mirrored the “four chambers”: survey, research, communication of information, and the design and execution of projects.

The first of these—diagnostic survey—was a key element of Geddes’ methodology: following his medical analogy, a thorough scientific examination was essential for the accurate diagnosis of urban ills; only then could a suitable treatment of minimally-invasive “conservative surgery” be planned and performed on the urban body. In Arequipa, surveys of the physical

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69 Turner, Housing and Planning Arequipa, 28.

70 Turner, “Confidential Report on the technical assistance work of the Ministerio de Fomento, Departamento de Inspección de Urbanizaciones y Obras Públicas, Arequipa from July to August 1957, an assessment of the problem and a suggested outline program of work to be carried out under the Ministerio de Salud Pública,” n.d., ca. September 1957, 7, 3.

71 As described by Geddes, the “method of Conservative Surgery” or “improvement by conservation” was “simple, economical, yet more thorough” than more aggressive approaches. However, Geddes continued:
and social aspects of the settlements were carried out by “social assistants” (trained to assist in data collection for anthropological surveys [4.24]) in order to gauge the likely success of proposed programs: tabulating residents’ places of origin, income levels, and occupations, and assessing whether the community had a stable population and a well-established cooperative ethos, viable infrastructure and solid housing stock—in short, whether there were “material and human resources ready to be utilized.”

Turner noted that the office was already collaborating with the US Geological Survey to identify nearby deposits of sillar (a white volcanic stone) and Roman Cement, believing that efficient local production of such materials would considerably reduce building costs. As with Geddes, the city is conceived as embedded within the surrounding region, and the cataloguing of its resources in terms of both “folk” and “place” forms the basis of holistic urban planning (or in Turner’s phrase, the “process of ordering ... from region to dwelling”).

Next, the functions of “research” and “communication of information” were targeted to make the most of limited resources. Although unable to implement large-scale projects, the office could still conduct research “into the organization and problems of cooperative work under technical assistance programs,” as well as direct valuable experiments with new construction technologies, and ensure that the results were widely disseminated. Further, by building up an

“It requires long and patient study. The work cannot be done in the office with ruler and parallels, for the plan must be sketched out on the spot, after wearying hours of perambulation.... Even when a detailed and corrected map has been produced ... the task is still difficult. Even after a good deal of experience of the game, one constantly finds oneself in check; now and then so definitely and persistently as to feel tempted, like the impatient chess-player, to sweep a fist through the pieces which stand in the way. This destructive impatience is, indeed, an old vice of beginners in a position of authority; and their chance of learning the real game is, of course, spoiled by such an abuse of it.” Patrick Geddes, Report on the Towns in the Madras Presidency (Tanjore: 1915), 17, quoted in Patrick Geddes in India, ed. Jaqueline Tyrwhitt (London: L. Humphries, 1947), 44-45.

Blanca Gálvez R. and Rosa Bustamante, “Un ensayo de trabajo experimental en la urbanización Mariano Melgar,” October 1957, JFCT-UW.

indexed library of relevant materials, the office would eventually be able develop itself into the key housing research centre in Peru.

Finally, the “design and execution of projects” would be necessarily constrained, focused on “prototypes or patterns for the bulk of the work which will be done by local groups with no more than occasional advice and supervision.” Following the example of industrial production, Turner envisaged an ongoing cycle of research and refinement, using “experimental and tentative” projects to reach an optimum solution that was ready to be deployed immediately, but always waiting to be improved upon in the next round of testing. Reflecting the stance of Plan 6, Turner advocated standardization of components aimed at maximum variation and adaptability. For this reason, the various elements of these experimental projects (“walls, roofs, windows and doors—plots, the relationship of house to house and of houses to open space and roads”74) would in themselves function as prototypes, in order to devise the most appropriate design for production by self-builders. While avoiding boiler-plate house types and urban plans, the employment of standardized components offered a way to economize not just on the construction site but also in the design office, where a small architectural team had little time to work on individualized solutions.

Meanwhile, in practical terms Turner’s first months in Arequipa were limited to small trial programs: experiments with the fabrication of soil-cement blocks by and for self-builders, and developing remodelling projects for two of the only three barriadas that were willing to work with the office at this stage. The first of these projects erupted in controversy in September 1957, only a few weeks after it had begun. Residents were unconvinced of the cost savings of the method and the soundness of the blocks produced, and they aired their complaints vociferously through the pages of the local newspapers: the blocks were “very fragile and flimsy” and therefore the project had completely failed and their money had been wasted “in [this]

burdensome test.” They also complained about the high cost of the Ellson block-making machine acquired for the project, and noted that while Turner and his colleague Luis Felipe Calle had told them they could produce 1,000 blocks per day, using a small amount of cement mixed with local soil, in fact they were only able to produce a hundred blocks, rendering the process completely uneconomical.75

In an internal office document, Turner responded that these problems had arisen because the residents were using too much cement and allowing insufficient time to dry the blocks: following the correct procedures, a large quantity of high-quality blocks could indeed be made each day.76 The fracas escalated as the residents’ association threatened Turner and Calle with legal action for allegedly defaming the city’s barriada associations and their leaders, demanding that they provide evidence to support OATA’s habitual claims about questionable “selling and division of lots, misappropriations of funds, and all the allegations that they have made.”77 The matter did not proceed beyond these initial threats. While there may indeed have been problems with the soil cement blocks (and genuine outrage over imputations of corruption among association leaders), these controversies were completely enmeshed in a broader struggle triggered by the introduction of a new national technical assistance program.

Under the new operating guidelines, the renamed Oficina de Asistencia Técnica de Arequipa (OATA) was given a greater role in the process of qualifying settlements as “regularized” urbanizaciones de tipo popular in accordance with the revised urban planning


76 John F. C. Turner, “Diario del sucesos entre OATA y Asoc. Dolores desde 8/8/57,” n.d., ca. September 1957, JFCT-UW. In conversation Turner acknowledged that these experiments with soil cement blocks (later repeated in his housing project for Paramonga) “didn’t in fact turn out very well.” Furthermore, he had subsequently come to believe that the use of experimental technologies was particularly inappropriate for low-cost housing, since these residents were the least able to support the additional time and expense required to test new approaches. Turner, interview with the author, 2007.

regulations instituted in 1955 (discussed in chapter three).\textsuperscript{78} The residents resented this concentration of power, and were concerned that since they did not have the resources to meet the stricter requirements for legalization, they would see their settlements disqualified and dismantled. Furthermore, the smaller maximum lot size of 250 sq. m. would greatly disrupt existing settlement layouts. Playing on old resentments towards Lima, they claimed that this was designed for the conditions of the capital, but could not be applied in Arequipa, where residents preferred “viviendas tipo granja” (dwellings of a farmstead type). Finally, while they wanted effective technical assistance from the state, the stipulated payment for this assistance was beyond the means of residents, and should instead be provided free.\textsuperscript{79} While residents’ calls for their repeal were unsuccessful, in fact the new guidelines had little effect on the situation on the ground, since OATA was not in a position to implement them.

The second trial program, involving remodelling projects, also produced mixed results. Turner’s approach here was to modify the existing urban plans to improve circulation, separate pedestrian and vehicular traffic, and provide additional green space. In the case of the Miramar association in the nearby port town of Mollendo, the modifications also addressed the character of the environment, as Turner suggested planting trees to mitigate the “monotonous regularity” of the half-built, gridded blocks that created “an aesthetically unsatisfying and even depressing character which ... [would] discourage and to some extent frustrate the family and community life which is the purpose of any group of dwellings.”\textsuperscript{80} Thus aesthetics, while a secondary

\textsuperscript{78} “Apendice No. 5. Decreto Supremo sobre las Oficinas de Asistencia Técnica,” July 26, 1957, in Informe sobre la vivienda en el Perú (Lima: CRAV, 1958), 326-333.


\textsuperscript{80} John F. C. Turner, “Urbanización Miramar, Mollendo: Report on Revised Scheme,” June 1957, JFCT-UW.
consideration, were nonetheless seen to have real effects in psychological terms on the quality of life.\textsuperscript{81}

Towards the end of 1957, as the new technical assistance program was scheduled to come into effect, Turner produced a study for OATA containing detailed proposals for two key programs: a rehabilitation scheme for an existing settlement and an outline for a new satellite city. Together they presented a comprehensive strategy to direct “the control and integration of the barriadas with the city itself”: first, established settlements that were “too deeply rooted to be transplanted” would be remodelled into “healthy and modern districts”; second, unplanned or “irrational” growth should be “channelled and concentrated to form a logical and appropriate extension of the city.”\textsuperscript{82}

The program for “Development and Remodelling of the Miraflores Zone” followed Geddes’ “conservative surgery”\textsuperscript{83} model, using diagnostic survey as the basis for targeted interventions that minimized disruption to the urban fabric. The aim was to curtail unplanned expansion which was affecting “the urban balance of Arequipa” by creating problems with traffic, transport, and the provision of public services. Focusing on the Mariano Melgar barriada, a study of current densities was used to identify zones that already showed incipient consolidation \textsuperscript{[4.14]}; new construction would be channelled into these areas in order to speed up the process of consolidation towards eventual integration with the existing urban fabric and thereby make the installation of services economically viable. The existing urban plan was judged as having

\textsuperscript{81} Reflecting on this projects at the end of his time in Arequipa, Turner noted that while the redevelopment process had worked well for other settlements, Miramar had endured three sets of revisions to their official plans over nine years; in the meantime, these residents wasted the money they would have invested in their own houses by paying rent to live in substandard conditions. All in all, their experience underscored “the logic and economy of ignoring the regulations.” Turner, \textit{Housing and Planning Arequipa}, 35.

\textsuperscript{82} John F. C. Turner for OATA “Las Urbanizaciones Populares de Arequipa: Estudio de los Origenes, Estado Actual y Propuestas para la solución del problema,” November 1957, JFCT-UW.

\textsuperscript{83} This quintessentially Geddesian term appears in one of the documents related to this program: John F. C. Turner, “Sumario de la Programa,” n.d., ca. 1957, JFCT-UW.
too much space devoted to circulation and not enough open space; to remedy this, and to create a “healthy and modern district,” alternate transverse streets would be turned into parks, this having the added benefit of reducing the amount of roadway requiring the expense of paving [4.15].

Pairs of photographs were keyed to the re-drawn plan to demonstrate the impact of the proposed improvements, the stark streetscapes transformed into tree-lined avenues with cobble-stone footpaths, the disorderly street frontage remade into rows of white-washed houses with quasi-Mediterranean vaulted roofs [4.16].

The satellite city program represented a more aggressive effort to control the direction of urban development. It was apparently first conceived some years earlier by Eduardo Neira along with Hernán Bedoya, head for the southern region of the Oficina Nacional de Planeamiento y Urbanismo (ONPU). A report co-authored by Turner and Calle in September 1957 had argued that this was the “only solution” to the problem of the barriadas: the pobladores would have to leave their illegally established dwellings, and as an incentive would be offered a site in the new “satellite city.” To begin with, one or two residential zones would be provided with basic infrastructure, and drawn up into lots. Once the settlement’s “human nucleus” had been established, OATA would begin to implement a housing program using “Directed Mutual Aid” (ayuda mútua dirigida) with residents building their own houses in teams under technical guidance; in the meantime they were presumably expected to erect their own provisional dwellings. In his study Turner argued that real estate speculation rather than actual housing needs was responsible for many land claims, so that Arequipa’s true housing deficit

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84 This was in keeping with recent changes to planning law aimed at reducing the costs of developing urbanizaciones tipo popular (discussed in chapter three): the limit on the length of street blocks was extended from 100 to 300 metres, and narrower streets with thinner or less expensive surfacing were permitted in order to cut paving costs further. See “Reglamento de Urbanizaciones y Subdivisión de Tierras: Decreto Supremo No. 2,” January 20, 1955, in Lima: Historia y urbanismo en cifras, 1821-1970, ed. Wiley Ludeña Urquizo (Lima: Ministerio de Vivienda, Construcción y Saneamiento, 2004), 423-429.

85 Luis Felipe Calle Calle and John Turner, “Informe confidencial presentado por la Oficina de Asistencia Técnica de Arequipa relativo al problema de la urbanizaciones populares,” September 2, 1957, JFCT-UW.
could be met using “one seventh of the area actually invaded and solicited.” Many existing settlements were sparsely populated and poorly consolidated, making them socially fragmented and uneconomical for the provision of even basic services; by contrast, a satellite city would be planned as “a logical and appropriate extension” from the outset, growing in stages as demand required.

The project was to be kept secret for as long as possible: “our campaign against speculation depends on publicizing such a plan widely and suddenly.” With a site to the south of the city large enough to meet housing needs for the next twenty-five years, accommodating 30,000 people, Turner’s initial schematic plan consisted of a grid of major and minor streets, with some effort to introduce variable streetscapes and park space into the overall pattern [4.17]. His conceptual planning for the city suggests the importance of creating a logical and harmonious relationship between the various urban scales—house, street, and town—building up from the smallest unit to a coherent whole [4.18]. More detailed drawings produced around 1958 by Hernán Bedoya of ONPU [4.19] demonstrate greater specificity in relation to the topography and sensitivity in the handing of the urban scheme, but are also more utopian in nature, depicting a bucolic setting with tree-lined avenues and a wide range of communal buildings (church, schools, civic and commercial centres) that in practice would have been difficult to finance [4.20]. This version of the satellite city was clearly inspired by the concept of the unidad vecinal (neighbourhood unit), introduced into Peru by architect Fernando Belaúnde Terry in the mid-1940s (discussed in chapter two). Like Belaúnde’s unidad vecinal, Bedoya’s satellite city is a vehicle of decentralized urban development: framed by a wide green-belt of agricultural land, it functions as a self-contained unit with its own commercial and industrial

87 John F. C. Turner, letter to Eduardo Neira, September 7, 1957, JFCT-UW. It is not clear from the archive whether the letter was sent.
88 Turner for OATA, “Las Urbanizaciones Populares de Arequipa.”
zones, and is fully equipped with community facilities, most importantly the school, which becomes a structuring device forming the centre of each of the city’s sub-zones.

Turner’s response to this project was highly ambivalent. Some of his statements welcome the idea as a way to sidestep the difficulties of dealing with ill-planned settlements and their combative leaders, while elsewhere he is highly critical, regarding its “evasion” of the real situation as misguided:

The idea of a new town is infinitely more attractive to us as architects and administrators but I have an uneasy feeling that it is an authoritarian and dictatorial solution which might destroy the incipient new communities (and therefore the basis of democracy), divide the population and, as a result, fail. Deservedly. I’m shocked and disturbed by Luis Felipe’s calm assumption that we can create communities as easily as we can build houses. This kind of thinking is almost enough to convince me of the unsoundness of the whole idea.  

Turner’s unease suggests a discomfort with an urbanism based on the modernist ideal of the tabula rasa rather than a Geddesian examination of existing conditions. Despite Turner’s reservations, however, the project remained on the agenda until at least the early 1960s.

By the end of 1957, with few concrete projects in hand, Turner was pessimistic about the future of OATA, writing that relations with the residents appeared to be deteriorating. With insufficient resources to carry out major projects, OATA was only succeeding in creating obstacles and introducing red tape. A massive earthquake on January 15, 1958 dramatically changed the dynamic: as Turner observed, “[b]esides providing the necessary credit the disaster predisposed everyone concerned to accept new ideas and methods.” With 1,647 dwellings destroyed and 3,407 badly damaged, OATA became the centre for relief work.

89 Turner, letter to Eduardo Neira, September 16, 1957, JFCT-UW. Luis Felipe Calle Calle was an architect and Turner’s colleague at OATA. It is not clear whether the letter was sent.

90 The last reference to the project in Turner’s archive is in a letter from José Stretz to Turner, dated November 27, 1961, JFCT-UW.

91 Turner, Housing and Planning Arequipa, 30.

92 Turner, Housing and Planning Arequipa, 39.
4.4 Reconstruction in the Emergency Zone

The reconstruction effort involved the (not always harmonious) collaboration of a number of agencies; OATA’s contribution focused on two new projects—the Rural House Construction Program and the emergency settlement of Ciudad “Mi Trabajo” (“My Work”)—as well as the development of a third project, the Miraflores Pilot Program in Aided Self-Help, out of the existing remodelling plan for Miraflores.

Rural House Construction Program

With earthquake damage extending to a number of villages in the area around Arequipa, a US-government aid agency—Servicio Cooperativo Inter-Americano de Producción de Alimentos (SCIPA, or Inter-American Cooperative Food Production Service)—oversaw the construction or repair of 385 houses over six months [4.21]. OATA provided technical assistance in the form of plans for a simple “house nucleus” which could be further developed over time. Pat Crooke, Turner’s colleague from the AA, who had recently been working in Colombia, was assigned as OATA’s supervising architect, and with the assistance a dozen post-graduate agriculture students, he managed a group of four general foremen and eleven masons who helped each of the families to build their own houses. When the region suffered a second major earthquake on January 13, 1960, the houses performed well [4.22].

There was some difficulty getting residents to accept the layout and dimensions of the house nucleus, as it differed substantially from local patterns, which were based simply on “one large room with light and temporary partitions—sometimes only a curtain to divide the living and sleeping areas, or even humans and animals.” As Turner later reported, OATA was “naturally anxious to improve the living standards,” and produced a design with a few small rooms.

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surrounding a patio, dividing the space according to function in accordance with the tenets of modernist reform housing. Yet, Turner added, with more time for “anthropological studies” the architects would have better appreciated the significance of the customary house form—specifically:

the large room had an important cultural function—the wake—which cannot be carried out in the patio.... Finally, a compromise solution was reached by the placing of a large opening, closed with doors, between the two small rooms.”

Crooke’s success with this program encouraged Turner to consider the possibility of developing the method further with teams of builders working together to build their houses cooperatively. As he later wrote, this would be the first directed mutual-aid self-help program in Peru. Still, while the logistics of the method were beginning to crystallize, the disjunction between the values of the architect and of the self-builder (of expert knowledge and of local custom) over the form and use of the house, and the relative value of “reform” elements (functional separation, hygiene, avoiding the danger of “promiscuity”) remained unresolved.

**Ciudad Mi Trabajo**

In Arequipa, the first priority in the immediate aftermath of the earthquake was to establish an “emergency transit camp” for those left homeless. On the day following the disaster OATA and ONPU jointly selected a site which was adjacent to the area already set aside for the proposed satellite city, on the theory that the new settlement could act as a “base camp” for its construction, providing temporary housing for residents as they worked on their future permanent home. Construction began the same day. Shortly afterwards, Turner noted approvingly that the project had been able “to take advantage of the unique opportunity of clearing a large section of the slums” in Arequipa. The greatest challenge in developing the new

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city would be to prevent the transitional settlement from becoming permanent. Accordingly, all constructions were made of provisional materials: “the value of the site as agricultural land ... must always be greater than the loss involved in moving people and materials”—no equity would be built up, no real investment made. Ciudad Mi Trabajo was to function as a permanent camp for a series of transitory populations, providing a necessary service to those displaced, while at the same time operating as “a place of study and readaptation of the people, so that during their stay in it the betterment of their economic, moral, and cultural level, and of their family organization, is secured, to facilitate their transfer to new zones.” In part this would be achieved through programs of economic development, “to rehabilitate such families (by forming small cooperative workshops for instance),” raising their household income to the level where they could manage to finance the construction of their own houses through aided self-help. With its available population and controlled environment, the camp could also function “as a field of experimentation [campo de experimentación], for studies of a social and medical character”; OATA, for example, could conduct studies into the community organization of mutual-aid self-help projects.

Towards the end of 1958, OATA ran into funding problems and the project was left without direction. As one newspaper complained, “the pobladores of Ciudad Mi Trabajo are victims of administrative irresponsibility, they live in a non-existent town, without electricity, water, police, and are forming a clandestine barriada” effectively established by OATA itself. In October 1960, some time after Turner had left Arequipa, a former colleague reported to him on plans for remodelling the “city” now that it had indeed become a permanent settlement; progress


97 OATA, “Informe sobre Ciudad Mi Trabajo.”

98 Turner, “Housing Problem in the City and Districts of Arequipa.”

had stalled due to conflicts between two groups of pobladores: “the old ones say that the victims of the last earthquake [January 1960] have invaded the zone that they currently occupy, which had been destined for the expansion of Ciudad Mi Trabajo.” Both groups eventually agreed that they would live in the remodelled settlement, but each insisted on being rehoused in their own separate area.\textsuperscript{100} A year later the residents had finally approved a definitive lot plan, after the architects resorted to subterfuge in order to proceed with a reduced lot size. A dummy plan with extremely small lots was created expressly for the purpose of being rejected in order to give the pobladores the illusion of having successfully negotiated an increase.\textsuperscript{101} Nonetheless, the lack of progress continued: a representative of OATA’s successor agency complained to Turner in February 1962 that they were still building model houses.\textsuperscript{102} Four years after the initial earthquake, it appeared that the human and financial resources required to complete the project would never be forthcoming.

\textit{Miraflores: Pilot Program in Aided Self-Help}

The project in Miraflores was in keeping with the approach of the ONPU urban plan developed in 1956: residents were to be moved from crowded inner-city slums (where the earthquake damage was the worst) to the peripheral zone of Miraflores, selected because it already had a high level of consolidation. From the outset it was intended to function as a rebuilding program using “directed mutual-aid self-help”: Turner initially proposed this method in March 1958, believing that it would reduce costs by 30–50 percent, allowing for more units to be built with the available reconstruction funds. In the end, 141 houses were completed for the cost of 100 contractor-built houses.\textsuperscript{103}

\textsuperscript{100} Raúl Becerra, memo to John Turner concerning Ciudad Mi Trabajo, October 1960, JFCT-UW.
\textsuperscript{101} Raúl Becerra, memo to John Turner concerning Ciudad Mi Trabajo, September 5, 1961, JFCT-UW.
\textsuperscript{102} José Stretz, letter to John Turner, February 22, 1962; emphasis in original.
\textsuperscript{103} Turner, “The Reeducation of a Professional,” 127-128.
The first phase was focused on temporary housing, in order to achieve tangible results quickly. This proved unpopular, as participants saw little value in expending their efforts on provisional construction. Instead they devised their own adaptations to make these structures permanent, fortifying the foundations and adding cement to the composition of the mortar. Once OATA recognized this, it revised the program and produced a new design for a permanent dwelling. This design, developed by assistant architect Federico Mevius, focused on the need for flexibility within standardization [4.23], using fixed basic modules with variable internal partitions, allowing for expansion from the core unit as needs changed. The first model used a vaulted roof, apparently favoured by the architects on aesthetic (as well as structural) grounds. However from a practical point of view, a vaulted roof would have greatly complicated the addition of a second storey, or even horizontal extensions; for this reason self-builders generally preferred a flat roof (azotea), which also provided them with additional usable space. In any case, OATA experienced technical problems with the construction of the vaulted roof, and in later models it was replaced by a flat roof.

Despite the standardized design, each of the participants met with an architect “to determine the best solution for their particular case”; most participants proposed carrying out exactly the same alteration to the house, declaring “their future intention of roofing over the patio” in order to create a larger living room. In his subsequent assessment of the program, Turner wrote: “After duly admiring the model (made to demonstrate the way in which the house could grow by stages) the participants showed little further interest in the design plan,” and he concluded that it was unlikely that residents would follow the intended extensions either. For their part, apparently the architects did not consider adapting the plan to accommodate the residents’ evident preferences: their adherence to the modernist dictum of maximizing light and

104 Turner, Housing and Planning Arequipa, 54.
air (here embodied by the culturally appropriate form of the patio) overruled the residents’ desire to maximize their usable living space.

The program began with 150 families divided into six groups, each group having an average of four participants each work day, plus a bricklayer [4.24-4.26]. The first houses took around twenty days to build; this later dropped to ten days (the “record” being six days). A high proportion of women (as well as children) provided manual labour, both as scheduled workers and as volunteers, despite the initial objections of some men. Again it seems that the emergency situation worked in favour of an unconventional solution, as women’s contributions were too valuable to exclude.

In a report written for the United Nations, Turner noted that the organization of the project followed the guidelines set out in the CINVA manual based on Puerto Rican experiments with ayuda propia and ayuda mútua [4.11], which had been given to him by Eduardo Neira. Turner noted that it was “impossible to follow all the recommendations,” and indeed the administrative requirements were substantial [4.27], generating a staff of some thirty-eight people, headed by an architect responsible for framing the overall program, producing designs, inspecting each individual lot, and attending weekly meetings with the project participants [4.28]. In addition to educating participants on technical matters, these meetings served to

105 A couple of families were forced to withdraw from the program because they were unable to cover the various fees, so only 141 houses were completed. Turner, Housing and Planning Arequipa, 46. Turner added that “in two or three of the cases … they were ‘unacculturated’ Sierra Indians who are not easily accepted, though tolerated, in the ‘mestizo’ Arequipa society.”

106 “Vivienda por todos y para todos,” La Prensa, October 4, 1959, Sunday supplement.

107 Furthermore, Turner added: “The enthusiasm and seriousness displayed by the women participants—who obviously enjoyed their day out (many have worked voluntarily for days at a time)—has even led the staff to consider the future possibility” of basing future schemes on women’s rather than men’s labour. Turner, Housing and Planning Arequipa, 43.


109 Turner, Housing and Planning Arequipa, 42, 44-45. Turner’s archive contains a series of six forms which were apparently used to administer the program: Form for the group, Form for the participant, Form for the house, Daily activities, Price of materials, Control of materials.
promote good citizenship: as Turner stated, “for many it was their first experience of democracy.” For example, the rules governing the conduct of the cooperative work groups—the required work hours, attendance at meetings, fees to cover shared expenses, and the fines to be imposed on wayward members—were developed in consultation with the first group to participate in the program.\textsuperscript{111}

Turner’s later writings, such as \textit{Housing by People}, minimize the issue of conflicting interests within communities of self-builders: in line with an anarchist model of society, autonomous or locally self-governing groups are characterized as egalitarian and organically balanced, as the needs of one person are limited by the needs of another, producing equilibrium, stability, and efficiency. They do not appear to be vulnerable to manipulation or distortion by their more powerful members; rather, throwing off governance by outside bodies leads to a kind of benign laissez-faire system where each receives his “fair share” thanks to the network’s self-regulating mechanisms.\textsuperscript{112} In a marked contrast, the Arequipa report discusses at length the problems of internal political disputes, corruption, and speculation by settlement leaders. This critique—which Turner would subsequently attribute to his own “liberal authoritarianism”\textsuperscript{113}—is used to emphasize the “importance of government intervention” to advocate for the interests of ordinary residents and to demonstrate that the leadership of the architect-organizer is a necessary corrective to imbalances within the group;\textsuperscript{114} he is an engineer who recalibrates existing dynamics to ensure the smooth functioning of the social organism.

\textsuperscript{110}Turner, \textit{Housing and Planning Arequipa}, 47.
\textsuperscript{111}Turner, \textit{Housing and Planning Arequipa}, 46.
\textsuperscript{112}Turner, \textit{Housing by People}, 135.
\textsuperscript{113}Turner, “The Reeducation of a Professional,” 138.
\textsuperscript{114}Turner, \textit{Housing and Planning Arequipa}, 17-18. In this and other contemporaneous reports by Turner (for Huayco, Ancon, and Paramonga) anthropologists are enlisted to assist with these interventions, deciphering the social dynamics of the group and identifying effective leaders.
In the report’s conclusion, Turner wrote that the squatter settlements were a “normal” pattern of urban development (“physically indistinguishable” from “typical incipient towns”), as illustrated by a series of images that followed their evolution and integration into the established city; in fact, “it is only the exaggerated scale of the whole taken together which is really abnormal.” [4.29]. Nonetheless, they were also evidence of the failure to provide “appropriate popular housing,” a situation which had forced ordinary people to operate outside the law. On a more fundamental level, Turner viewed the emergence of the barriada as the symptom of a future, undefined social imbalance or disorder:

If, as archaeologists, many historians, and most architect-planners believe, the city is the shape of the social order (or the shell, as it were, which is both formed by and forms the social structure) then the future product of the spreading chaos is as dangerous as its present cause.

Since the Peruvian government was evidently “unable to contain this movement by force”—due both to its scale and to President Odría’s reliance on the urban poor for electoral support—the answer therefore lies in “the voluntary collaboration of the people and the state.” In this context, the value of the Arequipa project was not in the houses built, or even the people housed, but:

in the proof of the administration’s ability to build the vital bridge between the people and the state across which the complementary forces of coordinated government planning and mobilized local action can freely pass. 116

From this decidedly unequal encounter, initiated from above and outside (despite Turner’s anarchist leanings, it is the state that builds the bridge), Turner expressed the hope that an equitable collaboration would emerge—a view that took little account of the political realities facing marginalized low-income citizens in negotiating with their governments.

The report ends with a consideration of the role of international agencies such as the United Nations in resolving the problems facing cities like Arequipa. Turner concluded that along

115 Turner, Housing and Planning Arequipa, 57-58.

116 Turner, Housing and Planning Arequipa, 58. A similar argument is advanced in CINVA’s 1953 manual: these programs would create “channels for direct communication between citizens and their government,” allowing the government to establish good public relations. Rivera Santos et al, Manual para la organización de proyectos piloto, 21.
with providing advisors, their most significant contribution would be “the orientation and stabilization of government policy,” using targeted financial aid to ensure administrative continuity for housing programs, allowing them to “be independent of established institutions and have the protection necessary for any scientific experiment.” In this scenario the role of the international agency was to establish proper laboratory conditions within the host country, insulating the trial project and its supervising foreign expert from the contaminations of shifting local politics. In fact, Turner himself had suffered the consequences of such shifts: despite the successes of the pilot project, OATA lost most of its staff in a political shake-up in late 1958, and Turner himself was forced to leave. Architect Federico Mevius took over the job of directing the programs in part from October 1958, and in full from January 1959; at this time OATA itself was closed down, and its programs (along with Mevius) were transferred to the Comisión de Ayuda a la Zona Afectada por el Sismo (CAZAS, Commission for Aid to the Zone Affected by the Earthquake), an agency set up to oversee the use of reconstruction funds donated by national and international organizations. The program shut down entirely at the end of 1959 when CAZAS used up the last of its funds. Writing in mid-1959, with the closure of the office all but confirmed, Mevius reported that there was growing interest from barriada associations in its aided self-help programs, with calls for the remaining earthquake reconstruction agency—the Junta de Rehabilitación y Desarrollo de Arequipa (JRDA, or Restoration and Development


118 John F. C. Turner, “Esperencias [sic] en Ayuda Mútua Dirigida en Arequipa,” August 1959, JFCT-UW; Turner, *Housing and Planning Arequipa*, 30. According to the official version, OATA was closed to avoid duplication of services. According to Turner, inopportune comments by Ernest Weissmann of the UN in support of Turner’s work at OATA had created a backlash within the government and the housing bureaucracy, which resulted in Turner losing his job. Weissmann offered Turner the opportunity to write the report on the Arequipa projects for the UN both as recompense and as a vote of confidence in the self-help methodology. Turner, interview with the author, June 2007. As he recalled the events in 1975, Turner “was sacked on the direct orders of the then President, Manuel Prado, after visiting him in the company of Ernest Weissmann.” Goldstein, “The Originators,” 525. See also: memo from Ernest Weissman to President Manuel Prado, “Asistencia Técnica al Desarrollo Comunal,” dated December 9, 1958, JFCT-UW, in which Weissmann tried to convince Prado of the necessity of continuing experiments such as OATA.

119 “Vivienda por todos y para todos,” *La Prensa*, October 4, 1959, Sunday supplement.
Council of Arequipa)—to take up OATA’s initiative.\textsuperscript{120} Subsequently some ten years after the 1958 earthquake, the JRDA reported that it had built 1,319 houses throughout twenty different barriadas using the self-help system—hailing this as its most successful program due to “its social importance, its low cost and the revitalization of a thousand-year-old Peruvian tradition of working together.”\textsuperscript{121} In this sense OATA’s program did have an ongoing legacy, yet with some 5,000 houses badly damaged or destroyed in the earthquake—not to mention the 30,000 families that AUPA claimed as members in the mid-1950s—many families were left without adequate housing.\textsuperscript{122}

4.5 Systematizing Self-Help

Among housing experts in Peru the work of OATA was soon recognized as ground-breaking, representing “the most important experiment in the country, not just in terms of size but also the method used.”\textsuperscript{123} Turner continued to focus on aided self-help, in particular contributing to the establishment of an early pilot project in Lima,\textsuperscript{124} a small urbanización called Andrés Avelino Cáceres, situated to the south of the city. Consisting of forty houses built

\textsuperscript{120} Federico Mevius, letter to John Turner, n.d., ca. June-July 1959, JFCT-UW.

\textsuperscript{121} JRDA, \textit{Informe 10 años} (Arequipa: JRDA, September 1968), 28. Presumably this total does not include the 141 OATA houses.

\textsuperscript{122} The JRDA report also described 600 houses in its new “Ciudad Satélite”: these however, were not built by self-help, but using “rapid and new construction systems” and were backed by home loans, resulting in a neighbourhood “with wide roads and gardens, green space” housing “authentic representatives of the middle class.” JRDA, \textit{Informe 10 años}, 35.

\textsuperscript{123} CNV, \textit{Experiencias relativas de la vivienda de interés social en el Perú}, Segunda Reunión Técnica Interamericana en Vivienda y Planeamiento (Lima: CNV, December 1958), 88.

\textsuperscript{124} According to Turner, the project “was based on the Arequipa project but with a very much higher standard of design.” Turner, \textit{Housing and Planning Arequipa}, Appendix 1, 4. This seems to have been the first aided self-help housing project administered through the FNSBS technical assistance offices. However, Turner’s writings suggest that the contemporaneous Ciudad de Dios development had involved an abortive aided self-help element. As he described it: “minimum ‘nuclei’ are being built to be extended later by the occupants.... The failures of the first attempt are mainly due to the inexperience of the personnel involved.... In spite of all its limitations I feel that this project is highly significant and may show the start of a revolutionary change of official policy.” Turner, \textit{Housing and Planning Arequipa}, 24.
through *ayuda mútua* by workers of the Cemento Portland factory (with a design recalling OATA’s original model house), it was begun in June 1959 and took eighteen months to complete [4.30-4.31].

However immediately after leaving Arequipa Turner worked on developing a self-help housing project for quite a different context: the US-owned W. R. Grace and Company sugar-processing factory in Paramonga in northern Peru, whose workers were housed in an overcrowded company town [4.32]. This provided the opportunity for refining techniques used in Arequipa, now making greater use of anthropological data, with an extensive social survey conducted by anthropologist Eduardo Soler (previously involved with Matos Mar’s Huarochirí project), complemented by a physical survey of housing typologies by Turner [4.33]. This research led to increasing sophistication in spatial planning to reflect socio-cultural differences in the use of the house. Turner acknowledged that in Arequipa “there was insufficient knowledge of family living patterns and requirements when the prototype was designed,”[128]

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125 “Dan títulos a nuevos propietarios: Prado entregó ayer 40 casas construídas por ayuda mútua,” *La Prensa*, January 7, 1961; “Sistema ‘ayuda mútua’ se aplicó en casas que recibieron cuarenta familias pobres de la ‘Portland,’” *La Tribuna*, January 7, 1961. The plan shown on the cover of the FNSBS document describing its *ayuda mútua* projects seems to be that used at Andrés Avelino Cáceres. This assumption is based on the similarities between the plan and descriptions of the house given in newspaper articles; one of the articles also includes a photograph, where the two vaults facing the street (one largely cropped out of the photo) appear to correspond to the two bedrooms in the plan. See FNSBS, *Anteproyecto de construcción de viviendas por ayuda mútua en la República* (Lima: FNSBS, October 1960).

126 W. R. Grace and Company “established itself as perhaps the leading inter-American trading and shipping house” in the late nineteenth century; its “presence was most extensive in Peru, where the company had major interests in sugar, textiles, mining, paper, chemicals, and shipping and transportation.” C. Alexander G. de Secada, “Arms, Guano, and Shipping: The W. R. Grace Interests in Peru, 1865-1885,” *The Business History Review* 59, no. 4 (Winter 1985): 597. In 1952 the Grace Company had commissioned Luis Ortiz de Zevallos (with Ernesto Paredes Arana, O. Arrisueño M., R. Pérez León) to develop a model modern company town using conventional construction methods, but this proposal evidently did not eventuate; see “Plan Regulador de Paramonga” *El Arquitecto Peruano* 19, no. 216-218 (July-September 1955); and “2 ciudades industriales nacen: Paramonga y Cartavio: Un plan regulador las convertirá en las 2 primeras ciudades-modelo,” *La Prensa*, December 4, 1955.


which resulted in a layout with smaller rooms than the families would have preferred. In Paramonga this insight led to the design of two distinctive house plans, developed in collaboration with architect Diego Robles: one for “paisanos” (peasants) and one for “criollos” (urban dwellers) [4.34]. The plans employed the same basic footprint, framework, and dimensions, but allowed for two layouts: the first featured a grouping of rooms (or one large room) at the front of the lot and space at the back to accommodate a kitchen garden and small livestock enclosure; in the second a collection of smaller rooms were grouped around a central patio. Scale models (with movable pieces) were used to allow the workers to visualize the possibilities of the “growing house” [4.35], followed later by full-scale demonstration houses [4.36].

Turner and Soler submitted their report to Grace in 1960, and the company decided to proceed with a trial project of sixty self-built houses [4.37]; in all, the program was to include 600 self-built and 400 contractor-built houses.129 A massive publicity campaign was mounted to convince the workers—who would have to take out loans in addition to building their own houses—to participate in the program [4.38]: posters, radio coverage, a promotional newspaper, a print run of 5,000 leaflets, informational flyers inserted into the worker’s weekly pay packets, and a film on construction through mutual aid that screened on four occasions, attracting around 700 people each time.130 This was not an emergency situation as in Arequipa—the workers would have to be persuaded that the benefits of the program warranted their their efforts.

The first phase went ahead with a group of fifteen families, starting construction in March 1961 under Turner’s supervision. However from July 1961 he was only able to continue as a part-time advisor, since he had taken on a position with a new housing agency, the Instituto de la Vivienda (INVI, or Housing Institute); in December 1961 Turner left for Lima permanently, and

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129 “¿El proyecto por qué se llama de ‘desarrollo comunal’?” *Paramonga: Organo Informativo de Paramonga—Edición Especial*, 3, no. 13 (February 1961).

130 “Proyecto Piloto de Desarrollo Comunal Paramonga-Pativilca,” March 1961, JFCT-UW.
was replaced in Paramonga by another architect. In October 1961 an audit of the project raised concerns about lax accounting practices, especially the lack of control over cash disbursements, noting that supervision from Turner had been wanting due to his frequent travel. This was followed a year later by a highly critical report, which had been commissioned in order to investigate the misappropriation of funds by the project’s bookkeeper, but in the process also uncovered evidence of massive cost overruns on the housing itself. The first fifteen houses had been completed in July 1962, at 500 percent of the estimated budget. The basic house nucleus had been projected to cost the resident S/.20,000; in fact, they cost S/.100,000 each, paid for by the Grace Company, which then sold them on to workers for S/.35,000.

As a result, the self-help approach was abandoned, and in mid-1962 Grace and the Paramonga unions decided to complete the remaining forty-five houses of the pilot project using conventional construction. They requested bids from two US-based real estate development companies which were beginning to establish themselves in the low-cost housing market in Peru (Nelson Rockefeller’s International Basic Economy Corporation and the Wichita-based Hogares Peruanos). However, after union elections, the new leadership rejected the project “of privately owned homes and ... demanded that Grace build houses and give them to the workers as has been traditionally done.” Although it is difficult to confirm the reasons for the cost

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131 La Sociedad Paramonga Ltda, memo to David Vega Christie, Executive Director of INVI, n.d. ca. December 1961, JFCT-UW.

132 E. G. Lenton, memo to E. Wehrli on “Proyecto Piloto de Desarrollo Comunal Paramonga-Pativilca,” October 10, 1961, JFCT-UW.


134 “En la primera etapa del proyecto, 60 familias de Paramonga tendrán casa propia,” Paramonga: Organo Informativo de Paramonga—Edición Especial, 3, no. 13 (February 1961). A report by Howard Wenzel of Hogares Peruanos indicates that the first fifteen houses “were started on a Self-Help Program but were later finished by Grace since the self-help did not work out.” Wenzel, Hogares Peruanos Status Report, December 1, 1962, Jean and Willard Garvey World Homes Collection, MS 94-09, Wichita State University Libraries (WHC).

135 Howard Wenzel, Status Report, n.d., received November 19, 1962, WHC.
overruns—the report speculated that “a marked lack of on the spot planning and leadership before and during the executing of this project”\textsuperscript{136} had been a major factor—it seems quite possible that there was a general lack of enthusiasm for the entire project, which was in essence an effort to shift responsibility for housing from the company to the workers. While Grace may have assumed that the security of owning a home would naturally appeal to its workers, the scale and intensity of the marketing campaign suggests that there was considerable resistance to the idea of purchasing housing when it was customarily provided by the employer, especially in the case of migrant workers who only lived temporarily in Paramonga, a small company town that offered few other economic opportunities. Grace put the project on hold in December 1962 following riots directed against a US-owned mining company, concerned that the violence would spread to Paramonga. The project appears to have stalled permanently at this point.\textsuperscript{137}

Meanwhile, back in Lima from late 1961 Turner was engaged in preparations for the implementation of a nation-wide, two-year program of aided self-help projects planned for 1962–1963 (discussed in chapter six). Turner was part of the team that had secured funding for this program from the Inter-American Development Bank, and would now be responsible for

\textsuperscript{136} Bachmann and Meier, “Confidential Report on Investigation of Defalcation,” 4-5. The report’s assessment in full: “We fully realize that in an undertaking of such nature, certain disappointments and transgressions of calculated costs are unavoidable. However, we believe that an over-expenditure of more than 500 percent ... constitutes, to say the least, a financial failure of this project and should be subject of serious concern to the responsible parties involved. While we do not consider ourselves qualified to determine the exact causes of this state of affairs, we nevertheless wish to venture in stating that from what we could ascertain (through conversations with persons connected with the project, review of correspondence, etc.) that there was a marked lack of on the spot planning and leadership before and during the executing of this project. This appears to apply to legal, financial, accounting, and engineering aspects. Whether or not the absence of such basic requirements alone has led to such a drastic over-expenditure is another matter and could only be determined through a further exhaustive investigation; this to be performed by a team composed of a lawyer and an architect.” In a 1975 interview Turner frankly acknowledged that taking on the INVI position “gave me an excuse to get away from the sugar estate job which was turning into a disastrous attempt to transfer the relatively successful Arequipa experience to a totally different and, as it turned out, wholly unsuitable context.” Goldstein, “The Originators,” 525.

\textsuperscript{137} The protests were directed at the Cerro de Pasco Corporation in La Oroyo, “where the workers led by the Commies did about 4 million dollars worth of damage.” Howard Wenzel, Status Report, December 27, 1962. One final report noted that the company was trying to confirm buyers before it started construction on the houses. Howard Wenzel, Status Report, March 2, 1963. WHC.
overseeing it through his new position at INVI. However mid-way through this program, in August 1963, Turner left official employment at the housing agency—now renamed the Junta Nacional de la Vivienda (JNV, or National Housing Council)—after his status as a foreign national employed by the Peruvian civil service was called into question, causing a minor political stir. Nonetheless he continued to work for the JNV as an advisor, now contracted through the British Government's overseas aid office, the Department of Technical Cooperation. His work no longer dealt with on-the-ground projects, but on theoretical proposals.

Turner continued to explore his interest in standardization, modularity, and prototypes, giving some insight into his evolving view of the role of the architect in the production of self-help housing. In 1963 Turner developed a proposal for “Design Systems for Low-Cost Houses” for the JNV [4.39]. Poor design and construction were wasting much of the resources invested in housing, he argued, so “[i]t is essential to establish and make general a modern tradition that responds to the actual needs and to those of the next generations.” As in the “Confidential Report” of 1957, this “modern tradition” made use of standardization via the development of a modular system made up of a small number of components; this would allow a great deal of flexibility and variety in the assembly of the individual house. As at Paramonga, there were prototype layouts conceived for a “Casa Popular Criollo” and a “Casa Clase Media”—both


139 John F. C. Turner, “Actividades durante el mes de Noviembre y Programa para el mes de Diciembre 1963 del Arqto. J. Turner Asesor del DTC a la JNV,” December 11, 1963, JFCT-UW. In addition to working with the JNV, Turner also advised the Comisión Ejecutiva Interministerial de Cooperación Popular (CEICP)—a national development initiative of President Fernando Belaúnde Terry. In addition, on his first trip back to the UK in 1962 Turner had lobbied to get government support for a British version of the Peace Corps, and then supervised the group of volunteers who worked in barriadas through this program. See Dudley Plunkett, “British Volunteers in Lima,” Architectural Design 33, no. 8 (August 1963): 356.

suitable for self-build, adaptable in form, and capable of progressive development and modification as families changed. In a second proposal for the JNV in 1965, Turner extended the question of standards and prototypes to consider three scales: the individual dwelling, the group of dwellings (or the street), and the locality. Using Christopher Alexander and Serge Chermayeff’s *Community and Privacy* (1963) as a point of reference, Turner’s proposal particularly emphasized the importance of balancing public-private space at each level, since the dearth of public space was a particular problem in squatter settlements. As in the 1963 paper, the rationale for the “systematization of designs” was to facilitate the development of improved prototypes, since “neither the popular traditions nor the [housing] agencies’ projects provide what is required”: self-builders simply imitated the poor housing models they had absorbed from their own experience (whether substandard rural shelters or urban slums), while none of the many designs developed by government architects had yet managed to produce a solution worthy of widespread reproduction. The problems resulting from this failure resonated on a number of levels:

The value of a viable tradition in the design of the environment is not, of course, a merely aesthetic value though the results of such a tradition will, almost certainly, be aesthetically satisfactory. The present lack of a tradition—its substitution by the habitual repetition of inappropriate forms—is extremely damaging to personal, social, and economic health and it produces ugly shapes.\(^{141}\)

This concern with the aesthetic dimension is perhaps unexpected, and it is by no means at the core of Turner’s later writings on self-help housing; this persistence of a concern with the architectural object could be understood as an intermediary step in the shift from conventional architectural production to conceiving “Housing as a Verb,” as Turner wrote in 1972.\(^{142}\) Tellingly, the first article in the August 1963 issue of *Architectural Design* edited by Turner [4.40],

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preceding the introduction, presented the pristine forms of a “Village Artisan’s Self-Built House,” evoking the figures of the bidonville and the Mediterranean village that had already been established as objects of modernist admiration. The house, built by Pedro Viscarra near Arequipa, demonstrated “how far, given the opportunity, one man’s skill and resource will reach in housing his family.” Its accomplishment was testament to Turner’s sense of an aesthetics of self-building that was also an ethics—a certain integrity inherent to self-build construction, arising from the pure potential of what people could achieve on their own, a stance that also reflected his anarcho-Geddesian understanding of the organic order of things in their natural state. This house had earlier been featured in an article by Eduardo Neira that appeared in El Arquitecto Peruano in 1958. According to Neira, Viscarra’s house—with its “plastic and pure forms”—was not an isolated example: “it is only the best, more than the prototype, it is the archetype, a product of selection, as the Parthenon is nothing but the archetype of the Greek temple of the Age of Pericles.” A 1957 article by Neira on aided self-help housing provides some insight into the nature and significance of this “archetype”: while the main focus is on the economic benefits of the self-help method, in the final section—given the Corbusian subtitle “Towards a new social architecture”—Neira envisages the “interminable monotony” of social housing projects being replaced by a new vernacular architecture, where the architect as technical assistant cultivates both a revival and an updating of native creativity. Here emerges:

a way to overcome the current stagnation, to revive using modern terms the plastic and functional qualities of the cheerful little towns of the past where the popular spirit created pleasant and fitting environments for a simple and direct life.\(^{145}\)


\(^{145}\) Neira continued: “We have seen throughout Peru constructions of genuine ‘architectonic’ quality, constructions of clay and straw, of quincha and adobe, in which the proportion, the sense of the
A fusion of the traditional and the modern, and a return to the authentically Peruvian, appear within reach even as the forces of modernization increase.

Shortly after arriving in Arequipa, in keeping with his definition of planning as a “process of ordering,” Turner observed with concern that in the barriadas, “millions of soles and hours of work are being misspent by the poorest people to create unhealthy and disorganized environments.” Instead, he argued that it was essential to convince residents that their efforts at “providing themselves with some sort of home of their own is against their own interests and to convince them to wait for alternatives to be put forward by us.” On leaving Arequipa, his viewpoint had changed little: “[t]he only possible way of ordering city development is through the harnessing of the blind but powerful forces of spontaneous popular urban expansion to planned development programs.” A decade later, in an influential paper written for the United Nations, “Uncontrolled Urban Settlement: Problems and Policies,” his position had shifted to some degree. On one hand, there was still a role for the architect’s professional training and expertise, particularly in addressing the wastefulness of poorly designed and constructed housing, and poorly conceived and sited urban plans, which suffered from excessive density and “built-in blight” [4.42]. On the other hand, Turner now called for governments to respond to “the real needs and resources of the governed” by focusing on providing those resources that were beyond the scope of individual citizens—large-scale infrastructure, legislative guidelines, and technical assistance: “The paternalist concept of the State as a provider has to give way to the

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147 Turner, Housing and Planning Arequipa, 58.

concept of the State as the servant—providing tools.” In this formulation, the state (and the architect) no longer need to exercise control over ordering urban development by “harnessing blind but powerful forces”; rather, their role was to mitigate the “problems of uncontrol” by complementing and facilitating the self-generated initiative of ordinary people—in Turner’s terms here, “working with” rather than “working for” people.

Looking back on his work in Peru, in 1972 Turner wrote that the experience of trying to administer aided self-help programs had soon convinced him that the extensive “administrative superstructure” they required was too expensive and inefficient. Rather than attempting “to find and train the army of dedicated field workers and local program administrators” such schemes required, he now advocated simply providing construction funds to individual house-builders, with only basic oversight to ensure that dwellings were built to acceptable standards. Individuals and locally controlled groups could more effectively direct their own development without the encumbrance of outside professionals: in the terminology of his later writings, the forces of autonomous (self-determined) building did not need “harnessing” by heteronomous (other-determined) organizations in order to produce decent housing.

After considering, but then declining an offer to join Constantinos A. Doxiadis at the Ekistics Institute in Athens, Turner left Peru in September 1965 to take up a fellowship at the

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151 Turner gave a series of three lectures on housing and urbanization in Peru at the Athens Center of Ekistics in November 1964. In conversation Turner recalled that Doxiadis had been very impressed with the August 1963 issue of Architectural Design, so had invited Turner to speak in Athens the next time he was in Europe. “He actually wanted me to work with him, but I knew something about his reputation, who he was, there were some downsides to it. He was really a big developer. He supported very good work, the ATO [Athens Technological Organization] was a very good institution, and did good work. But I sensed, or I think [a friend] suggested, ‘Look, be careful of this guy.’ And I declined his invitation…. I think he was fundamentally on the wrong track…. During the lectures, I remember one of them shook him a little bit, and his remark was as he went out, ‘Very courageous, very courageous.’ You know, too controversial…. He was very wealthy, independently wealthy, he had his own ship. I think he made a name for himself, and I think it was status, he liked to feel he was on the cutting edge of things. He was a hard worker, and he was very knowledgeable, and he knew a lot, and his talks were very interesting. But it was always at a pretty high level. When it came down to what you’d do at ground level, I think really he
Harvard-MIT Joint Center on Urban Studies. Around the same time he was invited by the Housing, Building, and Planning Branch of the United Nations to prepare a study on “the definition of norms for barrios clandestinos” research that would eventually become the article on “Uncontrolled Urban Settlement.” His later work as an advisor to the JNV had already prepared the way for this segue into the role of researcher, writer, and teacher. As Turner continued to refine his ideas on user control in housing, he diverged progressively further from mainstream self-help projects with their emphasis on sites-and-services provision and the use of resident labour to lower costs. For Turner, the key point was not to leverage the user’s labour, but to facilitate the user’s control “of the design, construction, and management of his own home.” This was not an economic argument, but a political—or rather, ethical—vision of how groups of people could work together to house themselves and develop their own communities. 

In this sense, Turner’s later writings on “housing by people”—on “autonomous” modes of building, under local control—strongly evoke the “work teams” envisaged in Plan 6 (1949). This marks the end point of Turner’s gradual move away from conventional architectural practice: from the architect as “artist-technician” advocated in Plan 6, to the architect as technician-administrator of “directed” aided self-help, and finally to the architect as advocate-facilitator of unaided self-help or “autonomous” building. Nonetheless the progressiveness of Turner’s position was still limited by the positioning of authority and expertise with the professional; it is


153 For further discussion of this theme, see Harris, “A Double Irony.”

154 Turner, “Housing as a Verb,” in Freedom to Build, 158.
only in his writings of the 1970s that a full appreciation of the contribution of local knowledge
and the importance of “dweller control” becomes apparent.155

If it is now clear who the new architect is, who is the self-builder? At once active
participant and unequal partner, client, beneficiary, and unremunerated labourer. The
relationship between the two figures would remain collaborative, but conflictual, and in constant
flux.

155 See for example the anthology edited by Turner, Freedom to Build: Dweller Control of the Housing
Process (New York: Macmillan Company, 1972), and his article “Who Is Teaching Whom To Do What?”
5. **Mediating Informality**

In mid-1957 the Comisión para la Reforma Agraria y la Vivienda (CRAV, Commission for Agrarian Reform and Housing) had recommended the establishment of a national network of technical assistance offices, with the intention of providing barriada residents with a tool to ameliorate their situation—offering the necessary guidance to those seeking to “regularize” and rehabilitate their settlements, or to improve the condition of their housing. With government support for this initiative, by 1961 organized groups of self-builders had completed 141 dwellings in a trial reconstruction project in Arequipa, and a small neighbourhood of forty dwellings for factory workers in Lima, demonstrating the viability of the aided self-help methodology within constrained budgets (discussed in chapter four). The agency responsible for administering these offices planned similar projects elsewhere in Lima and in six additional cities, with a total of 3,540 houses; in Chimbote, one project would include some 1,400 dwellings, which, it was claimed, would make this the largest aided self-help housing scheme in the Americas. Yet the ever-increasing number and size of barriadas throughout the country, and particularly in Lima, demonstrated that these offices were not in themselves sufficient to control the insurgent settlements.

Thus, in February 1961, more than three years after CRAV had delivered its report, and following prolonged debate, the government enacted the most innovative and far-reaching initiative to emerge from its recommendations: Law 13517 (Law for the Remodelling, Sanitation, and Legalization of the Barrios Marginales). The reforms to urban planning regulations that had been introduced in 1955 following the Ciudad de Dios invasion had

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1 The proposed project for Lima involved constructing 600 houses at “Proyecto San Juan” to be carried out in four stages, over five and a half years (December 1960 to April 1966, at the rate of roughly nine houses a month); at least some of this development seems to have been carried out, with the assistance of funds from the Inter-American Development Bank. The cities selected for additional ayuda mútua projects were Chiclayo, Ilo, Iquitos, Piura, Tacna, and Trujillo. FNSBS, Anteproyecto de construcción de viviendas por ayuda mútua en la República (Lima: FNSBS, October 1960).
included some important measures; notably, the codification of a new category of urban
settlement, the *urbanización de tipo popular*, which allowed for urban services to be built to a
lesser standard in low-income neighbourhoods. Law 13517 advanced a more comprehensive
legislative framework to tackle unregulated urbanization, outlining a process for upgrading and
eventually legalizing existing squatter settlements, as well as instituting measures to discourage
the formation of new barriadas, thereby regaining control over future urban growth.

The modernist imperative to shape urban space—epitomized in earlier years by the *Plan Piloto* for Lima and Fernando Belaúnde Terry’s *unidad vecinal* projects—was now expressed
through alternative strategies, as the new law began to outline a radically different approach to
understanding and directing the evolution of the self-built city. While conventional urban
planning techniques had failed, Law 13517 reflected a confidence that once they were
recalibrated in line with this revised regulatory framework, planning professionals could once
again deliver rational and effective solutions to managing urban growth. This chapter examines
the principles and the underlying logic of Law 13517, assesses how efforts to apply the new
regulations were developed, and how they fared in practice.

5.1  Dwelling on the Margins

A 1958 report by the agency charged with organizing technical assistance efforts
observed that the “barrios marginales” (marginal neighbourhoods, being “structured at the
margins of the law”\(^2\)) were undermining official property registers because so many ad hoc
occupations of state land had not been properly recorded. Likewise, in cases involving private
property, the extra-legal transfer of title by lease-holders (without the owner’s knowledge or
permission) was blurring the threshold between fully authorized occupants and those who had

\(^2\) FNSBS, *La asistencia técnica a la vivienda y el problema de barriadas marginales* (Lima: FNSBS,
November 13, 1958), 8.
gained residency through “irregular, violent, or clandestine tenancy [posesión].” Continued inaction by the state would only lend legitimacy to this situation, since over time, these “marginal” arrangements would gain some legal protections, inevitably leading towards “the conversion of barriada property holders [poseedores] into property owners [propietarios]”; allowing this increasingly porous boundary—between legally owning land and merely occupying it—to dissolve altogether “would mean giving legality to chaos and abuse.”

While squatter settlements had been tolerated (even cultivated) under various political regimes, the state now recognized that these extra-legal occupations could not be allowed to become the norm. The framework of Law 13517 proposed two parallel approaches to reforming this landscape of irregularities. First, all existing barriadas would be given the opportunity to legalize their status, on the condition that their urban amenities were upgraded and that individual dwellings were rehabilitated to acceptable standards as defined by the law. Second, no new barriadas would be tolerated: instead, the government would establish its own “Urbanizaciones Populares de Interés Social” (UPIS, Low-Income Social Housing Subdivisions), where housing would once again be self-built by residents, but construction would be closely supervised by architects and conform to an approved urban plan. Both solutions involved technical assistance, the difference being that the intervention of architects and planners occurred at different stages of the process: the first case would employ a “conservative surgery” approach to remodel the barriada after building had commenced, while the UPIS would establish a framework for self-build construction to develop within, allowing architects to control the process from the outset.

On signing the law, President Manuel Prado [5.1-5.2] described it as “a work of public good, leading towards strengthening the family unit, reinforcing work habits, and securing a

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3 FNSBS, La asistencia técnica, 10.
4 FNSBS, La asistencia técnica, 11.
decent existence for our people."⁵ Two key measures would ensure that this "public good" would be realized with maximum economy of means on the part of the state: making use of residents’ self-help labour, as well as insisting that they cover the costs of technical assistance, urban upgrading, and purchasing their lots. In this way the projects themselves would be self-sufficient, in keeping with the philosophy of self-help underlying Law 13517, and with Prado’s promise that it would not become a financial burden on the taxpayers, since all expenses would be recuperated from the participants themselves.⁶

While most countries continued to regard slum clearance as the only possible response to unauthorized urban development, Law 13517 proposed an entirely different approach to directing urban growth—one that attempted to negotiate between “marginal” self-generated construction (which provided low-income families with much-needed housing) and the dictates of official plans (which offered the benefits of coordinated urban development, with the implementation of zoning guidelines, and the effective provision of green space, suitable public amenities, and circulation routes).⁷ With this legislation the modernist imperative to shape urban space was not abandoned altogether, but rather found an alternative expression in these hybrid modes of urbanism, on the one hand capping and reforming existing improvised construction, and on the other managing new self-built—but architect-conceived—construction.

The law transferred primary responsibility for the barriadas from the Fondo Nacional de Salud y Bienestar Social (FNSBS, National Fund for Health and Social Welfare), to the Corporación Nacional de Vivienda (CNV, National Housing Corporation), shifting the focus of

⁵ “Discurso pronunciado por el Presidente de la República, Dr. Manuel Prado, en el solemne acto de promulgación de la Ley Orgánica de Barrios Marginales,” in Ley de Remodelación, Saneamiento y Legalización de los barrios marginales (Lima: CNV, February 1961), 8.


⁷ According to Julio Calderón Cockburn, “The Peruvian case is pioneering in Latin America with respect to the policy of regularizing land tenure”; subsequently Mexico introduced reforms in its policy towards informal settlements in 1971, and following Habitat I in Vancouver in 1976, Chile, Brazil, and Argentina followed suit. Julio Calderón Cockburn, La ciudad ilegal: Lima en el siglo XX (Lima: Universidad Nacional Mayor de San Marcos, 2005), 42.
the government’s response from the social assistance agency to the housing agency.\textsuperscript{8}

Previously focused on the production of conventional housing blocks, the CNV was now to oversee the implementation of the new law, translating its ambition to reassert control over urban development into policies, practices, and programs.

In April 1961 the CNV began its new responsibilities by undertaking a nationwide survey of all potential or suspected \textit{barrios marginales}. Completed a year later, the survey resulted in the declaration of 271 \textit{barrios marginales} across Peru, 123 of them in greater Lima. In addition, 41 settlements (33 in Lima) were found to be outside of Law 13517 (being classified as degraded tenement housing, impoverished villages, and so on) and were therefore not eligible for the processes of upgrading and legal recognition that it promised.\textsuperscript{9}

In the next step, each eligible settlement was to be classified as suitable for eradication or rehabilitation. Since rehabilitation would involve not only physical improvements but also resolving disputes over the ownership of the settlement site and of individual lots,\textsuperscript{10} future viability would be determined by a panel of four experts: a public health professional, an urban planner, a sanitary engineer, and a lawyer.\textsuperscript{11} Eradication would be mandatory when the settlement was adversely affecting “the normal growth of the city”; when it was too expensive or technically challenging to provide services; when the site was vulnerable to landslides or river erosion; or when the value of the

\textsuperscript{8}In February 1963 what was left of the FNSBS housing division was subsumed into the newly established Junta Nacional de la Vivienda.

\textsuperscript{9}CNV, \textit{Información básica sobre barrios marginales en la república del Perú} (Lima: CNV, 1962), 212-213; CNV and Oliverio Portugal Alvarez, \textit{Memoria del Departamento de Barrios Marginales, 1961–1962} (Lima: CNV, 1962), 25. The text lists a number of forms of substandard housing which did not qualify under Law 13517: “\textit{barrios incompletos} [unfinished neighbourhoods], or \textit{tugurios} [slums] or \textit{corralones} [shanty housing] in the cities, and \textit{rancherías} [shanty settlements] or \textit{villorrios} [miserable little hamlets] in rural areas.”


\textsuperscript{11}CNV and Portugal Alvarez, \textit{Memoria}, 26, 27.
land “does not justify building low-cost housing [viviendas de tipo económico] on it.”\(^{12}\) These guidelines created a conundrum: residents were to be expelled from vulnerable or difficult sites quite rightly deemed unsuitable for development, but they had been able to occupy these sites in the first place precisely because of their marginal economic value; on the other hand, sites which were more suitable from a technical standpoint risked being ruled out on economic grounds, their greater value not “justifying” the accommodation of low-income households. Clearly technical solutions would be shaded by the political economy of urban development, raising questions of the right of access to urban land—or the right to the city more broadly—which could not be easily resolved.

In the case of barriadas set for rehabilitation, the guidelines stipulated the provision of passable roadways, water and sewerage infrastructure, as well as a wide range of urban amenities, to be determined by the settlement’s size, location, and population: at a minimum this meant schools, medical posts, churches, parks, and sports fields, but it could also include workshops for small-scale industries and commercial centres.\(^ {13}\) This approach was influenced by the report issued in 1958 by the Comisión para la Reforma Agraria y la Vivienda, which had presented an expanded definition of housing: “the dwelling embraces not only the house itself, but also the neighbourhood and the community, and generally the environment as a whole or habitat where man and his family develop their usual activities.”\(^ {14}\) This definition consequently entailed a higher benchmark for an adequate “dwelling”—now conceptualized as being integrated into a well-appointed neighbourhood. A contemporaneous study had condemned the barriada not simply for its poor-quality housing, but more seriously because of its limited

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\(^{13}\) “Ley orgánica de barrios marginales,” 431.

\(^{14}\) “Por otra parte, la subcomisión considera que la vivienda abarca no sólo la casa misma, sino también el barrio y la comunidad, y en general el conjunto ambiental o habitat donde el hombre y la familia desarrollan sus actividades normales.” “Appendix 3. Programa y metodo de trabajo de la Comisión en relación a vivienda,” in CRAV, Informe sobre la vivienda en el Perú (Lima: CRAV, 1958), 307.
economic opportunities and inability to meet its own food supply, revealing it to be “a parasite city [ciudad parásito], which is reflected in the high cost of housing.” By contrast, these reformed neighbourhoods envisaged under Law 13517—self-contained and fully functional—emulated Belaúnde’s model of the unidad vecinal.

The detailed workings of the rehabilitation process emerge in a brief report on the Plan Fray Martín de Porres from May 1961. This remodelling project covered eighteen barriadas in Lima and proposed an ambitious series of programs to be coordinated with various government agencies: the Ministry of Public Health was to provide a health post, while the Ministry of Education would build schools—an urgent requirement, given that around 10,000 children in the area were not attending school. However, before any of these programs could begin, it was necessary to fulfill the requirements of Law 13157 for establishing rightful residency to the lot, an arduous five-part process. First, the empadronamiento—creating a register of residents, confirming their status as property holders, without conceding them property ownership. Second, the catastro (cadastral survey)—drawing up detailed plans of the settlements in order to determine the boundaries of each lot. Third, the “cleaning-up [depuración] of the empadronamiento”—identifying unoccupied or unclaimed lots, which would be turned over to the CNV to be used as sites for urban amenities or reassigned to other residents. Fourth, studying existing provisions for water and sewerage lines. Fifth, developing plans to remodel individual lots that were too large, too small, or irregular in shape. Following this, provisional title would be granted—non-transferable, non-monetizable title, in order to counter land speculation—with residents given seven years to finish their dwellings to acceptable standards and to complete payments for their individual lots, as well as for their share of any upgrading.

15 FNSBS, La asistencia técnica, 51.
16 CNV and Portugal Alvarez, Memoria, 74. The report estimated that across Lima’s barrios marginales a total of 200,000 children were in this situation.
costs for the settlement as a whole.\textsuperscript{17} Only at the end of this process would residents gain full title to the property.\textsuperscript{18}

The logic behind this elaborate procedure was governed by the need to reinforce the existing property regime, underscoring the threshold between those who owned property, and those who had possession—or had taken possession—of it without proper authority. In the process, the legislation also reasserted the state’s right to police this boundary; to grant (or refuse) title; to legitimate possession. The aim was not to facilitate, or speed up, the process of gaining title but to clearly outline the requirements to pass from property “holder” to property “owner”—and to establish them as arduous, underscoring the fact that ownership was not a universal right, but a privilege to be earned. In this case, possession was not nine-tenths of the law, but merely the first rung on the bureaucratic ladder to recognized legal ownership. For the poseedor who did not have the means to purchase land through conventional property markets, the law stipulated a series of complementary investments: compliance with bureaucracy, expenditure of self-help labour, and at least a nominal payment.

A vast amount of data was required to ascertain the nature and condition of each “marginal” settlement—or the precise degree of each settlement’s marginality—in sufficient detail to be able to determine its fate with professional exactitude. As with the FNSBS before it, much of the CNV’s time was devoted to collecting and sorting through this data—cadastral surveys as well as demographic statistics to gauge the economic and organizational resources

\textsuperscript{17} CNV and Alfredo Pérez Gonzáles, \textit{Plan Río Rímac—Remodelación de la Zona 6} (Lima: CNV, September 1962), 3.

\textsuperscript{18} As Kenneth Manaster notes, in effect “the seller (government) reserves ownership until the price is totally paid, even though the land has been delivered to the buyer.” In addition to restricting transfers of title, the government’s sales contract can limit the buyer’s ability to take out a mortgage (in order to “prevent an occupant’s land from becoming subject to claims of outside creditors”), or to rent out the property (in order to ensure that they “are securely located in a residence under [housing agency] supervision for at least five to seven years” with “adequate living conditions”; this measure “protects the squatters from themselves—from their own propensity to rent even though the tangible effect might be detrimental”). In practice, however, Manaster observes that these provisions would be all but unenforceable. Kenneth Manaster, “The Problem of Urban Squatters in Developing Countries: Peru,” \textit{Wisconsin Law Review} 23, no. 1 (1968): 51, 55, 53.
of the residents. With 271 barriadas nationwide and an estimated population of 105,781 households,\(^{19}\) this was never going to be a fast process. Furthermore, when set against the reality of the “marginal” city (outside the law, but within its own norms of improvised urbanism) the law faced a series of challenges which sharply defined the limits of its efficacy.

As one instance, the tangled histories of those barriadas where the mandated studies were actually carried out demonstrated that the implementation of the law would be far less straightforward than the guidelines had suggested. Replacing the official maps that had included the barriadas as indeterminate outbreaks of red dots [5.3], the new cadastral surveys were decades ahead of other countries (such as Brazil and Venezuela) in rendering these patterns of urban settlement legible and thereby granting them the most basic level of recognition. Yet their theodolitized precision masked competing claims of ownership and occupation that were complex and opaque, with invasions and illegalities by tenants equally matched by questionable acts on the part of landowners and real estate developers, and further confused by poor record-keeping and uneven enforcement by the authorities. For example, the neighbouring sites of El Altillo and Tarma Chico [5.4] both occupied state land, but while the first was quickly recognized under the law, the residents of the second were evicted to accommodate a shooting club, then allowed to return on the condition of paying land tax in lieu of rent; however, seeing that their neighbours lived rent-free, they stopped paying, leaving their legal situation tenuous.\(^{20}\)

Veintiocho de Julio [5.5] had begun as a disorderly “shanty settlement [ranchería]”\(^{21}\) built by a brick factory for its labourers. Following the factory’s closure, the workers continued living on the site, paying rent to their former employer; however other families established themselves on adjacent sites, paying nothing. At Gonzales Prada the residents had been paying rent

\(^{19}\) CNV, *Información básica*, 212.


\(^{21}\) JNV *Datos estadísticos de los Barrios Marginales de Lima: Distritos de Breña—Pueblo Libre—Magdalena*, (Lima: JNV, 1963), 18.
through an agreement with a private owner, but the local municipality now ruled this invalid, arguing that this "landlord" had no right to lease out the land since it actually belonged to the state.\footnote{22} Finally, Ramon Castilla Baja was situated within a private subdivision, whose developer had been authorized to sell lots once amenities had been installed; regardless, they had also sold lots which lacked services and furthermore had been earmarked for a public works project. These illegally established sections evolved through the letting and subletting of lots and the gradual invasion of any remaining open spaces: eventually, the tenants “had refused to continue paying rent, availing themselves of the benefits of Law 13517.”\footnote{23}

In this way the law revealed another of its limits: while the legislation vowed to enforce a cut-off date to benefit existing settlements and to criminalize the establishment of new ones, the slightest hope of securing decent, affordable housing inevitably intensified unauthorized construction. In the Río Rímac area in central Lima, between 1959 and 1961 the population grew from 50,000 to 120,000—the increase being attributed to the promulgation of the new law, “since under the promise of a prompt attainment of property title, those who were living in other places in the urban area came to occupy its vacant lots.”\footnote{24} The law operated as a system of solids and voids, creating the conditions for its evasion, as requirements and restrictions in one area created loopholes and incentives in another.

\subsection{Constructing 13517}

The improvised city was by definition constantly shifting and evolving, without much regard for what had been planned for it. Despite these challenges by early 1962 plans for the first remodelling projects and UPIS schemes were being drawn up.

\footnote{24} CNV and Mario Bernuy Ledesma, \textit{Plan Río Rímac: Memoria Descriptiva} (Lima: CNV, February 1962), 5.
Plan Río Rímac

The CNV began by dividing Lima—and its 123 barrios marginales—into several zones [5.6], each of which required a new master plan. One of the first to be developed was the Plan Río Rímac, covering an area close to the historic centre of the city and including over thirty barriadas on both sides of the Rímac river, with a combined population of 120,000 [5.7]. The Plan Río Rímac called for rationalizing the existing barriadas into ten sectors—termed unidades vecinales—in preparation for their redevelopment, as well as the construction on adjacent unbuilt land of two UPIS projects (Hacienda Conde Villa Señor and Valdiviezo) [5.8]. The existing barriadas had been formed by various independent settlement associations, in an ad hoc process that had resulted in large differences in population density throughout the area, ranging from 233 to 450 inhabitants per hectare, an issue which the plan also sought to address. However these efforts at creating a more “rational” urban layout would have to contend with the specific histories of the barriadas and the social connections within (or tensions between) the different groups of residents—any technical solution would ultimately have to contend with these on-the-ground politics.

The unidades vecinales of the Plan Río Rímac, each with a population of 10,000-12,000 people, shared no formal or material qualities with the modernist housing projects of Belaúnde’s vision, but the planning documents defined them in exactly the same terms, as urban units that were to be “self-sufficient in their primary needs,”25 as if the linguistic gesture of extending the category to include the re-formed barriada in itself contributed to its rehabilitation and integration into the norms of urban development. Yet this approach was a faithful realization of the 1947 resolution sponsored by Belaúnde, which had argued that the unidad vecinal model could also

25 CNV, Plan Río Rímac: Memoria, 12. The stated objective was to create a balanced, mixed-income neighbourhood: “a community with a heterogeneous population in its social and economic aspects and in the types of activity, which [Louis-Joseph] Lebret calls the ‘polyvalent group.’” CNV, Plan Río Rímac: Memoria, 3.
be applied in “the transformation of parts of the city already built”—that is, the provision of a comprehensive range of services could transform “parasite” neighbourhoods into ideal “self-sufficient” urban units. Accordingly, the Plan Río Rímac listed services to be provided at the level of the unidad vecinal and others for the zone as a whole. Each unidad vecinal would have its own markets, neighbourhood civic centre and health post, while a main commercial zone, civic centre, and a hospital were planned to serve the entire zone. In addition, fifty-seven kindergartens, twenty-six primary schools, four secondary or technical schools would be distributed throughout the area.

Ironically, the physical proximity of the plan area to the CNV’s first unidad vecinal projects—the largest of which, Unidad Vecinal No. 3, comprised 1,112 housing units and a population roughly half of one of the Plan Río Rímac unidades—only underscored the limitations of the earlier program. Inaugurated just twelve years before and projected to solve the deficit of affordable housing, the earlier unidad vecinal projects were now dwarfed by the proposed unidades vecinales of the Plan Río Rímac; placed on greenfield sites to decentralize urban growth, they were now close to being absorbed within the fabric of the improvised city. In the place of the modernist ex nihilo development of Unidad Vecinal No. 3, the Plan Río Rímac proposed that with prudent and timely guidance the unauthorized city could be more or less brought into line with established norms of urban planning. To this end the existing barriadas of the Plan Río Rímac area would be rehabilitated through a series of measures: better integration with existing urban amenities; detailed—but minimally invasive—remodelling projects; and the “eradication” of housing when deemed necessary. As one example, all existing construction within Unidad Vecinal No. 10 would be demolished, since it was chaotic and overcrowded, and its proximity to the city centre demanded high-density housing as a more appropriate use of the

26 “Conclusiones aprobadas por el VI Congreso Panamericano de Arquitectos,” El Arquitecto Peruano 11, no. 123 (October 1947).
land, given its value. Families affected by these “eradications” were to be rehoused in one of the two new UPIS projects—or “urban expansion areas”—that were included in the plan.

The detailed rehabilitation plan for Unidad Vecinal No. 6 of the Plan Río Rímac area provides an insight into how the “conservative surgery” approach was to be applied in the zones to be rehabilitated. The existing housing was divided into three categories based on the quality of construction, the building materials, and the appropriateness of the functional layout in terms of avoiding the “promiscuity” of mixed uses (especially in relation to sleeping arrangements). An initial survey found that roughly 20 percent of the dwellings were conservable, with 60 percent suitable for rehabilitation, and 17 percent requiring demolition. On the urban level, two-thirds of the lots required remodelling because they were outside the stipulated size of 70-250 sq. m. or were irregularly shaped. In total, only 1,000 households would be able to remain on the same lot, while 395 were to be relocated, and 803 would have to be “eradicated”—a measure required both to reduce the overall population density, and to provide space for the additional amenities needed to convert the zone into a self-sufficient unidad vecinal. Specifically, the newly-free space would be used for the construction of two schools (the key structuring element of the classic neighbourhood unit), with adjacent green space: the school on the north-west edge of the site was located at the end of a tree-lined boulevard, and the one to the south-east was linked to a riverside walk. After calculating the


28 CNV, Remodelación de la Zona 6, 14. Although there were 2,024 lots in total, this initial survey only covered 1,743 lots as it did not include the barriadas 28 de Julio or Zarumilla Baja; the survey also found that 44 lots (or 3 percent) were empty.

29 CNV, Remodelación de la Zona 6, 28. This remodelling/“erradication” would reduce the population of Unidad Vecinal No. 6 from 11,575 to 8,376. Note: the total of 2,198 families on 1,980 lots (that is, 2,024 lots minus the 44 that were empty) presumably reflected that fact that a number of the lots were subdivided, most likely to earn rental income, or to house members of the extended family.

30 Minus the 803 families, the new density would be 250 residents/hectare (total density), and 485 residents/hectare (net density); by contrast the new UPIS projects at Hacienda Conde Villa Señor and Valdiviezo were planned for a total density of 157 residents/hectare.
costs per square metre of the remodelling, the CNV determined that project was viable—that is, the estimated monthly payment to be levied from each family, at 10 percent of the average income, could be covered by the residents.\textsuperscript{31}

In summary: one \textit{unidad vecinal} comprising six barriadas out of a total of 123 in greater Lima required a vast amount of detailed research and planning—carrying out the project, and convincing residents of its value would be even more arduous. Furthermore, the amount of rehabilitation needed would likely be far higher in other areas, since Unidad Vecinal No. 6 was selected as an ideal site for a trial project, housing a relatively stable workforce earning decent incomes, including barriadas formed by public sector employees from the Ministerio de Fomento y Obras Públicas (Ministry of Development and Public Works) and the Cooperativa Policial (Police Cooperative).

\textbf{Urbanizaciones Populares de Interés Social}

The families “eradicated” by the remodelling in the Plan Río Rímac area were to be rehoused in UPIS (Low-Income Social Housing Subdivision) projects to be established nearby: Hacienda Conde Villa Señor with 2,000 lots, and Valdiviezo with 557 lots, would each become a new \textit{unidad vecinal} [5.8].\textsuperscript{32} Once again, the key structuring element of each plan was the location of the various kindergartens and schools, sited to minimize the distance children would have to walk [5.12]. In order to reduce costs, initially these settlements were provided with no electricity, and no domestic water or sewerage system—only a waste silo in the middle of each lot; the services were installed a couple of years later, organized and financed by the residents

\textsuperscript{31} CNV, \textit{Remodelación de la Zona 6}, 37.

themselves. Only a very basic shelter was provided: located at the back of the 10 by 20 m. lot, a single room was constructed measuring 10 by 4 m., with party walls of brick at the back and on each side; the front of the dwelling was a thin partition wall of matting and bamboo, and the roof was of cane and clay. It was expected that residents would gradually develop their houses, following plans provided by the housing agency, moving towards the front of the lot; in the final stage the initial “primitive roofed area” was intended to become an open patio framed by boundary walls. In the August 1963 issue of *Architectural Design*, John Turner offered a positive assessment of Valdiviezo and Conde Villa Señor—“except for the form of the provisional house”; despite this deficiency, Turner concluded that the advantage of such “planned squatter settlement” projects was that the residents’ investment of money, time, and labour in their houses was effectively “guaranteed by the planning and controls exercised by the agency.”

An evaluation report after twenty years of occupancy found that 45 percent of residents had completed their dwellings, building three or more bedrooms to house an average family of eight; in one case the space had been subdivided into five tiny dwellings (presumably for rental income); many others were still in the process of building. Since the program had been structured for the acquisition of the dwelling through the rental-sale system, all the residents became property owners after ten years. Although each household had apparently been provided with full construction plans for a permanent dwelling considered suitable for their needs, few if any residents had used them; despite Turner’s confidence in the “planning and controls” that the CNV would exercise over the evolution of the project, the residents had not

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34 Turner argued: “The system coincides with the traditional and economically logical process of the barriadas themselves—but with very important improvements: the lay-out is far better, the plots more regular, there is a minimum supply of drinking water at the start ... and the development will be completed, eventually, at a lower cost, thanks to proper initial planning.” John F. C. Turner, “Minimal Government-Aided Settlements: Valdivieso and Condevilla Señor Barriadas, Lima, Peru,” *Architectural Design* 33, no. 8 (August 1963): 379.
been given any technical assistance, and therefore they had “developed their house freely.”35 The report concluded that as a result at least 28 percent of the resources invested had led to poor results. For example, one family had built windowless rooms to serve as living space and bedroom [5.16], and many others had decided against including a patio and other open areas in favour of additional living space. Finally, the evaluation report recommended a revised layout for future use in similar projects: in the original design, the built walls of each pair of back-to-back dwellings formed a wide “H”; the revised plan suggested an elongated “U” for the basic structure, sited perpendicular to the back of the lot to avoid the use of party walls and thereby allowing each family greater flexibility in their future construction plans [5.17].36 This was a small innovation with potentially great impact, but it is not clear whether these revised plans were employed.

Other contemporaneous UPIS projects offered a more substantial minimum unit. UPIS Caja de Agua (1964) was planned as a relocation settlement following the eradication of the inner-city Cantagallo barriada, which was located in the foothills of the Cerro San Cristobal [5.18]; the new site was to the north of these hills, wedged into a small gap in the range [5.19]. The core unit was a permanent structure with one or two bedrooms, along with electricity, water, and sewerage systems, and was designed to develop gradually into a complete house, with a generous amount of open space for patios and a front garden [5.20]. In the end, as at Valdiviezo, due to the lack of technical assistance “the development of the house was left to the complete initiative of the recipient.”37 Many residents chose to sacrifice the planned open spaces to create additional rooms, or extended towards the street, incorporating the intended


37 Ministerio de Vivienda, Evaluación de un proyecto de vivienda, 162. The report concluded that while the housing situation of residents did improve, the social goals of the program concerning their social and economic advancement were not achieved because they were highly abstract and ill-defined.
front setback into the body of the house [5.21]. These were not the improved dwellings envisaged in Law 13517. Meanwhile, 103 Cantagallo families who were disqualified from participating in the UPIS project because they failed to meet the income requirements were given sheets of matting and offered lots at a peripheral site far from the centre of the city to construct their provisional shelters anew.\(^{38}\)

**Plan Carabayllo**

While the Plan Río Rímac covered long-standing working-class districts close to the centre of Lima, other CNV plans responded to the expansion of the city to the south (around the Ciudad de Dios site) and to the north (in the desert plains around the foothills of the Comas area) [5.22]. Law 13517 had excluded any barriadas established after September 1960 from its benefits, hoping in this way to stop further unauthorized settlements. However, invasions in the Comas area, which had begun in 1958, continued unabated despite the new legislation—each time provoking a ritual show of force from the government, which, with some patience, the settlers usually managed to outlast [5.23]. By 1963 the half-dozen squatter settlements in the area had a combined population of around 100,000.\(^{39}\) The CNV produced modification schemes for some of these incipient barriadas and a master plan for the entire zone [5.24], apparently hoping that with early intervention they could be transformed into UPIS projects. This required negotiating with residents’ associations which were implementing their own settlement plans, drawing up simple, gridded urban layouts and distributing lots to their members. Convincing them to cooperate required skills that were more political than technical in nature.

\(^{38}\) Many of the “transferred” families decided to leave these lots (at Collique, north of the Pampa de Comas) for different parts of the city; at the same time, this government-organized mass transfer triggered a broader, uncontrolled invasion of the Collique site. Ministerio de Vivienda, *Evaluación de un proyecto de vivienda: Evaluación integral del proyecto de vivienda Caja de Agua-Chacarilla de Otero - Programa de núcleos básicos o viviendas semi-acabadas* (Lima: Ministerio de Vivienda, Dirección General de Edificaciones, 1970), 49.

Once again, John Turner discussed these projects in the August 1963 issue of *Architectural Design*. Since the state had not made a concerted effort to stop these invasions, Turner observed that these settlements should be seen as the expected outcome “of a *laissez-faire* urban development policy”; however, settlements produced “by these unaided or help-yourself methods” could not be allowed to continue without intervention by planning professionals providing aided self-help in some form, “if there is not to be a total collapse of organized city development.”

One example of a positive intervention, which Turner saw as the next logical step from the UPIS model employed at Valdiviezo and Conde Villa Señor, was Urbanización Popular Tahuantisuyo, a Comas site with 4,000 plots where the CNV had “managed to control the invasion” and convinced residents to accept official oversight of the settlement’s planning and growth [5.25]. Turner concluded that the state’s role should be precisely this—“to direct and co-ordinate existing forces and resources (and not to abandon them to create havoc or attempt to replace them)”—suggesting that this could be best achieved through a large-scale, systematic program on the sites-and-services model. The state simply needed to acquire the necessary land, “allowing its occupancy with an absolute minimum of utilities and then following up with the full set once the occupiers are well enough established.”

This vision of carefully coordinated government action in order to set up conditions for the now-organized self-builders to begin consolidating themselves into a viable settlement was a workable scheme in theory, but only if implemented by the government immediately, comprehensively, and on a massive scale.

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41 For a subsequent discussion of whether these “improved” barriadas were in fact better in terms of layout due to the intervention of planners, see Horacio Caminos, John F. C. Turner, and John A. Steffian, *Urban Dwelling Environments: An Elementary Survey of Settlements for the Study of Design Determinants*, MIT Report No. 16 (Cambridge, MA: MIT Press, 1969).

Satellites Cities

The concept of the satellite city predated Law 13517, but could also be seen as the UPIS in expanded form, as envisaged by Turner. The model was derived in part from Belaúnde: for example, the siting of the four satellite cities planned for Lima (Ventanilla, Canto Grande, Vitarte, and San Juan) [5.26] neatly filled out the circle of opportunity discussed in Belaúnde’s 1954 *La Prensa* article [2.13]. Of these, all but Vitarte were realized in some form, to varying degrees of success.

The first to get underway was Ciudad Satélite de San Juan, planned as a full-service *urbanización* of 8,000 lots, with the installation of basic services (water, sewerage, electricity, paving) beginning in late 1960. Situated adjacent to Ciudad de Dios, San Juan’s urban amenities were planned to serve both settlements. The city was to develop “on the basis of a program of sites and services [suelo-servicio]” with the CNV providing favourable credit packages and technical assistance in self-build construction (including supervised credit) [5.27], and making available a range of “typical plans of low-cost dwellings” on the “growing house” model for buyers to choose from [5.28]. According to one account, most owners made use of these plans, and a well-organized “local field office served to educate and advise participants, inspect and maintain standards, and expedite paperwork.” The first “unidad” of 2,000 lots was to be allocated to prospective residents in August 1961; by January 17, the CNV had received

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23,000 expressions of interest, with 4,000 completed applications,\textsuperscript{46} and was thus able to select a group of well-qualified applicants, which contributed in large part of the success of the project—although “the selection process seemed to favour a group that was almost middle class.”\textsuperscript{47} San Juan proved that with effective technical assistance such programs could be highly successful, but perhaps only with the upper-tier of low-income households, who had reasonable resources to draw upon and could consolidate their dwellings fairly rapidly. At the other end of the spectrum, Ventanilla was extremely isolated from the established city and offered few resources and little support to its residents. Despite the optimistic projections [5.29], the settlement took a long time to consolidate itself, [5.30] and its overscaled public spaces maintained a sense of desolation long after occupancy [5.31].\textsuperscript{48} With few urban amenities and no local industry, this was a fringe settlement rather than a satellite city.

Law 13517 also allowed for private entities to undertake development of UPIS projects (subject to the approval of the CNV); these were to be “established in the preferred form with the collective work of the pobladores”—that is, based on the principle of aided mutual self-help.\textsuperscript{49} Canto Grande was to be one such project:\textsuperscript{50} its brochure invited prospective residents to

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\textsuperscript{48} In addition, there were problems with shoddy construction, delays in providing financing which postponed occupancy “and allowed vandalism to occur during the vacancy of 600 of the units. Design errors made the houses easy to rob, the kitchens were unsuited to local cooking habits, and the structures were unable to sustain a second storey.” Allan G. Austin and Sherman Lewis, Urban Government for Metropolitan Lima (New York: Praeger Publishers, 1970), 145. John Turner was involved in the design of some housing and schools for this project; Enrique (Henri) Ciriani was responsible for some housing and the design of the church.


\textsuperscript{50} In his speech announcing the passage of Law 13517, Prado specifically noted the example of Canto Grande. Prado, “Discurso,” 9.
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“imagine founding a city” with an implanted cross, and a conquistador’s helmet and sword evoking the very birth of Lima itself [5.32]. Planned for an eventual population of 300,000, this was a fully conceived scheme for a satellite city to be made up of seventeen “grandes unidades”—including industrial, commercial, recreational, and agricultural zones—that was simultaneously expected to operate as a profitable real estate venture. Founded in February 1961, as of January 1966 the planned “City for 300,000” had a population of 2,000. Eventually absorbed into the urban sprawl of Lima, Canto Grande never functioned as an independent satellite city in any real sense.

In a sense, Law 13517 was at once too ambitious—given the financial and human resources that would be required to properly implement it—yet not ambitious enough, since it risked being overwhelmed by the pace of unauthorized urbanization. It was also hampered by questionable assumptions concerning the level of financial contribution that residents could manage, and the ease of organizing such projects on the human as well as the technical level. This was especially true with rehabilitation projects such as Unidad Vecinal No. 6, which do not seem to have progressed far beyond the preliminary planning stage—perhaps inevitable given the difficulties of convincing settled residents of the program’s merits and positive cost-benefit versus the disruptions and expenses of mandatory upgrading, or “eradication” and relocation. The “tabula rasa” approach was ultimately easier to implement, and in the first couple of years of the new legislative regime a number of projects were initiated, but it also faced problems acquiring land, which were part political, part financial in nature: the housing agency was forced to rely on using available government land, since “plans for extensive appropriation of private land around Lima [were] put off because of a shortage of government funds and opposition from

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the land owners.\textsuperscript{52} The program faced an uncertain future, with the challenge of assembling sufficient human and financial resources to fulfil the promise of the projected settlements.

However, there was also some reason for optimism, from a source which could not have been anticipated at the time the law was passed. By late 1961, the economic and social development of Peru—including its efforts to improve housing provision for low-income families—had become an issue of concern for President John F. Kennedy, in the context of the Alliance for Progress, the core element of his new Cold War strategy for Latin America. The regional superpower’s new interest in supporting progressive initiatives promising bold socio-economic change gave the Peruvian government access to unprecedented financial resources to fund its programs, primarily in the form of subsidized loans. The outcomes of this intervention on the policies and programs that had emerged out of Law 13517 is the subject of the next chapter.

6. World Investments, Productive Homes

On April 3, 1962, David Rockefeller hosted a one-day symposium on Latin American Housing at the headquarters of the Chase Manhattan Bank in New York. The event featured speakers from nine Latin American countries,\(^1\) the US Department of State and Department of Commerce, the Federal Housing Commission, the Inter-American Development Bank, the Export-Import Bank, and USAID, as well as the founding director of the Inter-American Housing Center (CINVA) in Bogota, Leonard J. Currie [6.1]. In the audience were investment bankers, construction material manufacturers, US corporations with interests in the region, and housing developers such as World Homes and Nelson Rockefeller’s International Basic Economy Corporation (IBEC), as well as Ogden Tanner of Architectural Forum, and four attendees from Skidmore, Owings & Merrill, including Gordon Bunshaft.\(^2\)

This was not (entirely) a philanthropic exercise. As one speaker observed of the current situation in Latin America, “[i]t is in the slums of the cities where the battle of democracy will be fought”\(^3\); as the spoils of victory, the symposium presented the tantalizing prospect of “a vast lower middle-class market, once financing mechanisms are developed.”\(^4\) Most immediately,

\(^{1}\) This was a diverse group, with Brazil, Chile, Costa Rica, and Ecuador by represented by politicians, Columbia and Honduras represented by bank presidents, Mexico by architect Mario Pani (involved in a number of state-sponsored housing projects), Venezuela by prominent businessman Eugenio Mendoza, and Peru by Father Daniel McLellan, a priest with the Maryknoll Mission who was originally from the United States. The Chase Manhattan Bank, *Housing in Latin America* (New York: The Chase Manhattan Bank, July 1962), unpaginated. A little over a month later a similar event took place on the west coast: the Technical meeting on Residential Capital Formation in Latin American Economics, co-sponsored by the Organization of American States and the Graduate School of Business Administration at UCLA, which resulted in a publication by Walter D. Harris and James Gillies, *Capital Formation for Housing in Latin America* (Washington, DC: Pan American Union, 1963).

\(^{2}\) US companies with business interests in Peru represented at the symposium included W. R. Grace & Co. and Standard Oil of New Jersey, whose Canadian subsidiary the International Petroleum Corporation had largely controlled Peruvian oil production since the early 1920s. IBEC was represented by Rodman C. Rockefeller and W. B. Dixon Stroud; World Homes by Floyd M. Baird.

\(^{3}\) Jose Figueres, former President of Costa Rica, quoted in “Introduction,” *Housing in Latin America.*

\(^{4}\) “Self-Help Housing,” *Housing in Latin America.*
improving the living conditions of the rapidly-increasing ranks of the urban underclass offered insurance against political radicalism; from a broader perspective, upgrading housing stock would bring construction jobs, a stimulus to the production of building materials, as well as the market for furnishings and appliances. Improving housing—understood as a “productive investment” with benefits far beyond the simple provision of shelter—would pay dividends in economic development and social stability, along the way shaping new opportunities for US business. According to the symposium organizers, government had its role to play, “[y]et it is recognized that the problem must be solved principally by private enterprise.”5 Since the state could not build housing on the massive scale required, it should instead focus on providing incentives for entrepreneurs to commit their resources to the housing sector: specifically, by facilitating access to mortgage credit and fostering deeper reservoirs of personal savings, the state could develop a market of consumers with sufficient funds to undertake the purchase of a house.

The private enterprise of each individual family, actualized through the self-help construction of their own homes, would also play an important role and was endorsed by many speakers on economic as well as moral grounds: self-help lowered the cost of the house while increasing the self-sufficiency and initiative of the participants. Teodoro Moscoso of USAID noted that the Alliance for Progress favoured such programs precisely because they embodied “two fundamental ideals of the Alliance: direct, tangible assistance to the under-privileged combined with rigorous self-help.”6 As opposed to charity, this form of aid would operate as a bracing tonic to strengthen the beneficiary through its demands. On the other hand, housing expert Leonard J. Currie advised that such projects would hold little appeal for business due to

5 “Introduction,” Housing in Latin America.
6 Teodoro Moscoso, quoted in “Self-Help Housing,” Housing in Latin America.
the limited “profit incentive”\textsuperscript{7}; likewise, investment in the construction of low-cost housing offered only minimal returns, although the local production of building materials was quite promising. T. Graydon Upton of the Inter-American Development Bank was at once more pragmatic and more idealistic in his concluding assessment: “although the monetary returns from direct sales or local investment may be quite limited, the return in terms of US relations with Latin America and self-satisfaction at having made a valuable contribution to a major hemisphere problem, may be tremendous.”\textsuperscript{8} Not entirely philanthropy then, but not pure business either.

Beginning with a discussion of the construction of new financing mechanisms for housing in Peru, this chapter explores two key projects that emerged out of this convergence of finance, geopolitics, aid, need, and architecture, examining the disparate collection of actors involved in the production of low-cost housing and their often unlikely partnerships, inspired by competing, or even incompatible, agendas.

Above the familiar logo of the Chase Manhattan Bank, a man labours with trowel and roughly-formed bricks, carefully building up the walls of a simple house [6.1]: with this image the cover of the symposium report offers a perfect illustration of the hoped-for alliance of rustic workman and international finance that is presented within. The photograph—“Home construction in progress at Ciudad de Dios”—alludes to events that transformed the direction of housing policy in Peru: the Ciudad de Dios invasion on Christmas Eve 1954 which brought national focus to the crisis of affordable housing, leading to a government commission convened under the leadership of conservative economist and newspaper proprietor Pedro G. Beltrán, which recommended the promotion of individual home-ownership, to be achieved

\textsuperscript{7} Leonard J. Currie, quoted in “Self-Help Housing,” \textit{Housing in Latin America}.

\textsuperscript{8} Upton, quoted in “The Role of US Business,” \textit{Housing in Latin America}. 
through a combination of self-help construction and expanded availability of mortgage credit.\footnote{Although the photograph appears to show self-built housing, in fact the first stage of the dwelling—designed on the “growing house” model—was organized as a conventional large-scale construction project; however, it was envisaged that the owner’s aided self-help labour would subsequently be used to lower the cost of extensions.}

This pro-market position was perfectly in line with the priorities of US development policy, and as a result, from the late 1950s Peru became a major recipient of US aid for housing through various channels.\footnote{These included low-interest loans from Public Law 480 proceeds (disbursed by the Export-Import Bank), loans from the Development Loan Fund (DLF), and the Social Progress Trust Fund of the Inter-American Development Bank (IDB), as well as a housing guaranty program managed by USAID. The first of these projects were initiated under President Dwight D. Eisenhower, while the latter two fell under the umbrella of President John F. Kennedy’s Alliance for Progress. See also Walter D. Harris and H. A. Hossé. \textit{La Vivienda en el Perú/Housing in Peru: A Research Study Conducted in the Department of Social Affairs, Pan American Union} (Washington: Pan American Union, Department of Social Affairs, 1963)—an extensive bilingual 700-page study indicative of US engagement with the problem.}
The largest single loan (approved in late 1961) was $22.8 million from the Inter-American Development Bank (IDB) to establish a national program of aided self-help housing. A number of smaller loans—by 1969 totalling more than $24 million\footnote{Of this, $7.5 million from the Development Loan Fund (DLF, later merged into USAID) went to the government of Peru “to assist in regulation and financial support of national system of private mutual and cooperative home savings associations”; Mutual El Perú received $2 million in DLF funds and Mutual El Pueblo $1 million in IDB funds as seed money to promote the new savings and loans organizations. Timothy Atkeson, “Aid for Latin American Housing,” \textit{The George Washington Law Review} 31, no. 3 (March 1963): 581-586. Subsequently the the IDB provided another $1.2 million in funding for the \textit{mutuales} (August 1965), as well as $12.58 million for “Housing Subloans” to be distributed through the Banco de la Vivienda del Perú (April 1969). Inter-American Development Bank, “Projects,” <http://www.iadb.org/en/projects/projects,1229.html>.}—were allocated to support a system of \textit{mutuales} (savings and loans associations) aimed at giving lower-middle-income consumers easier access to housing finance.\footnote{In addition, US aid agencies provided small amounts of funding to two US-based corporations that were starting operations in the low-cost housing market in Peru: $140,000 in Cooley Loans (Public Loan 480 funds) to Hogares Peruanos, and a housing guaranty of $1,260,000 administered via USAID to Apollo Industries. Atkeson, “Aid for Latin American Housing,” 583-584.} Although in later years international agencies such as the United Nations and the World Bank would become involved in the sponsorship of housing programs, the earliest aid for housing in Peru came exclusively from the United States.
Underneath the surface of this image, then, is the issue of how the dynamics of on-the-ground events, the circumstances of local and national politics, converged with the wider frame of US government development programs at this specific moment; how US aid agencies seeking to sponsor housing programs within Peru, to reinforce policies amenable to their aims, were able to gain traction due to the synergy between their outlook and the positions of key actors within Peru. This chapter begins with an examination of efforts to develop new mechanisms for housing finance, before turning to a discussion of two very different projects focused on the production of low-cost housing. First, the operations of Wichita-based real estate developer World Homes—on a self-appointed mission to universalize the “American dream” in fulfillment of its credo: “Home Ownership—The Free World’s Unused Weapon”—focusing on its endeavours to organize and finance the Villa Los Angeles development in Lima. Second, the development and implementation of the Plan Bienal 1962–1963 Perú-BID, an ambitious program which aimed to mobilize self-help labour for housing construction in cities throughout Peru. Both projects were funded through US government aid programs, and both involved John Turner—emerging as an influential expert on self-build housing—as consultant. Turner—a Western-trained, Anglophone técnico with the benefit of local, on-the-ground, hands-on expertise—can be seen as a translator between US developers and development professionals and the Peruvian government, between architecture and social policy; at the same time, he was developing his own practice as a housing expert and theorist, absorbing the outcomes of each project into a more ambivalent understanding of the self-help methodology.

6.1 The Money Miracle

The first substantial US aid programs to Peru emerged during the Second World War, overseen by the Institute of Inter-American Affairs (IIAA), established in 1942 under the direction of Nelson Rockefeller. Framed as technical assistance projects and funded jointly by the United States and Peru, the programs were largely motivated by national interest rather than altruism.
As one military official observed, “a considerable proportion of these cooperative activities were aimed at facilitating the extraction or the production of raw materials needed to further the war effort.” For example, the Servicio Cooperativo Inter-Americano de Producción de Alimentos (SCIPA, or Inter-American Cooperative Food Production Service) initially focused on the Amazon region, boosting the production of fresh food for US troops, as well as rubber and quinine. Following the war, it focused on introducing new “scientific” farming methods (which often involved importing US technologies such as machinery) but in the wake of the 1958 Arequipa earthquake, SCIPA also funded the self-help housing project in rural communities that was overseen by Patrick Crooke (discussed in chapter four).

Apart from the practical, material benefits to the United States of such programs, their original strategic aim was to foster hemispheric solidarity against the Axis powers; following the war the model was redeployed to ensure “mutual security” in the region by encouraging the incorporation of Latin American countries into the Western Bloc rather than the Communist world system. In the wake of the Cuban Revolution, these operations would take on an added urgency. Under President Harry S. Truman these ad hoc efforts coalesced into the Point Four Program, which established technical assistance as a key tool of US foreign policy. Once again, Nelson Rockefeller was appointed to implement the program. Originally focused on health, agriculture, education, and industrial productivity, by the late 1950s it had expanded to include entrepreneurial skills such as “marketing, … administrative and management training,” as well

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13 Lieutenant Colonel Edward A. Westphal, “A Report on the Operations,” 1946, quoted in James C. Carey, Peru and the United States, 1900–1962 (Notre Dame, IN: University of Notre Dame Press, 1964), 121. As Carey points out, prior to this the United States had been providing military aid to Peru since its Naval Mission was established in 1920; similarly, under the Educational Mission founded in 1920 Peru recruited some two dozen US experts to reform its secondary and higher education systems—however this civilian technical assistance program was markedly less successful and soon dissolved.

14 Similar programs were established in the Amazon regions of Brazil and Eastern Bolivia. Claude C. Erb, “Prelude to Point Four: The Institute of Inter-American Affairs,” Diplomatic History 9 (Summer 1985): 265.

15 Erb, “Prelude to Point Four,” 268.
as community development, housing, and economic planning. In the case of Peru, it also comprised technical assistance to guide the establishment of a savings and loans system.

In parallel, US-based Christian missions had long operated in Latin America and beyond, blending religious and more pragmatic uplift (Rockefeller’s own family had been prominent in sponsoring such activities). Particularly significant in postwar Peru was the contribution of the Catholic Maryknoll Fathers. As characterized by one contemporary account, the Maryknoll Mission operated under the belief that “the only way to help a man spiritually is first to help him materially,” and it generally gave its missionaries “wide latitude in the choice of projects into which they may channel their energies.” Noted for their particular success were Father Robert Kerns, who founded a series of indigenous-language radio schools in the southern city of Puno, and Father Daniel McLellan, who established a credit union in his Puno parish in early 1955.[6.2]. Providing modest loans for personal use (family emergencies, medical expenses, funerals, and minor home repairs) or small-scale business ventures, the

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17 This assistance began in the late 1950s under the auspices of the Comisión para la Reforma Agraria y la Vivienda (CRAV, Commission for Agrarian Reform and Housing), with advisers coordinated through the International Cooperation Administration (which merged with the Development Loan Fund in late 1961 to form USAID); the ICA carried out a similar project in Chile. Timothy Atkeson, “Aid for Latin American Housing,” *The George Washington Law Review* 31, no. 3 (March 1963): 558. The advisers included: Morton Bodfish, chair of the Executive Committee of the US Savings and Loan League; Stanley Baruch, Regional Director for Latin America, Housing Division, ICA; and Raymond P. Harold and Joseph T. Benedict of the Worcester Federal Savings and Loan Association. Father Daniel McLellan, “Talk given by Father Dan McLellan, President People’s Mutual Association, Lima, Peru: 1st Interamerican Congress of Savings and Loans,” January 23, 1963, WHC.

18 Nelson Rockefeller’s grandfather, “John D. Rockefeller Sr., the greatest supporter of missionaries in his generation, expanded and secularized this tradition with the creation of the Rockefeller Foundation.” Erb, “Prelude to Point Four,” 253.


20 Dan C. McCurry, “US Church-Financed Missions in Peru,” in *US Foreign Policy and Peru*, ed. Daniel A. Sharp (Austin, TX: Institute of Latin American Studies, University of Texas at Austin, 1972), 383. According to McCurry, the Maryknoll Mission was originally set on China, but world events intervened: “Latin America has received many missionaries who were withdrawn from the Orient in the wake of World War II and the creation of the People’s Republic of China.” McCurry, 409.
credit union grew quickly, finding a ready constituency among the vast numbers of ordinary people excluded from conventional bank loans.

Following McLellan’s lead, 1956 saw the creation of five more credit cooperatives throughout Peru; by 1960 there were 207. Of these, the largest group (almost 40 percent) was coordinated through the Catholic Church at the parish level, with others organized through various workplace or community groups. McLellan remarked on the importance of the leadership of the Catholic Church—and of the Maryknoll Mission in particular—in this effort: “The Protestants and other groups would like to move in but the people want the Church to guide them and it is true that through this material aid they come to look more for the spiritual guidance of the Church.” Raising the standard of living helped to achieve a second goal: solidifying the authority and influence of the Church in the lives of its parishioners, effectively leveraging faith in the credit union to maintain denominational market share. Evidently Maryknoll considered this work to be of great value: in January 1958, McLellan was released from his pastoral duties to focus on the credit cooperatives full-time; the following year he began teaching workshops on the management of credit cooperatives through the Universidad Nacional Mayor de San Marcos in Lima.

By fostering the values of private initiative and personal responsibility, and providing an opportunity for self-sustaining material advancement, the credit cooperatives were also working to construct a bulwark against communist influence, the mutual enemy of capital and the Church. The dangers of ideological infiltration were acute, however, and McLellan issued a vehement warning concerning the need to remain vigilant:

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22 Father Daniel McLellan, “Puno Parish Credit Union,” May 25, 1957, MMA.

23 McLellan was appointed Director of the Department of Cooperatives in the Institute of Human Relations at the Universidad Nacional Mayor de San Marcos. Father Daniel McLellan, “Historical Highlights of Credit Union Movement in Peru,” n.d., ca. May 1960, MMA.
Communism is always deploying efforts to take control vis-a-vis cooperatives. Publications come to us from Prague, and they solicit the exchange of ideas with us and with our affiliates. These publications are a great danger, since they try to use the word cooperative, with aims foreign to it, in order to then twist it according to their own interests.\

As emphasized in a number of articles about McLellan’s efforts, although founded on mutualist principles, the credit union was very definitely a proto-capitalist venture, offering “a form of self-help assistance that lets the proud individual keep his pride, and that develops the managers and risk-takers for a free, modern society.”\n
Initiating its members into the operations of the credit market, the cooperative would transform Andean peasants—cast as “backward, distrustful, and a severe drag on Peru’s economic structure”—into model entrepreneurs. As McLellan once stated: “The French have their worker priests. Well, I am a capitalist priest.”\n
McLellan’s original organization, the Puno Parish Credit Union, soon addressed itself to the housing problem, and approached the government of Manuel Prado for assistance. A loan of S/.450,000 was arranged to facilitate the purchase of land for a model housing scheme, which would be developed under the guidance of the government housing agency, the Corporación Nacional de la Vivienda (CNV). The seventy-two dwellings were to be sold to

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25 Lester Velie, “The Money Miracle of Father Dan,” Reader’s Digest (April 1961): 171-173. In a similar vein, the credit union was described as “a real self-help institution,” Richard L. Henschel, “The Minor Miracle of Padre Dan,” World: The Compact National Newspaper 1, no. 6 (November 22, 1961), WHC; a UN committee had “labeled it as the most significant self-help program in Peru’s modern history,” James Joyce Donahue, “Father Dan’s Big Adventure,” Saturday Evening Post 234, no. 27 (July 8, 1961); and ordinary people saw “hope of liberation in Father Dan’s sensible program of self-help,” Harold and Benedict, Report on Savings and Loan Associations in Peru, 9.

26 Joyce Donahue, “Father Dan’s Big Adventure,” Saturday Evening Post.


28 “The National Corp. of Housing [CNV] is giving us their technical assistance and direction free of cost. The National Commission on Housing [CRAV] has named the Puno Parish Plan as a national pilot project. Thus a real Community Development Program was started.” McLellan, “Puno Parish Credit Union.” Another interesting connection here: in a 1975 interview Turner noted that his “failures and occasional successes in the first years … included a rather abortive effort to build cooperative houses in Puno for Daniel McLellan.” Barbara Goldstein, “The Originators: John F. Charlewood Turner,” Architectural Design, no. 9 (September 1975): 525.
members of the credit union, to be paid for with six- or seven-year loans. In line with the Maryknoll worldview, McLellan argued that “Christian family life can hardly exist in a mud hut.”

Instead, the new “Christian home” appeared in a scene lit by large-paned windows, as the newly modern Peruvian family gathered around a neatly set table, in a room furnished with artefacts of an imported domesticity—a blender, a radio; the personal transformation was echoed by a change is costume, the father’s collared shirt and the son’s baseball cap replacing the poncho, *chullo* (knitted hat), and sombrero [6.3]. In addition to Prado’s government, the credit union also impressed the US embassy and the “Point 4 people”: the latter extended their supervised credit program to Puno, and granted the manager of the Puno credit union a “Point 4 scholarship ... for study in Puerto Rico”—then in the midst of Operation Bootstrap, a massive, US-sponsored economic development program. The US embassy provided further support in the form of publicity, which apparently included a film about the credit union’s achievements.

Despite these successes, McLellan was initially reluctant to become involved in the savings and loans business: unlike the revolving short-term loans of the credit unions, long-term, high-value home financing would require a substantial reserve of funds in order to commence lending—far more than could be raised through deposits alone. Instead, it was Pedro Beltrán who organized the first savings and loan association. After recommending their creation in the report of the Comisión para la Reforma Agraria y la Vivienda (CRAV, or Commission for Agrarian Reform and Housing) and helping to devise their founding legislation, Beltrán established Mutual El Perú in September 1958. It was quickly granted $2 million from the US government’s Development Loan Fund (a precursor agency of USAID) to support its initial capitalization; however, by the end of 1960 Mutual El Perú had made few loans. A second institution, the Mutual Lima, was only in operation for a brief period before being forced into

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29 Joyce Donahue, “Father Dan’s Big Adventure,” *Saturday Evening Post*.

30 McLellan, “Puno Parish Credit Union.”
liquidation as a result of poor management. The combined effect of these abortive efforts was to bring the entire initiative into disrepute with the general public.\textsuperscript{31} Hoping to salvage the program by association with his stellar reputation, the Peruvian government and the US “banking team” of savings and loan experts providing it with technical assistance turned to McLellan.\textsuperscript{32} At their urging, in late 1960 McLellan agreed to establish a \textit{mutual}, once assured of legislative support (from Peru) and financial support (from the United States).\textsuperscript{33} McLellan’s Mutual El Pueblo began operations on March 1, 1961.

Meanwhile, in September 1959 President Manuel Prado had appointed Pedro Beltrán as Prime Minister and Minister of Finance, positions he held until April 1961. Beltrán’s first focus as Finance Minister was to stabilize the economy, cutting inflation and increasing foreign reserves.\textsuperscript{34} As Prime Minister, Beltrán—who in the past had used his newspapers to influence housing policy—was now in the position to push for the implementation of his own favoured projects. However, his approach was not uncontested. In late 1960, at the same time as Beltrán’s Mutual El Perú was facing criticism for its lack of progress in establishing lending operations, \textit{El Comercio}—a main rival of Beltrán’s \textit{La Prensa}—began to publish a series of articles questioning his policy priorities, especially his outsized support for the \textit{mutuales}. These progressive critics—partisans of the Movimiento Social Progresista (MSP), including Adolfo Córdova (discussed in chapter two), Germán Tito Gutiérrez, and Sebastián Salazar Bondy, as

\textsuperscript{31} [Father Daniel McLellan], “Long Term Home Loan Financing in Peru,” June 23, 1961, WHC.

\textsuperscript{32} US experts were disappointed that Mutual El Perú had “moved slowly because of conservative management.” Atkeson, “Aid for Latin American Housing,” 558.

\textsuperscript{33} Specifically, McLellan agreed to establish the mutual “upon assurance that the Home Loan Bank Law would be passed by [the Peruvian] Congress and DLF funds [of] US$7,500,000 would be available to it plus the Peruvian government’s matching funds to provide seed capital.” [Father Daniel McLellan], “Long Term Home Loan Financing in Peru,” June 23, 1961, WHC.

\textsuperscript{34} According to one analysis, his efforts were greatly assisted by a concurrent export boom which improved the balance of trade; furthermore, “Beltrán was able to use creative accounting techniques and an internal bond issues to stop the monetary expansion.” Geoffrey Bertram, “Peru, 1930–1960,” in \textit{The Cambridge History of Latin America, vol. VIII. Latin America since 1930: Spanish South America}, ed. Leslie Bethell (Cambridge; New York: Cambridge University Press, 1991), 447, 444.
well as Luis Miró Quesada Garland—argued that the *mutuales* were not the panacea promised by Beltrán, but could only address the needs of the middle-income market. Further, since the loans could also be used to improve an existing dwelling or refinance a mortgage (all the while providing costly tax breaks), they would not actually help to build many more houses. Most damningly, while supporters claimed for them the heritage of the US Federal Savings and Loans system, critics countered that the *mutuales* were a counterfeit of this prestigious model, since the US associations were far better regulated and better armed to prevent the distorting influence of speculative investors. Elsewhere, Beltrán was condemned for using his newspaper to orchestrate support for the *mutuales* in general, and his own Mutual El Perú in particular (“as if it had special virtues that the others lack”). Further, his promise that by investing in *mutuales*, the poor would become homeowners was dismissed as “a marvel similar to the multiplication of the loaves and the fishes”; and finally an editorial pointedly endorsed Adolfo Córdova’s critique (expressed in *La vivienda en el Perú*, 1958) of the easy appeal but ultimate mendacity of Beltrán’s promise to bestow a “casa propia” on all Peruvians. Despite these critiques, in February 1961, Prado’s government moved ahead with a comprehensive series of policy initiatives, including Law 13517, the proposal to construct satellite cities for Lima at San Juan and Ventanilla, and the establishment of the Banco de la Vivienda del Perú (Peruvian Housing Bank) to oversee the operations of the newly founded *mutuales*. In the same month, President Kennedy announced to the US Congress his intention to forge an

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35 It seems clear that a series of articles appearing under the byline “LMQG” were written by architect Luis Miró Quesada Garland, whose family owned *El Comercio*.


38 “Casa para el que no la tiene,” *La Prensa*, February 5, 1961, Sunday supplement.
“alliance for progress” with Latin American nations. The $500 million in funding that Kennedy proposed to initiate this alliance seemed to promise a bright future for Peru’s development agenda.

In order to promote the *mutual* concept—still unfamiliar to many of its readers—in a February 1961 editorial, *La Prensa* cited Father McLellan (“the apostle of cooperativism in Peru”) in order to draw parallels between the credit cooperative and the *mutual*: according to the newspaper, both were “Christian solutions” which drew on “the ancient communitarian roots, so characteristic of the psychology of this country … practised since the Inca Empire.”\(^39\) A promotional magazine produced by the Banco de la Vivienda—entitled simply *Vivienda* (*Dwelling*)—continued the campaign in every issue.\(^6.4\) Advertisements featuring proverbially thrifty species—ant, bird, and bee—sought to naturalize the savings regime, while the vision of a vast city populated by 100,000 savings-and-loan members promised the community of home ownership. The houses presented to the reader were universally “modern” in their stylistic markings—flat-roofed boxes with large window openings filled with gridded glass panes—although the magazine frequently featured examples of colonial architecture on the cover, as if to reconcile the images of (Peruvian) tradition and (Americanized) modernity. *Vivienda* eagerly reported on the stories of “modest families” who had managed to attain their dream homes, but in many cases they had done so via winning promotional lotteries organized by the *mutuales* rather than completing the purchase of the house themselves.\(^6.5\) More typical was the case of the Contreras-León family, both parents working as high-school teachers, who had built their house in a brand-new neighbourhood with “[w]ide avenues, groves, parks, good nighttime illumination”—all elements which made “forceful arguments to attract middle-class families.”\(^40\) It was relatively easy to join the mutual: prospective homeowners could open an account with as

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\(^{40}\) “En Ica: cómo se hicieron propietarios los esposos Contreras-León,” *Vivienda* 1, No. 7 (July 1965): 10-11.
little as S/.50, and as their deposits had reached S/.250 they would begin to receive interest on their investment; once they had “demonstrate[d] a real will to save” the mutual would lend up to 90 percent of the cost of the house. However, with dwellings at one project defined as “social interest housing” costing S/.280,000 (in 1968), reaching the requisite 10-percent deposit still represented a considerable challenge for the vast majority of households. Indeed, the residents of this development were identified as “white-collar workers, teachers, técnicos, experts in middle management [de mando intermedio]”—all clearly middle-income occupations. This did not exactly square with the definition of “social interest housing” as set down by the Organization of American States: “housing … that is attainable in such a way that it does not prove to be burdensome on the family budget of people of limited economic resources.”

Nonetheless, the mutuales did support a range of projects, since they were required to set aside 12.5 percent of their loanable funds for upgrading projects. For example, with their local priest as intermediary, twenty-eight families living in Pasaje Defensa, within the San Martín de Porres barriada in Lima, undertook small loans of approximately S/.3,000 each in order to pay for the installation of electricity in their homes as well as street lighting. One resident noted that as soon as the money was repaid, they were planning to approach the mutual again to arrange “another loan to build a good paved footpath and to complete the houses.”

However, McLellan objected to this requirement on the grounds that within a couple of years of operation, his Mutual El Pueblo “had made 85.77 percent of these loans in the Lima-Callao area, and … given the three-year maximum terms allowed by the Housing Bank (which put these loans far out of the reach of those who needed them the most), the market was

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41 “El ahorro que a Usted le conviene…: Como hacerse socio de una Mutual,” Vivienda 2, no. 23 (November 1966): 7-10; “Casas de interés social con acabados de lujo se entregaron en Ingeniería,” Vivienda 4, no. 45 (September 1968): 6-7.
saturated");\textsuperscript{44} as a consequence, McLellan estimated that $1 million in mutual funds were sitting idle waiting for borrowers who would not appear.

More usually, the mutuales sponsored new housing developments—whether organized by housing cooperatives established to serve government employees, or built by the state housing agencies themselves (such as the Urbanización Santa Cruz\textsuperscript{[6.35]}), or promoted as for-profit ventures by private developers.\textsuperscript{45} The mutual funding was particularly crucial to this last group, since they could not count on a pool of dedicated buyers (as with cooperative projects) or access to government resources (as with state housing). A case in point was the Wichita-based firm Hogares Peruanos, whose customers received some of the first loans granted by Father McLellan’s Mutual El Pueblo.

6.2 The Wichita-Lima Axis

According to his own account, World Homes founder Willard Garvey first became interested in establishing an international home-building corporation in 1958\textsuperscript{[6.13]}. His father, R. H. Garvey, had been an agribusiness pioneer, starting with a mortgage investment firm, and then amassing extensive land-holdings to form his Wichita-based grain empire. Willard was particularly involved with the family’s real estate concerns, beginning with the construction of grain elevators: in the 1950s alone the firm built eleven grain terminals, giving them the capacity to store almost 200 million bushels.\textsuperscript{46} The Garveys diversified into housing in 1941, as Wichita’s population swiftly doubled with the influx of wartime workers to staff the area’s aircraft factories. Writing two decades later, Garvey recalled their first development: twenty houses selling for $350 each, located on a marginal site “outside the city limits on gravel roads” and with only


\textsuperscript{45} “Vivienda para los servidores del estado (VISPE),” Vivienda 1, no. 3 (March 1965): 8-9; “Presidente inaugura Urbanización Santa Cruz,” Vivienda 2, no. 18 (June 1966): 2-3; “La casa mil uno de Salamanca de Monterrico,” Vivienda 2, no. 14 (February 1966): 2-3.
provisional services—"a WPA outdoor toilet, pitcher pump for water and city electricity." By 1946, when Garvey returned from his wartime service in Europe, the development was incorporated into the city:

paved streets, sewers, modern plumbing, wings, annexes, fences, porches, and shrubbery had been added. I was struck with the basic principle of the motivation provided by pride of homeownership.... [which] causes a man who had property to help himself to exercise his own enlightened self interest through economic, political, socio-moral, creative, and ideological activities which are the five realms of human endeavour. It separates him with an iron curtain from the non-homeowner just as the free world is separated from the communist world.

In contrast to his father, who was a strict isolationist, Willard Garvey was deeply engaged with the question of US influence in the international sphere, in line with his fellow Kansas Republican, Dwight D. Eisenhower. Garvey had served as the adjutant general of the Allied Komendatura in Berlin, and—as he recalled—"stood 45 feet away from Stalin" at the Potsdam conference, experiences that evidently left him with a heightened awareness of Cold War geopolitics. In 1958, Garvey become involved in supporting another Wichita-based entrepreneur, Bill Graham, and his associates, in their efforts to develop low-cost housing internationally, operating under the name Private Enterprise Inc. Following a meeting between a

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47 There is a surface similarity here with the initial situation of many squatter settlements, with the substantial difference that—lacking economic resources and secure tenure—they generally remain in this provisional state for much longer.

48 Willard Garvey, “This is a chronology of low-cost private housing as a Builders, Inc. concept,” n.d., ca. March 1960, WHC. Garvey’s explanation of the “creative” dimension of human endeavour referenced the 29,000 workers in Wichita who were laid off at the end of the war: “Fortunately for Wichita, 65% of these discharged workers were home owners.” Left without income, and tied to “the community where they had established their roots,” they started their own businesses in order to support themselves: “In effect, these Wichita home owners were an example of the creative power of private initiative going to work literally to save their homes.” (As Patrick Geddes observed in his 1918 Indore Report: “nothing fixes people like a good house.”) Willard Garvey, “Home ownership—The Free World’s Unused Weapon,” n.d., ca. March 1960. WHC. At the request of Senator Frank Carlson of Kansas, this text, along with Garvey’s statement promoting the concept of “Wheat for Homes,” was entered into the Congressional Record—Senate, for May 2, 1960.


member of this group and President Eisenhower (apparently arranged at the President’s request to discuss “developing the individual, ‘the basic solider,’ abroad”), Garvey helped to write a “one-page resume” (again at the President’s request) “on how best to help people to help themselves.”\(^{51}\) This text—entitled “Every Man a Capitalist” as a riposte to Kruschev’s “every man a communist”—warned that since communism “has tripled in 10 years and may gain 100% of the world in 10 more,” the United States needed a straightforward and appealing “Master Plan” to reach “the little man” being targeted for communist recruitment. The strategy should be to focus on basic human needs: shelter, food, and clothing. Of these, “[s]helter, or home, has most appeal. It is the ‘little man’s’ best chance to be a capitalist or a property owner.”\(^{52}\) To implement this plan, the US government itself should act as housing developer on a trial project, tapping its various international aid programs for “interim financing.” If successful, the program could be repeated, with some involvement from the private sector, in perpetuity.\(^{53}\) The short-term goal was “Ten million new private homes this year”; the intermediate goal, one hundred million new homes; and eventually, “Every man a home owner.” Rather than earning any wages, the construction worker should be remunerated in kind:

Perhaps surplus flour (“food”) in sacks (“clothing”) could be taken by [the] construction worker to pay one half his labour and the other half taken as downpayment or equity in a house (100 workers build 100 houses, move in, then hire another 100 workers?).\(^ {54}\)

In this highly efficient operation, simultaneously targeting all basic needs, the worker—reframed as an involuntary self-help home-builder—becomes the (captive) market for his own product, and is instantly unemployed to make way for the next batch of workers.

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51 The initial meeting was between Eisenhower and Dr. Ronald Meredith. Garvey, “This is a chronology of low-cost private housing,” n.d., ca. March 1960.

52 [Willard Garvey, Ronald Meredith, et al.], “Every Man a Capitalist,” June 19, 1958, WHC.

53 “National Association of Home Builders, private home builders and other private investors might help with money, supervision and know-how and copy with similar projects.” “Every Man a Capitalist,” June 19, 1958.

54 “Every Man a Capitalist,” June 19, 1958.
Two months later Garvey expanded on these thoughts in a presentation to the Committee on Foreign Economic Practices, an advisory body of the Commerce Department.\(^5\)

By this time, he was himself investigating the possibility of building low-cost housing overseas, in Nicaragua.\(^6\) Garvey recommended that the United States focus its efforts where it clearly had the upper hand over the Soviet Union: “Let’s hit them where they live, housing and food.”\(^7\) Specifically, through the Public Law 480 program (also known as “Food for Peace”), established under Eisenhower in 1954 to dispose of surplus agricultural products in the form of overseas aid, the United States should “lend” its food surplus to developing countries with repayment scheduled on a long-term, low-interest basis. The proceeds of these transactions (which could not be converted into US dollars and repatriated) should then be reinvested in the purchasing country “as long-term mortgage financing on low-cost privately owned homes.”\(^8\) As titans of agriculture, the Garvey family was receiving around $15 million a year in government subsidies to grow grain, to not grow grain (thanks to the federal soil bank program), and to store grain;\(^9\)

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\(^5\) Garvey’s stated aims in addressing the committee were to assist Private Enterprise Inc. in getting clearance to “help them on their way to provide a pilot plan that others may follow”; and to help the committee “explore its broader charge to come up with a Marshall Plan or better” as “your committee seeks to combat Kruschev’s cold war.” Willard Garvey, “Talk presented by William Graham, Robert Martin, and Willard Garvey to the Committee on Foreign Economic Practices of the Business Advisory Committee in Washington, DC, August 28, 1958,” WHC.

\(^6\) Garvey had been approached “by a man who said he was purchasing agent for the President of Nicaragua … [who] wanted 7,000 low-cost privately owned houses to be built by private builders.” Garvey, “Talk presented,” August 28, 1958.


\(^8\) Willard W. Cochrane, “Public Law 480 and Related Programs,” *Annals of the American Academy of Political and Social Science* 331 (September 1960): 15. The three other channels (Titles) were: grants of produce for emergency situations, donations of food distributed through relief agencies, and “the barter of surplus agricultural commodities for strategic and other materials produced abroad.” Cochrane’s assessment (covering 1954-1959, the first five years of the program’s operation) was that around half of the PL 480 funds, “or $1.8 billion, has been allotted to loans to foreign governments for economic development. But, as of March 31, 1959, less than a third of that amount has been disbursed on projects. Further, we have no way of knowing how many of these paper projects have reached completion and have added to the stock of effective capital, or how many of these projects would have been undertaken anyway out of some kind of internal financing.” Cochrane, “Public Law 480 and Related Programs,” 16.

\(^9\) Garvey’s embrace of self-help principles was neatly matched by his superlative ability to help himself to whatever state resources were on offer. This was a rich family tradition—a 1959 article noted that Willard’s father, R. H. Garvey, was one of the most effective “harvesters” of the nation’s “scandalous farm
under this new proposal, when surplus grain was sold overseas Garvey would access the proceeds to fund his housing ventures.

Garvey pointed out that as of late 1958, $89 million in PL 480 funds were awaiting reinvestment in a range of countries, including Mexico, Turkey, and India. Since the money had not yet been committed to specific projects, he suggested that it should be earmarked for housing.\(^{60}\) After receiving in-principle support for this proposal from the Export-Import Bank—which was charged with distributing the PL 480 funds—Garvey now asked the bank to recommend where to start his operations (since by this stage, his Nicaraguan prospect had fallen through). They advised him that “the real demand” was “in the Eastern hemisphere, Pakistan, India, etc.” but suggested mounting a trial program closer to home for ease of supervision. Only three countries in the region still had funds available—Colombia, Ecuador, and Peru—so in February 1959 Garvey undertook a research trip to determine how his plan would be received by the prospective hosts. Apparently he found greatest encouragement in Peru, where he met with government officials, bankers, and entrepreneurs who were generally enthusiastic about the scheme.\(^{61}\) Pedro Beltrán—who had established his Mutual El Perú only a few months earlier and no doubt welcomed the prospect of additional business—made a particularly good impression on Garvey for the manner in which he used his newspaper to forward his ideas on the housing problem: “Most of the newspapers in this country have lost

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\(^{61}\) Apparently Garvey also visited Ecuador, where officials were less receptive to his project; it is not clear whether he went to Colombia. Howard Wenzel, Special Report to Floyd Baird on “Lee Thayer’s questions concerning his case study of Hogares Peruanos,” August 13, 1960, WHC.
your crusading zeal, much to my regret.” This favourable opinion was apparently shared by one senior US aid official who reported that Beltrán was “one of the strongest advocates of private housing in the entire world.” (Similarly, in greeting Beltrán’s appointment to the prime-ministership, Ludwig von Mises described him as “a tireless champion of political and economic liberty”;

Milton Eisenhower, the president’s brother, went further, citing Beltrán’s pleas as the inspiration for his own advocacy of the importance of aid to Latin America.)

By August 1959 Garvey had established the World Homes headquarters in Wichita, and the following month the Export-Import Bank approved a loan of $140,000 in PL 480 funds as partial financing for a project of seventy-two houses in Peru. In October, manager Howard Wenzel arrived in Lima to set up World Homes’ first office: Hogares Peruanos, or Peru Homes (code name: Operation Guinea Pig). On his first exploratory trip Garvey had held “sort of an informal contest” and selected Ernesto Aramburú to be the architect of the first Hogares Peruanos project. In April 1960 the Hogares Peruanos Model House opened to the public, and by the end of the year the firm had completed its first group of houses, financed using the PL

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62 Willard Garvey, letter to Pedro Beltrán, March 19, 1959, WHC.

63 Howard Wenzel (citing the opinion of “Mr Stanley Baruch of the ICA, a good friend”), letter to Pedro Beltrán, November 18, 1959, WHC. Wenzel had only recently arrived in Lima to head the Hogares Peruanos office and was writing to Beltrán in an effort to enlist his help in expanding his contacts within the Peruvian business community.


66 Wenzel attended Harvard Business School, and began to make connections in Washington through one of his professors, Raymond Miller; he received an invitation from Eisenhower him to attend a seminar on international aid, where he met Bill Graham, who offered him a job with his new firm Private Enterprises Inc., based in Wichita; from there Wenzel moved on working for Garvey, who was having more success with his international enterprises. “Community Memories: Howard Wenzel Story,” Harvard Business School, <http://institutionalmemory.hbs.edu/memories/howard_wenzel_story.html>.

67 Wenzel noted that Aramburú’s political connections would greatly facilitate the firm’s efforts to negotiate the building approval process: “Aramburú … will probably be far more valuable to us because he is head building inspector for Lima and on the Bd. of National Housing Corp. than because of his architectural ability (which is still highly regarded in Lima).” Howard Wenzel, “Status Report,” January 2, 1960.
480 funds [6.8]. Meanwhile, the Model House had been paid for with a loan from the University of Wichita—Garvey’s alma mater—which they were apparently expected to classify as an overseas research venture.69)

As with most Hogares Peruanos projects, the design followed the “growing house” model, originally devised in 1954 by architect Santiago Agurto (discussed in chapter two). Beginning with a minimal core unit, the dwelling would evolve over time as the family’s needs and resources changed, extending horizontally into the garden and vertically with an additional storey, facilitated by the flat roof; all the while the pattern of expansion would follow the original plans set out by the architect, which would be provided to the buyers with their purchase. As Wenzel described the rationale:

It is the desire of most middle class Peruvians to own a two-storey house. For this reason most one floor houses constructed in the low and middle cost range in Lima are prepared for second floor construction. The buying public insists on it.70

The “growing house” was a conventional dwelling in the sense that it conformed to basic building codes and standards of amenities and was sited on legally-acquired land, but it borrowed and formalized the incremental construction of squatter housing to create an affordable dwelling for the lower-middle-income market.71

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68 Although this first group of houses sold well, within a few months serious problems had appeared with cracking in the concrete, necessitating repairs to all the houses. The costs were shared fifty-fifty by the contractors (Silva and Araujo) and the architect (Aramburú). Howard Wenzel, “Status Report,” June 6, 1961, and August 21, 1961, WHC.

69 Letter Ralph Wulz, Treasurer of the University of Wichita, to Howard Wenzel, January 6, 1960, WHC; Wenzel, Letter to Floyd M. Baird, February 9, 1960, WHC.

70 “Plans are given to the buyer at the time of purchase indicating the manner in which the house can be quickly expanded adding bedrooms, a complete dining room, etc. This gives the buyers the assurance that they can add space as their needs and available funds permit.” Howard Wenzel, Letter to the Contest Editor of American Builder, October 5, 1962, WHC. Wenzel was describing the Atlas model from Sol de Oro. The magazine gave the project a Special Award in the category “Awards of Quality,” in “Announcing American Builder’s Model Homes Contest Winners,” American Builder (December 1962): 135.

71 In a letter to Stanley Baruch of the ICA, Wenzel also claimed that the “growing house” model had contributed to the Peruvian economy because “we have created a market for additional building materials and labor which is being used by the homebuyer to add driveways, additional bedrooms, and a second floor.” Howard Wenzel, Letter to Stanley Baruch, Regional Director for Latin America, Housing Division,
Hogares Peruanos was not the only US housing firm operating on this basis in Peru at the time. In July 1960, Wenzel reported that Coral Ridge Properties, based in Fort Lauderdale, was looking to buy land in Lima for a housing development and that the International Basic Economy Corporation (IBEC) was “expected down here within a month”; two years later, Pittsburgh-based Apollo Industries appeared on the scene, working with the financial backing of Equitable Life Insurance and an investment guaranty arranged through USAID. Of these, IBEC was both its strongest competitor, and closest to its larger goals; as World Homes executive Floyd M. Baird wrote to an IBEC counterpart:

> Our housing interests seem to be parallel and our aims the same in achieving property or home ownership on the broadest possible basis for the people in the world. We believe this is the fundamental basis for private enterprise, competitive capitalism, and the single thing that the United States can contribute to these underdeveloped countries.

> If we can work together on any projects from time to time, please let us know.

Following the Second World War, Nelson Rockefeller had continued his engagement with the development agenda in Latin America, and through his family, established two complementary private organizations: the American International Association for Economic and Social Development, which would undertake projects in health and education along the lines set by the Institute of Inter-American Affairs (IIAA), and IBEC, which would operate on a for-profit basis in order to stimulate economic development, “to increase the production and availability of goods, things, and services useful to the lives or livelihoods of their peoples, and thus to better their

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ICA, January 26, 1961, WHC. The growing house was employed by other private developers targeting this market: see advertising for the Canto Grande development using the slogan: “The house that grows, while your savings advance!”

Howard Wenzel, “Status Report,” July 14, 1960; Howard Wenzel, “Status Report,” July 11, 1962. According to Carey, by 1964 Apollo had built one hundred houses; as he noted, although it was called as low-cost: “At 123,500 soles (about $4,500) this is not ‘low-cost’ for the majority of Peruvians, but it does bring capital into a field where it is much needed, and where it should work to improve housing conditions in general.” Carey, Peru and the United States, 226.

Floyd M. Baird, letter to Robert Purcell, President of IBEC, December 6, 1962, WHC.
IBEC began operations in Venezuela, where Rockefeller had previous experience with business ventures; its projects were varied, including food production (milk pasteurization, poultry breeding), US-style supermarkets, investment banking, manufacturing, and housing. While it had some involvement with self-help housing—undertaking the global manufacture and distribution of the CINVA-RAM, a manually-operated machine for fabricating rammed-earth bricks—its chief aim was to produce housing using the most efficient construction technology at its disposal. Beginning with 1,500 houses in Puerto Rico, IBEC continued with projects in the Middle East, Chile, and Peru; by 1965, it had completed 1,000 houses at its Lima development, Salamanca de Monterrico [6.9-6.10].

Meanwhile, in accordance with its innovative business model, Hogares Peruanos now pursued various sources of development aid to finance its next projects—applying for a second round of PL 480 funds, as well as loans from the Inter-American Development Bank, and a housing investment guaranty from USAID. Its next two projects were located on adjacent sites

74 IBEC draft certificate of incorporation, as quoted in Wayne G. Broehl, The International Basic Economy Corporation, United States Business Performance Abroad, no. 13 (Washington: National Planning Association, 1968), 9. As an illustration of the overlapping interests of capitalist entrepreneurship and development in this era, Broehl’s study of IBEC’s corporate history included an enthusiastic prefatory letter from Paul G. Hoffman of the United Nations Development Program. Greeting the publication as a “particularly timely and important event,” he noted that: “it is absolutely essential that the economic and social progress of today’s low-income countries be greatly speeded. These countries contain nearly two-thirds of the earth’s total population, yet produce only one-sixth of its goods and services; and this situation creates clear and present dangers to the peace and prosperity of the entire world community.” Private enterprise had an indispensable role to play in increasing productivity and living standards, and conversely “itself stands in need of the great new markets which these countries potentially represent.” Emphasis in original.


76 Broehl, The International Basic Economy Corporation, 85.


78 IBEC’s Peruvian ventures also included the “Todos” supermarket chain, as well as “poultry breeding, insurance, bread-baking, trucking, and flavorings”; further, “[i]n 1967 IBEC helped the Peruvian Agriculture Ministry and the US Agency for International Development examine an idea for ‘minimarkets’ in the barriadas. These were intended to increase the efficiency of food distribution to the poor. The idea was dropped, however, after IBEC found that the minimarket would be unable to compete with the traditional bodega or tiny family-run grocery store.” Charles T. Goodsell, American Corporations and Peruvian Politics (Cambridge: Harvard University Press, 1974), 56, 103.
but aimed at quite different markets: Sol de Oro would be developed as a speculative venture with the houses sold on the open market, while Villa Los Angeles had been initiated by members of a housing cooperative who had approached Hogares Peruanos to be their developer after visiting the Model House.

Sol de Oro was promoted using a sophisticated marketing campaign that played on the popular appeal of the US space program, with its streets named after planets, stars, and astronomers. The naming of the four model houses continued this theme, with some misalignments—perhaps an inevitable by-product of Cold War ambiguities: Explorer and Discoverer were known as space research programs, though the latter actually performed CIA reconnaissance; Atlas was a space launch rocket that doubled as an intercontinental ballistic missile, while Polaris was a nuclear missile pure and simple. The housing was presented as modern and sophisticated, the single-family dwellings with cars in the driveway invoking an imagined Americana suburbia (although in fact these flat-roofed row houses would never have appeared in a US subdivision) [6.12-6.13]. With funds from the Alliance for Progress backing the mortgages available to buyers, Hogares Peruanos made a point of using the organization’s logo on the publicity materials, betting on the added cachet of Kennedy’s new program.79 (On his 1965 trip to Latin America, Senator Robert Kennedy would visit the development, accompanied by Father McLellan [6.14].)

On paper at least, Villa Los Angeles would seem to be a less profitable venture, but its suitability to the broader Hogares Peruanos mission—and to the priorities of funding agencies, which “wanted to reach lower down the income scale”80—offered other incentives for the firm to

79 “We are putting the Alianza para el Progreso Seal on all our publicity – signs and newspaper ads.” Howard Wenzel, "Status Report," March 31, 1962, WHC.

80 Export-Import Bank officials “expressed enthusiasm for a second [PL 480] loan but indicated a substantially lower price would be important since ExIm wanted to reach lower down the income scale.” Howard Wenzel, letter to Floyd M. Baird, October 23, 1960, WHC. In general, World Homes officials were more concerned about “leaders of revolution” emerging from a discontented middle class, and structured their projects accordingly; however, in a letter to McLellan concerning their application to the IDB for funding, Floyd M. Baird reported: “I told Stan [Baruch] that of course … we would build anything that they
take on the project. More than a business, Hogares Peruanos operated as a philanthropic-ideological-entrepreneurial conglomerate with multinational ambitions, endeavouring to proselytize free market values wherever US aid funding led it, under the dual objectives of making “a fair profit” and advancing its motto “Every Man a Home Owner.” This ideological commitment was not just a public relations posture: as becomes evident in the company’s internal memos, business decisions were never simply financial in nature, but guided in large part by considerations of their strategic impact in furthering the cause. As a case in point: the 500 members of the Villa Los Angeles cooperative—many of them low-income families—had been paying small weekly fees over several years to build up sufficient funds to buy the land for their housing project. As Howard Wenzel observed, it was more usual for such cooperatives to acquire their land through organized invasion, “then claiming the land … under squatters’ rights.” Wenzel argued that by respecting private property and abiding by the law, this group had set a positive example which deserved to be endorsed via aid support. Elsewhere, Wenzel reported on the culture shock he experienced in real-estate negotiations with wealthy limeños on discovering that this ideological commitment was not shared: “The Peruvian rich love to talk about the social problem of housing and how the ‘revolution’ may come unless they do something about it but when money is involved the social conscience goes out the

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81 “In owning a home, no matter how small, a man has a tangible piece of private property. He generally loses interest in collectivist philosophy and becomes a constructive force in the community.” Hogares Peruanos, “Application for a Loan to the Inter-American Development Bank Washington DC, from Asociación Pro Vivienda Propia Villa Los Angeles,” August 10, 1961, pp. 2-3, WHC.


83 At the neighbouring Sol de Oro site, progress on the project was delayed due to occupation by squatters: “The owner is now in the process of buying off the squatters in order to get them off the land, as apparently it would take a great deal of time in order to remove them through legal means.” A year later, the Villa Los Angeles cooperative moved to buy a small hill dividing the two sites “and convert it into a park. This will of course benefit Sol de Oro as well and will prevent a possible squatter settlement from developing on the hill which could mar the scenery.” James D. Van Pelt, “Report #3—South American Trip,” November 28, 1962; Howard Wenzel, “Status Report,” December 1, 1963, WHC.
For the Peruvian elite, there was no question of making concessions on a business level to forward a particular agenda—profit came before altruism, ideology, or class interest, whereas for Hogares Peruanos, promoting the pro-capitalist message was part of the company’s core business plan.

Since purchasing the land for the Villa Los Angeles development would likely exhaust the savings of many families, it was anticipated that they would complete their houses through self-help labour. Wenzel expressed great enthusiasm about the potential of this model, emphasizing its importance as a trial project:

Self-help offers the real long-run solution to the housing problem in the developing countries and if a private company can develop a system for profitably working in this field the market is unlimited. Not to mention the tremendous social contribution that will be made and the propaganda in the struggle with Communism.  

Having committed the firm to the self-help model, Wenzel recommended John Turner to coordinate the project. In general, the preferred Hogares Peruanos modus operandi was to find an investment partner to share the financial risks of its projects; in this case, Wenzel reported that Turner lacked the funds for such an arrangement (he had been “unemployed during 1958 and part of 1959 since there was little doing in Self-Help here”), but he was prepared to work for out-of-pocket expenses until the financing came through. More importantly, Wenzel argued that Turner’s expertise was invaluable, and enthusiastically recommended Turner’s Arequipa report to officials at World Homes. For its part, the company would act as “technical and

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84 Howard Wenzel, “Memorandum: Hogares Peruanos Sources of Additional Capital,” January 2, 1960, WHC.


86 Wenzel, “Memorandum: Preparation of Villa Los Angeles Project,” October 17, 1960, WHC.

87 “I have read most of the works on self-help housing and I have not found any more detailed analysis of this type of home building and the economies and social effects thereof”: Howard Wenzel, letter to Robert Bell, Vice President World Homes Inc., July 20, 1960, WHC. Wenzel also recommended the report to Walter E. Arensberg, of the United States Operations Mission (USOM) in Argentina: Wenzel, letter to Arensberg, August 24, 1960, WHC. It is not clear how extensive Wenzel’s knowledge of the self-help
financial consultants” for the project, offering their services for 10 percent of the net construction costs.  Although the cooperative agreed to this deal, the IDB—providing mortgage financing to the Villa Los Angeles association members en bloc, since they had all been persuaded to join McLellan’s mutual—objected, arguing that 2 percent was the usual fee; in the end, they settled on 5 percent.  At such times, its heavy reliance on US government aid funds presented particular challenges to the company’s efforts at profitability.

At Villa Los Angeles Turner began by commissioning “an exhaustive market research study” of prospective residents, carried out by anthropologist Eduardo Soler who had previously worked with Turner on the project for W. R. Grace and Company at Paramonga. It soon became evident that the majority preferred to pay for contractor-built houses and had sufficient means to undertake a mortgage (although many could only afford “a minimum house” which they would finish themselves). The remaining 25 percent would have access to no resources but their own labour. Turner now prepared the initial plans for the urban layout and for the various house types required to accommodate the different budgets. The site plan [6.15]

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88 Hogares Peruanos, “Slide Show on Villa Los Angeles Project,” January 24, 1961, WHC. Wenzel’s manager back in Wichita approved of this approach, describing a similar deal projected for Sol de Oro as “in line with our idea of becoming consultants and financiers in this field.” He counselled: “Take a lesson from the Swiss, Howie. They contribute little or nothing except edelweiss, cheese, cuckoo clocks, and yodeling, but they are one of the richest countries in the world. They merely take a percentage of every dollar, franc, lire, sole, et cetera, ad infinitum passing through their country.” Floyd M. Baird, letter to Howard Wenzel, June 14, 1960, WHC.


90 Hogares Peruanos, “Slide Show on Villa Los Angeles Project,” January 24, 1961, WHC.

was defined by pre-existing boundaries and, in accordance with planning regulations, 40 percent of the land was set aside for park space. In order to reduce paving costs—and since few residents would have cars—the passageways between the lots were no wider than double sidewalks. The effect was to create multiple points of pedestrian access to the central spine of green space, while limiting cars to parking areas at the centre and at either end of the development. The most basic house [6.17] consisted of two bedrooms, a living-dining room, an outside toilet, an outside kitchen protected with a roof of straw matting (called a *cocina ramada*), and an area in the backyard “to keep chickens and other animals.”92 With extensions and a second storey the house could include up to five bedrooms. Block plans demonstrated a mixture of different houses, reflecting the variety of incomes and needs [6.16]; with the incremental development of the dwellings, the streetscape would be continually evolving.

Each house was available in finished or unfinished states—the latter, “minimum” house being considerably less expensive; provided with the bare structure and basic plumbing connections, self-help labour would take care of the rest.93 Proceeding in this way, residents of the minimum dwelling could move in as soon as basic construction was completed, and, living on site, could work on their houses “in their spare time”—otherwise, since the development was on the urban periphery and most worked in central Lima, they would only be able to work on Sundays, leading to a protracted construction period that would adversely affect neighbourhood coherence. In an additional effort to accommodate the lower-income residents, Turner’s project proposal envisaged the establishment of a cement block factory on-site to provide well-paying local jobs, a gesture in the direction of holistic community development.

Estimates of the time needed for construction were unduly optimistic: less than a year for the installation of services (roadways, water reservoir, etc.) and the completion of all contractor-


93 This included “interior wall partitions, plastering, walls and roof, flooring, painting, and installing sanitary fixtures.” Hogares Peruanos, “Application for a Loan,” August 10, 1961, p.15.
built houses, and eighteen months for the self-build housing.\textsuperscript{94} In fact, work was repeatedly delayed by the process of preparing aid applications, waiting for approvals, and arranging for money to travel through the bureaucracies of US funders and Peruvian housing agencies. In contrast, by using its own construction funds, IBEC was able to get its projects off the ground much more quickly.\textsuperscript{95} As a solution to this problem, Hogares Peruanos seriously considered the possibility of taking over an existing \textit{mutual} or establishing their own,\textsuperscript{96} or even becoming a wheat broker—selling grain directly to Peru, and using the profits to establish a “revolving fund” for mortgage financing that would be directly controlled by the company or its associated businesses.\textsuperscript{97} None of these projects came to fruition, leaving the company tied to the agendas and procedures of the development agencies.

In the meantime, Wenzel began to explore alternative proposals for the housing. In March 1962 engineer Leonard Oboler submitted two designs for consideration: a standard three-bedroom house, and a “Paraboloid Roof House” consisting of “a simple shell roof, middle column and cement floor with one enclosed bathroom.”\textsuperscript{98} This second design would serve as the core of a self-build house [6.18]: once enclosed with exterior walls, the space could be divided into a series of rooms with distinct functions; the kitchen would be located behind this unit, framed by a half-wall, as in the \textit{cocina ramada} of Turner’s design. Within a few weeks, Wenzel was investigating using this “Shell Home” more widely in an “urban renewal project.” In September, having received provisional approval from the Instituto de Vivienda (INVI, or


\textsuperscript{95} Howard Wenzel, “Status Report,” June 2, 1962, WHC.

\textsuperscript{96} Howard Wenzel, “Status Report,” April 16, 1960, and August 10, 1960, WHC.

\textsuperscript{97} Willard Garvey pitched this proposal directly to the Peruvian president: Willard Garvey, Memorandum to General Ricardo Perez on “Wheat for Homes,” August 22, 1962, WHC. Wenzel subsequently reported: “This has really caught the imagination of people here since Willard left. The Embassy discussed it at their staff meeting on Tuesday, according to Paul Foster [of USAID], and were favourable; the Cabinet of Ministers of Peru also reacted favourably.” Hogares Peruanos pursued the project for another year or so, but the documentation then ends. Howard Wenzel, “Status Report,” August 23, 1962, WHC.

\textsuperscript{98} Howard Wenzel, “Status Report,” March 5, 1962, WHC.
Wenzel reported that: “We are now doing a brief market study of 4 different slum areas to see just how many units we can expect to sell.” As a result of this survey, Wenzel determined that there were “over 5000 buyers qualified”; the institute approved a first group of 250 houses, with the possibility of extending the program up to 1,000 units. In this context the “Shell Home” seems to have been envisaged as an addition to a minimal dwelling that had been offered for sale by the CNV only a year or so before (as discussed in chapter five). Consisting of a single room at the back of the lot, with brick walls on three sides, bamboo matting for the front wall, and a roof of cane and clay, residents would gradually construct their houses to fill the lot. With the addition of the “Shell Home” the lot would now contain two provisional, expandable shelter units, which did not quite add up to a house.

While the initial proposal anticipated delegating the organizational aspects of the self-help program to an outside body such as the Peace Corps, Wenzel subsequently reported that INVI had recommended that Hogares Peruanos take charge of all aspects, “including the self-help phase of the project in the provision of materials and technical assistance as well as constructing the shell unit.” While the firm had no prior experience in this area, Wenzel judged that “if handled properly the supplying of materials for the self-help phase could be very

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99 Specifically, according to Wenzel’s Status Reports, John Turner was the responsible Program Officer at INVI. John Turner, email to author, April 5, 2011: “It would have been together with Hans [Harms] that we quashed [the] idea pointing out that houses rarely if ever remain bungalows in urban Peru after a permanent roof is built on permanent walls.”

100 Howard Wenzel, “Status Report,” September 8, 1962, WHC.


102 Floyd Baird, “Hogares Peruanos Project 16: Urban Renewal—Schematic Diagram,” June 28, 1962, WHC. The caption reads: “About 3,000 of these were built several years ago by the Corporación [Nacional] de [la] Vivienda.” In fact, it was only the previous year that 2,000 of these basic units were built at Hacienda Conde Villa Señor, and 557 at Valdiviezo: Corporación Nacional de la Vivienda and Mario Bernuy Ledesma, Plan Río Rímac—Anteproyecto de Urbanización Popular de la Hacienda Conde Villa Señor: Memoria Descriptiva. (Lima: CNV, December 1961).
profitable.” Shortly after this report, Wenzel’s notes on the project end, indicating that it did not proceed any further as an “urban renewal” solution or as a model for Villa Los Angeles.

Indeed, at Villa Los Angeles the self-help component of the project disappeared entirely by early 1963, and Turner’s involvement came to an end. Wenzel had become aware that the Paramonga project had failed due to massive cost overruns—Hogares Peruanos proposed its own alternative solution for workers’ housing at Paramonga—and he lost faith in the self-help solution:

Self-help housing is a nice text book solution sort of like Utopia, the early Utopian Socialists, but it just doesn’t work in practice. Sounds wonderful when you read it in a book but it takes too many technicians and too much administration…. If it isn’t done properly, the people gradually lose interest and the whole thing falls on its face.

Rather than a magic ticket to an “unlimited” market, self-help housing presented complex challenges of its own, and proved resistant to successful for-profit production.

The Villa Los Angeles project did progress, but at a much slower rate than initially projected; actual construction began around 1964 and continued into the early 1970s [6.21].

Hogares Peruanos had reached agreements with three architectural firms to present new model

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104 Initially, in January 1962 their Paramonga proposal for “Shell Homes” was well-received, and following a visit to Peru in May, one World Homes manager underscored the project’s importance for Hogares Peruanos as its first “actual low-cost houses” and thus “an excellent example of the World Homes concept…. My one recommendation is that more study be made on what is needed and wanted in these areas and not what an architect thinks is needed and wanted.” However by the end of 1962 the project was encountering resistance from the union (which “refused to [go] along with the large project of privately owned homes and has demanded that Grace build houses and give them to the workers as has been traditionally done”), and from Grace itself, in the wake of unrest at another US-owned company in Peru: “In view of the riots in La Oroyo, the smelter of Cerro de Pasco Corp, where the workers led by the Commies did about 4 million dollars worth of damage ... Grace has decided to postpone a definite contract signing …. They want to study their own problem at Paramonga to be sure that an incident similar to Cerro de Pasco does not happen to them.” Daley, “World Homes Inc. July 1962 Board Meeting: Daley’s Report on Trip to Peru—May 1962,” June 4, 1962, WHC; Howard Wenzel, Status Report, n.d., received November 19, 1962, WHC; Howard Wenzel, Status Report, December 27, 1962, WHC.

houses to the cooperative\textsuperscript{106} and within a couple of years, residents began moving into their homes. Although the self-help component disappeared from the first stage of construction, it was certainly made use of in post-occupancy extensions, with the addition of a second, third, or fourth storey, or as little as a parapet wall to enclose the usable roof space (azotea) [6.22-6.23].

Considering the scale of the housing deficit and the limited financial capacity of most Peruvian families, from the outset critics such as Adolfo Córdova and others from the MSP questioned the viability of broad-based home ownership as a solution.\textsuperscript{107} In any case, the government-to-government and government-to-business partnerships cultivated in the early 1960s to enact this policy quickly showed signs of strain, fatally compromising the Hogares Peruanos project. Following a military coup in 1962—staged to stabilize the country after inconclusive election results—the United States suspended diplomatic relations as well as aid funding, making it difficult for the firm to conduct business. Wenzel hoped that they would soon resume operations with continued—if reduced—US support, but sensed that the coup would have broader repercussions: “Peru was to have been the example for South America,”\textsuperscript{108} and this unwelcome turn in its domestic affairs brought US policy towards the entire region into question. Soon after, US aid was again restricted, this time in retaliation for the government’s efforts to renegotiate the terms of its contract with a subsidiary of Standard Oil of New Jersey.\textsuperscript{109} As a final blow, the 1968 military coup initiating the (short-lived) Peruvian Revolution created a climate hostile towards foreign-owned businesses, while a declining economy hurt the firm’s

\textsuperscript{106} Three companies presented a number of models: Leonard Oboler, Olguín Silva, Percy Tejada. [Rodolfo Salinas], “Status Report,” August 31, 1965; “Status Report,” September 30, 1965, WHC.

\textsuperscript{107} See in particular Adolfo Córdova Valdivia, \textit{La vivienda en el Perú: Estado actual y evaluación de las necesidades} (Lima: Comisión para la Reforma Agraria y la Vivienda, 1958), 13, 148.

\textsuperscript{108} Howard Wenzel, “Memorandum: Immediate Future for Hogares Peruanos SA,” August 1, 1962, WHC.

core market of lower-middle-income families. In the early 1970s Hogares Peruanos wound up operations altogether, after completing 450 of the 500 houses planned for Villa Los Angeles. Converted into a gated community during the years of civil violence but with its green corridor intact, the development remains under permanent construction—almost as envisaged by Turner, but self-built by default rather than by design [6.24].

6.3 $22,800,000 and Two Years

In a sense, Hogares Peruanos was an Eisenhower-era project that subsequently adjusted itself to Kennedy-era funding opportunities; by contrast, the Plan Bienal 1962–1963 Perú-BID was very much a by-product of Kennedy’s vision for Latin America.

In August 1961, Kennedy’s call for an “Alliance for Progress” within Latin America was made concrete with the Declaration of Punta del Este, which identified a series of goals for participating beneficiary nations in order to foster social and economic development. For its part, the United States committed itself to providing technical and financial assistance in four key “fields of activity”: land settlement and improved land use; communal water supply and sanitation facilities; education and training; and low-income housing. As with the World War II-era technical assistance programs administered under the IIAA, the projects were to be jointly funded by the United States (through the Social Progress Trust Fund of the Inter-American Development Bank) and the participating government. The very first Alliance for Progress loan

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111 At various times Hogares Peruanos had investigated the possibility of doing projects outside Lima—in Chimbote, Trujillo, and Paramonga—none of which eventuated. Elsewhere in Lima it carried out a fairly successful program of package homes, which were constructed on buyer-owned lots throughout the city, and built a group of six two-storey town houses aimed at the upper middle-income market. General Report of Operations in Peru, ca. January 1970.

to be approved—proudly announced by Beltrán and *La Prensa* in February 1961—was for the construction of water and sewage infrastructure in Arequipa.\(^{113}\)

In November 1961, the IDB approved funding for the Plan Bienal 1962–1963 Perú-BID, providing $22.8 million for low-income housing, primarily to be constructed using aided self-help.\(^{114}\) John Turner was part of the Peruvian government delegation that went to Washington, along with Luis Marcial, an architect and senior official at the Instituto de Vivienda (INVI, or Housing Institute), and Luis de los Heros, the editor of *La Cronica*, who had previously served on the board of the Comisión para la Reforma Agraria y la Vivienda and was now the director of INVI. Turner recalled that in advance of the meeting, the IDB “made known that [they] would be prepared to consider funding a national program of self-build,” and that after the group’s presentation, “the bank’s board was delighted” and immediately doubled the amount of the loan.\(^{115}\) In fact, by 1963 the IDB had sponsored self-help housing projects in ten other countries in Latin America, although none were on the scale of the program planned for Peru.\(^{116}\)

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\(^{113}\) Inter-American Development Bank, *Social Progress Trust Fund: First Annual Report, 1961*, 3. See also “Dolares para el Perú,” and “Cooperación Interamericana,” *La Prensa*, February 5, 1961, Sunday supplement. By way of historical context: under the authoritarian regime of Augusto B. Leguía (1919–1930), Peru had undertaken a series of large international loans—the majority floated by New York based investment banks which had established branches in Lima—to support the construction of infrastructure projects; in the first half of the decade these totalled over $36 million, and in 1927 and 1928 an additional $100 million in loans was added. Soon after Leguía was ousted, Peru began to default on its debt: according to James C. Carey, “[a]s of January 1932, it would have taken 34.3 percent of the annual national revenue to maintain foreign debt services.” In 1940 Beltrán was appointed as a commercial representative to Washington, in which capacity he “made a real effort to clear up trading and financial problems”; during the war, he worked to maintain good relations with Washington, and he subsequently served as Peruvian ambassador to the United States (1944–1946). Eventually in 1953 Peru began repayment of these ill-advised loans “on a very limited scale …, financed to some extent out of aid funds coming south from Washington.” Carey, *Peru and the United States*, 78, 106, 80.

\(^{114}\) BID is the acronym for the organization’s Spanish title: Banco Interamericano de Desarrollo.

\(^{115}\) John F. C. Turner, interview with the author, June 2007. On the political level, historian Richard J. Walter has noted: “As a sign of the high priority the new administration had assigned to Peru, in September 1961, President Prado became the first Latin American head of state to visit Washington after Kennedy’s inauguration.” A few weeks later the IDB approved this loan and a $1 million loan for the *mutuales*, “apparently as a result of the Kennedy-Prado discussions.” Richard J. Walter, *Peru and the United States, 1960–1975: How Their Ambassadors Managed Foreign Relations in a Turbulent Era* (University Park: Pennsylvania State UP, 2010), 13, 14.

In fulfilment of its first obligation under the Punta del Este agreement, in October 1962 the Peruvian government presented to the Organization of American States its *Plan nacional de desarrollo económico y social, 1962–1971* (National Plan for Economic and Social Development, 1962–1971). Constructed specifically to meet the criteria and expectations set by the Alliance for Progress concerning administrative reform within participant countries, in a sense the production of this plan formalized Peru as a modern, technocratic society, articulating a vision for its own “development” and setting out a process to fulfill it by disciplining the somewhat ad hoc workings of government policy and public investment into articulated targets, budgets, outcomes, and evaluations. Parallel to the process of formalizing the status of the squatter home-builder via registration, mapping, and titling, the Alliance for Progress prescribed the subject-formation of a democratic nation-state, marked by administrative transparency, efficiency, and accountability.

The *Plan nacional* outlined a three-fold objective in the housing field: to meet any housing deficit due to demographic increase over the decade, replace any housing lost due to delapidation, and cover 30 percent of the existing housing deficit. To this end, it determined that over ten years the state should build 671,350 new dwellings and rehabilitate an additional 343,800. With the correct policies to encourage investment in the construction of low-cost housing, the private sector could be expected to contribute an additional 118,474 housing units.\(^{117}\) However, the plan stressed that “these figures are nothing but indications of the need,”\(^ {118}\) and that its actual targets would have to be negotiated within the overall plan for national development, which also included projects in the areas of agrarian reform, public

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\(^{117}\) Banco Central de Reserva del Perú, *Plan nacional de desarrollo económico y social del Perú, 1962–1971* (Lima: Banco Central de Reserva del Perú, 1962), 241. According to the estimates of the CRAV report, the housing needs for the upcoming decade were actually considerably higher: 1,367,324 in new construction and 1,146,000 in rehabilitation, or a total of 2,513,324—more than double the amount proposed by the *Plan nacional*: See “Cuadro 79: Inversiones en viviendas,” in Banco Central de Reserva del Perú, *Plan nacional*.

\(^{118}\) Banco Central de Reserva del Perú, *Plan nacional*, 241.
health, education, and electrification. Accordingly, the concrete projects it outlined for the first two-year period (1962–1963) were more modest, specifying the construction of 22,000 dwellings by the newly established INVI, and a series of upgrading projects by the existing housing agency, the CNV. The latter would focus on four areas, all connected to the approaches proposed by Law 13517 (Law for the Remodelling, Sanitation, and Legalization of the Barrios Marginales) which had been instituted the previous year: “urbanistic remodelling” of 271 barrios marginales housing a total of 700,000 people; “saneamiento ambiental” (environmental sanitation)—providing water, sewage, and electricity—for 400,000 people; legalization of 100,000 property titles; and granting 12,500 loans for “the improvement, completion, or construction of dwellings” in barrios marginales. In addition, sites and services programs (run by both the CNV and INVI) would provide 25,000 lots, and land would be secured for future projects. In sum, in terms of actual new housing (as opposed to upgrading), the proposed total of 22,000 dwellings and 25,000 lots would accommodate 47,000 households against the approximately 67,000 that the Plan nacional argued should be built on average annually.

For many observers, the decision to establish a new housing agency was redundant, and worse, counterproductive. The Prado government attempted to position INVI as fulfilling a new and distinct mission. According to Beltrán’s newspaper La Prensa, its emphasis would be to “construct ‘basic’ houses (incomplete, to be expanded, which have been called ‘la casa que crece’)” while the CNV “with its recognized technical capabilities, will elaborate and execute the projects entrusted to it by INVI.” In a similar vein, an exhibition held in central Lima, organized by John Turner and Hans Harms, underscored the new agency’s specialized task as mobilizing

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119 Banco Central de Reserva del Perú, Plan nacional, 243. Hogares Peruanos hoped that its “Shell Homes” project would fall under this category as an example of “urban renewal in the slums.” Howard Wenzel, “Status Report,” July 26, 1962, WHC.

120 “Casa para el que no la tiene: Un gigantesco programa nacional de vivienda,” La Prensa, February 5, 1961, Sunday supplement.
“the resources of the people”\textsuperscript{121} in tandem with those of the state to improve housing \textsuperscript{[6.25]}. However, writers in \textit{El Comercio} questioned why the CNV, with all its acknowledged expertise, was being sidelined: were Prado and Beltrán “trying to destroy or interfere with the Corporación because it is identified in its origins with architect Fernande Belaúnde Terry or in its projects with architect Santiago Agurto Calvo?”\textsuperscript{122} In fact, these suspicions are confirmed in a Hogares Peruanos document from late 1962, describing the agencies as “both public housing organs with the same functions, one created by Pres. Odría, the other created by Beltrán since he didn’t get along with the then President of the Corporation.”\textsuperscript{123} Because of this bureaucratic power struggle, the challenges of implementing a complex and extensive new housing program would be compounded by the decision to hand its execution to two competing agencies, one of which was completely untested.

By the time that the \textit{Plan nacional} was presented in October 1962, it was able to report that INVI had already carried out the construction of 9,899 new dwellings, and that 10,000 sites and services lots had been prepared. For its part the CNV had completed the “urbanistic remodelling” of 95 \textit{barrios marginales} (of the proposed 271); the “saneamiento Ambiental” for 180,000 people (of the proposed 400,000); the legalization of 20,000 property titles (with another 105,000 being processed\textsuperscript{124}); and granting 300 loans (of the proposed 12,500).\textsuperscript{125} However, apart from the modest number of loans reported, these figures appear to be wildly

\textsuperscript{121} “Labor que viene desarrollando expone el Instituto de la Vivienda: En la galería del Banco Continental se exhibe la muestra,” \textit{La Prensa}, April 17, 1962.


\textsuperscript{123} Howard Wenzel,”Status Report,” December 27, 1962, WHC.

\textsuperscript{124} The only subsequent reference I have found to this undertaking indicates that as of March 1963, 16,008 titles had been granted in greater Lima, with another 11,275 scheduled to be granted by the end of May, giving a total of 27,283 households recognized and therefore ready to apply for loans and technical assistance in upgrading their dwellings. JNV, “Datos estadísticos de trabajos de Oficinas Zonales en barriadas,” March 21, 1963, JFCT-UW.

\textsuperscript{125} Banco Central de Reserva del Perú, \textit{Plan nacional}, 244.
inflated: in particular, gauging from contemporaneous CNV documents such as the Plan Río Rímac, given the complexity of the logistics involved in preparing and carrying out remodelling projects, the most that would have been completed in the 95 barrios marginales at this stage was a preliminary survey.

In September 1963, two months before the two-year Perú-BID program was due to be completed, the contract was renegotiated, extending the deadline by thirteen months, significantly increasing the allowable maximum cost per house, and altering the primary construction system from “auto-ayuda” (self-help) to “indefinido” (undefined). According to the documentation explicating this shift, while the original aim had been to employ self-help on 17,350 new dwellings—along with the “direct construction” of 5,350 new units, and rehabilitation work on 12,500 units in barrios marginales, for a total of 35,200 units—by May 1963, only 1,050 self-help units had been completed, compared to 3,750 in direct construction. The revised contract maintained the overall goal of 35,200 units, but dramatically reduced the self-help component to only 7,950 units, with the remainder allotted to upgrading projects in barrios marginales. It is not at all clear exactly what these latter projects were intended to entail, and even less so what was eventually completed; as one 1966 study noted, projects in the barriadas, whether supported by Perú-BID or other programs:

have been realized in a dispersed fashion, by various entities, from which it is not possible to obtain with exactitude the necessary figures. The barriada pobladores themselves are unaware what projects have been realized. Neither is it possible to know if they are definitive or provisional in character, nor how much they cost.128

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127 INVI’s own initial estimate was slightly higher: planning 40,000 lots in sites and services projects, it anticipated that around half of these (20,000) would be built using self-help. See Instituto de la Vivienda, Plan de Vivienda, 1962–1971 (Lima: INVI, 1961).

128 Germán Tito Gutiérrez, Análisis censal para una evaluación de vivienda (Lima: Oficina de Planificación Sectorial de Vivienda y Equipamiento Urbano, January 1966), VIII: 5.
Overall, given that the numbers are not consistent across the various sources, the best estimate is that Plan Bienal Perú-BID eventually funded 38,698 units: of these, 4,106 used self-help, compared to 8,895 in direct construction, with the remaining 25,697 in barriada eradication or upgrading.\textsuperscript{129}

This represents a precipitous decline in the expectations for self-help housing: initially, 17,350 dwellings were to be completed over two years; this was then modified to 7,950 within an additional three years, while the eventual total was 4,100 built over the five-year period. Although the extant documentation is slight, by reviewing field reports and evaluation studies it is possible to trace the outline of problems emerging from the Plan Bienal Perú-BID and from the aided self-help methodology more generally. The focus here will be on the city of Chimbote, since this represents the most extensive set of documentation.

Sited on the coast a few hours north of Lima, Chimbote was described in one report as a “heterogeneous city, where the only commonality is disorder, the bad smell, … and the existence of ‘barriadas’ … in an institutionalized form, in such a way that it can be confirmed without fear of error that Chimbote is one ‘large barriada.’”\textsuperscript{130} In 1948 Paul Lester Wiener and Josep Lluís Sert had developed a plan for the city centre on behalf of the Oficina Nacional de Planeamiento y Urbanismo (ONPU, or National Office for Planning and Urbanism), based on what they described as “a modern expression of the old colonial ‘Plaza de Armas’” [6.26]. Although the current population was only 12,000, they were optimistic about the city’s potential

\textsuperscript{129} Specifically, this included 3,977 units in urban rehabilitation, 6,548 in barriada eradication, and 15,172 in “saneamiento”—presumably the provision of water, sewage, and electricity services. I have derived these figures from a 1967 table summarizing the JNV’s building activity: “Programas ejecutados por la Junta Nacional de la Vivienda: 1963–1967,” in \textit{Obra de la Junta Nacional de la Vivienda de julio de 1963 a octubre de 1967} (Lima: JNV, 1967), CDI-MVCS. As confirmation of its (relative) accuracy, the figures given for the various housing projects covered by the Perú-BID program are largely (but not completely) confirmed by another table enumerating details of the JNV’s projects: “I. Descripción general de cada proyecto: Cuadro No. 1,” April 30, 1966, in \textit{Labor de la Junta Nacional de la Vivienda, 1962–1967} (Lima: JNV, January 1968), CDI-MVCS.

for economic development, noting that it had excellent port facilities and had been selected “as
the outlet for the hydroelectric development of the Santa River (Peru’s TVA), which means the
future population may reach 40,000.” In fact the city faced astronomical growth rates: a
population of 4,200 in 1940, 15,600 in 1950 (30 percent higher than the figure cited by Wiener
and Sert), 63,900 in 1961, and 100,000 in 1968. According to Adolfo Córdova’s survey, by
1957 only 5.3 percent of the housing was in decent condition, 38.5 percent was “improvised”
barriada housing, with the remainder degraded tenements and single-family houses [6.27].
The city had begun as a speculative venture in the late nineteenth century: in 1872 an
entrepreneur received official approval for the development of a city, but after reserving sixty
blocks for the urban centre as well as sufficient land to serve a railway line, he sold the outlying
areas and then abandoned the project altogether. The settlement remained little more than a
fishing village until 1945, when the government provided land nearby for the hydroelectric
project as well as a steel plant; evidently this was conceived as an integrated regional
development plan, with Wiener and Sert’s project to provide the focal point of a new urban pole.
However, the newly created industries initiated a sudden increase in migration which far
exceeded their actual labour needs, and uncontrolled urban growth rapidly overtook the
framework of ONPU’s vision. Much of the unemployed migrant workforce was absorbed into the
fishing industry, specifically the production of fish meal, and in the momentum of this boom,

131 Paul Lester Wiener and Josep Lluís Sert, “Five Civic Centers in South America,” Architectural Record
114 (August 1953): 123.


133 Adolfo Córdova Valdivia, La vivienda en el Perú, 110.

134 The Peruvian government initially put the land out to tender in 1870, with the first purchaser paying
S/.50,000, and then selling it on for S/.200,000 three months later to Juan Gilberto Meiggs: also known as
John Gilbert Meiggs, he was the brother of the prominent US-born railway and real-estate entrepreneur
Henry Meiggs, who was responsible for establishing railway networks in Chile as well as Peru.

135 Diego Robles Rivas, “A Housing Survey; Chimbote/Perú” (thesis, Department of Tropical Studies,
Architectural Association, London, September 1965), 3.1-3.4, JFCT-UW; Elsa Samañez de Tovar,
fish-meal plants were established next to recreational beaches and residential areas, and frequently “without considering the direction of the winds,” leaving much of the city perpetually cloaked in their “pestilent emanations.” The fish-meal boom lasted until 1970, when the industry collapsed due to a combination of overfishing and infrastructure damage from a large earthquake.

INVI’s Perú-BID projects in Chimbote represented a kind of remediation effort against the effects of this rampant industrial modernization. They fell into two broad categories, both of which utilized aided self-help. First, the upgrading of existing barriadas, which included the provision of technical assistance and loans in the form of building materials to individual families in order to facilitate housing construction, “and with this [achieve] the definitive rehabilitation of the neighbourhood.” According to the brochure promoting this program, participants could construct their dwellings using esfuerzo propio (one’s own effort) or ayuda mútua (mutual aid). Other services provided by INVI at the urban level, such as planning new urban layouts (lotización) or the remodelling of existing layouts (remodelación), as well as the installation of basic services (saneamiento) would not employ self-help labour but were expected to operate on a self-sustaining economic basis, with all costs to be covered by the residents.

Second, INVI proposed to construct a new urbanización, along the lines of the Ventanilla satellite city on the outskirts of Lima. Urbanización El Trapecio would consist of 773 residential lots for single-family houses and 288 apartments, with the provision of a comprehensive range of urban amenities and areas for light industry [6.28]. Provided with basic services, the houses were designed to be low-cost, beginning with a núcleo básico (basic core unit) but offering “the


best facilities for the comfortable and decent development of family life." The family had a choice of three options in building their house: conventional construction, whereby the residents' association would arrange to hire a contractor on behalf of its members to carry out the work (costing S/.36,950 for the basic dwelling), or they could elect to use either esfuerzo propio or ayuda mútua under the auspices of INVI (costing S/.26,290). In this way, INVI’s brochure argued that El Trapecio represented a streamlined version of a familiar system, offering the modest family “that traditionally builds their house with their own initiative and efforts, the necessary elements to build it rapidly and economically with the essential services for a healthy life.”

Some indications of the difficulties that emerged with the implementation of these projects can be found in the small number of extant field reports prepared for the head office in Lima, dating from 1963. By this stage INVI was in the process of merging with the CNV to form the JNV (Junta National de la Vivienda, or National Housing Board) in an effort to streamline the housing bureaucracy. At El Trapecio, after a year and a half of work, the first stage consisting of 530 núcleo básico dwellings had been completed. The housing agency had handed out a total of 1,400 application forms to prospective residents, but only 804 were actually submitted, and of these only 524 were declared to be suitable for the program. Meanwhile, there were approximately 5,000 families in the city who were renting, and should therefore have been attracted to this opportunity to own their own homes. The report concluded that El Trapecio “hasn’t had the reception that was hoped for” because it did not correspond to the priorities of residents, which began with “the solution of the tenancy of the lot.” Furthermore, its location far

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139 Humberto Ghersi and José Stretz, “Informe: Ciudad de Chimbote, investigaciones sociales,” March 16, 1963, 21-22, JFCT-UW. Elsewhere the same report noted that the number of applications for El Trapecio “signifies an appreciable interest, compared with other programs, principally those in Fray Martín [de Porres] and Comas”; this suggests that the situation in Lima, where both these settlements were located, was even more problematic.
from the centre of the city detracted from its appeal, particularly since it was adjacent to “the only group of casas de diversión [bars and gambling halls] in Chimbote” which according to the housing office’s own rules, made it a “dangerous and undesirable neighbourhood” for families. Finally, it was still not possible to hand over the houses to residents because administrative delays had left work on the installation of water, sewerage, and electricity infrastructure “practically paralyzed,” and key urban amenities, such as the school and the market, were not yet completed; as a consequence, “with the discouragement of the current, qualified concerned parties, one is running the risk of giving free rein to opponents’ attacks.”

The most powerful of these opponents was apparently the El Acero barriada [6.29], “the barriada with the greatest influence in all of Chimbote and perhaps in all of Peru, because of its leadership and its history.” Resistance to the government programs was blamed on the fact that the barriada had two rival residents’ associations, with leaders who were hostile towards the authorities and found it to be in their interests to intimidate residents into withdrawing from the Perú–BID programs. On the other hand, it was evidently not difficult to sow dissent against the housing agency among the pobladores since “they have been the object of many surveys and have received few concrete results.” For their part, the reports’ authors complained that there had not been enough time allotted to carry out preparatory surveys—instead of a few days, a month was necessary to build rapport with the pobladores and thus collect accurate information; furthermore, there were few existing studies to use as a foundation, and to compound the problem, a high turnover of staff in the local offices meant that there was little continuity of institutional knowledge, and little consistency in interactions with the barriada residents.

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142 Elsa Samañez de Tovar, “Informe sobre el viaje a Chimbote,” May 31, 1963, 18, 5, JFCT-UW.
More generally, the complaints underscored the disjunction between the situation on the ground and the “normative aspects determined by the Lima office”; one statement—dealing specifically with the constraints of having to comply with standardized bureaucratic procedures—encapsulates a key problem underlying the entire enterprise: “In many aspects the local reality cannot always agree with the Guide.” For example, the qualification rules (apparently determined by the IDB) specified an ideal candidate—married, healthy, with full and correct documentation—when in reality cohabitation was more common than formal matrimony, poverty and unsanitary environments compromised health, and acquiring certificates of birth, baptism, and property represented a considerable expense to most prospective residents. As a result, it was often difficult to muster sufficient qualified participants to carry out the projects. In the barriada La Libertad, for example, the housing agency had been building a relationship with the community over the course of a year, and the plans for remodelling had proceeded well in eighteen of the twenty blocks; however, a time limit had been set on the project, and the residents’ lack of interest in signing up for the associated loans meant that it would be hard to enroll the target numbers by the deadline. By contrast, the rehabilitation program at the barriada 21 de Abril promised to be easier to implement, since it was sponsored by USAID rather than the IDB and thus had fewer restrictive guidelines. At an even deeper level, there was a fundamental disjunction between the range and scope of the projects offered through Perú-BID and the actual needs of the intended beneficiaries, since the focus on the dwelling per se was

143 Humberto Ghersi and José Stretz, “Anexo a los informe presentados: Síntesis del desarrollo de los programas, evaluación y sugerencias,” March 25, 1963, JFCT-UW.

144 Ghersi and José Stretz, “Anexo a los informe presentados,” 3.

145 Samañez de Tovar, “Informe sobre el viaje a Chimbote,” 13, 10-11. On the other hand, this project faced problems of its own: the Peace Corps volunteers who had been assigned to assist with the housing component refused to carry it out because they felt that it was being rushed by the JNV; instead, they wanted to focus on “community improvement.” See also: John F. C. Turner, “Existe una situación conflictiva en San Martín de P. involucrando los voluntarios del CdeP, los pobladores, el INVI, y la CNV,” 1962, JFCT-UW.
not in keeping with residents’ priorities, which were ranked as: secure tenure; water, sewerage, and electricity connections; and communal amenities such as schools, markets, health posts.\(^{146}\)

Aside from these contemporary reports, a short evaluation study from 1969 provides an ambivalent coda to the projects. The two accounts making up the study present a sharp contrast, at least in part due to real differences between the two neighbourhoods under examination, but the gulf between the two also serves as a reminder that official reports are often constructed by unreliable narrators. At El Acero—a disordered “urban blemish”—the project included the rehabilitation of 500 dwellings, and the “eradication” and resettlement of an additional 170 families in order to reduce the population density. According to the evaluation, since their construction five years earlier, the community facilities had effectively been “destroyed” by the residents, an outcome that was blamed on a lack of social cohesion and on the housing agency’s failure to establish “an organization for the promotion and appropriate use of the dwellings and the amenities through a plan of educational diffusion.”\(^{147}\) The simple two-bedroom houses were self-built, and included the possibility of extensions \(^{[6.30]}\), but they had been carefully designed in order to circumvent barriada residents’ tendency to subdivide the dwelling along the central corridor, in order “to sell one of the parts of the house”\(^{148}\) or to rent rooms off the passageway; instead, by positioning the corridor along the side wall, the floor plan eliminated the temptations of a central dividing line \(^{[6.31]}\).

At La Libertad, the project involved the participation of Turner’s colleague from Paramonga, Diego Robles, who had recently returned from studying at the Architectural Association’s School of Tropical Architecture with Otto Koenigsberger, where he had submitted a study on Chimbote for his master’s thesis.\(^{149}\) At La Libertad around 185 families participated

\(^{146}\) Samañez de Tovar, “Informe sobre el viaje a Chimbote,” 22.


\(^{149}\) Diego Robles Rivas, “A Housing Survey: Chimbote/Perú” (September 1965). JFCT-UW.
and five years after the completion of the program, the authors reported that “the entirety of the families have contributed to the process of consolidation and improvement of the barrio and that the supervised action [of the aided self-help project] … has served as a positive stimulant to provoke a multiplier effect” as individuals invested their own resources “in order to achieve their shared individual goals.”\(^\text{150}\) In this case, the architects had been willing to accommodate the living patterns of residents, and in particular, recognized the importance of allowing for the house to be subdivided, so that part could be used “to lodge relatives or to rent it to obtain secondary income.”\(^\text{151}\) The result was a long and narrow layout, which could accommodate two dwellings side by side on the same lot [6.32]. This solution was not ideal from the perspective of modernist housing reform, but in contrast to El Acero the architects had allowed their expertise to be guided in another direction in order to meet the residents’ needs.

Despite the diverging descriptions of the outcomes, in both cases it seems evident that a number of households did benefit from the program in Chimbote, although they were relatively few considering the scale of the housing problem, and the considerable investment of labour on the part of the housing agency (the El Acero program, for example, included a staff of twenty, ranging in responsibilities from the chief and assistant architects, to social assistants, master builders, machine operators, and watchmen.) Even at La Libertad, collaboration with the residents did not come easily, despite the genuine engagement—and valuable experience—of Robles:

One of the first problems that the técnicos had facing the population was to gain their trust, and to demonstrate that their intentions were not political promises, and represented a change of attitude in order to work together and in parallel with the population.\(^\text{152}\)

\(^\text{150}\) Diego Robles and Juan Sierra, “Sintesis del desarrollo del Barrio ‘La Libertad’ Chimbote-Ancash, Perú,” in Barrio El Acero de Chimbote, Perú, 45.

\(^\text{151}\) Robles and Sierra, “Sintesis del desarrollo,” 46.

\(^\text{152}\) Robles and Sierra, “Sintesis del desarrollo,” 40. One of the field reports on the city of Piura reveals a similar dynamic: “There exists a huge desire to be helped … but at the same time a huge fear of being
As the architects argued, the challenge was to establish a collaborative relationship in an environment that had been shaped by a paternalistic and clientelistic model—to “change the figure of working for the pobladores to working with the pobladores.” At this point the geopolitics of loan-making and development met the realpolitick of doing business in the barriada, as the architects faced the challenge of reassuring residents who had learned to be wary of government promises of assistance that making a commitment to this program would be worthwhile. From the perspective of the pobladores, participation in aided self-help projects represented a considerable investment of time and financial resources, and the consequences of any mistakes or inefficiencies would have enormous repercussions for them—far greater than for the housing agency or its international funders.

After his role in negotiating the Perú-BID loan, Turner had the responsibility of overseeing the aided self-help component of the program. He soon began to feel that the whole enterprise was heading in the wrong direction: pressures for production from the sponsors and the need to implement the project within a strict schedule led to quick solutions that were less than ideal; in particular, there was insufficient time to properly organize the participants—or, more precisely, to assist them to organize themselves. Nonetheless, along with Luis Marcial of INVI, Turner undertook a smaller project in parallel with the main Perú-BID program which explored an alternative approach to organizing self-help housing. At Huascarán, a settlement of thirty or so houses, participants were provided with a series of small cash advances to cover the costs of each stage of construction—foundations, walls, basic shell, roof—with money for the ‘exploited or cheated.’” Humberto Ghersi and José Stretz, “Informe: Ciudad de Piura, investigaciones sociales,” February 2–March 9, 1963, JFCT-UW.


Turner, conversation with the author, July 2010.
subsequent stage disbursed as the scheduled work was completed. Using this technique of “supervised credit,” the role of Marcial and Turner was simply to carry out inspections to ensure that construction been carried out to an acceptable standard, and then to approve the next installment of credit. According to Turner, this approach was treated with some scepticism by officials concerned at the prospect of giving so much control to the residents; in any case, the possibility of further trials along these lines effectively ended when Marcial was killed in a plane crash in late 1962. Writing a decade later, Turner underscored that given the high administrative costs of conventional aided self-help projects, the supervised credit approach used at Huascaran had appeared to offer a “genuinely radical alternative” to housing provision.

In summary, in the face of various challenges to its implementation, Perú-BID funds dedicated to aided self-help housing programs contributed to the construction of a total of 4,106 housing units in nine projects located in seven cities across Peru, ranging in size from 56 to 900 units. In addition, through the “barriada eradication” and “sanitation” sub-programs, Perú-BID funds contributed to realizing self-help projects developed under the umbrella of Law 13517, such as the UPIS (Urbanización Popular de Interés Social, or Low-Income Social Housing Subdivisions) at Condevilla, Valdiviezo, and Caja de Agua. Although this was far from what

155 As described by Howard Wenzel of Hogares Peruanos: “He was a very dedicated, competent young Architect of 28, and his loss has shaken many people in the Instituto.” Wenzel, “Status Report,” December 1, 1962, WHC.

156 John F. C. Turner, “The Reeducation of a Professional,” in Freedom to Build: Dweller Control of the Housing Process, ed. John F. C. Turner and Robert Fichter (New York: Macmillan Company, 1972), 139. “When people are building for themselves” there is room for genuine relationships, “for creativity, pride, and satisfaction from the work itself. Of course, there are plenty of grounds for conflicts and hate as well as love, but these are the matrix of life which is denied by the impersonality of authoritarianism.”—including the “liberal authoritarianism” of OATA. Turner, “The Reeducation of a Professional,” 145, 138.

157 See “Programas ejecutados por la Junta Nacional de la Vivienda: 1963–1967,” in Obra de la Junta Nacional de la Vivienda de julio de 1963 a octubre de 1967 (Lima: JNV, 1967), CDI-MVCS. Perú-BID also supported the direct construction of housing at the satellite cities of Ventanilla (2,350 units) and San Juan (3,324 units).
had been initially planned, the Alliance for Progress ambition to foster progressive social policy could claim some success in these innovative efforts in the provision of affordable housing.

### 6.4 The Value of “Aided” Self-Help

In mid-1967, the Inter-American Development Bank completed its first evaluation of the initial round of housing programs it had funded, comparing the outcomes in four countries—Costa Rica, Colombia, Chile, and Peru. Arguing that it was essential for IDB-sponsored programs to become self-sufficient by mobilizing domestic resources for sustained growth in the housing sector (thus performing as a productive investment), the evaluation focused on the rates of repayment on its various loans. Primary borrowing institutions (such as national housing agencies) negotiated the terms of the loan and its repayment with the IDB, and then employed the funds to grant loans to individual homebuyers. Low recovery rates from these borrowers to the housing agency would severely affect not just their ability to repay the IDB, but also, potentially, their overall financial stability.\(^{158}\)

In the case of Peru, the two institutional borrowers were the JNV (funding four sub-programs) and Father McLellan’s Mutual El Pueblo. The latter had given out more than 4,000 mortgages, as well as 800 smaller loans for upgrading; 97 percent of its borrowers were up-to-date with their payments, and only 2 percent were more than three payments behind—generally in cases where borrowers had experienced unemployment or unanticipated family crises. At the JNV, however, the repayment rates varied dramatically among its four sub-programs: in direct construction 61.5 percent were up-to-date, in rehabilitation only 19.6 percent were, while in self-help and “barriada eradication” programs there were no borrowers who were up-to-date with their loans and 74 percent were more than three payments in arrears. According to the IDB, the

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\(^{158}\) Henri Scioville-Samper, “Misión para análisis de recuperaciones en el campo de la vivienda: Colombia—Perú—Chile—Costa Rica” (Washington DC: Inter-American Development Bank, July–August 1967), 2, JFCT-UW.
primary reason for the lack of repayment was “political”: opportunistic candidates had curried favour with residents by encouraging them to stop payments and offering vague promises of a better deal.\textsuperscript{159} For its part, the JNV lacked the will or the means to evict delinquent tenants, giving others the courage to follow suit. The report concluded that this problem was ultimately due to the fact that many of the selected families had insufficient and erratic incomes and probably should not have been given loans in the first place.

The report identified two sub-programs as problematic across the four countries surveyed: “incomplete houses” and aided self-help programs. With incomplete or “basic unit” houses, the IDB evaluators determined that borrowers tended to overburden themselves by taking on additional loans in order to be able to complete the dwelling: “The mentality of this type of delinquent borrower is aggressive, since their cultural antecedents and the instability of their work generally do not allow them to make a self-analysis of their financial situation and their capacity to pay.”\textsuperscript{160} In essence, their lack of financial literacy had led them to take on the commitments of a mortgage without sufficient due diligence; when they fell behind, they felt that they had been cheated (“with some reason”), and as a result became disillusioned and distrustful of institutions.

As for aided self-help housing, the report argued that the success of such programs was highly dependent on the adequacy (or not) of the organized assistance. In any event, the projects tended to be very drawn-out, taking eighteen months to complete as opposed to four months for direct construction, since work was limited to three nights a week and a half-day on Sunday (which nonetheless would have represented a substantial commitment of time for

\textsuperscript{159} This phenomenon is confirmed by a field report from Chimbote, which argued that the unstable political situation during a protracted election period was a contributing factor to the lack of participation in the Perú-BID programs; at such times, candidates “make large promises and the people anticipate the benefits that could follow for free or with better advantages than those that are offered now with the loans” —for example, one politician was encouraging residents to demand interest-free loans from the JNV instead of the 5.5 percent loans on offer. Samañez de Tovar, “Informe sobre el viaje a Chimbote,” 23, 10.

\textsuperscript{160} Scioville-Samper, “Misión para analisis,” 34.
working families). In addition to the actual mechanics of managing construction and financing, aided self-help programs required a great deal of retraining for residents in the good use and maintenance of their dwellings—a costly exercise, but failure to carry this out could jeopardize the entire investment. Housing agencies needed to provide “a real school where families can ‘learn to live’” and become motivated “for a change towards a better system, inculcating in them at the same time the need to fulfill the social and financial obligations imposed by their new ‘status’ as propietarios of a dwelling.” The missionary tenor of the enterprise was unmistakable; this represented not simply the provision of a house but a new socio-economic identity as owner and borrower.

In conclusion, the report noted that the IDB’s initial programs had been organized without having “great experience in international financing for housing programs.” In July 1966, with the benefit of some experience, the agency had produced a memo suggesting a change in direction. The IDB’s paramount goal must be to provide “seed capital” for housing, not endless funding, and thus it needed to achieve a reasonable return on its initial investments. It was now clear that self-build and núcleo básico housing could not meet this benchmark, and that furthermore “there is a socio-economic group that cannot be helped in the attainment of their dwelling except through high subsidies.” These would-be homeowners needed to be provided with an alternative solution of a “global character”: that is, “a job and decent wages”—a tacit acknowledgement that the physical rehabilitation of the dwelling and its surroundings meant little in the absence of economic development. For future programs the report recommended a greater emphasis on direct construction and a more critical assessment of any proposed self-

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161 In the case of Peru, the report noted that JNV officials “were not very enthusiastic” about self-help because “the system ends up being very expensive in terms of time for the execution and in costs for technical and social assistance.” Scioville-Samper, “Misión para análisis,” 14.

162 Scioville-Samper, “Misión para análisis,” 40; “status” in English in original.


help programs, considering the capacity of the housing agency to carry them out. In its final recommendation, the report advised a turn towards technological solutions: the IDB “should develop and promote the study of new materials and construction systems” in an effort to lower construction costs.

Apparently, the JNV reached a similar conclusion: its outline for a second IDB loan application, prepared in July 1966, emphasized sites-and-services projects to be executed by “supervised credit,”\[^{165}\] replacing the more resource-intensive approaches of aided self-help housing. In the end, the IDB approved this loan in the form of funding for mortgages to be distributed via the Banco de la Vivienda and the *mutuales*. According to one estimate, by February 1968 *mutuales* had financed the construction of 17,000 dwellings, in twenty-two cities across the country.\[^{166}\] Having the advantage of working with the upper-tier of low-income groups, the *mutual* approach had achieved more concrete results than self-help in the production of standard (middle-class) housing. Despite the hopes that had been placed in it, aided self-help housing was facing scepticism from above (IDB), below (residents), and within (JNV): this was not a profitable undertaking for venture capital, not an economically sustainable solution for state agencies, and not a productive investment for development funding.

Theoretically, the aided self-help methodology remained part of the JNV’s repertoire,\[^{167}\] but in practice official support for it had begun to wane soon after the Perú-BID contract was signed, as political shifts brought dramatic changes in the direction of housing policy. The question of how much could have been achieved with more government support is impossible to answer—whether the challenges of running the projects could have been resolved, approaches modified as more experience was gained. International funding had been essential in expanding

\[^{165}\] JNV, *Resumen del Programa BID-BVP-JNV*, July 1966, CDI-MVCS.

\[^{166}\] Advertisement for the mutual system, *Vivienda* 4, no. 38 (February 1968).

aided self-help housing programs to a national scale, but in the absence of domestic political support these trials were likely to be short-circuited.

6.5 The Architect of a New Peru

Between 1961 and 1966 policies concerning the barriadas and the potential of self-help housing to contribute to a solution underwent radical shifts. In February 1961 President Manuel Prado signed Law 13517 with measures to upgrade existing barriadas through self-help labour and prevent the formation of new ones through the provision of alternatives such as the UPIS projects, which offered core housing to be completed through self-build construction. In the same month the first Alliance for Progress loan was approved, covering infrastructure projects in Arequipa; in November 1961, the IDB approved funding for one of the largest Alliance-supported housing projects, the Plan Bienal 1962–1963 Perú-BID, providing $22.8 million for low-income housing, initially intended to include 17,350 units constructed using aided self-help.

In July 1962, presidential elections were held, with candidates including Pedro Beltrán, who was forced to end his campaign after attracting little support, and Fernando Belaúnde Terry, who had lost to Prado in the 1956 election, but now ran a much stronger campaign. Posing as “the architect of a new Peru” in front of unidad vecinal blocks (as he had in his 1956 campaign), Belaúnde invited voters to envisage the “thousands of houses” he would provide as president, promising a bold expansion of the housing programs undertaken by the CNV in the late 1940s and early 1950s [6.33].

However, with a field of six candidates, the 1962 elections produced no clear winner, and on July 18, 1962, a few days before the end of Prado’s term, the military staged a prophylactic coup in order to circumvent the efforts of the Alianza Popular Revolucionaria Americana (a party it considered to be too radical) to form a coalition government. During its brief period in power (it had agreed to hold new elections within a year) the military government carried out the important reform of uniting the CNV and INVI into one new body, the Junta
Nacional de la Vivienda (JNV, National Housing Board), and reaffirmed the importance of the UPIS as a means of developing well-ordered and affordable urban settlements.168

One year later, the re-run presidential elections were won by Fernando Belaúnde Terry and his Acción Popular party in a reformist coalition with the Partido Democrático Cristiano. His incoming government unequivocally steered housing policy in the opposite direction. With little tolerance for self-build construction, let alone the idea that architects should facilitate such efforts, Belaúnde’s response to the demand for affordable housing in the ever-expanding cities was to direct government resources back into conventional mass-housing schemes, now projected on a larger scale than ever before. Increasingly sophisticated in design and construction methods, they were likewise increasingly beyond the means of most low-income citizens [6.35]. Belaúnde also promoted large-scale infrastructure projects—modernizing irrigation, transport, and communications networks169—in order to stimulate regional development, seen as the key to discouraging rural-urban migration, the ultimate cause of the barriadas.170 Upon his election, Belaúnde enjoyed a brief honeymoon with the US government: with strong democratic, reformist credentials, he was viewed as the ideal “Alliance president” by


170 Belaúnde’s attitude towards this issue is clearly encapsulated in an incident involving John Turner. In 1964 Turner was making a film with United Nations TV surveying the barriada phenomenon: at the director’s suggestion, Turner asked Belaúnde to record a speech to conclude the film, telling him that it celebrated “the extraordinary capacity that ordinary Peruvian people have … what a great resource they are, and what wonderful things they are doing” in resolving their need for housing. In full presidential regalia, Belaúnde duly performed to this script, but upon seeing the film he was outraged that its endorsement of the barriadas entirely contradicted what he had intended his comments to mean. His rejection of the film’s viewpoint was complete: “Those are the people that should go back to the farms, go back to the highlands where they came from, back to their villages! They shouldn’t be here!” Their improvised housing was an offense to Belaúnde as an architect and planner, their presence in the city a disruption of the proper order of things. Turner recalled that his copy of the original version of the film was confiscated by the Peruvian government, but he managed to secure a copy of the amended version, with Belaúnde’s speech edited out. Turner, interview with the author, June 2007.
US officials, and framed as an “architect of hope” by *Time* magazine in 1965 [6.36]. Belaúnde was encouraged that this high regard would help him to secure funding for the grand building plans that he believed would hasten the country’s modernization efforts.

Belaúnde’s unwillingness to countenance the unconventional measures proposed by Law 13517—in particular the establishment of new UPIS projects—left a vacuum; projects regarded by John Turner as promising experiments (such as Valdiviezo and Tahauntisuyo) were left to languish, lacking the resources for thorough implementation and evaluation. In fact, Turner’s August 1963 issue of *Architectural Design* was published only a few weeks after Belaúnde took office, marking the beginning of the end for the innovative aided self-help housing projects that Turner described with such enthusiasm. In this sense the *AD* issue represented a catalogue of past achievements rather than a vision of the future. In 1966 the JNV office overseeing self-help housing projects was dismantled altogether.\(^{171}\)

Nonetheless, Belaúnde did not repeal Law 13517 (he acknowledged that it had introduced important measures to regularize property title, for example\(^{172}\)). Moreover, towards the end of his presidency, under the threat of large-scale street protests from barriada residents, the Belaúnde government eased some aspects of the law’s implementation, facilitating the granting of titles.\(^{173}\) First, in June 1967, in a law specifically focused on the agglomeration of barriadas in the San Martín de Porres area in Lima, the state transferred the ownership of the land and responsibility for overseeing the upgrading programs—including the authority to grant title—from the JNV to the local district council (whose mayor, León Velarde, was a leading

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\(^{173}\) Between the passage of Law 13517 in February 1961 and mid-1968, titles were granted to approximately 3,000 barriada households, but the rate increased following these revisions Alfred Stepan, *The State and Society: Peru in Comparative Perspective* (Princeton: Princeton University Press, 1978), 168 fig. 5.1.
On paper, the upgrading requirements did not change, but they were no longer policed by government officials, but rather by local politicians with close ties to the pobladores and with a greater interest in extending title to their constituents than enforcing planning regulations that were clearly beyond the means of the vast majority. Second, in July 1968 revised guidelines for Law 13517 waived the upfront payment for the installation of water and sewerage infrastructure, on the grounds that these were effectively a public sector investment whose costs would be recuperated once residents began paying bills for these services. It was now considered “advisable to facilitate the granting of property titles” because this would ease residents’ access to credit, and because the newly legalized neighbourhoods would generate tax income for local councils. In the case of the UPIS projects, which were officially organized and managed from the outset, property title could be granted before complete urban services were installed, providing there was an approved plan in place. These refinements to Law 13517 eased the way for the granting of property title, while maintaining (at least in theory) the requirements for upgrading; meanwhile, the state committed no additional resources to the issue, but instead transferred its responsibilities to the municipal councils and to the public utilities. As a result, Belaúnde—the architect of a new Peru—effectively oversaw the inexorable downgrading of minimum standards and the relaxation of enforcement efforts.

As late as 1966 Belaúnde was proposing the large-scale demolition of central city tenement housing (the tugurios he had been campaigning against since the 1940s), envisaging

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175 This measure was not extended to the barriadas: all the provisions “that prohibit the formation of Barrios Marginales and order their remodelling, sanitation, and legalization” would remain in full effect, presumably to hold the line as far as possible against further invasions. “Decreto Supremo No. 066-68-FO: Junta Nacional de la Vivienda y Municipios otorgaran títulos a ocupantes de barriadas,” July 19, 1968, in Normas Legales de Pueblos Jóvenes, 67-71.
in their place vast modern housing projects. However, with rapidly mounting foreign debt, due in large part to his spending on infrastructure and construction projects, it soon became clear that this strategy towards housing provision was economically unsustainable. Although unwilling to support self-build construction, Belaúnde recognized that there was a pressing need to investigate alternatives. In the spirit of the 1967 IDB evaluation report which recommended exploring technological solutions in an effort to lower construction costs, Belaúnde found an ideal venture to support in the ambitiously conceived Proyecto Experimental de Vivienda (PREVI, or Experimental Housing Project), which is the focus of the next chapter.

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177 Scioville-Samper, “Misión para analis,” 40.
7. Building a Better Barriada

In the nine months between August 2010 and May 2011, three prominent international architecture magazines featured articles on a medium-scale housing project built in Lima in the early 1970s: PREVI, the Proyecto Experimental de Vivienda (Experimental Housing Project) [7.1]. Labelled variously a “metabolist utopia” and the apex of Peru’s “Modern Project,” in these accounts PREVI appears as the long-lost solution to the problem of low-cost housing in the developing world—or it would have become so, if only its lessons had been heeded.¹

This renewal of interest seems to have been sparked by two main sources: a detailed post-occupancy study produced by a group of three Chilean architects (beginning in 2003 as research for a master’s thesis, and culminating in a book in 2008²), and Alejandro Aravena’s identification of PREVI as a key precedent for the Quinta Monroy housing project in Iquique, Chile (2004) built by his Elemental partnership (a lineage that is given critical weight by Kenneth Frampton in the 2007 edition of Modern Architecture: A Critical History³). For Aravena, the roster of high-profile, international architects involved with PREVI evokes the legacy of the Weißenhofsiedlung in Stuttgart—suggesting that together these projects are “perhaps [the] two


³ Frampton described the projects as “two separate experimental housing estates, built in Latin America some forty years apart, that now appear as mirror images of one another.” Kenneth Frampton, Modern Architecture: A Critical History, 4th ed. (London: Thames and Hudson, 2007), 377.
major moments in the history of social housing”; in this scenario, PREVI marks the moment “when attempts by avant-garde architects to help overcome a housing deficit came to an end.”

This association has been encouraged by PREVI’s British-born managing architect, Peter Land, and reiterated by other commentators such as the architectural team Supersudaca, which observed in its research on the project: “If the Weißenhofsiedlung is the natural childbirth of social housing in the industrialized world, PREVI is the coitus interruptus of social housing in the Third World.” The comparison evokes the sense of a destiny thwarted, a Latin American failure to reproduce European modernism. Yet there is perhaps an uncomfortable truth in this recurring trope of PREVI as Weißenhofsiedlung redux—a closer similarity than PREVI’s boosters would care to acknowledge, given that few of the architects at Stuttgart met the goal of providing realistic, repeatable models for low-cost housing (with the notable exception of J. J. P. Oud), constructing instead a competitive showcase of the new architecture.

This chapter outlines the history of PREVI, and examines the source of its mythology: that is, its assemblage of an impressive cross-section of the architectural avant-garde at the end of the 1960s to focus on the elusive modernist ideal of fusing social engagement, new technologies, and radical form-making, now within the unfamiliar arena of the Third World. It

4 Aravena framed his own contribution via Elemental as “planning to write the third chapter of this story by again bringing the best architects to solve the most difficult of architectural issues: extremely low-cost housing that can be a real means to overcoming poverty.” Alejandro Aravena, “Elemental: Building Innovative Social Housing in Chile,” Harvard Design Magazine 21 (Fall 2004/Winter 2005), web article [available via http://www.scribd.com/doc/66969996/21-aravena], quoted in Alejandro Aravena, “Elemental: A Do-Tank,” Architectural Design 81, no. 3 (May-June 2011): 32.

5 Peter Land, interview with the author, April 2010.


7 Oud’s response to a favourable review from critic Edgar Wedepohl is illustrative here, characterizing his project as: “no more than attempt to build a proper dwelling house: a problem that hardly enters the province of architecture at all. Since nowadays everything, even the smallest trifle, is expected to be architecture, I did not expect my un-architectural block to receive as much attention as it has.” Oud to Wedepohl, ca. September-October 1927, quoted in Karin Kirsch, The Weißenhofsiedlung: Experimental Housing Built for the Deutscher Werkbund, Stuttgart, 1927, trans. Michael Knight (New York: Rizzoli, 1989), 86.
considers the strategies and solutions that PREVI proposed, discusses post-occupancy evaluations of its outcomes, and finally, reconsiders its place in the history of social housing, in particular the notion that it represents a “third way” able to move beyond the limitations of the entirely planned housing project and the entirely unplanned informal settlement, and thus offers a viable, under-explored alternative for the provision of low-cost housing.

7.1 **A Peruvian Weißenhofsiedlung**

According to Peter Land’s account, he first proposed the concept of an experimental low-cost housing project to Peruvian President Fernando Belaúnde Terry in 1966. Trained at the Architectural Association in London, Land continued with postgraduate study in the United States at Carnegie Mellon and then at Yale; through Yale, Land was appointed as field director of the Inter-American Graduate Program in Urban and Regional Planning at the Universidad Nacional de Ingeniería in Lima (1960–1964), where he made many professional contacts within the Peruvian government. In 1964–1965 Land returned to Lima at the invitation of the government, taking up an advisory position with the Banco de la Vivienda (Housing Bank), inspecting new housing projects throughout Peru which were under their consideration for funding through the *mutuales* (savings and loans associations). Given his connections in the housing finance sector, and Belaúnde’s background as an architect with a long-term interest in housing construction, Land recalled: “I realized this was a unique opportunity to do something special with an international splash.”

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9 Land characterized the projects as “nothing very distinguished, but practical.” Land, interview with the author, April 2010.

10 Land continued: “With Fernando we never went into a lot of detail about what we would were actually going to do. He liked the idea of collaboration with international architects to get fresh ideas about building and planning.” Land, interview with the author, April 2010.
In mid-1966 Peru presented the project to the United Nations Development Program (UNDP) for funding, and it was approved a year later; the official contract between Peru and the UNDP was signed in June 1968, specifying the realization of the entire project within three years.\textsuperscript{11} As originally conceived, PREVI consisted of three complementary “pilot projects” developed in response to the main factors identified as contributing to the housing crisis: a quantitative housing deficit due to growing urban populations; a qualitative housing deficit due to the deterioration of existing housing stock into slum conditions; and “the formation of spontaneous settlements” around the fringes of large cities.\textsuperscript{12} To meet these varied challenges, the pilot projects employed contrasting strategies: Proyecto Piloto 1 (PP1) was a scheme for the design and construction of a new neighbourhood of approximately 10,000 people, with 1,500 housing units; PP2 proposed the development of techniques to rehabilitate compromised housing stock; and PP3 focused on “the provision of sites-and-services for new settlement areas,”\textsuperscript{13} using aided self-help to guide the growth of self-constructed neighbourhoods. With this tripartite approach, it was hoped that PREVI would generate a range of prototypes which could be replicated en masse to address Lima’s severe housing shortage, and—as signalled by the UNDP’s involvement—would also be transferable to other developing countries. Following a devastating earthquake in May 1970 centred north of Lima, a fourth pilot project was added: PP4 was to be a small trial reconstruction program focused on aided self-help housing.

Contemporary discussions tend to reduce PREVI to the international contributions in PP1, thereby sidelining the less spectacular pilot projects, along with the Peruvian architects who were involved, but a comparative evaluation of the various contrasting approaches was a


\textsuperscript{12} Ministerio de Vivienda and ININVI, \textit{Publicación PREVI}, vol. 1, \textit{PREVI Introducción} (Lima: Ministerio de Vivienda; ININVI, 1979), 1:3.

key element of the “experimental housing project” as originally conceived. Further, as preparatory planning documents make clear, although all the pilot projects were intended for low-income groups, they were pitched at different income brackets within that category (officially defined as socio-economic levels I, II, and III). PP1, for example, was specifically aimed at those “with incomes that allow, through a monthly saving, the acquisition of a dwelling with long-term financing” (corresponding to levels II and III), while PP3 was intended “for families of very limited financial resources” (levels I and II) and would therefore make use of autoconstrucción and ayuda mutua, with a strong “community development” element, “to guide the people in making better places in which to live: by helping them to help themselves.” PP2 would straddle all three socio-economic levels, and accordingly participating families would construct their homes with a mixture of financing and self-help labour.

Aimed at the upper-end of the low-income spectrum, the stated goal of PP1 was “to demonstrate advanced ideas in housing design and economical construction,” balancing the imperative to keep costs low with the desire for innovation and quality design solutions. The financing of PP1 (as well as PP2) was to be arranged through the Caja de Pensiones del Seguro Social del Empleado (White-Collar Workers’ Social Security Pension Fund)—an organization serving office workers, government employees, and similar groups, who tended to identify themselves as middle-class.

Accordingly, although some of the entries to the PP1

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14 Government of Peru and UNDP, Proyecto Experimental de Vivienda, Perú, 2.


17 In Peru the “empleado” (white-collar worker) was established as a legal category in the 1910s, granting the additional social welfare benefits that were seen as due to office workers since they had a responsibility to maintain a respectable lifestyle. Although the category of empleado was continually expanded to include additional kinds of jobs, its special status was jealously guarded—for example, separate hospitals served empleados and obreros (blue-collar workers) into the 1960s. See David Parker, The Idea of the Middle Class: White-Collar Workers and Peruvian Society, 1900–1950 (University Park: Pennsylvania State University Press, 1998).
competition included plans for very basic core houses, when it came to the construction phase the Caja selected dwellings of two-, three-, and four-bedrooms as appropriate for its members, “taking into account … the dwelling patterns of these families.” The houses were to be aspirational, not minimal.

Project organizers solicited designs for PREVI PP1 via an architectural competition that was open to all Peruvian architects, as well as thirteen invited international teams. Peter Land travelled personally to issue the invitations, and the range of countries included reflected the desire to present “a truly global selection” in keeping with the UN sponsorship of the project. The Eastern Bloc was represented by Poland (Oskar Hansen and Svein Hatløy), Latin America by Colombia (Esguerra, Saenz, Urdaneta, Samper), Asia by Japan (Kiyonori Kikutake, Fumihiko Maki, and Noriaki Kurokawa), and India (Charles Correa). Nonetheless, the majority of the participants were from Western Europe—England (James Stirling), Denmark (Knud Svenssons), Switzerland (Atelier Five), Finland (Toivo Korhonen), Germany (Herbert Ohl), Spain (J.L Iñiguez de Onzoño, A. Vázquez de Castro), the Netherlands (Aldo van Eyck), France (Candilis, Josic, Woods)—and finally, the United States (Christopher Alexander and the Center for Environmental Structure, with Sandy Hirshen). Six winning projects (three international, three Peruvian) were to be selected for construction, with 250 examples of each to make up a total of 1,500 units; the overall design of the neighbourhood would be determined by the PP1

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18 Government of Peru and UNDP, Proyecto Experimental de Vivienda, Perú, 6. On the other hand, a competition entry by Peruvian architects Juan Gunther and Mario Seminario that proposed eliminating the individual kitchen in favour of a communal kitchen shared between a group of houses, was rejected early in the judging process (presumably because it evoked working-class restaurants rather than the desired living patterns of the empleado). Silvio Grichener, “PREVI/Perú: Un intento en el más alto nivel,” Summa: Revista de arquitectura, tecnología y diseño 32 (December 1970): 46.

19 Land, phone conversation with the author, April 2006.

20 Land recalled that he had originally wanted Alexander to collaborate on a project with Serge Chermayeff, but they were unwilling to work together, so he selected Alexander because Chermayeff was a more difficult personality. Giancarlo de Carlo and Balkrishna Doshi were also on the short list, but were not in the end invited because Land had not been able to meet with them on his research trip. Land, phone conversation with the author, April 2006.
working group assembled from architects and planners at various Peruvian government agencies.21

In March 1969 the international architects attended a required ten-day briefing in Lima in order to familiarize themselves with the “terrain, population, climate, construction materials and methods,”22 as well as seismic issues; they visited the project site, existing low-cost housing projects, and other residential areas. The project brief specified dwellings of 60-120 sq. m., on a plot of at least 80 sq. m., and no more than three storeys high, creating a low-rise, high-density urban scheme.23 The costs of high-rise housing were prohibitive in the Peruvian context, so it would not even be considered as a solution. The unidad comunal (community unit) of 1,500 houses was to include a range of facilities to create a fully functioning neighbourhood—schools, sports grounds, community centres, commercial areas, parks—and to ensure the clear separation of vehicular and pedestrian routes. The stated intention was to build on the experience of Belaúnde’s unidad vecinal model using “contemporary ideas and experiences of other countries.”24

The individual dwellings were to provide for a household of four increasing to sixteen members, taking into account the “socio-economic mobility” of the prospective residents, who were imagined as a young family, adding rooms with the arrival of new children, then subdividing the space to accommodate adult married children, or perhaps a family business. In

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21 Peter Land (representing the UN), oversaw all four PREVI pilot projects in its first stages (March 1968–April 1973); on the Peruvian side, the main coordinator of the project was Carlos Morales Macchiavello, with the initial planning committee including Luis Ortiz de Zevallos (president of the Banco de la Vivienda), Fernando Correa Miller (director of the Oficina Nacional de Planeamiento y Urbanismo), and architect Luis Dorich. In addition, the Peruvian architect Carlos Jara was in charge of PREVI PP1 throughout its realization (November 1969–December 1975). See Jorge Vivanco; Banco de la Vivienda del Peru, “Informe Preliminar: Proyecto Experimental de Vivienda, Lima, Peru: Recopilación de Antecedentes,” February 4, 1967, UN-ARMS; ININVI, PREVI resultados y conclusiones: 20 años después (Lima: ININVI, 1988), 41.


this way, the house would develop from its initial nucleus as the circumstances of the owner allowed: “The dwelling should not be considered as a fixed and unchangeable unit, but as a structure with a cycle of evolution.” Accordingly, each architect was to present a two-fold 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 by self-help, contractors, or a combination of the two. The architects were to facilitate this incremental construction by incorporating the increased loading requirements of any additional storeys into the initial structural calculations for the core unit, and also by providing designs for standardized building components that could be mass-produced on site and thereby made available to residents at low cost. The rationalization in construction methods and materials, in particular the use of modular coordination, was to be based on the guidelines of existing UN publications [7.2]. Here one aim was to modernize the Peruvian construction industry, improving efficiency and productivity. In addition, as the project brief explained, “[I]n the past self-help methods have often been identified with improvisation and with primitive construction materials and methods.” Now, due to recent technological advances bringing “simplicity, ease of assembly, and reduction in weight,” the results of self-help labour could be significantly enhanced and refined, “and the development and employment of new techniques can extend its application.” This approach was in line with the UN’s Manual on Self-Help Housing (published in 1964), which had advocated the use of modular coordination on


26 Government of Peru and UN, “Un concurso internacional,” September 2, 1968, p. 34. The document specifically mentions two UN publications from 1966: Diseño modular de vivienda de bajo costo and Coordinación modular en la construcción. In addition, Alvaro Ortega—a Colombian architect who was the UN’s inter-regional consultant to PREVI (August 1969–September 1970)—had produced a publication on modular coordination for the UN some years earlier. At least one of the diagrams in this publication was in turn based on specifications for modular design produced by Bruce Martin, John Turner’s colleague from the AA. United Nations and Alvaro Ortega, Coordinación modular en la vivienda económica (New York: United Nations, 1960).

the grounds that it saved labour, materials, money, as well as the time required for training and supervising the self-helpers.28

Thus, despite the claims made for PREVI PP1’s originality, its hybrid model was less a radical innovation than a deeper exploration of existing approaches. Further, while Peter Land has asserted that “in the areas of expansion, flexibility, and adaptation, PREVI [PP1] broke new ground,”29 the UN’s Manual on Self-Help Housing had already argued for the importance of “expandable” houses,30 and within Peru the concept of the “growing house” had been employed by housing agencies in aided self-help projects at Ciudad de Dios, Valdiviezo, and elsewhere, and by private developers such as Hogares Peruanos as a marketing strategy for their new subdivisions. Such projects borrowed and systematized the techniques of barriada housing—progressive development, resident participation in construction—but aimed to circumvent ad hoc building efforts through technical assistance and carefully conceived expansion plans. PREVI PP1’s innovation was to transfer these techniques into the realm of high architecture and “advanced ideas” in order to refine the results still further.

A total of forty-one projects were submitted to PREVI PP1 (thirteen international and twenty-eight Peruvian). The international winners were a diverse group: Atelier Five, Herbert Ohl, and Kiyonori Kikutake, Fumihiko Maki, and Noriaki Kurokawa.31 This decision was not unanimous: in a minority report, three jury members vehemently condemned the project by Ohl

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29 Land, “The Experimental Housing Project (PREVI), Lima,” 22. Land’s claims for the project have been adopted uncritically and amplified by subsequent writers, such as McGuirk: “That was the genius of PREVI [PP1]: it was designed as a platform for change…. It was revolutionary.” McGuirk, “PREVI, The Metabolist Utopia,” 65.


31 The three Peruvian winners were Elsa Mazzarri and Manuel Llanas (P-22); Fernando Chaparro, Víctor Ramírez, Víctor Smirnoff, and Víctor Wyskowsky (P-25); Jacques Crousse, Jorge Páez, and Ricardo Pérez León (P-27).
(director of the Institute of Industrialized Building at the Hochschule für Gestaltung, Ulm) as “a personal regimented and expensive solution both as to dwelling units and site plan. It is inhuman”; conversely, it commended the Center for Environmental Structure’s plan as “a milestone in low-cost housing design,” advising that the UN move to promote the project as a matter of urgency. The official competition report reiterated that the intention was to construct the six winning designs, but also suggested that due to the valuable ideas proposed by each of the projects, their best elements should be further explored. It therefore recommended that the next stage should be to develop prototypes of twenty additional projects (the remaining ten invited international projects and ten selected Peruvian entries), constructing a smaller number of each design. An imagined affinity with the Weißenhofsiedlung is already evident in the organizers’ vision of the project as “being used as a permanent exhibition of low-cost housing for Peruvian and foreign specialists.”

In early 1970, the decision was taken to build the expanded number of prototypes. The organizers now planned for the completion of preparatory work by the end of 1972, and of the construction phase by the end of 1975. However in the end only twenty-four of the twenty-six prototypes would be realized, with approximately twenty examples of each constructed, creating a neighbourhood of 467 houses—Ohl’s project was “left for a later stage” due to technical difficulties, along with that of the Peruvian team of Franco Vella, José Bentín, Raúl Quiñones,

32 “PREVI/Lima: Low Cost Housing Project,” 189. The dissenting jurors were Carl Koch, Alfredo Perez, and Halldor Gunnlógsson.

33 The ten additional Peruvian projects were: Miguel Alvariño Guzmán (P-5); Ernesto Paredes (P-6); Luis Miró-Quesada, Carlos Williams, Oswaldo Núñez (P-7); Juan Gunther, Mario Seminario (P-9); Carlo Morales Machiavello, Alfredo Montagne Fort (P-12); Juan Reiser (P-16); Eduardo Orrego (P-18); Luis Vier, Consuelo Zanelli de Vier (P-20); Franco Vella, José Bentín, Raúl Quiñones, Luis Takahashi (P-21); Frederick Cooper Llosa, José García-Bryce, Antonio Graña, Eugenio Nicolini (P-24).


35 Government of Peru and UNDP, Proyecto Experimental de Vivienda, Perú, 4.
and Luis Takahashi.\textsuperscript{36} The urban plan for this trial neighbourhood, on a site eight kilometres north of the centre of Lima, was developed by Land and the PP1 working group [7.3].\textsuperscript{37} It emerged as a patchwork of the disparate proposed solutions, loosely structured around a narrow central walkway; allocated only a small number of units, none of the architects were able to fully realize their urban concepts for the residential groupings—a decision that seriously compromised the integrity of the project as built.

Following the completion of this abbreviated version of PREVI PP1, no additional housing units were ever constructed [7.4]. Consequently in a very real sense the unrealized competition proposals offer richer ground for exploration than the project as built—representing interpretations of, and responses to, practices of progressive development and self-build construction as read through different strands of late-1960s avant-garde architecture. The proposals by Herbert Ohl and by the CES represent the most comprehensive and radical efforts to rethink housing provision generated by PREVI PP1—one emphasizing the potential of technology to revolutionize production, the other the importance of culture in designing a rationalized, but indigenized, domesticity—and thus provide an appropriate starting point for the discussion.

\section*{7.2 Houses Generated by Architects}

The establishment of minimum constraints for an optimization of free growth combining elements of user-design for both the individual and the community, forms the basis of this project. The basic order devised is intended to establish a democratic interchange between human and technological factors. The order devised will stimulate multiplicity, multiformity, micro and macro relations; all expressed through logically derived dimensional and functional modules.\textsuperscript{38}

\textsuperscript{36} In practice the number of each type to be constructed varied rather widely, with only six of Oskar Hansen’s houses (I-10) compared to thirty of Esquerra, Saenz, Urdaneta, Samper’s (I-3).


\textsuperscript{38} Herbert Ohl, quoted in “PREVI/Lima: Low Cost Housing Project,” \textit{Architectural Design} 40, no. 4 (1970): 192.
All houses are formed by the same sequence of rules, based on the form of the generic house. But each house has to meet certain particular conditions: those imposed on it by the family’s choices, and those imposed on it by its position in the site....
Each individual house is formed by the interaction of the local conditions which it has to meet and the generic rules of the combination process.  

At first glance the two schemes by Herbert Ohl and the Center for Environmental Structure (CES) appear to be utterly opposed to one another, both formally and conceptually, and they were certainly viewed as such by the dissenting jurors. The stark contrast between the two urban plans—Herbert Ohl’s rigid punch-card pattern-making [7.5], and the CES’s extended spinal structure with its organic flows and interchanges [7.14]—is reinforced by the language used to introduce the proposals: Ohl’s technocratic jargon (“minimum constraints for an optimization of free growth,” “democratic interchange between human and technological factors”) against the CES’s somewhat more straightforward phrasing (at least to the extent of using the words “house” and “family”). Yet there are also significant parallels in the way they are conceived. First, the idea of an underlying system to guide the design process (Ohl’s “basic order” and the CES’s “sequence of rules”). Second, the modulation of this system through the resident’s influence over the details of the design (Ohl’s “user-design” and the CES’s “choices”), so that the particular object is able to emerge from the general system (Ohl’s “multiplicity, multiformity” and the CES’s “individual house” formed by “local conditions”).

In the broadest terms, both proposals were predicated on employing quasi-scientific systems to generate new residential forms and promoting enhanced user-participation in the design process. Ohl’s “logically derived dimensional and functional modules” established standardized construction units for the physical framework of the housing project; the resulting simplicity of the structure was intended to maximize individual expression within the unit. The advocacy of a thoroughly rational, rationalized construction process was in effect a practical

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critique of the inefficiencies and distorted marketing fantasies of capitalist housing production, reflecting Ohl’s institutional affiliation with the Hochschule für Gestaltung, Ulm. For Christopher Alexander and his colleagues at the CES in Berkeley, the aim was nothing less than developing a new model of architectural practice, one more responsive to the specific socio-cultural, technological, and climatic conditions of each context, and to the individual needs of prospective users. Borrowing techniques from ethnographic fieldwork to make close observations of everyday habits of spatial organization, the CES translated the resulting data into a comprehensive, but adaptable, catalogue of practical design solutions. These “patterns” of variable design elements could be presented to prospective residents as a kit of parts from which to assemble the ideal house for their particular circumstances. Closer analysis of the two proposals demonstrates how their conceptual and ideological principles were manifested in the design proposals.

**Herbert Ohl: Minimum Constraints, Free Growth**

According to his own description, Herbert Ohl’s proposal is based on the progressive combination of “dimensional and functional modules”\(^4\) to generate the house, the neighbourhood, and the urban plan; the social and spatial organization of the site, and likewise the house, is entirely subsidiary to these modular combinations. The fundamental unit of measurement in this system—the “basic micro-planning module”—is set at 30 cm., which can be broken down into smaller units (10, 5, or 2.5 cm.) for “more refined dimensional areas.” The 30cm unit is used to draw up the grid of the floor plans [7.8]; multiplied by four, it produces the “basic planning module” of 1.2 m., which defines the grid underlying the housing lots. This in turn determines the dimensions of the standardized “building frame sections” measuring 1.2 m. wide, 7.2 m. long (equivalent to six 1.2 m. units). The width of each housing lot is 9.6 m. (eight

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\(^4\) Unless otherwise note, all quotations in this section are taken from Ohl’s excerpted project statement, as published in “PREVI/Lima: Low Cost Housing Project,” *Architectural Design* 40, no. 4 (1970): 192.
1.2 m. units), allowing for the “building frame sections” to be shifted laterally by one or two grid squares to produce more complex internal volumes.

At the next level, the entire site plan is overlaid with a 9.6 m. by 9.6 m. grid [7.5]. In the housing zones these 9.6 m. units (or “urban planning modules”) are combined into groups of “three linear or nine square urban planning modules” to form 28.8 m. squares, which are then subdivided into groups of housing lots and pedestrian walkways according to a strict pattern: along the east-west axis, a group of three 9.6 m. units is divided into two 12 m.-deep housing lots, with the remaining space given over to walkways on either side. Like the “building frame sections” within the grid of the individual lot, the lots themselves are laterally displaced by one or two units within the urban grid, modulating its monotony by these subtle setbacks and projections from one row to the next, creating dynamic passages of undulating width. Ultimately the guiding factor behind the design of the parallel walkways is functional rather than aesthetic: they house sets of tracks, spaced 28.8 m. apart, to convey the massive movable crane system used to slot the “building frame sections” into place [7.6]. Travelling north-south along the centre of the broad walkways, Ohl claimed that this mobile crane could be deployed at any stage throughout the life of the neighbourhood to carry out alterations, additions, or the “replacement and modernization of individual units”; in this way the system “permits a combination of high density with considerable formal flexibility impossible to achieve by traditional methods.”

Ohl’s competition proposal treated the designated site as the first phase—or “module”—of a larger urban settlement, which would be composed of ten or so of these “module[s] of the dwelling community [comunidad habitacional].”41 In the larger scheme, extending into the countryside to the west, Ohl’s grid of community modules weaves itself apparently effortlessly into the contour lines of the hilly topography. For the detailed planning of the first phase, Ohl

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41 Herbert Ohl’s project statement, as published in Silvio Grichener, “PREVI/Perú: Un intento en el más alto nivel,” Summa: Revista de arquitectura, tecnología y diseño 32 (December 1970): 50. It appears that Grichener has included the entire text of Ohl’s statement.
reshapes the two unequal parallelograms of the site into one slightly irregular rectangle [7.5]; a
large number of walkways punctuate the site north-south, while vehicular access is strictly
limited to an underground service road. Working within this streamlined version of the site, Ohl
employs a central pedestrian zone crossing the site east-west as the main organizational
element: this connects a series of public parks and facilities (educational, administrative, social,
and commercial) which are situated in evenly spaced symmetrical lozenges of various sizes
whose positioning effectively shapes the site into six neighbourhoods (or, in Ohl’s terminology,
“the module of the community … is in turn subdivided into six contiguous modules”42). The
clustering of the isolated ziggurat forms of these public facilities creates a monumental focus for
each neighbourhood, but little is done to distinguish one facility from another, as the
establishment of a legible hierarchy is made subservient to the demands of symmetrical
patterning. Within the residential zones the housing is planned at such a high level of density
that there is little allowance for local green spaces or other community amenities; as a result,
there is nothing to give the neighbourhoods individual character, or to provide a social focus. In
essence the division into public (social, commercial) and private (residential) zones appears to
be inspired by the desire for a visually rational plan—that is, creating the visual effect of rational
planning rather than actually following a functional rationale.

Ohl had previously experimented with similar construction systems at Ulm. The
“Prefabricated Space-Cell System” (published in 1966) was one such project [7.7]: a reinforced,
double-shelled concrete frame is assembled by joining together small, open-ended orthogonal
chambers or “toruses”; the resulting “space cells” are slotted together to form square concrete
tubes with high structural stability, “making horizontal and vertical staggering and cantilevering,
possible.”43 The “space cells” follow a similar dimensional system to PREVI PP1, based on a 30

42 Ohl’s project statement, in Grichener, “PREVI/Perú,” 50.
43 “Prefabricated Space-Cell System,” Arts and Architecture 83, no. 6 (July 1966): 11.
cm. module, and with an anticipated potential span-width of 7.2 m. for an individual cell; however, the full-size cells produced in this iteration of the experiment appear to be much smaller, approximately 2.4 m. square. The associated models show the system applied to a variety of low- and high-rise structures as an example of its versatility. However, unlike PREVI PP1, the individual “space cells” are never shifted from direct alignment to vary the internal spaces, producing uniform boxes inevitably recalling shipping containers. As applied in the theoretical project of a student dormitory, the fabrication of architecture utilizing the “space-cell system” closely follows the mass-production model of motor vehicle assembly, with all “interior equipment” built in at the plant—“windows, partition walls, floor and wall coverings, sanitary equipment, heating and air conditioning installations”—suggesting that the individual rooms follow one basic model, with few (if any) variations.

Ohl’s proposal for PREVI PP1 appears to take a step back from the mass-production of complete housing units; the competition guidelines’ emphasis on progressive development may have inspired this more flexible approach, and evidently the single-family house layout also facilitated greater customization of the individual housing units. Ohl presented an array of possible layouts for the house, carefully enumerated as mathematically generated variations on a theme [7.9]. In an attempt to adapt an industrialized building system “to the social and economic conditions currently reigning in Peru” Ohl proposed the separate fabrication of outer frame and interior fittings, distinguishing “the central and continuous production of highly-finished three-dimensional building frame sections” from the “on-site manufacture of housing

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44 According to one source, after leaving Ulm Ohl taught automobile design at the School of Design in Pforzheim. Martin Krampen and Günther Hörmann, Die Hochschule für Gestaltung Ulm—Anfänge eines Projektes der unnachgiebigen Moderne (Berlin: Ernst & Sohn, 2003), 51.

45 “Prefabricated Space-Cell System,” 11.

46 Related projects include a prefabricated house for a competition organized by the European Community for Coal and Steel in the mid-1960s, and the “System for petrol filling stations” developed at Ulm by Ohl and Bernd Meurer, where this convergence of technology, form, and function seems less forced than in the domestic context. See “CECA steel housing competition awards,” Architectural Design 37 (1967): 510-521; Krampen and Hörmann, Die Hochschule für Gestaltung Ulm.
elements”—the one focused on speed and efficiency, the other on local fabrication and responsiveness to shifts in consumer demand since it did not require specialized plant and machinery.

This exterior-interior division is comparable to N. J. Habraken's proposed mass-production of housing units in two distinct parts: the “support” (or housing “superstructure”) and the “detachable units” (all its finishings, furnishings, and fixtures, to be purchased and installed by the individual occupant) [7.10]. Habraken makes an important distinction between the support and the dwelling per se: while the former is an object fabricated in a factory, the latter cannot be mechanically produced but rather “is the result of people fulfilling the need to dwell”47—first by making an identification with their living environment, and then by taking responsibility for shaping that environment. The support is not conceived as an end in itself, but is intended to inspire the occupant’s more vital engagement with the living environment: “to dwell is to take action.”48 Despite the utopian shading of Habraken’s rhetoric, in practice the proposal becomes rather more prosaic: Habraken’s newly engaged dweller appears less a free-wheeling creator than a particularly sensitive consumer, thoughtfully choosing from the “different possibilities and different products” presented to him:

On the way he is developing a definite feeling for quality. A sense of what is going well for him and what is not; keeping an eye on what the neighbours are doing and trying hard to please himself but not being too different from the crowd he feels he belongs to. It comes quite naturally.49

Here Habraken’s argument recalls the Ulm School’s emphasis on the designer’s responsibility to educate the consumer, manifesting superior designs in order to elevate aesthetic discernment.


48 Habraken, “Supports,” 26. The Dutch term used by Habraken (Drager, or “framework for living”) apparently underscores the social function of the support, a connotation lost in the English translation.

In his proposal for PREVI PP1, Ohl reduces the work of architectural composition to the combination of pre-set modules, seeming to suggest that the designer should recede into the background, allowing the individual resident to determine the shaping of their domestic environment. The layout is generated and determined by the modular system, with little definition of how the house would be occupied and experienced as a habitable space. In the most detailed version of the plan available [7.8], the primary entrance appears to be situated in the lobby-like area in the centre of the right side; this lobby extends fully halfway into the body of the house, with little indication as to the disposition of the other rooms apart from the placement of one full-length partition wall marking off the back half of the house, and two short walls creating smaller rooms either side of the lobby area. The schematic floor plans of the various projected house types (60, 90, 120 sq. m.) give little additional information: apart from a rough division into public, private, and service zones, there is no indication as to how the individual spaces of the house would work. Likewise the relationship between the indoor and outdoor spaces is opaque: the basic plan includes a total of five exterior doorways, as if to prove the openness of the structure, yet there is little indication of what kind of spaces are being created here—whether service patios, leisure areas, or gardens. It is hard to escape the conclusion that they are doors to nowhere, leading aimlessly into the empty spaces created by the lateral displacements of the “building frame sections” within the underlying grid. Ohl employs these transpositions to suggest the potential complexity of the plan, but it is a complexity generated purely by the play of dimensional units rather than in response to the patterns of domestic life, or to environmental factors such as sunlight or air.

For Ohl, the use of a minimal framework, creating an open structure of the simplest possible form, ensures maximum internal freedom by removing all “constraints for an optimization of free growth.” The system is assumed to be objective or neutral enough to accommodate anything within its modular dimensions and grid lines. However, while the austerity of the building frame sections may be easily modified by the overlays of habitation, it
would be impossible to overcome their rigidity to make any structural adjustments, circumscribing any spatial intervention through the establishment of their initial, pre-determined coordinates. Modifications at the urban level would encounter similar difficulties, being hemmed in by the rules of the established grid pattern; “free growth” would effectively be limited to the insertion of occasional green spaces or local amenities along the north-south residential bands, small enough adaptations to avoid disrupting the overall parameters of the pattern.

Although Ohl describes his system as a “democratic interchange between human and technological factors,” rather than offering an equal collaboration, it appears that the technological defines and limits the possibilities of the human: at the level of the house, through the intractable concrete “building frame sections”; at the level of the site, through the parallel crane-tracks that provide the guidelines for the entire urban plan. There is a complete disconnection between the immense technological sophistication of the system and its utter lack of socio-spatial awareness, between its mechanical ability to generate a wide variety of floor plans and its conceptual inability to evaluate the effectiveness of any of these plans on a functional level, as used by an actual resident. The dissenting jurors’ verdict of “inhuman” does not seem excessive.

**Center for Environmental Structure: Local Conditions, Generic Rules**

While the needs of the resident are barely perceptible in Ohl’s conception of the house, they are central to the proposal devised by Christopher Alexander and the CES. In contrast to Ohl’s extreme rationalization of housing production, the CES attempted to create a viable mass-production system based on multiple variables and individual choice, making a heroic effort to streamline the unwieldy—and economically irrational—process of participatory design into a manageable form.

The CES was formally established in 1967 with the aim of developing a set of general principles which would constitute a systematic language of design. Its experiments along these
lines had begun a couple of years earlier with projects to produce conceptual designs for the San Francisco Bay Area Rapid Transit system (1964–1965), and then for the Hunts Point Multi-Service Center (1967–1968), where it first used the terminology of the “pattern language” to describe its design process [7.11]. In 1969, PREVI PP1 became the largest CES project to date to use the pattern language system, and the first in which the CES was engaged directly rather than acting as a consultant.

The projects for BART and Hunts Point had emerged from a detailed analysis of the operational needs of the proposed program, as well as observations of people’s behaviour in the environments under study. For PREVI PP1, this ethnographic approach was greatly expanded, as Alexander and three other members of the CES—Shlomo Angel, Christie Coffin, and Sara Ishikawa—each spent a month in Lima before the official competition briefing, living with low-income families as participant-observers to document how they inhabited their houses. In addition, Sandy Hirshen, a Bay Area-based architect, joined them for a shorter period in order to research local construction techniques.

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50 For this project the CES acted as consultants to the office of Wurster, Bernardi, & Emmons; the research was published as Christopher Alexander, Van Maren King, Sara Ishikawa, Michael Baker, and Patrick Hyslop, “Relational Complexes in Architecture,” Architectural Record (September 1966): 185-190.

51 The CES was engaged to advise Urban America and architect Kenneth Simmons. The project was eventually designed and built by architect Max Bond, with financing from the New York City Human Resources Administration and the federally funded HUD 702 Neighbourhood Centers Program. See Christopher Alexander, Sara Ishikawa, and Murray Silverstein, A Pattern Language Which Generates Multi-Service Centers (Berkeley: Center for Environmental Structure, 1968). In their next project, the CES worked with Skidmore, Owings & Merrill on the “schematic development” of a facility for the Southwest Regional Laboratory for Education Research in Southern California (1968). See Roger Montgomery, “Pattern Language: The Contribution of Christopher Alexander’s Center for Environmental Structure to the Science of Design,” Architectural Forum 132, no. 1 (1970): 52-59.

52 Soon after, researchers at the National Institute of Mental Health who were working on the effects of environment on mental health approached the CES to submit a grant application. The resulting $300,000 grant funded the development of the “pattern language” over the next several years, culminating in the publication of the book of that name in 1977. Sara Ishikawa, interview with the author, January 2007. See Christopher Alexander, Sara Ishikawa, Murray Silverstein, Max Jacobson, Ingrid Fiksdahl-King, and Shlomo Angel, A Pattern Language: Towns, Buildings, Construction (New York: Oxford University Press, 1977).

53 From 1964 Hirshen worked at Wurster, Bernardi, & Emmons on urban design for BART. In 1965 he established his own architectural office with Sim Van der Ryn after they were awarded a contract from the
The result was a conceptual blueprint for “houses generated by patterns”\(^5^4\): less architectural plans than general principles to guide the design process, the patterns identified various “problems” which would need to be addressed for the successful formation of the individual house or of the neighbourhood, proposing spatial (and on occasion technical or constructive) “solutions” for each issue. Falling into three basic categories—Community Patterns, House Patterns, and Construction Patterns—the ambition was to document the socio-spatial specificities of the Peruvian context and to translate these observations into a design lexicon. Accordingly, many of the sixty-seven “patterns” referred to or replicated traditional spatial forms. For example, the importance of a clearly defined, secure “Perimeter Wall” for each house;\(^5^5\) the close social interface between the house and the street, expressed as “Front Door Recesses”; or the “Mirador”—emulating the enclosed balconies of colonial Lima—which included a built-in seat in order to facilitate watching the street [7.12-7.13].

On the urban level—the Community Patterns—the CES borrowed some elements and invented others. The main structuring device, the central spine or “Paseo” [7.14], is a diffuse

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Office of Economic Opportunity to construct temporary “Flash Peak” housing settlements for migrant farm workers in California. These projects received attention for their innovative use of low-cost building materials and structural systems, such as the tent-like plastic “Paradome” (designed by Bill Moss) and the “Plydome” shelter of Kraft paper layered over a polystyrene core (designed by Herb Yates). See “Short-term Housing for a Long-term Problem,” *Progressive Architecture* (May 1966): 166-173; David Wild, “Drop In,” *Architectural Design* 39, no. 2 (February 1969): 99-104. This exploratory approach to construction systems would be Hirshen’s key contribution to the PREVI PP1 proposal. Although Hirshen had a number of points of connection to the CES—in addition to his work on BART, he taught at Berkeley from 1966, and contributed advice to the CES Hunts Point project—as he recalled, the collaboration for PREVI PP1 was initiated by Peter Land. Sandy Hirshen, interview with the author, January 2007, transcript, Oral History Research Office, Columbia University, New York.


\(^5^5\) This is explained as follows: “Peruvians who live in cities … feel a tremendous need for security against the outside world—both against thieves, and against curious strangers. This feeling is so strong that many low-income Peruvians spend their money on a fine perimeter wall of brick or concrete, even when they know this means they won’t be able to have a roof, or rooms, inside.” Alexander et al, *Houses Generated by Patterns*, 117. Significantly, the notes for this pattern refer to an article by John Turner: “Lima Barriadas Today,” *Architectural Design* 33, no. 8 (August 1963).
kind of public space loosely inspired by Latin American pedestrian promenades: it is formed of pairs of pathways, framing the double rows of residential blocks running through the centre of the site, and linking together eight “Activity Nuclei”—nodes in the network that house no specific program, but operate as points of intersection between the various facilities (clinics, dance halls, schools, markets, and so on) spread throughout the site. The concept and terminology of the “Activity Nuclei” is clearly more CES than limeño. Likewise with the “Subculture Cells”—forty-three residential micro-neighbourhoods within the urban plan, each containing twenty-five to seventy-five houses, along with a number of intimate public spaces for the local community. The proposed function of these spaces is sometimes straightforward and clearly circumscribed—the cloister-like “Walled Gardens”; places for “Street Football”; and the “Visible Kindergartens” with a sunken play area but maintaining visual contact with the street [7.15]. By contrast, with the “Multipurpose Outdoor Rooms” the exact shape and function is left open, to be decided by the priorities of local residents, housing anything from playgrounds, to open-air bars, to chess tables for elderly people. An important mechanism for maintaining the local character of these amenities are the “Cell Gateways” which announce the entrance to each “Subculture Cell” [7.15]: the gateway stages the transition into the local community as “the path narrows down, changes level, passes under cover or passes through an enclosure.” This threshold provides a symbolic point of arrival both for the visitor, and for the resident returning home.

In their supporting documentation, the CES made it clear that the application of the patterns was not to be subject to the creative whims of the designer, but would be responsive—and responsible—to each group of residents for its immediate neighbourhood, and to each family for its own house. To make this workable for the stipulated population of 1,500

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56 These are enclosed plazas, “at least partly surrounded by a continuous roofed arcade always at least two metres deep, and, where possible, built up against the walls of existing buildings.” Alexander et al, “Houses Generated by Patterns,” 105.

households, Alexander and his collaborators devised a method of streamlining the participatory element of the design process via a six-page questionnaire, which would then be translated into an easy-to-follow twenty-step design template. A “Family Choice Sheet” asked prospective residents to decide how much space they wanted for each room of the house, and where their house should be located within the site. The questionnaire provided pricing for each option, so that residents could tabulate the financial impact of each improvement to their domestic comfort: a small kitchen could be had for S/.13,000, or a large one for S/.22,000; a corner lot with a second entrance at the side and a rental space cost S/.10,000, while a centre lot with a second entrance at the rear was S/.2,000.\textsuperscript{58} Other options were free of charge, but personalized the design by asking residents to specify which facilities they would like to be near (market, clinic, church, and so on), and whether they preferred a quiet or a busy area. While it was possible to outline a “generic house” based on the overall relationship of the elements, which remained constant, the essence of the CES scheme was precisely its infinite variability according to personal taste and budget.

The CES was convinced that this highly individualized housing model could be swiftly and systematically translated into usable plans via the twenty-step guided design process [7.16]. The first step was to assign the house to an appropriate area within the site, followed by an assessment of how the lot’s immediate site conditions (“the positions of next door houses, positions of adjacent paths and roads”) would affect the design. Next, the dimensions of the house were established, with a uniform width set at 5.2 m., and the length varying from 13 m. to 27 m., depending on the cumulative spatial requirements for the ground floor rooms: sala (parlour), main patio, family room, kitchen, and service patio. The patio openings were the first architectural element to be positioned (“always on the east side of the house”), followed by the front door (determined by the north or south aspect of the lot, and the presence or absence of

\textsuperscript{58} Alexander et al, “Houses Generated by Patterns,” 95.
adjacent houses), and so on for the rest of the rooms and various custom features. The process could almost be reduced to a binary code of 0-1 options for each element, as if presenting a prototype for computer-aided design. Indeed, the CES argued:

> the rules of the combination process are almost mechanical, and can be carried out by any trained draughtsman. The low cost of the houses cannot support any individual design time. We estimate that a trained draughtsman will need about one hour per house, to translate the family choice sheet into a set of working drawings and specifications for the contractor.\(^\text{59}\)

No reference was made, however, as to how much additional time would be required for the actual fabrication of these made-to-measure houses. Offering a larger number of options than tract homes, and more fundamental modulations—not just in terms of finishes and fittings, but the size of every single one of the various rooms—the production phase would arguably be the most complicated part of the entire process. Furthermore, building individualized row houses, as opposed to free-standing homes, would present additional difficulties, requiring customization at the level of the entire housing block.

The patterns guiding the design of the house fall into two broad categories. On one hand, patterns deriving from environmental factors are to be applied universally: the north-south orientation creates a “Cross-Ventilated House,” an effect intensified by the deployment of open-air patios at both front and back, so that all ground-floor living rooms have the benefit of upwind and downwind exposure; there are sources of “Light on Two Sides of Every Room” to avoid the excesses of glare or shadow caused by a single light source; and alternating opened and covered areas achieve a balanced “Tapestry of Light and Dark” throughout the house [7.20].

On the other hand, patterns expressing the social functioning of each household—and its division into public, shared, and private spaces—produce the greatest modulations in the form of the individual dwelling. The key feature which allows internal differentiation between various types of spaces is the very shape of the plan [7.18]: the “Long Thin House” is intended

to reduce the potential for overcrowding and lack of privacy by ensuring that even within the most constrained footprint “the mean distance between rooms is as high as possible.” The form recalls the layout of the Court House presented in Alexander and Serge Chermayeff’s *Community and Privacy* (1963), whose single-storey plan is divided front-to-back into zones for adults (master bedroom), family, and children [7.17]. The PREVI PP1 house employs a similar distinction, but establishes a more formal separation of public and private zones, translated into a pattern called “Intimacy Gradient” [7.19]. Reflecting the layout of the traditional Peruvian house, passage into the “intimate” spaces of the house is staged in a strict sequence: entry-sala-family room-kitchen-bedrooms. In more affluent Peruvian households, the sala tended to be a formal parlour containing prized furnishings and ornaments, but the CES provided even the most modest house with a symbolic sala in the form of “a tiny receiving alcove immediately inside the front door.” The “entry” marks the physical threshold between inside and outside, but it is the sala which demarcates the transition between public and private zones within the dwelling, outlining a limit for visitors to the household. Beyond the sala are the shared family spaces, such as the social patio, with the service patios at the back of the house. The most private spaces—bedrooms and sleeping alcoves—are relegated to the upper storey, and carefully differentiated: children’s bedrooms, separated by gender, are arranged in clusters around common areas; the master bedroom is located at the top of the stairs, sharing no common walls in order to establish “maximum acoustic privacy,” while maintaining visual control over the front door to watch for intruders and to monitor the comings and goings of children. (Nonetheless, this was insufficient for Spanish jury member José Antonio Coderch,

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who submitted a brief individual report condemning this as the “worst project” with its sleeping
arrangements “dangerously facilitating promiscuity, making individual independence in relation to

The distinctions of public, shared, and private spaces are repeated at the micro-level of
domestic organization. For example, the main family room includes a number of shallow
alcoves, with slightly lower ceilings than the main space, allowing family members to withdraw
from the general social activities to work, study, or read, while remaining connected to their
surroundings \footnote{\textit{Alexander et al, “Houses Generated by Patterns,”} 109.} in this way “the family can be together, even when they are doing different
things.”\footnote{\textit{Alexander et al, \textit{Houses Generated by Patterns},} 178.} The relationships of public and private between the house and the world outside are
carefully structured via a number of transitional devices. There are no ground-floor windows
facing onto the street, making the house into its own introspective world; however the “Front
Door Recesses” create spaces “half in, half out” in a similar vein to the family-room alcoves,
allowing a vacillation between participation and withdrawal, between the street and the house,
as the mood dictates \footnote{\textit{Alexander et al, “Houses Generated by Patterns,”} 109.} In addition, optical connections to the street are established from
the first floor: the “Mirador” invites observation of the public realm from a private zone; the
“Gallery Surround” \footnote{\textit{Alexander et al, \textit{Houses Generated by Patterns},} 178.} offers a more reciprocal exchange of views, since it is intended to
represent something of the household to its neighbourhood:

What is needed is some outside to the house, which is enough “part of the
inside” so that it will quickly be made personal and different from the
neighbours.... After a few years, each gallery will contain a unique collection of
extensions, planting, furnishing, and decoration.

Over time, these projecting balconies are intended to express the public face of the
household via an accumulation of individual details.
For the CES, even very simple architectural elements have the potential to play a significant role in the social interchanges within the house, an approach underscored by the hand-drawn plans and perspectives accompanying the PREVI PP1 proposal, which depict the architecture animated by the incidents of everyday life. By contrast, Ohl’s plans emphasize the neutrality of domestic spaces, their interchangeability rather than social and functional specificity [7.9]: the prospective inhabitants are represented as a series of dots, components in a system, while the various domestic functions are translated into an abstract code which shuns any metonymic or associative values.

In terms of its construction patterns, the CES plans for the progressive development of the house are as open-ended as its initial planning; the primary concern is to facilitate additions and adaptations by establishing a simple structural system based on easily produced elements requiring no specialized skills or technologies. The original intention was to rely primarily on manual labour with some mechanical assistance for heavier tasks such as laying concrete slabs, making use of highway-building equipment which would have been readily available in Peru [7.22]. According to Sandy Hirshen, the rest of the structure was to be extremely lightweight, primarily through the innovation of floor planks and roof beams fabricated from bamboo stalks and sulphur (or urethane) foam. In Peru bamboo was widely regarded as a low-prestige, temporary building material—bamboo mats (esteras) were commonly employed in the first stage of barriada housing, for example—but the CES architect Sara Ishikawa had visited a local resort which used sophisticated bamboo construction techniques for exotic effect, suggesting the value of further experiments with the material. The concrete blocks were also innovative, designed to stack easily in an interlocking system that would not require specialized

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67 Hirshen, interview with the author, January 2007. Once he had returned to Berkeley, Hirshen experimented (with the assistance of engineer Bill Gilbert) with various prototypes for the formwork for the bamboo beams, and tested their loading capacity and ease of transport.

labour. Their aesthetics were also a consideration—describing the decision to finish the surface with sulphur coating, and highlight the detail of the hexagon-shaped knob forming the tip of the interlock, Hirshen noted:

I don't know if this was Chris's influence so much, but I think we were all attuned to the idea of making these traditional materials more aesthetically pleasing. So, for example, these ... little coloured hexagons, I think we used shoe polish or stains, or something, to just make the point that these could be physically attractive things.69

In the end, these efforts to fabricate vernacular-inflected materials proved to be too costly to reproduce, so in the construction phase the PREVI PP1 working group made the decision to use mass-produced concrete elements instead.

Alexander and his team were confident that their fieldwork had allowed them to develop patterns that closely reflected local needs, creating a sourcebook of authentic but modern forms that were ready to be employed by other architects and builders: “In this sense, these patterns may begin to define a new indigenous architecture for Peru.”70 Opposing itself to a modernist universalizing approach to design, the CES emphasized its responsiveness to the specificities of the context. However, while their patterns emerged from close observation of low-income households, they were not developed in consultation with them; it is therefore legitimate to ask whether the CES was projecting its own vision onto potential residents of their housing scheme—here assumed as local and traditional, rather than a universal modern subject. Along these lines, some jurors argued that the CES proposal reflected outdated cultural models—it “tended to reinforce customs and traditions, some of which had already changed, rather than adapting itself to a process of change and improvement of family life, as incomes increase.”71

Without accepting the language and assumptions of modernizing “improvement” expressed in this statement, it is important to acknowledge the implicit nostalgia underlying much of the CES

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69 Hirshen, interview with the author, January 2007.

70 Alexander et al, “Houses Generated by Patterns,” 84.

proposal, from the fetishized vernacular of the construction system, to the unquestioning reiteration of “traditional” gender differentiations in the use of space—for example, sites for “Street Football” were provided for boys, while the “Miradors” for passive street-watching were conceived as “for young girls, especially”\(^\text{72}\) [7.12]; similarly, the sketch of the “Front Door Recesses” presents the outside/inside (or street/house) polarity as coded male/female [7.13]. It seems unlikely that the CES would have considered that the reinforcement of restrictive gender roles through design would have been an appropriate solution in a US-based project of the same period.

Finally, a question that CES architect Sara Ishikawa asked of the family she was living with in Lima provides an insight into the competing visions cultivated by the architects and by their potential clients, constrasting the “new indigenous architecture” envisaged by the CES with the hopes that residents themselves had for their future homes:

I remember when I first got to know them, I asked: “What kind of house do you think you want? Just in your own words, without any hints or anything like that.” And they all immediately—I mean four of them at the same time—said, “I want a \textit{I Love Lucy} house!”… I said, “Well, how come?” And they said, “It’s so BIG”—and the mother said, “and it has a BIG kitchen.” I said, “Yeah, but you know the kitchen is wide open to the living areas, so that if you were cooking there, all the smells would drift into the rest.” And she said, “Oh! that’s no good.” So it was good that they knew at least, once they identified a house, that there were some problems with it—you know, for them, just given the way they lived.\(^\text{73}\)

Needless to say this account does not appear in the CES publications on the project. It does however suggest that the families were not always as attached to traditional elements as the CES architects were, and raises the question of whether actual resident participation in the development of the patterns would have produced a significantly different outcome.


\(^{73}\) Ishikawa, interview with the author, January 2007.
**Self-Build and Advanced Ideas**

Other proposals by international participants, while rarely outlining as complete a system—from residence to construction to urban scheme—as Ohl or the CES, nonetheless present distinctive responses to the challenges raised by the project, marking the encounter of each architect’s practice with the logic and processes of self-build. Of particular importance is the imperative to design for future adaptation, balancing the architect’s management of the complete lifecycle of the structure against the possibilities of improvised transformations. In the process, some possibilities and limitations of this “collaboration” between architect and user in the planned evolution of the dwelling become more evident.

Many of the proposals focused on the construction system, particularly the requirements for modularity and prefabrication. For example, the proposal by Knud Svenssons was based on concrete slabs and indented wall panels cast in situ [7.23]; the architect argued that the custom fibreglass formwork required to produce these could “be retained as community property” to facilitate any future extensions.74 In the proposal by J. L. Iñiguez de Onzoño and A. Vázquez de Castro, the larger reinforced concrete elements (walls, pillars, beams) would be poured in situ, with smaller elements (stair treads, floor tiles) to be factory-fabricated and sold to residents as needed [7.24]. According to the architects, “the plant for making these … can produce 250 dwellings a year”75—at which rate the planned 1,500 units would have taken six years to complete, once the factory was fully operational. In both these cases, the solution to the housing deficit was conceived in terms of the improved efficiency of industrial production, but it is far from clear that the proposed systems were appropriate to the scale of the problem and would have performed as envisaged in the Peruvian context.

74 “PREVI/Lima: Low Cost Housing Project,” 204.

75 “PREVI/Lima: Low Cost Housing Project,” 201.
In Charles Correa’s proposal the primary emphasis was on improving the performance of the house in terms of climate, seismic engineering, and layout [7.25]. The houses were aligned to take advantage of natural light and cooling winds (the original design even included a wind scoop in order to mitigate Lima’s high year-round humidity); the staggered deployment of the row houses (adapted slightly in its eventual realization) would further assist with regulating temperature and improve seismic performance; the variation of width in the layout reduced the monotony of the narrow row house form—a further iteration of Correa’s experiments with the “Tube House” concept. The design maximized flexibility in growth, making use of prefabricated components within a construction system simple enough to be carried out by self-builders provided with technical assistance. Here the architect would act as a kind of design consultant, perfecting the template of a simple house that could be fabricated by the non-specialist. In a similar vein, Toivo Korhonen borrowed closely from the growth patterns of barriada housing, but rationalized the form [7.26]: noting that the boundary wall was always the first element to be built, Korhonen proposed a very minimal dwelling nucleus—beyond the basic requirements specified by the competition—consisting of a perimeter wall and a single room “with water and drainage laid on in the service yard, which at the outset would serve as kitchen.” Based on a grid of standard modules, the structure could be built with a range of materials—timber, light concrete, and so on—which allowed both mass construction and self-built construction of extensions. Korhonen also imagined the potential for self-help labour to assist with the establishment of green spaces planned for the site—specifically, digging the irrigation channel required to water the park: “This kind of work, improving the level of the environment, could be a

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way of increasing social contact, and getting the inhabitants to feel that they belong to the
neighbourhood, and that their neighbourhood belongs to them.”

Other proposals focused on the concept of community interaction as fostered by spatial
form. The proposal by Esguerra, Saenz, Urdaneta, Samper [7.27] employed a variation of the
neighbourhood unit concept: the key organizational element was the agrupación residencial
(residential grouping), a pedestrian-only zone housing around fifty families; these groupings
would be aggregated to form superblocks, served by communal centres. The agrupación
residencial was square in form, inspired by the Spanish colonial urban grid, which was seen as
being the most cost-efficient for installing infrastructure. While the outer edge of the agrupación
(its street frontage) consisted of regular rows of lots, the clustering of houses in the centre was
more dynamic. (The Quinta Heeren, a large residential block near the historic centre of Lima
with a picturesque grouping of dwellings surrounding a communal courtyard, was claimed as a
specific point of inspiration.79) Employing the organic variation and the human scale of the
medieval city, according to the architects: “This type of urbanism stimulates coexistence.”

The project by Kikutake, Maki, and Kurokawa was dominated by a quasi-megastructural
“omnibelt” [7.28], but in essence also worked with the neighbourhood unit concept, framing it
within this specific geometry because, as the architects noted: “Attempts to maximize the
community involvement of each dwelling led to the discovery that triangular groups of dwellings
provided the greatest degree of exposure for each unit.”81 This decision determined the layout of
the urban plan, resulting in the diagonal zig-zag of the multifunctional “omnibelt” that
accommodated all the community services. Within each residential zone, the housing was

79 Germán Samper Gnecco, Germán Samper: La evolución de la vivienda (Bogotá: Escala, 2003), 111.
John Turner lived in the Quinta Heeren during his time in Lima.
80 Ministerio de Vivienda and ININVI, Publicación PREVI, vol. 13, PREVI PP1 I-3 I-3v (Lima: Ministerio de
Vivienda; ININVI, 1979), 13:17.
81 “PREVI/Lima: Low Cost Housing Project,” 191.
placed in double bands, connected by pedestrian walkways; the outer band faced the roadway, and the inner band faced a central open space for “intimate recreation”\textsuperscript{82} housing playgrounds or small plazas. The house displays a similar strict functional separation of “service” and “living” zones, with a high degree of flexibility within that compartmentalization: the layout is divided into two lengthwise, with the narrow strip containing services (entry, dining room, kitchen/bathroom), and the wider section boxes for interchangeable uses (bedrooms, living rooms) and patio spaces ready for possible extension according to the residents’ needs. Although the architects claimed that their additive prefabricated system allowed maximum flexibility with a minimum number of components, some of the modular elements were highly specialized and appear inflexible (in particular the toilet/washbasin/shower and kitchen sink/cooking/storage units).

By contrast, the urban scheme presented by Oskar Hansen and Svein Hatløy [7.29] rejects the neighbourhood unit, or any other predetermined organizational system for community life. Rather, in concert with Hansen’s concept of “open form,” interconnections between groups of dwellings would be determined by the residents themselves as the relationships between neighbours evolved. Spatial form would not direct community interaction, but community interaction would direct spatial form. Like Correa, the prevailing winds shaped the overall layout of the site; like Kikutake, Maki, and Kurokawa, the “serviced and servicing zones” (here two residential areas, and three strips of amenities) were strictly separated but interrelated. In order to achieve the goal of “minimiz[ing] hierarchical structures in favour of parallel opportunities for all inhabitants,”\textsuperscript{83} the urban plan sought to promote random social contacts, for example by placing the dwellings in close proximity to small-scale public garden spaces or encouraging pedestrians to stray beyond designated footpaths. The dwellings themselves were to be built in two-stages: in the primary construction phase the main elements


\textsuperscript{83} “PREVI/Lima: Low Cost Housing Project,” 200.
would be handled by a five-ton crane, with completion to be carried out by residents using lighter elements. In practice this proved to be extremely expensive—evidently a model of development based on heavy industrialization translated poorly from a “Second World” to a “Third World” context.

The proposal by Candilis, Josic, Woods promotes interchange between neighbours at the very physical, bricks-and-mortar level of the house. Alexis Josic had primary responsibility for the proposal and was the only partner to be present in Lima at the mandatory pre-competition briefing, although Georges Candilis did visit Lima in 1971 (enthusiastically documenting his participation in a land invasion) and may well have visited the PREVI PP1 site as the housing was under construction. The urban plan is structured by a central pedestrian strip containing the communal facilities, with six perpendicular zones housing the educational and sporting facilities; additional pedestrian paths cross diagonally through the residential areas, providing direct access to community services. No single section is emphasized above the others, suggesting a non-hierarchical organization; as distilled in the schematic representation of the circulation and service system, the plan appears to be a variation of the “stem” concept. The houses are densely built, with interlaced lots for compact development, based on an underlying system of alternating wide and narrow bays (respectively 4.50 m. and 2.7 m. wide). Initially, all the dwellings are the same size (120 sq. m.), formed from

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84 The partnership was already disintegrating by the late-1960s and no longer developed projects collaboratively. Doscenko Josic, architect and wife of Alexis Josic, confirmed that she had worked with him on developing the proposal. She emphasized that Josic also reused the distinctive floor plan in a later project for a single-family house in France, the Villa Residentielle at Chalon/Saone, 1979–1980. Doscenko Josic, conversation with the author, March 10, 2006. In a brief paragraph in his study on the partnership, Tom Avermaete connects the PREVI PP1 proposal to the Centre Artisanal in Sèvres (1962), but the comparison is unconvincing, particularly since he misdates the Lima project to 1962. Tom Avermaete, Another Modern: The Post-war Architecture and Urbanism of Candilis-Josic-Woods (Rotterdam: NAI, 2005), 299.

85 Georges Candilis, with Michel Lefebvre, Bâtir la vie: un architecte témoin de son temps (Paris: Stock, 1977). The Candilis archives contain a document sent from the office of “Alexis Josic—Architecte” to “Agence Candilis” dated June 12, 1969, including background information on the competition, such as the typical provisions for transport and public space in Lima. CANGE/I/69/3, 236 ifa 353/02, Fonds Georges Candilis, Institut Français d’Architecture, Paris.
portions of one wide and two narrow bays; over time “if variations in lot size are required they may be obtained by trading off areas between the interlocking lots.”86 The proposal attempts to internalize adaptability as an organizing principle—however it is not at all clear how these exchanges would function in practice in structural, spatial, and legal terms, and still less in social terms, since it seems unlikely that many residents would be willing to abandon the future possibility of expansion by ceding unused space to their neighbours.

At the urban level, the proposal by Aldo van Eyck also emphasizes a non-hierarchical approach: the main public amenities, such as schools and parks, are not concentrated along a central strip but are located throughout the site, positioned to allow vehicular access from at least two sides, and connected to each other via pedestrian pathways. There is no designated commercial zone with all the expense of its associated infrastructure; rather, “[i]t is expected that small home-based businesses will develop spontaneously along the principle avenida,”87 in response to local needs, resulting in a dynamic mixture of usages [7.32]. The straight, parallel roadways crossing the site subdivide it into four residential bands; while the proximity between pedestrian and vehicle may contravene planning orthodoxies, van Eyck argues that the close connection is justified because it reflects existing “Peruvian urban reality” and thus offers a proven pattern of spatial organization, bringing traffic to local businesses and facilitating residents’ access to informal public transport networks. Although potentially monotonous, for van Eyck the long, straight avenues are a means to create views deep into the urban fabric—the prospect of the distant, framed horizon offering the resident hemmed-in by a seemingly endless carpet of low-rise construction the sense of being situated in a larger landscape.

The polygonal residential lots are oriented to take advantage of the prevailing winds, offset laterally to facilitate the movement of air. The residential fabric is punctuated at frequent

intervals by small, irregularly-shaped parks: these provide pedestrian access to houses located in the centre of the block, and create communal spaces shared by micro-neighbourhoods of six to twelve dwellings. A sketch by van Eyck of a Lima streetscape depicts the “urban reality” to which this scheme responds: tightly packed row houses built right up to the property line, straining to absorb all usable space [7.33]. With its honeycomb of residential lots forming a carpet over the bulk of the site, van Eyck’s urban layout suggests a similarly high density; however, as the house itself is intended to occupy no more than 60 percent of the lot, van Eyck’s reformed urban fabric is much more open than it first appears. By designing the house within a virtual square in the middle of the lot, with patios at the front and back, there are no complex adjustments required to account for the unusual geometry of the perimeter walls [7.34]. In fact, the necessary awkwardness of any enclosed space in this section of the lot, with its 60° or 30° angle corners, was precisely intended to deter subsequent construction up to the perimeter. Van Eyck explained that the use of “saw-tooth, non-loadbearing yard walls” was deployed as additional disincentive for “expansion outside the house’s maximum orthogonal perimeter,” which would reduce the amount of light and air available to the house, and eliminate its sense of openness: “In a sense the houses are designed so that further free development cannot work against the best interests of the occupants.” In effect, van Eyck makes a self-defensive architecture of the house itself, protecting the integrity of its design from the would-be self-builders, thereby protecting them from themselves. Instead, progressive development was expected to follow the architect’s own designs, which employed a low-technology construction system well-suited to self-building, using only materials, methods, and equipment that were currently in use in Peru.

While van Eyck attempted to prevent substantial changes to the core form of the house,

89 “PREVI/Lima: Low Cost Housing Project,” 205.
his writings suggest that individual interventions at the decorative level were part of his original conception, and he was disparaging about the decision to finish the neighbourhood uniformly: “Painting the houses should have been left to the people: literally dipped in white it looked like a postwar Weißenhofsiedlung.”\footnote{Aldo van Eyck: Works, 168.} He expressed approval when residents employed other surface treatments (such as tile), leaving none of the walls “looking like the original material (brick or concrete block), which is customary in Peru and very effective.” It is as if van Eyck imagined his houses being absorbed into the existing building fabric, camouflaging the differences between the prevailing “urban reality” and his own reformed version of a Lima neighbourhood.

James Stirling’s urban proposal is based on a generative principle of progressive nucleation [7.35], from four-house blocks, to twenty-house groups, to the project’s four neighbourhoods. Whenever the logic of the plan comes into conflict with the realities of the site—even in a larger-scale version of the urban scheme developed for ten neighbourhoods, with an idealized and relatively obstacle-free plan—the strict rules of the serialized system produce awkward interstices whenever the programmatic form meets the particular constraints of the site.

The principle of nucleation is more convincing at the level of the house. The various house types share the same square lot, with a floor plan defined by a modified three-by-three structural grid, its slightly enlarged central square designated as an open-air patio space intended for social exchanges [7.36]. The underlying grid facilitates the coherent growth of housing units outwards to the property-line and upwards along the central structural core, creating a harmonious but potentially diverse urban fabric including houses of various sizes. As the drawings indicate, it is anticipated that the symmetry of the initial layout will begin to break down as the houses extend to an upper level: one may develop into an entirely separate dwelling, now accessed via exterior stairways. The axonometric drawings of the process of
progressive development (executed by Leon Krier) celebrate this breakdown of the initial form, not only in terms of variations to the layout, but also in the eclecticism of materials and detailing, exhibiting a variety of stylistic references, from louvred and round-arched window types, to an oggee-arched doorway [7.36]. In a 1969 interview Stirling described a six-year-old housing development he had visited in Lima that was suffused with such alterations. Noting the “tremendous free-for-all among house owners and builders” that left “only one house in every thirty like the original, and even that was barely recognizable,” Stirling observed:

They always seem to change the architect’s windows, they put up wrought iron work, they paint them different colours. One might extend in concrete, another brick. It has its own very extraordinary quality…. We have to allow for this, and organize it into something less uncontrolled. In a way, it is restrictive not to build for some kind of change and adaptation.91

Although Stirling’s emphatic use of porthole windows and curved-corner doors in the initial construction could be seen as an attempt to maintain his signature throughout subsequent overlays—they in fact remain one of the few recognizable features of the entire PREVI PP1 project [7.49]—the project description expresses an acceptance, even an appreciation, of the gradual dissolution of the original form, as residents assumed responsibility for its evolution:

The pride and sense of ownership achieved through self building must be retained and the inventiveness and variety of environment which this produces is to be encouraged and is considered essential for a dynamic community.92

The framework of the house provided clear guidelines for these self-built extensions, preserving key elements such as the central courtyard throughout all phases of development, but leaving plenty of latitude for residents’ customization. Without being entirely predictable, the changes to the dwelling would be “something less uncontrolled” than in a purely improvised construction.

Stirling’s PREVI PP1 house clearly relates to his earlier experiments such as the Stiff Dom-inno Housing (1951), an homage to Le Corbusier which is based on an evenly measured


three-by-three grid, with a structural frame that is rigid in its articulation of interior spaces [7.37].

The idea reappears in Stirling’s Expandable House (1957), designed with James Gowan,\(^{93}\) where the square plan is divided into a two-by-two grid, with a monumental canister as a central core for domestic services [7.38]. The PREVI PP1 house employs a more open framework, and revolves not around a functional core, but the social core of the central patio. In a different vein, Stirling’s Village Project from 1955 (produced for Team 10) anticipates the self-building ethos of PREVI PP1 with its concomitant openness towards adaptations and transformations [7.39].\(^{94}\)

Proposing a “method for extending existing villages with unskilled labour,”\(^{95}\) Stirling envisaged a simple continuation of the linear form of the typical village layout, using the full range of local vernacular materials: walls would be of brick, stone, or rammed earth, and roofs of tile, thatch, slate, or newer industrial materials such as corrugated iron or asbestos. The success of the Village Project would be reliant on residents’ introduction of elements foreign to the architect’s original scheme, but local to the particular building culture; as at PREVI PP1, these traditions of self-building are seen as complementary, rather than antagonistic, to the planned interventions of the architect.

Finally, Atelier 5’s detailed proposal outlined their analysis of the key conditions to be addressed by their design—emphasizing the site specificity of the urban plan, environmental factors affecting the layout of the house, and economic and technical aspects in the proposed

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\(^{93}\) Mark Crinson’s recent article on this project also draws a comparison to Stirling’s PREVI PP1 proposal. Some key features of the latter project that Crinson attributes to Stirling were actually requirements set out in the competition guidelines. Similarly, the claim that Stirling’s house was the most freely adapted by residents is unconvincing, given the wide range of adaptations made to all the house types, as García-Huidobro et al. have clearly demonstrated in *¡El tiempo construye! Time Builds!* Nonetheless, it is true that Stirling seems to have particularly embraced the concept of change and adaptation at the heart of PREVI PP1. Mark Crinson, ““A House which Grows”: Stirling and Gowan, the Smithsons, and Consumer Society,” in *Neo-avant-garde and Postmodern: Postwar Architecture in Britain and Beyond*, ed. Mark Crinson and Claire Zimmerman (New Haven; London: Yale University Press, 2010), 177-199.

\(^{94}\) See also Turner’s evocation of the village model in *Housing by People: Towards Autonomy in Building Environments*, 1st American ed. (New York: Pantheon Books, 1977), 34-35.

construction system [7.40]. For example, urbanistically, tree plantings in a continuous green strip along the two busiest edges of the site create a “Fortress” that protects the neighbourhood from the perceived “Dangerous Nowhereland” of the highways, preserving its integrity as a residential district; overall, a “Unifying Centre” for the neighbourhood is provided via a central spine of commercial spaces and parkland, its two halves joined by a pedestrian bridge over the roadway dividing the site [7.41]. The design of the house is guided by environmental factors (exploiting cross-ventilation and exposure to sunlight), as well as the need for phased progressive expansion. The two types of row houses are of a subtly different character: the WE (west-east-oriented) houses are planned on elongated lots to maximize exposure to sunlight, while the NS (north-south) houses are on somewhat shorter and wider lots that form insulating buffers on the edges of the neighbourhood clusters, ensuring the privacy of residential zones [7.42]. The plans contain a mixture of fixed and flexible elements, organized together in a cellular system that is intended to facilitate subsequent growth with minimum disruption to the household: over the course of the development, while the surface area only increases from 66.2 to 105.5 sq. m., three additional bedrooms are added and the kitchen and dining areas double in size, without compromising any of the open terrace and garden space.

Following the principle of “Unfold your Life,” Atelier 5 argues that each family must be able to withdraw from the public sphere despite the necessarily high density of the development. In the WE type, the privacy of each house is established by a walled garden patio that entirely frames each end of the lot; in the NS type, a garden patio and a bedroom

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96 Anatole du Fresne and Alfredo Pini led the development of this project for Atelier 5, both attending the information sessions in Lima.

97 Conversely, the proposal also takes into account the external, fleeting views of the community experienced by the passing driver: rather than offering a blank “fortress”-like wall, “there must be openings offering views inside, both to ease the problem of his orientation and the monotony of his trip.” Atelier 5, “International Competition for an Experimental Housing Project in Lima, Peru: The Project of Atelier 5,” n.d., ca. 1969, Plan No. 2, p. 7. Thanks to Heinz Müller of Atelier 5 for providing a copy of this document.

share the street frontage, but are similarly sheltered from passing traffic by high walls. This model of the house as “shelter for the privacy of the family”\(^99\)—and internally, as providing shelter for the individual’s privacy within the family—again recalls the design for a Court House published in *Community and Privacy* [7.17]. However Atelier 5 takes advantage of the flexibility offered by the plan’s cellular organization to redeploy the rooms in a freer manner, creating more dynamic and varied interactions of public and private zones.

With their street-front gardens and setback building volumes, both of Atelier 5’s PREVI house types present a broken, varied street facade rather than a uniform surface. The anticipated development of the houses at different rates is easily incorporated into this dynamic street frontage, while the regularity of the underlying structural system maintains an overall sense of unity: “In this dense community the individual house should serve primarily as a part of the community’s framework, as a unit in a recognizable whole, and only secondarily as the expression of the home’s individuality.”\(^100\) The dynamic building profile recalls Atelier 5’s contemporaneous Siedlung Thalmatt 1 (1967–1974), a grouping of eighteen houses with freedom of extension within each lot. At PREVI PP1, the process of extending the house is made clearly visible to the street, by adding one box after another. According to their conceptualization of progressive development, the growth of the individual house is not of purely private significance, but carries a strong performative, public element: “the individual is aware that when he adds to his house he adds to the community; that his house is a building block of the whole environment.”\(^101\) Further, carefully regulated and planned expansion allows each household to make modifications without compromising the integrity of neighbouring units, or

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the coherence of the community as a whole.\textsuperscript{102}

The construction system was guided by the particularities of the Peruvian context. Atelier 5 argued that the relatively small number of skilled workers available necessitated the careful division of tasks: “operations of a precise and complex nature” required for fabricating the components would be closely supervised in an on-site workshop, while the actual assembly of the houses could be carried out by unskilled workers using a minimum of mechanized equipment. Two simple precast concrete components would be used for fabricating walls, ceilings, and roofs; these were compact and lightweight, so that little more than a forklift would be required to move them around the site. The simplicity of this system would facilitate the growth of the house via self-building: “The assembly and handling of these elements must be easy enough that the residents are persuaded to use them…. In this way these elements will constantly be produced, assuring their continuing availability.”\textsuperscript{103} Atelier 5 thus anticipated that careful design of the entire construction process—from production to assembly—would foster a self-sufficient, self-sustaining system. Overall, Atelier 5’s proposal is comparable to that of the CES in its attention to the specificities of site and of climate, without any claim to establishing a “new indigenous architecture”; it emphasizes the use of appropriate technology and managing with available resources, without fetishization of vernacular traditions; it allows for dynamic, self-managed growth within a predetermined template, without romanticizing the principle of adaptation. Establishing a balance between universal modernist principles of reform housing and the demands of local conditions, it arguably presents the most effective “architectural” response to the housing problem as it was framed by the competition.

A 1984 article by Alfredo Montagne, the Peruvian site architect for Atelier 5, argued that

\textsuperscript{102} \textit{The continuous modification of the environment can become an enriching factor in the community only if it is incorporated into a general system, into the permanent frame of high density housing.” Atelier 5, “International Competition,” Plan No. 2, p. 7.}

\textsuperscript{103} Atelier 5, “International Competition,” Plan No. 13, p. 25.
technical support for the residents had been non-existent, rendering extensions according to the architects’ original plans impossible. Furthermore, because only twenty-five of the Atelier 5 houses were actually constructed as part of the realized neighbourhood of 467 houses, the urban dimension of the project was compromised from the outset. According to Atelier 5’s vivid account, they were not in principle opposed to the decision to expand the number of proposals to be constructed—even though this resulted in fewer examples of their own houses being built than had been promised by the original competition guidelines. Rather, they argued that the expanded experiment inevitably over-stretched the available resources:

What followed is beyond description. The UN (whose agile architect Peter Land—a man with taste, but little sense for the practical—had always seen in PREVI a kind of Latin American Weißenhofsiedlung) was obviously asking too much. At the gigantic, empty site, first 26 types of stairs were finished and erected as a test. 26 different staircases, outside the city, that rose up into the sky ... a grotesque sight, that only made clear how here time and energy would be frittered away.

In this parable, the skyward-gazing staircases express the misguided utopian impulse of an experiment derailed by questionable priorities, reducing itself to the arcane exercise of producing variations on an single architectural element abstracted from its function rather than building actual livable housing. Beyond the poor implementation of the project, however, this landscape of staircases raises questions concerning the overall assumptions behind PREVI—the value of “Architecture” in providing low-cost housing in low-income countries, and thus the ultimate viability of the whole enterprise, irrespective of the competence of its realization.

7.3 PREVI and the “National Reality”

In each case, the implementation of the four PREVI pilot projects proved to be protracted and difficult. None of the projects progressed beyond the initial trial stage, and none succeeded.

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105 The account concludes with the note that no one from Atelier 5 had ever seen the finished houses. Atelier 5: Siedlungen und städtebauliche Projekte (Braunschweig/Wiesbaden: Vieweg, 1994), 89.
in completing the number of dwellings originally planned. As already noted, while PP1 was projected for 1,500 dwellings, only 467 stage one houses were built: an evaluation report presented to the UN in 1976 cited the expansion of the construction phase to include over twenty projects as a key factor in the delay. For PP2, preparatory surveys were undertaken in sixteen different areas of the city at the behest of the funder, the Caja de Pensiones del Seguro Social del Empleado, in an effort to locate a site suitable for urban renewal which also housed representatives of its membership; once it became evident that empleados did not live in or aspire to own such housing, the Caja withdrew its support from the project. Eventually a site was selected in Barranco: this area was “not qualified as highly blighted [tugurizada]” — but had the advantage that the local municipality and most residents supported the project. Although 295 families were surveyed, renovation work was only completed on twenty-six houses [7.43]: factors included legal complications, difficulties financing the rehabilitation work (less attractive to lenders than new construction), and the unresolved question of how to compel landlords to invest in improvements without passing on the costs to their low-income tenants. PP3 was planned as a sites-and-services development of approximately 1,000 lots with communal services for a future population of 6,000, but actually resulted in 286 contractor-built dwellings, with self-build to be employed in the residents’ own extensions [7.44]. In total, the three pilot projects within Lima resulted in 779 dwellings.

106 Government of Peru and UNDP, Proyecto Experimental de Vivienda, Perú, 1. This report was prepared by Ernesto Winkowski, Uruguayan architect and UN adviser to PREVI Proyecto Piloto 1 (October 1969—December 1975). In 1979, some years behind schedule, this report was supplemented by a more extensive comparative evaluation, produced by a newly established Peruvian government agency, the Instituto de Investigación y Normalización de la Vivienda (ININVI, Institute for Housing Research and Standardization). The twenty-seven volumes—covering twenty of the proposals for PREVI PP1, as well as the concurrent PP2, PP3, and PP4)—were highly technical in nature, bypassing any consideration of social or economic factors.

107 Government of Peru and UNDP, Proyecto Experimental de Vivienda, Perú, 3.

Outside of Lima, PREVI PP4 was developed in response to the May 1970 earthquake which had left 1.5 million homeless [7.45-7.46]. This project focused on two towns in the province of Ancash: Casma (on the coast) with 127 lots and Catac (in the sierra) with 200. In this case, the construction system was revised from contractor-built housing to “ayuda mútua dirigida” in order to accommodate residents’ limited financial resources, while also taking advantage of architectural expertise in order to rationalize the design of the house “to incorporate new technology into traditional local construction systems.” However, a post-occupancy study of Catac expressed concern that “due to ignorance and lack of follow-up technical assistance” these improved techniques developed for PP4 had not been employed in subsequent extensions: “Despite the example of the self-build program, none of the proposed construction recommendations have been utilized.”

In addition to the logistical challenges, the organizers’ work was further complicated by the political crises of late-1960s Peru: after President Belaúnde was overthrown in October 1968, the leftist Revolutionary Government of the Armed Forces which replaced him continued with the project but without Belaúnde’s enthusiasm for it. (In a similar vein, Belaúnde had inherited the Perú-BID program negotiated under President Prado, with little enthusiasm for its promotion of self-help housing.) Peter Land’s account implies that any shortcomings of PREVI are attributable to these political shifts; however, rather than being deliberately undermined by the new government, it seems just as likely that PREVI simply suffered from the lack of technical and administrative resources required to manage a large-scale housing project, as had been made evident with the problematic implementation of the Perú-BID program a few years earlier.

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In fact, an even larger problem emerged from the economics of the project. Initially, the total construction costs per house (including land and communal amenities) had been fixed at S/.78,000-S/.164,000, within reach of families with a monthly income of S/.2,800-S/.5,800, estimated at a quarter of Lima’s households. As the project dragged on, rising construction costs began to outpace family incomes; by January 1975, the actual cost per house was S/.275,000-S/.425,000, with financing charges adding another 15 percent. This left the houses accessible to families with a monthly income of S/.15,000-S/.24,000, “representing only 12 percent of socio-economic level II” of Lima households\(^{111}\) (translating into a smaller subset of the total population). Despite the ballooning costs, the 1976 report argued that on average, per square metre the houses cost 5 percent less than conventional models;\(^{112}\) as construction processes were refined, it anticipated this could be further reduced by as much as 15 percent.\(^{113}\)

As for the immediate future, the Ministerio de Vivienda was currently revising the project guidelines “to adapt them to the national reality”: the standards initially used had been borrowed from “other, highly industrialized countries” and were therefore ill-suited to Lima (for this reason, five of the PP1 proposals had to be revised in order to realize their construction, including those by Stirling, the CES, and Hansen\(^{114}\)). Now, by “giving preference to basic and minimum housing programs suited to development and to logical and ordered expansion” the government hoped to provide solutions for “a broad sector of the urban population with few resources.” In practice this meant utilizing “shell” dwellings (viviendas tipo “casco”), and encouraging “the direct


\(^{112}\) However there was a broad range in the performance of the various house types, from -20 to +10 percent.

\(^{113}\) There was also room for improvement in indirect expenses (35-40 percent of total costs)—covering the design, contractor, financing, and in particular supervision of works: throughout the construction of PP1 inefficiencies on the worksite had been substantial—30-35 percent of work-hours were unproductive, due partly to the workers (10-15 percent) and partly to the management (20-25 percent). Government of Peru and UNDP, *Proyecto Experimental de Vivienda, Perú*.

participation of the community” in urban upgrading, self-build (autoconstrucción) of dwellings, and self-fabrication (autofabricación) of building components such as soil-cement blocks. Following an assessment of the effectiveness of these revisions, the “most appropriate” designs and technologies were to be employed for the next stage of PREVI PP1, projected as an enlarged neighbourhood of 2,000 dwellings. If these changes had been implemented, it would have entirely reframed PREVI PP1, since the intention had always been to rely on mass-construction initially, with self-help labour as supplementary.

According to official evaluation reports, the major achievements of PREVI PP1 were in the technical field—developing improved construction systems and components, such as the PREVI brick and the PREVI concrete block [7.47]. In addition, its low-rise high-density model had influenced the state-sponsored housing developments Túpac Amaru (1971) [7.48] and Los Próceres (1974). Within its own terms, then, the truncated PREVI PP1 experiment was successful in generating new designs and technologies. However, assessed more broadly, its effectiveness in producing low-cost housing is questionable. Even if it had produced innovations and efficiencies that could have been replicated, the program was squarely aimed at the upper-tier of the low-income sector: families that were able to finance the legal purchase of a conventional house, which they would expect to modify over time. This was not an option that would be accessible to a meaningful number of Lima residents who lacked permanent, secure, full-time employment. While these upper-tier low-income residents did have difficulty securing

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117 This is not a pattern that is comparable to US or European welfare-state social housing. In fact, the intended resident-owners of PREVI PP1 were very similar to the Hogares Peruanos target market (discussed in chapter six). See also Holston’s analysis of the distinction made by residents between their “autoconstructed” upper-tier low-income neighbourhoods on the urban fringes of São Paulo and the favela in terms of class identification, especially as framed in relation to their legal ownership of land versus the appropriated sites of the favela. James Holston, *Insurgent Citizenship: Disjunctions of Democracy and Modernity in Brazil* (Princeton: Princeton University Press, 2008).
decent affordable housing via the existing market, they were only a small minority of those requiring assistance with housing. In this context, the characterization of PREVI PP1 as “low-cost” can be quite misleading. One recent article counted among the project’s “successes” the fact that: “People didn’t move out as their financial situations improved. Residents stayed, and turned a housing estate into what feels like a middle-class community.” In fact, PREVI PP1 was planned and realized as a “middle-class community” of homeowners, not low-income public housing.

The most recent evaluation of PREVI PP1—which does not address the economics of the project—documents the phased transformations of ten households over thirty-five years of occupation between 1978 and 2003 [7.49-7.50]. As this research indicates, instead of the planned progressive development, residents have improvised their own additions, in the process superimposing a new set of vernacular references. Significantly, the resulting dwellings tend to far exceed the maximum surface area of 120 sq. m. mandated by the original specifications, ranging from 172 sq. m. to 352 sq. m., and as a consequence retain less openness, light, and air than many architects would have wished.

An earlier study from 1985, part of a larger report on housing in Peru, was likewise based on a small sample (twenty families), but included socio-economic profiles of the residents along with their qualitative assessments of their houses and documentation of the changes they had made [7.51]. In most cases the owners were empleados, and the majority (fourteen) held

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120 PCM Construction Control Consultants Limited and Julio Gianella Silva, Affordable Housing for Low Income Families in Peru: A Study on Behalf of the Instituto de Investigación y Normalización de la Vivienda (Lima: ININVI, 1985). The report contains no specific recommendations in relation to PREVI. Overall the report’s conclusions harked back to the late-1950s, judging that a self-help housing project run by Habitat for Humanity in Puno was worthy of further study since such “programs … could prove to be an extremely potent force in rationalizing the informal housing industry.” It also call for international aid in the form of technical assistance, especially in “the large informal housing sector where money is unnecessarily wasted on unnecessary materials, oversizing, and poorly executed work. It is
public sector jobs. Most had undertaken some extensions or modifications—often enlarging rooms, as the houses were widely felt to be small and hot—and four had established businesses on the premises.\textsuperscript{121} None had used their own self-help labour; instead they had hired contractors, and a few drew upon the expertise of family members with some knowledge of engineering. The majority of these extensions were self-financed, since few households were prepared to take on loans. More surprisingly, a total of four families did not have legal title to the house, two of these having apparently received the dwelling extra-legally from the previous owner.\textsuperscript{122} A second survey published in 1991 confirmed that 70 percent of the owners were \textit{empleados}, primarily working in public sector jobs.\textsuperscript{123} By this stage, two-thirds had made extensions to their houses, in particular enclosing the patios;\textsuperscript{124} almost a quarter of the residents complained that the houses were too small overall.\textsuperscript{125} This report also noted that the innovative construction systems and materials had little influence, because the owners had no knowledge of “the technical characteristics of the houses that they occupy, although they have extended and modified them, putting the stability of the structure at risk.” Most damningly, the report recommended that overseas aid be solicited and used to engage such management expertise and that local qualified Peruvian architects and engineers be appointed to give on-site supervision and direction to all forms of mutual- and self-construction housing projects.” PCM et al, \textit{Affordable Housing for Low Income Families in Peru}, 102, 103.

\textsuperscript{121} In particular, the owner of the Korhonen-designed house noted that their transformations “were facilitated due to the free spaces that the original house had.” By contrast, the residents of the Svenssons model were not able to make structural changes due to the rigidity of the elements, only to change the usage of the rooms.

\textsuperscript{122} One family had exchanged an apartment in central Lima for their house; another had received theirs from a relative who had worked at the Banco de la Vivienda.

\textsuperscript{123} INADUR, \textit{Estudio de evaluación integral de los programas de vivienda ejecutados y/o promovidos por el Estado}, vol. I, \textit{Informe periodo 1969–1979} (Lima: INADUR, 1991), I:41. This survey interviewed fifty-six households, roughly 12 percent of the total number of residents.

\textsuperscript{124} In an apparent reference to the van Eyck houses, the survey also note that “in the dwellings of irregular form, the setbacks enclosing them have been invaded in an effort to align them with the streets.” INADUR, \textit{Estudio de evaluación integral}, vol. I, \textit{Informe periodo 1969–1979}, I:42.

\textsuperscript{125} INADUR, \textit{Estudio de evaluación integral}, vol. I, \textit{Informe periodo 1969–1979}, I:47. In addition, 10 percent complained that the rooms were too small, while a third had no complaints at all; at a comparable project, Los Proceres, 24 percent of residents had no complaints concerning the house, indicating that PREVI PP1 enjoyed slightly higher approval from residents.
suggested that in practice, for all the expense and expertise invested in it, PREVI PP1 as lived had minimal impact on day-to-day experience: “For the resident population this project does not differ from others in terms of the quality of life and of functionality.”

As a point of contrast, it is worth reviewing the framework and outcomes of PREVI PP3 in some detail, since it was planned as an entirely self-build project [7.44], while PREVI PP1 only utilized the method as a supplementary technique. PREVI PP3 was organized by Federico Mevius, who had worked with John Turner in Arequipa in the late 1950s. It recalled aspects of housing policy prior to the Belaúnde government, and in particular seems to have drawn upon a proposal prepared by Mevius for the Junta Nacional de la Vivienda (JNV) in 1963. In that proposal, Mevius noted that in response to the hopes raised by Law 13517, passed in February 1961, as of mid-1963 over 35,000 families in Lima had applied to the JNV for housing, with the expectation that 65,000 would have registered by the end of 1963, and 149,000 by the end of 1965. If these needs were not met in a timely manner, Mevius warned of continued invasions in the greater metropolitan area. The most realistic solution—given the limited economic capacity of these low-income applicants—would be aided self-help; accordingly, the JNV needed to devise a program along these lines with good urban amenities and credit plans, thereby keeping the legal option attractive and stemming the drift towards the barriadas.

Mevius’s proposal was to expropriate up to ten sites located on minimally productive agricultural land within greater Lima, selected so as not to interfere with any private initiatives in low-cost housing, and located near existing “nuclei of demographic pressure” [7.52]. Although few of the selected sites were near the urban centre, they were at least on or near major

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127 This document was developed under the 1962–1963 military government, immediately after it had merged the two pre-existing and competing housing agencies (the CNV and INVI), into the JNV.

128 On the other hand, Mevius argued that housing projects aimed at higher-income groups could be postponed with fewer adverse consequences because they were less likely to invade “for cultural reasons.” JNV, “Plan de inversiones en viviendas nuevas en Lima metropolitan,” July 5, 1963: 14. JFCT-UW.
roadways leading into the city. Mevius estimated that only 3 percent of the JNV applicants could pay for a completed house, but 85 percent should be able to afford at least a basic unit (although 12 percent could afford nothing at all, graphically illustrated by a haunting question mark below the dotted line indicating extreme poverty [7.53]). In order to best accommodate the various budgets, the JNV would provide a model dwelling which could be constructed in three stages [7.54]. This first stage was a sites-and-services unit which included the provision of water, sewerage, and electricity to the urbanización as a whole; private connections would be available at a later stage. Stage two consisted of “the necessary works for the completion of a partial definitive house” 129: this would begin with the construction of the first built structure on the lot—a two-bedroom unit—and continue with a sanitary block and a partial perimeter wall. Finally, the entire lot would be enclosed within a wall, allowing the resident to delineate the remaining rooms around an interior patio. While the costs for the dwelling unit were relatively modest—S/.2,800 for stage one, S/.23,000 for stage two, and so on—a surcharge of 15 percent was to be added at each stage to cover the costs of technical assistance provided to the “self-helpers” by the JNV, including architects’ and planners’ fees, as well as financial advice concerning loan applications. 130 For homeowners who would begin their residence with nothing more than street lighting, a faucet in the middle of their lot, and provisional sewerage, an additional investment of 15 percent represented a substantial expenditure, and it is likely that the JNV would have faced a considerable challenge in convincing applicants of its value.

In essence, Mevius’s 1963 proposal was an extension of the UPIS concept into a global plan for new low-income settlements, anticipating the provision of tens of thousands of basic lots in an effort to come to terms with the scale of Lima’s housing shortage. However, the UPIS


130 The administration fee was set at 15 percent “in accordance with the experience of INVI [Instituto de la Vivienda] in 1962”—presumably a reference to the Perú-BIS aided self-help program. JNV, “Plan de inversiones en viviendas nuevas,” 23.
model fell out of favour following Belaúnde’s election to the presidency in late 1963, and therefore this proposal was never implemented. Beginning in late 1968 the self-help principle had a revival of sorts under the Revolutionary Government of the Armed Forces. Mevius was a key contributor to a policy document produced in November 1970 that promoted autoconstrucción in housing, recommending a central body to coordinate self-help housing programs; a “National Program of Experimentation” to determine the best self-help systems for various contexts; and better training for professionals in the specialized practices of “technical assistance in autoconstrucción of housing,” seen as “fundamentally a work of collaboration with the participants, in which one works ‘with them’ and for not ‘for them.’”\(^{131}\) However it was only some years later that PREVI PP3 offered Mevius the opportunity to undertake this kind of experimentation with the self-help model in a coordinated manner.

The PREVI PP3 proposal reiterated Mevius’s earlier argument that the acquisition of peripheral, inexpensive sites for the development of planned settlements was “the first truly realistic step for the control of urban development,”\(^{132}\) and introduced a number of new innovations. The urban scheme emphasized green spaces (often lacking in the barriadas), here planned “in small nuclei, facing onto the largest number of dwellings”\(^{133}\)—apparently in an effort to promote a sense of ownership and thus ensure their ongoing maintenance by local volunteers. New construction materials were developed: a redesigned system of concrete components would facilitate the erection of walls and beams by non-specialists [7.55], and fire-resistant esteras (bamboo matting) would improve the safety performance of provisional self-help dwellings. The dimensions of the lot and of the dwelling itself were based on standardized


\(^{133}\) Ministerio de Vivienda and ININVI, *Publicación PREVI*, 26:55.
measurements, working from the inside outwards using a “bed-module” (*módulo cama*) [7.56], in an effort to maximize flexibility in the combination of elements of the plan and in the size of the resulting house. On an administrative level the project endeavoured to encourage greater user-control by participating groups and by individuals: rather than being assigned from above, neighbourhood groups would self-select their members ("autoformación") and choose the location of their own area within the site; each household would be able to select their particular lot, and assemble their preferred house plan from the standardized elements. The proposal also advocated the use of supervised credit, arguing that it provided the lowest-cost solution, and greatest scope for self-building.

By 1979 only 286 “basic, incomplete dwellings” had been built—for reasons of time, these were erected by mass-construction, not by self-build. However it was still anticipated that these houses would be gradually completed by self-help labour. The costs far exceeded the initial estimates: S/.166,500 for the *núcleo básico* (basic core unit) or S/.187,500 for the *vivienda básica* (basic house); the evaluation report optimistically suggested that this could be lowered by 30 percent using self-help labour. Due to the change in construction method, none of the project’s innovations were implemented. For this reason, the report recommended a second trial project of 1,000 lots specifically to test the unexecuted proposals. In view of the country’s deteriorating economic situation, this would have to be planned “within much lower standards”—that is, based on the provision of *lotes tizados* (surveyed lots outlined with chalk), creating an urban grid of sites-without-services. In fact, no additional trial project was forthcoming, and PP3 would remain (in essence) unrealized.

While architects such as Mevius presented a clear vision of the value of technical assistance to self-help housing, the perspectives of self-builders themselves tended to be more

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134 These efforts at standardization are reminiscent of Turner’s proposals on this issue from 1963 (discussed in chapter four).

ambivalent. According to a 1967 survey of residents of Lima barriadas, official efforts seemed to have had little impact generally, since almost half those surveyed had no knowledge of the main housing agency, the JNV, while 18 percent said they knew of it but that “it did not carry out any work.”136 Relatively few expressed dissatisfaction with the JNV’s technical assistance programs: “In most cases this was because they had not used such facilities and did not regard them as important.” Only 11 percent had used assistance in the construction of their dwelling; while 30 percent would have liked assistance, 31 percent were ambivalent, and 28 percent would have refused it if it was offered.137 When asked what kind of technical assistance they would like, 33 percent nominated building materials, 30 percent plans or designs (which they would presumably execute on their own), but only 12 percent wanted “engineers” (“architects” was not included as an option).138 When respondents were asked to list the services that they considered to be a priority, they were overwhelmingly concerned with infrastructure provision—water, sewerage, and electricity, as well as upgrading streets and walkways139—and with property title, rather than assistance in the construction of their houses.140 Similarly, a 1982 survey of eighteen squatter settlements in Lima reported that when asked what kind of help residents expected from the state, on average 16 percent nominated basic infrastructure,


137 CISM, Barriadas de Lima, 17, 35. Based on a sample of 350 respondents. The rates for credit assistance were even lower, with only 7 percent making use of it: “The most frequent reasons given were that it wasn’t needed, they didn’t know how to apply, they would not be able to repay, or that they preferred to ‘go it alone.’” CISM, Barriadas de Lima, 17, 36. Based on a sample of 350 respondents.

138 In addition, 7 percent nominated “instruction in use of materials” and 18 percent “other” (unspecified). CISM, Barriadas de Lima, 36. Based on a sample of 207 respondents.

139 CISM, Barriadas de Lima, 9.

140 According to Henry Dietz: “Either by preference or distrust, the majority of the pobladores … do not want government assistance—or what might be better labeled interference—in house construction, since such aid would doubtless carry with it financial and other strictures which the pobladores want to avoid.” Henry A. Dietz, “Bureaucratic Demand-Making and Clientalistic Participation in Peru,” in Authoritarianism and Corporatism in Latin America, ed. James M. Malloy (Pittsburgh: University of Pittsburgh Press, 1977), 448.
compared to 5.3 percent for technical assistance; 7.5 percent responded that they expected no help at all.\textsuperscript{141} When asked to nominate the major obstacles to the building of their housing, lack of money accounted for roughly one third of responses, lack of materials for roughly one quarter, while “technical hindrances” was negligible\textsuperscript{142}—indicating that this was not a felt need that had to be addressed by officialdom.

In this context, it seems clear that while architects were deeply engaged with the possibilities of formal-informal collaboration in the production of low-cost housing, with modes of assistance to self-builders ranging from avant-gardist gesture to chalk-drawn lot, the viability of this collaboration was very much open to question from the point of view of those to be “assisted”; despite all the explorations and all the evaluations, self-help housing was still to discover a workable, affordable form.

\textsuperscript{141} However with just under 30 percent, “other” was by far the largest response. Although the answers varied quite widely from one settlement to another, the overall averages are notable. Instituto Nacional de Desarrollo Urbano, \textit{Diagnóstico de los Pueblos Jóvenes de Lima Metropolitana: Estudio integral para el desarrollo del programa de infraestructura básica con apoyo alimentario en los Pueblos Jóvenes de Lima y Callao} (Lima: INADUR, 1982), 77.

\textsuperscript{142} Only in three of the eighteen settlements was “technical hindrances” nominated as a problem (and by only 1, 3, and 9 percent of respondents)—thus averaging under 1 percent for the settlements overall. INADUR, \textit{Diagnóstico de los Pueblos Jóvenes}, 92.
8. **Revolutions in Self-Help**

In a speech delivered in June 1976 to delegates from 130-odd countries and various intergovernmental organizations, British economist Barbara Ward began with the observation:

One of the most hopeful developments of the seventies is the degree to which world society has begun to examine, seriously and together, what one might call the basic facts of “planetary housekeeping”\(^1\)

This examination had been initiated with the United Nations Conference on the Human Environment (Stockholm, 1972), and continued via a series of meetings on issues of global concern: the World Population Conference (Bucharest, 1974), the World Food Conference (Rome, 1974), the World Conference on Women (Mexico City, 1975), and now Habitat: United Nations Conference on Human Settlements (Vancouver, 1976). Reflecting on the unprecedented and intertwined crises now emerging—escalating rates of population growth, food shortages, rising energy costs, and massive urban agglomerations caused by “the lemming-like surges of peasant to city which threaten to overwhelm even the bravest urban plans”\(^2\)—at Vancouver Ward called for a radical rethinking of social responsibility at the global level, linking “planetary housekeeping” to the task of developing “a ‘new international economic order,’ aiming at justice and cooperation.”\(^3\) Accordingly, “the old blind dependence upon market forces” would diminish as the pull of social factors increasingly intervened in calculations of economic and political interest, resulting in policies shaped by “some concept of the general

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Ward envisaged the extension of “the nineteenth century reforms of urban sanitation, public housing, education and communal services” to the cities of the developing world. Most immediately, she endorsed a World Bank proposal supporting sites-and-services and self-help housing projects, along with initiatives in transport, health, and clean water; costing $30 billion a year, this could be funded by redirecting just 10 percent of the $300 billion spent annually on arms. Such measures, it seemed, would be entirely within the means of an emergent imagined international community.

While Ward’s proposal to channel funding from arms to aid was not to be embraced, the Habitat Conference did become a catalyst for smaller-scale changes on the policy level. The new conceptual category of “human settlements” promoted by Habitat facilitated a more nuanced understanding of the complex dynamics of unplanned urban development, and opened the way for the widespread adoption of sites-and-services and self-help housing schemes by national governments and international development agencies alike. The broader project of a “new international economic order”—which had initially been proposed by Third World nations as an impetus for global redistributive policies—was to be short-lived: as the immediate challenges to global well-being seemed to subside, the urgency for radical change faded to a historical footnote. Soon enough, the fall of communism confirmed the (apparently) inevitable collapse of any alternative to the capitalist model, setting the stage for the inexorable rise of neoliberalism and its own concomitant “new world order.”

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4 Ward, The Home of Man, 289.


6 The concept of a “new international economic order” was first proposed at the Sixth Special Session of the United Nations General Assembly in April 1974, and further refined at the Seventh Special Session in 1975. Its supporters envisaged a raft of measures designed to eliminate poverty in the developing world, including increases in foreign aid, reforms of the international monetary system to address concerns about mounting external debt, and a shift in the dynamics of international trade to create more equitable relationships between producers of raw materials and the industrialized world, thereby eliminating patterns of exploitation which were seen as vestiges of colonialism. See John P. Renninger, “After the Seventh Special General Assembly Session: Africa and the New Emerging World Order,” African Studies Review 19, no. 2 (September 1976): 35-48.
Against the background of these larger political shifts, this chapter examines the fortunes of self-help housing in Peru through episodes from the waning decades of the Cold War, into the emergence and subsequent unfolding of neoliberalism. The perspective moves between the national and international spheres, between the practical and the theoretical, discussing programs designed by successive governments in Peru, along with key texts by John Turner, and by Peruvian economist Hernando de Soto, which would contribute to reframing housing policy at agencies such as the World Bank and the United Nations. Overall the discussion traces the changing roles and the shifting weight of responsibilities in the provision of low-cost housing between individual, local community, state, global community, and market.

8.1 The Revolution Will Be Organized

The Peruvian Revolution began in the early hours of October 3, 1968, as leftist radicals within the military detained President Fernando Belaúnde Terry, and sent him into exile in Argentina. The self-styled Revolutionary Government of the Armed Forces which assumed control explained its actions in a manifesto: the Belaúnde government had come to power with promises of comprehensive reform, but had betrayed the hopes placed in it—incompetent, corrupt, and self-serving, it was no longer fit to govern. As for its own vision of the future:

The Revolutionary Government, fully identified with the aspirations of the Peruvian people, calls upon them— together with the Armed Forces—to fight to achieve an authentic social justice, a dynamic national development, and the reestablishment of moral values that will affirm our country in the achievement of its higher destiny.7

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7 “Manifiesto del Gobierno Revolucionario de la Fuerza Armada,” October 2, 1968. CDI-MVCS. Among the factors identified as contributing to the radicalization of this generation of Peruvian officers, two are particularly notable: the program of study at the Centro de Altos Estudios Militares (Centre for Higher Military Studies) which emphasized issues of national economic development and social reform, and brought officers into contact with progressive intellectuals such as those associated with the Movimiento Social Progresista, including José Matos Mar; and the experience of suppressing a large-scale rural insurgency in 1965–1966, ordered by the Belaúnde government, which resulted in an estimated 8,000 dead but left many in the military with a greater sympathy for the underlying grievances that had led to the protests. For further discussion see Abraham F. Lowenthal, “Peru’s Ambiguous Revolution,” in The Peruvian Experiment: Continuity and Change under Military Rule, ed. Abraham F. Lowenthal (Princeton:
Rhetoric aside, it was true that much of Belaúnde’s legislative agenda had been stymied by a powerful opposition coalition in the parliament. In addition, Belaúnde’s developmentalist vision had entailed large government expenditures on infrastructure projects and improvements to education, which dramatically increased the foreign debt. These fiscal difficulties were compounded by the US decision to withhold financial aid to Peru in an effort to influence the government’s position in renegotiating its contract with IPC (International Petroleum Company, a subsidiary of Standard Oil of New Jersey). In the end, Belaúnde’s anxiety to resolve the IPC dispute led to the signing of a contract whose overly favourable terms were widely perceived as a national disgrace. This provided the immediate trigger for the coup, and the new Revolutionary Government settled the issue by nationalizing the company, arguing that it was “fulfilling its constitutional duty, ... defending one of [Peru’s] natural sources of wealth, which being Peruvian, should be for Peruvians.”

Belaúnde’s proposed deal was framed as increasing the country’s “dependence on economic powers” (that is, the United States) and postponing the ability to “overcome our current state of underdevelopment.” Conversely, reasserting national sovereignty and geopolitical autonomy were prerequisites for realizing national economic development, as Peru would draw on its human and natural resources in order to achieve greater self-sufficiency.

In these and other initiatives—agrarian reform, improving bureaucratic processes, extending the franchise to the illiterate—the Revolutionary Government was enacting policies that had been proposed by a number of reform-minded parties, including the Movimiento Social Progresista, APRA, Partido Democrata Cristiano, and Belaúnde’s own Acción Popular. As

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Abraham F. Lowenthal has observed: “What distinguished Peru’s military rulers was not the originality of their program, but their capacity to put familiar ideas into effect.”

Freed from the complications of electoral politics and parliamentary negotiations, the Revolutionary Government envisaged itself guiding the country’s development for “fifteen or twenty years at least,” implementing a comprehensive and coherent program of structural reforms, after which it would reintroduce democratic government into Peru. (At this period in its history, military rule functioned as a normative means of resolving political deadlocks, as had been evidenced only a few years earlier with the 1962 coup that effectively opened the way for Belaúnde’s victory in the 1963 presidential elections.)

After twelve years of military government—led first by General Juan Velasco Alvarado (1968–1975), then General Francisco Morales Bermúdez (1975–1980)—Fernando Belaúnde Terry reemerged as president in the 1980 elections that returned Peru to democracy. This passage “from Belaúnde to Belaúnde”—as one writer has termed it—reinforces the sense that the revolutionary decade was a mirage, nothing more than a misstep en route to the neoliberal reform initiatives of the 1980s and 1990s. However, the very unlikelihood of this late flowering of revolutionary utopianism heightens the impact of its actions and its rhetorical imagination. This deviation from the apparently straight line of historical inevitability recalls (and perhaps projects) a moment of other possibilities—an alternative future contemporaneous with the promise of Ward’s incipient “world society.”

Neither capitalist nor communist, but combining elements of both socialist and Christian thought, Peru’s “humanist revolution” envisioned “the construction of a social democracy of full

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12 Kruijt, Revolution by Decree, 135.

participation” [8.1]. The cooperative ethos of squatter settlements, evident in the shared labour of communal construction projects, became a privileged image: framed by slogans such as “Popular Revolutionary Work: Popular Participation is Revolution,” it offered an alternative model of development, based on the values of self-help and mutual support [8.2-8.3]. No longer considered marginal, the self-built community heralded both the emergence of a new revolutionary polity and the revival of a social solidarity that was framed as essentially Peruvian, rooted in a tradition leading back to the Incas, which had been damaged but not destroyed by capitalism, colonialism, and neocolonial exploitation. According to one educational pamphlet, in the foreseeable revolutionary future, “like our Inca forebears” the Peruvian people would “not lie, nor steal, nor live from alienated labour.” This ethos was embodied by the figure of Túpac Amaru II, an eighteenth-century anti-colonial revolutionary of indigenous ancestry, who had anticipated a modern state founded on Inca principles of governance, and whose stern but noble demeanour became central to the iconography of the revolution.

A key aim of the Revolutionary Government was to foster economic development via coordinated national planning (an initiative that came to be packaged under the suitably nativist rubric “Plan Inca” [8.4]). In the short term this would be directed by competent agencies within the (military, revolutionary) state, but in the longer term control would pass to everyday representatives of the new nation. To this end, the Revolutionary Government created two new agencies to organize and train its citizens: the Oficina Nacional de Desarrollo de Pueblos Jóvenes (ONDEPJOV, or National Office for the Development of “Young Towns”), which was essentially a community development program; and the Sistema Nacional de Apoyo a la


15 SINAMOS, 8 preguntas a la revolución peruana (SINAMOS: 1973), 10.

Movilización Social (SINAMOS, or National System of Support for Social Mobilization) which was established to promote the ideals of “participation” and “popular organization.”

ONDEPJOV was established in December 1968, in the first months of the revolution, with the personal input of General Velasco.\(^\text{17}\) As a sign of the Revolutionary Government’s new outlook, the term “barriada” was condemned as derogatory, and replaced in all official documents by “pueblo joven” (young town, or young community).\(^\text{18}\) The new agency had two precedents of sorts: the residents’ own associations, in particular the Pro-Obras de Bienestar Social (Support for Projects of Social Well-Being), a federation that by September 1968 included over 600 local groups representing 100,000 people in Lima;\(^\text{19}\) and the organizing work of the Catholic Church in squatter settlements, beginning around 1963 under the leadership of Bishop Luis Bambarén.\(^\text{20}\) ONDEPJOV was intended to surpass these efforts—as well as previous state-run programs—by formulating integrated proposals for “the advancement [promoción] of man, family, and community” in concert with plans for national economic development, since better incomes and employment opportunities were seen as the fundamental basis of any sustainable improvement in the lives of the pobladores. To this end, ONDEPJOV would coordinate the contributions of the public sector and the private (primarily the Church), with the

\(^{17}\) “After less than a week in power … Velasco personally phoned one of the bishops of Lima, Bishop Bambarén, to ask him what the Church was doing in the squatter settlements and what suggestions the Church had for a government policy.” Alfred Stepan, *The State and Society: Peru in Comparative Perspective* (Princeton: Princeton University Press, 1978), 161-162.

\(^{18}\) According to ONDEPJOV, “the denomination pueblos jóvenes has been proposed by the residents themselves as an expression of their recent formation, the predominance of youth in their population, and the will for advancement [promoción] that they embody.” ONDEPJOV, *Boletín* 1, 5. Stepan observes that Bishop Bambarén “created for the first time in Peru the term pueblos jóvenes … and in January 1968 renamed his organization Pueblos Jóvenes del Perú, or PUJOP.” Stepan, *The State and Society*, 162.


\(^{20}\) Stepan, *The State and Society*, 162.
self-help of the residents themselves [8.5]. It aimed to supplant the old approach to squatter settlement improvements, mired in paternalistic political patronage, by empowering the “pueblos jóvenes”—the young communities—to unlock their latent potential to enact collective self-improvement. The focus of self-help action was not to be on housing per se, but rather on promoting civic engagement as a basis for developing communal projects for the settlement, constructing needed infrastructure and amenities. In a sense ONDEPJOV suggested the template for a new citizenry—a microcosm of the new Peru; however actual experience on the ground rarely came close to meeting these aspirations. 

To organize its work, ONDEPJOV established twenty-one regional offices throughout the country; in addition, four “sector” offices covered Lima’s peripheral squatter settlements [8.6]. Within this structure, the settlements were to be managed in their development via a clear hierarchical system: each block of thirty or so households would elect its own three-person Neighbourhood Committee; these representatives would act as delegates to the zone-wide Advancement and Development Committee, which would elect a six-person Central Board of Directors; finally, the Board’s Secretary General joined the Coordination Committee for the regional or sector office, which provided liaison with ONDEPJOV officials and professional staff [8.7]. This machinery was intended to systematize the political interactions—from grassroots to government—of a significant proportion of the population. In 1970 ONDEPJOV identified 610

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21 ONDEPJOV, Boletín 1, La organización para el desarrollo de los pueblos jóvenes (Lima: ONDEPJOV, 1969), 5.

22 Reporting on the situation in September 1971, Michl observed: “in many provincial cities [the committees] were simply designated by military officers assigned to create them.” Michl, “Urban Squatter Organization,” 166.

23 Stepan notes (with no apparent irony): “If the terrain or dwelling layout is such that no recognizable block exists, the government will often try to create one with a bulldozer.” Stepan, The State and Society, 171n27.

pueblos jóvenes across Peru, with 273 in greater Lima alone.\textsuperscript{25} 760,000 people, or a quarter of the capital’s population, lived in such settlements.\textsuperscript{26} Absorbing this population into ONDEPJOV while maintaining the granularity proposed by the organizational model would generate a substantial administrative system: for example, by mid-1972, there were 4,875 neighbourhood committees throughout greater Lima; by August 1974, there were over 8,000, covering an estimated 95 percent of the residents of the capital’s pueblos jóvenes.\textsuperscript{27} Throughout this process, ONDEPJOV effectively incorporated into its membership structure the earlier resident-run and Church-affiliated groups, thereby neutralizing any independent settlement organizations.\textsuperscript{28}

In practice, despite ONDEPJOV’s broad mandate, initially it designed only a small number of new programs (training leaders for community development, for example), and was largely confined to coordinating existing ones—some advanced by the private sector (workshops to reinforce the values of conjugal life run by the Christian Family Movement), but a significant number were projects that would previously have been undertaken by the state housing agency, the Junta Nacional de la Vivienda (JNV): surveying and drawing up urban plans, road grading, installing water, sewerage, and electricity infrastructure.\textsuperscript{29} In this latter case, ONDEPJOV’s materials emphasized scenes of soldiers assisting with construction work in the pueblos jóvenes, reversing the often antagonistic relationship between squatter settlers and the

\textsuperscript{25} ONDEPJOV, Censo de población y vivienda de pueblos jóvenes: cifras preliminares (Lima: February 1971), quoted in Stepan, The State and Society, 164. In 1961 the government had identified 271 barrios marginales in total, 123 of them in Lima; CNV, Información básica sobre barrios marginales en la república del Perú (Lima: CNV, 1962), 212-213.

\textsuperscript{26} ONDEPJOV, Censo de población y vivienda, quoted in Stepan, The State and Society, 164. By contrast, in 1956 10 percent of Lima’s population or some 120,000 people lived in barrios marginales.

\textsuperscript{27} Stepan, The State and Society, 164, 165n14. The figures cited by Stepan were provided by the office of Organización Vecinal, Décima Región, SINAMOS.

\textsuperscript{28} At the same time, ONDEPJOV “gave local squatter leaders and Bishop Bambarén planning roles within ONDEPJOV.” Michl, “Urban Squatter Organization,” 170.

\textsuperscript{29} See ONDEPJOV, Plan de Acción Inmediata: A ejecutarse en los Pueblos Jóvenes de los Distritos de San Martín de Porres, Independencia, Comas, Surco y Chorillos (Lima: ONDEPJOV, June 1969).
armed forces—as defenders of the status quo, deployed to protect existing property regimes. This collaboration that was less implausible than first appears, since many members of the armed forces, as well as the police, lived in unauthorized settlements [8.8].

Although the General Coordinator of ONDEPJOV and the directors of all the regional and sector offices were from the military, it had as its civilian head Diego Robles [8.5], an architect who had worked on aided self-help housing programs in Paramonga (with John Turner) and in Chimbote. Robles was a close observer of the dynamics of squatter settlement formation and consolidation: writing shortly before the revolution, in August 1968, he noted that residents’ associations tended to fragment once they had fulfilled their immediate needs for basic amenities and secure tenure—thus, ultimately “even if this form of collective action solves specific problems for the families, it does not represent a radical change in respect to formal established society.” In fact it tended towards a certain conservatism, because once residents had managed to achieve gains by working through the mechanisms of clientelistic politics, they were invested in maintaining the system that they had benefitted from. In a subsequent article Robles employed a Marxist framework to further his analysis. In contrast to Turner’s anarcho-Geddesian vision of the liberatory possibilities of user-controlled self-help building, Robles argued that within “the capitalist economic system” self-help housing had not allowed the pobladores to improve their socio-economic situation, but had reinforced prevailing structural inequalities. Self-help programs retarded social change because “mutual aid in the barriada is

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30 This also had a precedent in Belaúnde’s proposals, released during the 1963 presidential election, for “civil-military cooperation”: his government planned to “seek the collaboration [of the Armed Forces] in the field of national development, taking into account on the one hand their profound knowledge of the country, and, on the other hand, the markedly scientific and technical character that the military training of today requires.” Specifically, the proposed tasks ranged from cartographic mapping, to road-building, as well as contributions in health, education, and training. Alianza Acción Popular-Demócrata Cristiano, Bases para el Plan de Gobierno (Lima: Librería e Imprenta Minerva, April 1963), 101.


restricted to immediate action and is not oriented towards the poblador’s basic interests, such as increase in income-levels, opportunity for stable occupation, and active participation in the urban production structure”; therefore, like Adolfo Córdova in 1958, Robles identified economic development, not housing, as the key issue to be addressed.\textsuperscript{33} Robles remained hopeful about the possibility of achieving an “authentic mobilization”\textsuperscript{34}—collective self-help action directed towards demanding structural reforms. His proposals to effect this coincided with many of the goals proclaimed by ONDEPJOV, and thus at least in its early history the agency seemed to present the opportunity to foster community development initiatives to address the fundamental issues underlying the formation of urban squatter settlements.

In mid-1971 the Revolutionary Government turned its attention to the question of how to institutionalize its vision of Peruvian society, an issue made more urgent by the appearance of spontaneously organized “Committees for the Defense of the Revolution” in several parts of the country which needed to be brought within an official framework. This led to the establishment of a new agency, SINAMOS [8.9]. The founding legislation identified its objectives as “the training [capacitación], guidance [orientación], and organization of the national population” and promoting “the communication and particularly dialogue between the Government and the national Population”\textsuperscript{35}; this would be achieved through the twin pillars of participation and social mobilization. In a sense this was a mutual-aid self-help community development project extrapolated to the national scale, counting among its tasks “fostering the creative capacity of the population so that it unfolds its energies and potentials in actions for its own development,

\textsuperscript{229}. A draft of this text is in Turner’s archives (including his handwritten questions and comments): Diego Robles, “Development Alternatives for the Barriadas in Peru,” Architectural Association Graduate School, 1970. JFCT-UW.

\textsuperscript{33} Robles, “Development Alternatives,” 234-235.

\textsuperscript{34} Robles, “Development Alternatives,” 233.

with the support of the Government.” In addition to 2,000 new staff, SINAMOS absorbed 5,000 staff members and other resources from eight existing government agencies, including ONDEPJOV. Theoretically, SINAMOS would reach out to mobilize the entire nation, but initially its mission was to focus on six prioritized areas: rural organizations; youth; unions; cultural and professional associations; newly established workplace cooperatives; and finally, the pueblos jóvenes and “áreas de sub-desarrollo urbano interno” (ASDUIs, or “underdeveloped inner-city areas”; the term reflected the influence of dependency theory, and was intended to replace “tugurio”—tenement slum). In each case SINAMOS sought to build on existing organizational structures, for example retaining the neighbourhood committee system already established under ONDEPJOV.

SINAMOS contained an inherent contradiction: in addition to being the agency’s acronym, “sin amos” means “without masters”—yet the agency was founded on the understanding that the correct orientation of collective action could only be ensured with concerted guidance from above. The claim of inclusiveness and popular empowerment (“You are SINAMOS”) was confounded by the organizational chart (“This is SINAMOS”), revealing an elaborate four-tiered structure—national, regional, zonal, local—making very clear each operative’s position and function [8.10]. SINAMOS operated at the blurred edge between the utopian and the sinister, where concerned guidance slides into control. This tension was already

36 Ibid.
38 Federico Mevius argued that “housing programs using autoayuda” should be located within SINAMOS (specialized in the processes of self-help) and not in the “housing sector” (specialized in construction): “SINAMOS guarantees and develops a system of attention to basic needs in the participation of the population”; “The Ministerio de Vivienda’s working method imposes a paternalistic character on its actions (it works ‘for’ the people, not ‘with’ the people) as opposed to the mode required in programs of autoayuda.” Mevius, Hacia una política de vivienda por autoconstrucción: Segunda política (Lima: Forum Nacional de Vivienda, November 1975), emphasis in original. Once again this distinction between working “for” or “with” residents echoes John F. C. Turner’s formulation in “Uncontrolled Urban Settlement: Problems and Policies,” International Social Development Review 1 (1968): 128.
latent within ONDEPJOV, but now intensified as efforts moved from concrete development projects towards the work of ideological instruction. On the one hand, the sheer volume of the educational and exhortatory materials produced to promote the engagement of the masses proved the Revolutionary Government’s commitment to social mobilization and the capacity for human improvement: the SINAMOS Reports bi-monthly magazine;\textsuperscript{39} booklets on the characteristics, achievements, and uniqueness of the Peruvian Revolution;\textsuperscript{40} collections on themes such as “Education and Change” (\textit{Rural Training: Analysis of the Chilean Experience; Demystification of Consciousness}), “Planning” (\textit{Planning and Planning the Base; Planning for the Planners or for Social Change}) and the “Third World” (\textit{Integrated Analysis of Development; Means of Mass Communication and Study Groups in China}).\textsuperscript{41} The use of graphic techniques to convey information to illiterate populations represented a further concrete effort towards genuine social inclusion. But on the other hand, SINAMOS was wielded by some within the government as a tool to carry out surveillance of non-sanctioned political organizations, particularly within the \textit{pueblos jóvenes}. As described by a sociologist who was involved with SINAMOS in mid-1975: “Most of all I remember the detailed info on the opposition…. After a while it seemed as if I was working in a police station, reading detective reports.”\textsuperscript{42}

The contradictory impulses within the Revolutionary Government are particularly evident in its policies towards property title within the \textit{pueblos jóvenes}. On the one hand, it espoused

\textsuperscript{39} As far as I have been able to trace it, the publication ran from \textit{SINAMOS Informa} 1, No. 1 (1972) to \textit{SINAMOS Informa} 3, No. 15 (1974).


\textsuperscript{42} Interview with Carlos Arriola, quoted in Kruijt, \textit{Revolution by Decree}, 120.
the rhetoric of a new communal ethos. An educational pamphlet produced by SINAMOS in the early 1970s, *What are Property Titles?* [8.11], reiterated the principles established by Law 13517 some years earlier, but particularly underscored the fact that the law prohibited land sales: “The lot is for those who need it” and selling one “threatens the interests of the people.”

Previously the prohibition on re-sales had been couched as protecting residents from real estate speculation; now the strategy was to present the case for a new ethics of property, prioritizing the use value of the land over its exchange value (a similar argument would be made for the redistribution of rural land under agrarian reform). In this pamphlet, the argument is reinforced by the adjacent image of the revolutionary collective working as one for the common good as if banishing forever memories of for-profit trafficking in land for housing. This seemed to anticipate a “revolution” in the entire category of property ownership as it had been framed under liberalism, its mechanisms and the standards of validation that it had implied.

On the other hand, the Revolutionary Government oversaw a massive increase in property titling in the *pueblos jóvenes*: only 3,000 titles were granted in the seven years from the passage of Law 13517 in early 1961 to October 1968; following the simplified titling process instituted at the very end of the Belaúnde administration, over 10,000 titles were granted between October 1968 and October 1972, and another 6,500 by the end of August 1974. This was not an unconsidered or passive continuation of the previous policy: as noted by Alfred Stepan, the Revolutionary Government generally granted title only after the whole settlement had completed “all phases of the organizational training and election processes” required for the neighbourhood committees, so that the aspiration to gain title was “a major incentive for cooperation” with the official agencies. As articulated by one SINAMOS official: “We want

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44 I have extrapolated these very approximate figures from the graph in Stepan, *The State and Society*, 168 fig. 5.1.

participation but it should be organized participation. We want to make as many people as possible homeowners, then they will act responsibly towards their community and have a stake in it." Under this logic, property title was intended to instill in beneficiaries a more concrete sense of having something at stake in the new Peru, and therefore something to lose by failing to “participate” in the state’s programs—a policy that played on the tendency towards conservatism already observed by Diego Robles.

While the revolutionary utopia came to be actualized as an elaborate bureaucratic structure, the organizational charts did not represent the real abilities of the Revolutionary Government to coordinate its populations or to implement its vision on the ground. The reality of its response to the pueblos jóvenes was far from its ambitions and its rhetoric, as became very evident in incidents leading to the creation of Villa El Salvador. On the morning of April 29, 1971, 200 families invaded a site at Pamplona Alta to the south of Lima; within days the invasion had swelled to 9,000 families. The action was carefully timed: Lima was due to host a meeting of the Inter-American Development Bank beginning on May 10, and the invasion organizers hoped that some embarrassment to the government would hasten a decision in their favour. Instead, the government launched a public relations assault, labelling the invasion anti-Peruvian, an effort to discredit the revolution, and the work of agitators. However once it became clear that this strategy would not work—the invasion having won too much popular support to defeat with a smear campaign and become too large to easily suppress by force—General Velasco and other officials made well publicized visits to the pobladores to express their solidarity with their plight and to propose a coordinated plan to resolve the crisis [8.12].

46 Interview with the “official in charge of organizing Lima and Callao into neighbourhood committees,” November 1972, quoted in Stepan, The State and Society, 165. Stepan notes a similarity with the redistribution of land enacted via agrarian reform: in each case, the regime sought “to supervise the creation of new property relationships that would incorporate both peasants and squatters into the legal arrangements of the new society.” Stepan, The State and Society, 184. The rhetoric of “participation” versus “acting responsibly” recalls Diego Robles’s observations concerning the conservatism prompted by property ownership.
Planning officials selected a “relocation site” further south at Villa El Salvador, which had previously been identified as a suitable zone for urban expansion, and produced a rapid-response conceptual urban plan. By mid-May, the military had transported 3,000 families to the new site, where they were allocated lots (of 140 sq. m. with a nominal payment), and began to establish their provisional dwellings [8.13]. Overall the plan for the new “urbanización popular”—“conceived using modern urbanistic techniques”—included zones for heavy industry, commerce, multi-family housing, and a large park space (recalling the earlier concept of the self-sufficient satellite city, just as the invasion drama replayed the Ciudad de Dios scenario). Employing the structure of a grid layout, the urban planning model was based on progressive nucleation—manzana (block, each with twenty-four lots), grupo residencial (residential group of sixteen manzanas, 2,000 people), barrio (7,500 people), and sector (10,000-30,000 people). Open space at the centre of each grupo residencial would be used for communal services—such as park spaces, kindergartens, or meeting rooms—which were to be organized and managed by the local community [8.14]; at the level of the barrio and of the sector spaces would be set aside for additional shared services. Finally, the new settlement was to be fully provided with basic infrastructure (electricity cables for street lighting, water distribution).

In effect, the uncontrolled “popular participation” of the initial invasion was redirected into an official project for “popular” urban development; as depicted by SINAMOS, Villa El Salvador was paradigmatic of the participatory, communal self-help ethos of the Peruvian Revolution—an idealized version of regime’s engagement with the pueblos jóvenes [8.15]. However, while Villa El Salvador was embraced rhetorically, the settlement was all but abandoned in reality, receiving minimal government support beyond the provision of the site and drawing up the grid.

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47 ONPU, Plan de Desarrollo Metropolitano Lima-Callao a 1980, Vol. 1, Aspectos Globales: Esquema Director, 1967–1980 (Lima: ONPU, 1967). This project to to guide Lima’s “expansion axes” and site its new “peripheral settlements” was initiated under Belaúnde.

The initial proposal put forward by planning officials had included a project “to encourage the construction of low-cost dwellings made with rustic materials (estersas, cement, lime, sand, and stones) ... constructed via a new system which is currently in an experimental phase”49—but this did not progress beyond a couple of model houses; a pilot program of self-help construction resulted in sixty-nine houses.50 Following these abortive efforts, residents were provided with no further technical assistance for their dwellings; similarly, residents alone financed and built the area’s first schools. The promised electricity was only provided in 1975, with water and sewerage infrastructure in 1979.51 Due to the state’s lack of action, the residents of necessity provided a city for themselves, which was gradually consolidated through individual efforts to build housing, and collective efforts to develop public amenities. By the end of 1973 Villa El Salvador had over 100,000 residents [8.16-8.17]; by 2003 this had grown to over 380,000 [8.39].52

49 “Los ‘invasores’ se fueron masivamente,” Expreso, May 17, 1971. According to Michl, in early 1971, the Dirección de Promoción Comunal Urbana, the division responsible for squatter settlements within the Ministerio de Vivienda—“began designing and building experimental houses from a combination of esteras ..., wood, and cement, hoping to sell these materials and technical assistance to low-income squatter families.... Two model houses were opened for inspection in the new settlement of Villa El Salvador, where the Ministry hoped to find a sizeable market. By September 1971, there were no buyers, apparently because residents lacked the money and/or were suspicious of unproven government experiments.” Michl, “Urban Squatter Organization,” 160-161.

50 According to Lisa Peattie: “A group in SINAMOS were interested in the possibility of developing a program for the organized group construction, by self-help, of prefabricated dwellings and a small pilot project along these lines was begun. However, this project seems to have been very much the creation of one architect and when he died the program came to an end, after 69 houses had been constructed.” Lisa Peattie, “Villa El Salvador—Lima,” March 1980, p. 9. JFCT-UW. It is not clear if or how these this initiative was connected to the experimental “rustic” house.

51 Jo-Marie Burt and César Espejo, “The Struggles of a Self-Built Community,” NACLA Report on the Americas 28, no. 4 (January-February 1995): 22. In July 1973 the Velasco government supported the foundation of the Comunidad Autogestionaria de Villa El Salvador (CUAVES, or Self-Managed Community of Villa El Salvador), an outgrowth of the “neighbourhood committee” system employed by ONDEPJOV and SINAMOS. The government funded the establishment of some small cooperative enterprises (a credit union, a bakery, a hardware store, and a kerosene store) which were to be managed by CUAVES, but even these piecemeal efforts at economic development soon lost their government funding and consequently collapsed.

After suffering a serious illness in early 1973, General Velasco became increasingly isolated from his cabinet, and in August 1975 he was replaced in a palace coup by General Francisco Morales Bermúdez. Despite an initial promise to strengthen the regime’s socialist credentials—announcing that the revolution was now moving into its “second phase”—Morales Bermúdez oversaw an unwinding of revolutionary rhetoric and a move to the right, and by end of 1976 all remaining Velasco sympathizers had been removed from positions of power. In this new climate, Villa El Salvador and the pueblos jóvenes no longer held much interest for the regime; likewise SINAMOS was weakened and then dismantled outright in 1978.

The achievements of the Revolutionary Government included upgrading the bureaucratic status of the housing sector, creating a fully fledged Ministerio de la Vivienda (Ministry of Housing). At the same time, the number of squatter settlements continued to grow exponentially.\(^{53}\) The Revolutionary Government’s final statement on this problem was Peru’s official report to the UN Habitat Conference in 1976. Articulated within the framework of dependency theory, the report identified the seed of the problem of asentamientos humanos (human settlements) in the nation’s uneven economic development, as rural poverty had led to vast waves of migration to the comparatively affluent capital in search of greater opportunities. The remedy was an integrated plan of national development connecting and coordinating the urban and rural spheres, via “a rational occupation of the national territory” that would establish new urban centres throughout the country to relieve the pressure on Lima, creating of “a national development based on interdependencies, in place of a development based on hegemony and domination.”\(^{54}\)

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\(^{53}\) By 1973 there were 976 pueblos jóvenes across Peru, with a total population 2,677,660. SINAMOS, *Diagnóstico nacional de la problemática de los pueblos jóvenes: Documento de trabajo* (Lima: 1973), quoted in Stepan, *The State and Society*, 186.

On a practical level, the report outlined measures to assist the consolidation of urban squatter settlements—including legal recognition, promoting neighbourhood organizations, and technical assistance in infrastructure provision and urban remodelling. It also advocated the development of construction systems suited to “our geo-social-economic context” to increase access to the housing market (the “self-fabrication” of adobe bricks was one popular solution at this time [8.18]), as well as the use of low-cost, labour-intensive building practices such as “labour equity [inversión-trabajo], auto-construcción, ayuda mutua, esfuerzo propio and similar.”55 (It is worth noting that although stage one of the UN-backed PREVI program was being completed around this time, none of the PREVI projects are mentioned here as solutions.56) The report also suggested the possibility of a more visionary approach to housing in revolutionary Peru, encouraging “new patterns of dwelling” as an alternative to the individual lot and the single-family home. This was further explored in a contemporaneous proposal for a settlement at Canto Grande in Lima, eliminating the traditional lot—which reinforced “the isolation of the family nucleus in respect to the collectivity”57—in favour of forms facilitating a new communal sociability [8.19]; for instance, the patios of traditional Peruvian housing (condemned as “free space for private and passive use”) would be replaced by a shared outdoor recreational space framed by multi-family dwelling blocks;58 further, shared kitchen, laundry, and childcare facilities would not only foster communality, but also encourage women’s

55 República del Perú, Perú Habitat 1976, 29.

56 The evaluation report presented to the UN in 1976 anticipated that since PP1 had served as a “demonstration project” for the Fifth Inter-American Housing Congress in Lima, it would likely be presented along the same lines at the Habitat conference, but apparently this did not eventuate. Government of Peru and UNDP, Proyecto Experimental de Vivienda, Perú: Conclusiones y recomendaciones del proyecto (New York: United Nations, 1976), 10.


58 The “modular units” created would “preferably be assigned to cooperatives, union associations, etc.” that had been organized to arrange housing for their members. Ministerio de Vivienda, Zonificación y nuevos patrones, unpaginated, section 3.9.
entry into the workforce. Finally, the report turned to the issue of “popular participation” as integral to the definitive development of the asentamientos humanos. A genuine participation would only occur with the transfer of power to the citizens themselves—subject to their prior training and organization for their self-determination; viable solutions would only arise from “the people itself autonomously organized for its true and total liberation.”

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This vision of self-help within Peru’s Habitat submission came a decade after Turner had left the country, almost two decades after his first assignments in Arequipa [8.20-8.21]. Meanwhile, Turner’s own position on self-help housing had been entirely reformulated.

8.2 An Architecture that Works

Turner arrived at the Harvard-MIT Joint Center on Urban Studies in September 1965, where he worked as a research associate for two years, then continued in a teaching position at MIT for another six years. In June 1973 Turner returned to England, where he taught at the AA School of Tropical Architecture, while Otto Koenigsberger was still running the program, and then at the Development Planning Unit, University College London, until 1983. Turner’s long-term focus as he moved into this new role as an academic and a writer was to systematize his ideas on housing into a larger work, which would become Housing by People: Towards Autonomy in Building Environments (1976).

In an influential paper from this period, “Uncontrolled Urban Settlement” (first presented in 1966, published 1968), Turner had endorsed the role of the architect in providing expertise to improve outcomes in the framing of urban plans and in the design and construction of housing in squatter settlements. He also considered the role of the state in supporting this work, pointing to infrastructure, legislation, and technical assistance as some key areas where governments could intervene to facilitate the actions of individual residents or local communities. Most

crucially, Turner emphasized that the state should not act unilaterally “as a provider” handing out assistance according to its own priorities and interests, but “as the servant—providing tools.” In this model, the relationship between state and citizen was to be a collaborative “working with” that responded to the input of residents. In subsequent writings Turner continued this concern with the role of state and international agencies in relation to low-cost housing in “uncontrolled” urban settlements, however the emphasis of “control” gradually shifted away from the professional’s imperative to “control” and manage urban development, to the end-user’s right to “control” their own decisions concerning their housing. In these later writings self-help housing was less important for its particular techniques than for what it represented of the possibility of user control—increasingly articulated as the “freedom” or autonomy to guide and shape one’s own living environment.

This discussion was informed by the development of a second major theme in Turner’s work: the very definition of housing—or the “value” of housing for its users. In “A New View of the Housing Deficit” (first presented in 1966, published 1971) Turner argued that while state housing agencies tended to focus on the provision of “modern standard dwellings” whatever the context and the situation of prospective residents, this was not an immediate priority for many families, and was in fact often beyond their means. As the basis for an alternative—and more realistic—approach to the problem, it was necessary to move away from considering housing exclusively on the basis of its material qualities or “appearance” (its standards of “modernity”), and instead evaluate it in terms of its three core “attributes”—defined by Turner as “shelter” (protection from the elements), “security” (guaranteed tenure), and “location” (access to employment, transport, urban amenities). Ideally, housing would fulfill each of these requirements, but in practice, residents weigh the relative importance of each attribute in their

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own particular circumstances, as well as their costs and benefits, and make decisions accordingly [8.22]. Turner argued that for recent migrants to the city, location is the main priority because this facilitates access to employment opportunities, allowing the family to build up its economic resources; the quality of the shelter and long-term security are far less important, so renting substandard housing in the central city may be the best available (or only affordable) option in this circumstance. When families are more financially stable, the priorities shift to establishing long-term security and gradually improving the quality of the dwelling, both of which can be achieved through home-ownership in a squatter settlement; these advantages are usually offset by their peripheral location, but the money and time that must be devoted to a longer commute are considered an acceptable sacrifice.

Significantly, Turner does not argue that self-built squatter settlement housing is the best option in all circumstances, any more than the “modern standard dwelling” could be a universal solution. With this understanding, housing providers should develop greater flexibility in devising specific solutions, which must always be informed by the available resources. Most importantly, as Turner argued in “Housing Issues and the Standards Problem” (1972), households must have the ability to determine their own priorities in housing—not to have their needs defined, assessed, and resolved by an expert or government agency:

The best results are obtained by the user who is in full control of the design, construction, and management of his own home. Whether or not he builds it with his own hands is of secondary importance—unless he is very poor.  

In this context, scarce public resources should be deployed to “support local action” and “help the mass of the people make the best use of their own resources and in their own ways.”

There was still a clear imperative “to avoid the disorder and diseconomies of unplanned direct action”—but governments could not expect to control the entire process of housing provision,

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only to make strategic interventions; instead of constructing “conventional and now descredited closed housing projects” they must focus their energies on “the development of open housing service systems.”

This concept of “closed” or “open” interventions into housing provision was further developed in a co-written report on Government Policy and Lower-Income Housing Systems in Metropolitan Mexico (1971–1972), the key arguments of which Turner outlined in a memo to Robert Sadove of the International Bank for Reconstruction and Development (the World Bank) in November 1971. There were three “levels of housing action” available to state agencies: “packages” (the complete housing project), “components” (“a discrete part with a discrete function”—such as a street, water supply infrastructure, school, or individual dwelling), and “elements” (the basic building blocks of housing—land, materials, tools, labour, financing). The “package” required a large investment from the public sector, and offered little space for the prospective resident to contribute their own resources to improving their housing; “component”-based projects were less costly on a per capita basis so could benefit a larger population, and presented the opportunity for greater “private sector response to public action”; finally, “elements” were the most cost-effective, and “open-ended” in encouraging individual action.

Arguing that “the measure of effectiveness for any public policy on housing … is the ratio between public expenditure and consequent private investment,” it was clear for Turner that intervention at the level of “elements” was the preferred solution: for example, “a government can precipitate immense housing investments through relatively simple legislative actions of low cost and risk to the public,” such as the FHA mortgage guarantee system. Other “element”-level

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64 Turner, “Housing Issues and the Standards Problem,” 158.
65 John F. C. Turner, with Clinton Bourdon, Robert Ledogar, and Tomasz Sudra, Government Policy and Lower-Income Housing Systems in Metropolitan Mexico, 1972, p. 17. JFCT-UW.
66 John F. C. Turner, “Levels of Housing Action [Version sent to IBRD (Sadove) xi ’71],” November 1971, p. 3. JFCT-UW.
interventions included the revision of minimum housing standards, legalization of tenure in squatter settlements, expanding access to low-cost credit, or exercising controls on land markets. However, as Turner advised Sadove, the overarching challenge was to achieve a kind of structural transformation of the housing sphere, making “the necessary change-over from packaged products to open component service programs.” In this context, the significance of sites-and-services programs was that they operated mid-way between the “package” and the “component” level—consequently it provided more “freedom of action for the users,” and could be deployed as “the thin end of a wedge” to further open up systems of housing support. Turner emphasized to Sadove that the sites-and-services approach should only be employed as a “temporary strategy”—a transitional device—because it still functioned at “the high-risk/low payoff end of the spectrum,” and was predicated on “certain assumptions about the nature of financing and the building materials submarkets that might be more effectively dealt with if addressed directly.”

In essence Turner was advocating that the World Bank support significant state intervention to restructure markets in “elements” (land, materials, financing, and so on) in order to create the conditions of possibility for effective local action. As Turner re-emphasized in the introduction to the US edition of Housing By People—in an effort to correct misunderstandings concerning his position on the role of the state—government should “concentrate on what it has the authority to do: to ensure equitable access to resources which local communities and people

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68 For example: “Public retention of land and subsequent marketing of leases or freeholds is an effective instrument for controlling a local land market. Leasing of land subject to exceptional increases in value guarantees the public benefit of future valuations and capital gains.” Turner et al, Government Policy and Lower-Income Housing Systems in Metropolitan Mexico, p. 23.


70 John F. C. Turner to Robert Sadove, memorandum on “Sites and Services Programs,” November 30, 1971. JFCT-UW. In his accompanying letter Turner underscored his reservations about the approach: “I have tried to make my rationale for the use of sites-and-services projects explicit.... As you will understand, I am extremely anxious that this idea, which I am partly responsible for popularizing, does not boomerang.” Turner, letter to Robert Sadove, November 30, 1971. JFCT-UW.
cannot provide for themselves.”71 The state had a responsibility to rebalance the distribution of resources in favour of low-income citizens, and thus to provide them with the means to undertake self-determined and empowered initiatives to house themselves. This vision of a powerful activist state would seem to be at odds with Turner’s anarchist beliefs, but it had already been foreshadowed in his 1960 report on the Arequipa projects, which argued for the importance of connecting “the complementary forces of coordinated government planning and mobilized local action.”72 In response to a Marxist critique of his approach, Turner underscored his viewpoint73: “only radical anarchists will argue that modern society is possible without any central controls or government; conservative anarchists like myself accept the necessity of central planning.”74

Turner was paradoxically a pro-state anarchist, but he envisioned a version of the state that does not exist, reflecting a scientistic understanding of government as a rational actor distributing resources according to clearly established and agreed upon technical requirements; framed in relation to an abstracted world, it appeared to be unaffected by the forces of political or economic power. For example, his observations concerning the viability of self-help housing


73 “[D]oes [Turner] seriously expect that the interests of industrial, finance, landed, and property capital are going to legislate against themselves? We are also left with a fundamental contradiction: that the state which is ‘par excellence’ an example of all those features that Turner isolates as the source of the housing problem—hierarchy, bureaucracy, large scale, centralization, anonymity, etc.—is in fact reserved the role of bringing about and administering something it should have very little control over!” Rod Burgess, “Petty Commodity Housing or Dweller Control? A Critique of John Turner’s Views on Housing Policy,” World Development 6, no. 9/10 (1978): 1119.

in the United States identified a huge set of preconditions that would be necessary to allow individuals and local groups to “maximize the use of their own resources”—but which he nonetheless seemed to believe were achievable with the correct action from above:

As long as building plots or vacant buildings were available at reasonable prices and not inflated by speculation or monopolistic aggregation; as long as there was a plentiful supply of appropriate tools and materials through local distributors who did not discriminate against small or non-professional purchasers; and as long as local banks gave credit and were not absorbed into impersonally administered national corporations: then individual households and small groups could maximize the use of their own resources.75

As long as the prospective self-builders existed outside of capitalism—Turner seemed to argue—they were free to access and exploit their own resources, to determine and direct their own housing.

In Turner’s writings from the late 1960s, the squatter settlement appears as the epitome of this “freedom to build” or self-determined action. In the August 1968 of *Architectural Design* (on the theme of the “Architecture of Democracy”) Turner returned to the topic of the squatter settlements which he had introduced to the magazine’s readers five years earlier,76 now less concerned with the government-run aided self-help housing programs that had been intended to improve the settlements than with their innate “unimproved” qualities. For Turner, this was “an architecture that works” [8.23]: developed by residents with their own hands, in accordance with their own desires, it “works” both in pragmatic terms, reflecting the capacities of a developing economy, and in human and ethical terms, facilitating the empowerment of individuals and their communities. In contrast to the lives of “the urban poor in wealthy and highly institutionalized mass-consumption society,” the squatter self-builder “finds in the responsibilities and activities of home-building and local improvement the creative dialogue essential for self-discovery and


The “existential value” of this mode of living emerged from three essential “freedoms” available to the squatter self-builder: freedom to form self-selected community groupings, freedom to budget and organize the resources at hand, and freedom to shape the immediate environment.

The question of how to transfer these “freedoms” into the context of Western consumer society would become a major theme in Turner’s work, as he sought to derive universal principles from the squatter settlement; practices such as urban homesteading, sweat equity, and squatting cooperatives which emerged in some US cities in the early 1970s appeared to replicate some of these “existential values” [8.24]. Nonetheless there was (at least on occasion) an acknowledgement of the harsh realities framing the “freedoms” of squatter settlement residents: while the poor in the US were seen as being “helped” into dependency (taking cues from Oscar Lewis’s The Culture of Poverty), in Peru “people are almost forced into helping themselves”: “Autonomy is born of desperation and the resulting initiative of the squatters has its own reward in increased self-esteem, high morale, and the achievement of creating a community.” If Turner’s position is often vulnerable to charges of romanticization, here this alternates with a brutal realism in its assessment of the conditions facing the squatter settlement resident, celebrating the imposition of “self-help” (the only remaining option) as the ends justify the means. Ultimately the question of how much “freedom” squatter settlers can really expect to exercise without having real (economic, political) power is never addressed.


78 See in particular John F. C. Turner and Robert Fichter, eds., Freedom to Build: Dweller Control of the Housing Process (New York: Macmillan Company, 1972). The cover argued that worldwide, “where dwellers are in control, their homes are better and cheaper than those built through government programs or large corporations.”

In *Housing by People* the issue of the user’s freedom to act, to control their decisions concerning housing, is once again central; however the discussion is often abstract, as Turner searches for a means to systematize solutions to facilitate local action. Under the influence of anarchist thought, the modes of housing provision are defined in terms of how much control individuals or local groups are able to exert, based around the polarity of “autonomous” (self-determined) and “heteronomous” (other-determined) construction. Translated into the terms of mainstream Western architectural production, this dichotomy explains the failure of Pruitt-Igoe (developed heteronomously and hierarchically, with insufficient user-input), and the success of the model of the English village (outcome of autonomous organization and network planning) [8.25]. Turner’s supplementary example of “heteronomous” housing—the Fergusleigh Park public housing estate, in Scotland—is “traditional” in form, clarifying that for Turner the core failure is not due to modernism (as for Charles Jencks), but the mode of social organization behind the construction of the project.

Although Turner’s focus was on marginal practices, on the question of user control there are clear points of connection to discussions within mainstream architectural culture at this time, particularly reflected in the concept of architecture as an open system, as seen in Herman Herzberger’s Diagoon Housing, Delft, 1967–1972, and Ralph Erskine’s Byker Housing Estate, Newcastle-upon-Tyne, 1968–1981. Further, Turner’s writings marked a connection between the academy and the international development sphere, engaging both with the United Nations and the World Bank, although in the latter case, the institutionalization of sites-and-services tended to erase much of the nuance of Turner’s ideas.  

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81 See in particular the dissenting report Turner produced for the World Bank on its sites-and-services projects in Tanzania, which sought to emphasize the importance of local control in decision-making. John
Following Robert MacNamara’s appointment as the president of the World Bank in 1968, the organization shifted its focus to include issues of housing and urbanization. By the early 1970s, the World Bank had come to regard conventional minimum housing as an unaffordable solution in much of the developing world. Instead, it argued that sites-and-services projects offered improved living conditions and “more efficient urban development patterns” that allow “greater opportunities for subsequent upgrading” than unplanned settlements, as well as “security of tenure and a basis for community development.”

Sites-and-services projects also provided employment opportunities and job training, and their generation of self-help labour could thus be considered as contributing to national economic development.

Within the United Nations, the Housing, Building, and Planning division had been operative since the early 1950s, but the Habitat Conference in 1976 represented a significant elevation of the profile of housing and urbanization as issues of global concern within the organization. The “ideological framework” for the conference was established via discussions at a four-day meeting held in Dubrovnik in May 1975, chaired by Otto Koenigsberger. The thirty-one participating experts included development-focused economists such as Fernando Cardoso and Albert Hirschman, along with architects claiming a specialization in this field: John Turner, Panayotis Psomopoulos (representing the Athens Centre of Ekistics, since Constantinos A. Doxiadis’s failing health prevented him from attending), Charles Correa, Yona Friedman, etc.

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83 “Although rarely reflected adequately in national accounts, self-help construction of dwellings and community services represent creation of capital as much as if the labour and profit elements had all been monetized.” World Bank, “Site and Services Projects,” 13.


85 According to Panayiota I. Pyla, the World Society of Ekistics, which had emerged out of the Delos Symposia organized by Constantinos A. Doxiadis, was instrumental in pushing for the UN to organize a conference on human settlements. Furthermore, Doxiadis produced a series of four publications that
Eduardo Neira (then working for the UN Economic Commission for Latin America), Nuno Portas (architect and director of the Portuguese self-help housing program Ambulatory Support to Local Residents\textsuperscript{86}), and Ernest Weissmann (director of the UN Housing, Building, and Planning Branch, 1951–1965). The report emerging from Dubrovnik drew on the analytical framework of dependency theory to diagnose the cause of the problems facing the developing world: “underdevelopment” (as manifested in the uncontrolled urbanization of “human settlements”) was ultimately due to the “unequal economic and political relations between nations”; the remedy for these global structural inequalities was “a new international economic order” based on principles of social justice (as also endorsed by Barbara Ward).\textsuperscript{87} Within nations, the report called for more equitable access to land, and furthermore, for any benefits from the improvement to land to belong to the local community: “any increase in its value is not only [due] to individual effort but also to the decisions and investments of society as a whole and of the local community. Consequently, it belongs to them.”\textsuperscript{88} In terms of housing, the report definitively rejected direct construction by governments as a viable solution, in favour of providing support to the initiatives of local communities: “It should be noted in particular that in vast areas of the

\textsuperscript{86} Alvaro Siza was one of the architects involved in this program. See Nuno Portas, “SAAL and the Urban Revolution in Portugal,” in \textit{The Scope of Social Architecture}, ed. C. Richard Hatch (New York: Van Nostrand Reinhold, 1984), 258-264.

\textsuperscript{87} Habitat, \textit{Dubrovnik}, 1, 4.

\textsuperscript{88} Habitat, \textit{Dubrovnik}, 8. Similarly, in Peru’s Habitat report land is conceptualized as a common good, not an object of speculation, therefore profits from improvements of the urban soil should revert “to the community since it is the one that generates it.” MVC, \textit{Perú Habitat 1976: Informe Nacional}, 29. These assertions bring to mind Engels responding to the Proudonhist argument concerning the value of land: “[which states] that since this increment is brought about without the landowner having contributed anything, it does not equitably belong to him but to society as a whole. However, he overlooks the fact that he is thereby in reality demanding the abolition of landed property.” Friedrich Engels, \textit{The Housing Question} (1872; Moscow: Progress Publishers, 1979), 22.
Third World self-help construction and improvement of housing on the basis of investments of human resources seem to offer the only realistic way of meeting the needs of the majority.\(^{89}\)

In Vancouver, at the Habitat Conference itself, these discussions around “human settlements” made the awkward transition from the technical to the diplomatic sphere; representatives from 132 countries attended, along with observers from various UN bodies, and high-profile intergovernmental organizations such as the Inter-American Development Bank and the Organization of American States. The resulting “Vancouver Declaration on Human Settlements”—nineteen general principles, twenty-four guidelines for action, and eighty pages of recommendations subdivided into six categories—was intended to set out the way forward for both governments and the UN itself.\(^{90}\) Meanwhile, the Habitat Forum, a meeting of non-governmental organizations, was held in parallel with the main conference, with over 5,000 participants from ninety countries; topics for discussion included “self-help and low-cost housing, land policy, participation, appropriate technology, nuclear energy, and rural development.”\(^{91}\) Turner helped to coordinate the Self-Help and Low-Cost Housing Symposium and gave a keynote speech (containing a pointed critique of his own position as expert, protesting the fact that he had been selected to speak rather than a representative of “the people whose problems we have met here to discuss”).\(^{92}\) In the end, this conjunction of professional and political connections was pivotal in transforming conceptions of the

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89 Habitat, Dubrovnik, 6.

90 The Vancouver Declaration was not adopted by consensus: the United States, supported by Egypt and the USSR, insisted on a roll-call vote by the responsible committee, which resulted in eighty-nine votes for, fifteen against, and ten abstentions. In essence, the countries of Western Europe and its English-speaking allies around the world, along with Israel, Japan, and a handful of countries in Latin America, declined to support the declaration on the grounds that one of the clauses (paragraph 4 of section II) alluded to United Nations General Assembly Resolution 3379, passed amid controversy some months earlier. See Habitat, Report of Habitat: United Nations Conference on Human Settlements (New York: United Nations, 1976), 147-152.

91 Habitat, Report of Habitat, 182.

“uncontrolled urban settlement” (as Turner had denominated it a decade earlier); a number of
governments modulated their policy positions, just as the World Bank had shifted its funding
priorities. In particular, the “Vancouver Declaration” argued for the importance of defining
“progressive minimum standards for an acceptable quality of life”\(^{93}\)—an acceptance that
previous benchmarks of acceptable housing could not be met for the majority, but nonetheless
some sense of a “minimum” should be preserved as a goal to be worked towards. On a practical
level, the document advocated both the “reorganization of spontaneous urban settlements”\(^{94}\) in
a manner that engaged the participation of local communities (as opposed to a top-down “slum
clearance” approach), as well as a strong emphasis on “aided” self-help. Here, government
support could take the form of regularizing tenure, promoting sites-and-services schemes
(“popular subdivisions properly serviced”), simplifying “procedures for acquisition of sites,” as
well as financing and building permits.\(^{95}\)

However, any sense of a developing consensus around the new approach was to be
short-lived: already in June 1976 one expert had begun to ask: “Whither Sites and Services?”—
expressing concern that “the expectation that considerable savings could be effected”\(^{96}\) by this
approach had not materialized. Meanwhile sites-and-services projects had delivered poor
outcomes in terms of housing, exacerbated by the selection of remote, peripheral urban sites,
which had the advantage of being inexpensive, but isolated low-income citizens from
employment and urban amenities (reflecting the low priority placed on their well-being by their
governments). Experience had shown “that providing shelter for the urban poor requires

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\(^{94}\) “Governments should concentrate on the provision of services and on the physical and spatial
reorganization of spontaneous settlements in ways that encourage community initiative and link ‘marginal’
groups to the national development process.” Habitat, *Report of Habitat*, 58.


\(^{96}\) Aprodicio A. Laquian, “Whither Sites and Services?” *Science* 192, no. 4243 (June 4, 1976): 951. The
article appeared in an issue coinciding with the Habitat conference, which also featured an introduction by
anthropologist Margaret Mead.
subsidy—\textsuperscript{97} but without its promise of self-sufficiency, the sites-and-services option was rapidly losing its appeal for government sponsors.

The UN’s own assessment, a decade after Vancouver, was that the approach to the provision of low-cost housing needed to be revised once again. In 1987 the UN Centre for Human Settlements presented its first \textit{Global Report on Human Settlements}. The language of dependency theory and structural inequality was superseded by “integrated management” and economic efficiency; housing was not a “social welfare concern” but a question of “industrial output and marketing”\textsuperscript{98}—instead of a “narrow focus on sites-and-services and squatter-settlement upgrading schemes” the key was to “scale up” housing production, suggesting a return to a reliance on the economies of scale promised by mass-housing.\textsuperscript{99} Rather than undertaking housing projects on their own account, governments now needed to focus on “enabling strategies” to foster the contributions of the private sector: “Governmental measures will be concentrated mainly on improving institutional structures and mobilizing the resources needed to support action by others.”\textsuperscript{100} However, the report did acknowledge that this approach could not offer a universal solution: “those who live in destitution”—as opposed to the “poor” and “very poor”—“will need to be assisted directly through programs shaped by principles other than those of affordability and cost-recovery.”\textsuperscript{101} Here the UN at once recognized the efficiency offered by the market, but also the limitations to its effectiveness under certain economic conditions; it was however unclear exactly where this line between a workable level of poverty and irremediable destitution could be drawn.

\textsuperscript{97} Laquian, “Whither Sites and Services?,” 954.


\textsuperscript{100} UN-Habitat, \textit{Executive Summary of the Global Report on Human Settlements}, 44.

\textsuperscript{101} UN-Habitat, \textit{Executive Summary of the Global Report on Human Settlements}, 44.
Within Peru some longer-term problems with the self-help approach were now becoming more evident. In particular, a detailed study in 1987 by sociologists Gustavo Riofrío and Jean-Claude Driant observed that the processes of consolidation within self-built settlements was protracted and burdensome on residents [8.26-8.27].\textsuperscript{102} While it was once assumed that these difficult living conditions would be temporary, “[t]oday, badly equipped bathrooms, overcrowding in the few completed rooms, and the unfinished floors, windows, and doors” reveal that substandard housing has established itself as permanent; it has become clear that “[s]pontaneous popular activity in housing construction has multiple and serious limits.”\textsuperscript{103} According to the authors, the situation could only be improved by the state’s commitment to providing genuine “technical assistance” for self-help housing, through closer supervision of construction, to ensure more effective results.\textsuperscript{104}

Turner had moved away from advocating the architect’s direct control and guidance in self-help housing projects in favour of a greater “freedom to build”; for Riofrío and Driant, the built outcomes of this “freedom” made the argument for a return to closer control. However by the late 1980s the new “freedoms” promised by neoliberalism were in the ascendant: the debate over the respective roles of the state and the market in the provision of low-cost housing would only intensify.

\textsuperscript{102} The report primarily focused on examples from unauthorized settlements (such as 28 de Mayo) but also included the “urbanización popular” Ciudad de Dios established by the Peruvian government in the late 1950s. The report observed that this planned development brought a couple of advantages: Ciudad de Dios had “developed with great speed in the early years due to the núcleos básicos provided in a completed urbanización, but subsequently this development has come to a halt or has been very slow.” The layout of the house, with three rooms at the front of the lot represent “a better use of space” than the common pattern in barriada housing of having two rooms at the front. Gustavo Riofrío Benavides and Jean-Claude Driant, ¿Que vivienda han construido? Nuevos problemas en viejas barriadas (Lima: CIDAP; TAREA, 1987), 79, 159.

\textsuperscript{103} Riofrío and Driant, ¿Que vivienda han construido?, 135, 136.

\textsuperscript{104} For example, a plan for the construction of additional low-cost housing could be developed making use of “self-built” dwellings that are currently under construction: “A system of technical assistance and credit and incentives for those who want to extend their dwelling could result in the better use of existing land, and also in improved living conditions.” Riofrío and Driant, ¿Que vivienda han construido?, 143.
8.3 Freedom to Borrow

In a sense, the International Monetary Fund, the World Bank, and President Jimmy Carter shared joint responsibility for definitively ending the Peruvian Revolution, since the loans that they provided to Peru in the late 1970s in order to solve an ever-growing economic crisis came with the requirements to enact structural adjustment policies and to commit the country to a return to conventional democracy. The election of Belaúnde as president for a second time (1980–1985) was accompanied by the rapid flourishing of neoliberalism; values were once again inverted as the ideal of social solidarity was superseded by the validation of private enterprise and private property. The country embarked upon a protracted and often painful period of transition, with the Belaúnde administration was marked by increasing economic and social instability, and rising political violence (perpetrated by insurgents and by the state). The conflicts only intensified under the succeeding governments of Alan García (1985–1990) and Alberto Fujimori (1990–2000), with the situation finally stabilizing in the late 1990s.

Belaúnde’s housing policy was summarized by the catch cry “Make the dispossessed into small property owners.”\footnote{Empresa Nacional de Edificaciones, Revolución Habitacional en Democracia: Plan de Vivienda del Gobierno Peruano, 1980–1985 (Lima: ENACE, Sector Vivienda—Ministerio de Vivienda y Construcción, 1985), front cover.} The results were schizophrenic: on the one hand, high-end apartment buildings in the capital’s established suburbs harked back to the prestige projects of the 1960s; on the other hand, massive low-cost projects (núcleo básico, sites-and-services, sites-without-services) attempted to grapple with the needs of lower-income populations, leading to the creation of “cities” as satellites orbiting in space on the periphery of the established city, provided with few services; as a result they were slow to be populated and consolidate themselves as viable neighbourhoods [8.30].

Under García, to the extent that the state involved itself in housing provision, it limited its efforts to minimal, large-scale, peripherally located settlements, typified by Ciudad Mi Perú, a

relocation project with *lotes tizados* (chalk-drawn lots), and very basic communal services (latrines, water pipes, graded but unpaved roads) [8.31]. Here the state offered little more than a grid in the sand, but its attentions were to be paid for—in part—by careful displays of clientalistic gratitude [8.32]. However, reforms to municipal government initiated by Belaúnde had given local municipalities greater control over urban development, opening up the possibility of alternative approaches to the housing problem. Alfonso Barrantes, the socialist mayor of Lima (1984–1986) promoted the Laderas de Chillón Experimental Housing Project (architect Miguel Alvariño, 1985) [8.33]—presented as a vision of orderly self-guided community development which bore little resemblance to the actual practices of incipient construction. Once again, the program was made cost-effective by the selection of a difficult site, distant from the established city and fragmented by topography. As a result the settlement was slow to consolidate. Since the Barrantes was administration short-lived, this program was not repeated elsewhere.

The regulatory controls once proposed by planning law were by now a distant memory; the dynamism of “uncontrolled” settlements outpaced the (minimal) official efforts to manage them, leaving “unassisted” self-help settlements as the norm. The rate of rural-urban migration further intensified, with one additional impetus: the Sendero Luminoso (Shining Path) Maoist guerilla movement had marked the 1980 presidential elections with its first bombing attack, centred on a polling station in the Andean city of Ayacucho. The cycle of insurgent violence and state repression thus initiated brought refugees from political violence in the hinterland into the capital; the first refugee squatter settlement was established at Huanta I in northeast Lima in 1984, and other similar settlements soon followed.106

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These events provide the background to Hernando de Soto’s *El otro sendero: La revolución informal* (1986, published in English in 1989 as *The Other Path: The Invisible Revolution in the Third World*).\(^\text{107}\) As opposed to the Maoist roadmap to a new revolutionary society, de Soto and his think-tank, the Instituto Libertad y Democracia (ILD) argued that “we Peruvians” should be able to determine “a deliberate path which will enable us to escape from backwardness and advance towards a modern society,”\(^\text{108}\) which would be built on the entrepreneurship evidenced in “informal” markets. According to novelist and sometime presidential candidate Mario Vargas Llosa—who provided a preface to the book and introduced its ideas to a US audience via an article in the *New York Times* \(^\text{8.34}\)—the state was incapable of providing solutions to the problem of chronic underdevelopment because it was itself part of the problem; “the informal market is actually the solution … the spontaneous and creative response of the impoverished masses to the state’s inability to satisfy their basic needs.”\(^\text{109}\)

De Soto’s discussion of the informal economy focuses on three sectors—housing, trade, and transport—described as having emerged spontaneously in response to social needs; scorned as criminal by mainstream society, for de Soto these markets are essential to the development of the broader economy, and operate perfectly well as self-regulating systems until encountering interference from official bureaucracies \(^\text{8.35-8.37}\). Rather than attempting to

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\(^\text{109}\) Mario Vargas Llosa, “In Defense of the Black Market,” *New York Times Magazine*, February 22, 1987. This article was adapted from Vargas Llosa’s preface to *El otro sendero*. 
impose regulation on informal markets, the state should recognize that promoting the “incipient
market economy generated by the popular classes in Peru”\textsuperscript{110} is the only real path to economic
takeoff; the state should concern itself with how to facilitate these mechanisms of private
entrepreneurship, via deregulation and the removal of any obstacles to the growth of informal
markets.

The market in \textit{vivienda informal} (informal housing) is central to de Soto’s argument. His
narration of the process of squatter settlement formation emphasizes not community-organized
action (valorized by the Revolutionary Government and Turner alike), but the role of small-scale
spontaneous entrepreneurs—such as professional invasion organizers, operators of ad hoc bus
routes, or the on-site sellers of water, fuel, or building materials—who find business
opportunities in the niche markets serving these emerging settlements. For de Soto these
\textit{asentamientos informales} (informal settlements) are primarily “an expression of the people’s
desire to own property”; furthermore, the ultimate aim of any “communal activity” by settlement
residents (organizing associations to lobby for secure tenure or urban amenities, for example) is
to accrue benefits to their private property.\textsuperscript{111} This new vision of a neoliberalized “self”-help
housing is also contrasted to what would have occurred if these households had elected to
remain in inner-city rental housing, contributing to overcrowding, and thereby making Lima into
“one vast slum.”\textsuperscript{112}

Another key aspect of de Soto’s argument is the claimed monetary value of \textit{vivienda
informal}, estimated in terms of its “replacement cost” in mid-1984: thus “the average value of an
informal dwelling was $22,038 and the total value of the building located in Lima’s informal

\textsuperscript{110} My translation of the phrase “incipiente economía de mercado que están generado las clases
populares del Perú.” de Soto et al, \textit{El otro sendero: la revolución informal} (Lima: Editorial El Barranco,
1986), 60. Abbott’s translation of this phrase sidesteps the issue of class: “incipient market economy
generated by Peru’s people.” de Soto, \textit{The Other Path}, 56.

\textsuperscript{111} de Soto et al., \textit{The Other Path}, 50, 55.

\textsuperscript{112} de Soto et al., \textit{The Other Path}, 50, 56.
settlements came to $8,319.8 million, an amount equivalent to 69 percent of Peru’s total long-term external debt in that same year.” By comparison, the state’s investment in housing from 1960–1984 for lower-income residents was $173.6 million, “a mere 2.1 percent of the informal investment.” By this method of calculation Peru possessed an immense treasury of dormant wealth awaiting realization as capital for microenterprise.

However government bureaucracy had been stifling this economic potential by imposing unnecessarily burdensome requirements on residents aiming to acquire legal title to their lots in squatter settlements. The primary legislation in this area (Law 13517 passed in 1961), had sought to establish secure tenure for residents of squatter settlements, but did not grant full transferable legal title until the household had completed seven years of residence. This measure was intended to promote the consolidation of the settlement: assuring the resident that they would not be evicted would encourage them to invest their resources in their housing; requiring owner-occupancy would encourage an active community eager to engage in improvement projects, and would furthermore counteract land speculation. In sum, Law 13517 sought to improve the housing opportunities of residents of squatter settlements, but did not grant them the right to profit from the real estate that they had claimed. According to de Soto, these anti-speculation measures of Law 13517 were “discriminatory”—creating a second-class system of ownership, “a kind of legal apartheid” and prevented capital accumulation via the real property of the self-built dwelling (even if it had originated with the invasion or extralegal occupation of land) was an enfringement of personal liberty. The larger public interest of anti-speculation measures was not a concern for de Soto; in fact, the processes of generating a land market were precisely what should be encouraged, without any limits or constraints.

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113 de Soto et al., The Other Path, 18.

114 Law 13517 also restricted the buyer’s ability to mortgage the property in order to “prevent an occupant's land from becoming subject to claims of outside creditors.” Kenneth Manaster, “The Problem of Urban Squatters in Developing Countries: Peru,” Wisconsin Law Review 23, no. 1 (1968): 55.

115 de Soto et al., The Other Path, 56.
In general, de Soto’s rejection of the state is complemented by a renewed mystification of the supposed unassailable logic of the self-regulating (that is, unregulated) market. He seems to view the interactions of the individual and the state as a struggle between competing, irreconcilable interests: in his account, the “defeat” of the state by the “informals”—that is, the failure of Peruvian officialdom to control informal economic activity—is interpreted as a moral victory, proving the survival of the fittest in the marketplace, rather than simply being the predictable outcome when an ineffective, immature bureaucracy tries to take on a problem of this scale with few resources.

In the background of de Soto’s narrative, there is a different kind of struggle—that of class and culture. The 1950s language of “invasion” of squatter settlements expressed the fears of coastal elites faced with new migrants from rural areas, who flouted the law with no consequences [8.35]. According to de Soto, these illegalities actually form their own system in self-regulating “informal” economy, representing at heart an insurgent capitalism, which may have an unfamiliar face but ultimately operates within a reassuringly familiar market mechanism; rather than lawless, uncultured “peasants in cities” (a spectre reappearing in the form of the Shining Path) de Soto sees a petit bourgeoisie in waiting.

Despite Mike Davis’s recent characterization of de Soto as “a John Turner for the 1990s,” the real points of convergence and of difference between the two figures present a more complex relationship. Turner’s own view is that de Soto’s work replicates his own findings concerning the long-term investment that the consolidated squatter house represents, providing proof that a standard middle-class house can be achieved over time by the self-help method, despite constrained beginnings. However on this point both writers overemphasize the

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116 Mike Davis, *Planet of Slums* (London; New York: Verso, 2006), 79. Davis skims over the surface of Turner’s work, conflating his views with those of the World Bank in a critique of self-help that is more effective as polemic than analysis.

117 “There’s this chap Hernando de Soto who did some quite interesting work on the economics of this kind of development, and his figures matched our own estimates, that ... two out of three who start do
speed and ease of consolidation, while minimizing the obstacles and difficulties of the process: in their 1987 study on Lima, Riofrío and Driant provide convincing evidence that not all households are able to build their way out of poverty\footnote{\textit{Riofrío and Driant, ¿Que vivienda han construido?}, 160-161.} — a conclusion that is supported by Peter Ward's research on Mexico, among many examples.\footnote{According to Ward: “Squatting, by itself, does not provide a vehicle for socio-economic mobility for low-income households” and cannot surmount “the structural aspects of poverty” as Turner and others argued. When individual households or settlements manage to consolidate themselves, this “is linked directly to wage levels, rates of inflation, and the buoyancy of the national and local economies. In an entirely stagnant economy low-income groups might be able to survive through opting for squatter settlement residence, but would not be able to achieve anything but very modest improvements through self-help.” Peter Ward, “Self Help Housing in Mexico City: Social and Economic Determinants of Success,” \textit{Town Planning Review} 49, no. 1 (January 1978): 46, 47, 46.}

Both Turner and de Soto emphasize the importance of people doing things for themselves, but for Turner this is an exercise in community-building, not entrepreneurship or wealth generation or single-minded “self”-determined initiative—his is not a “capitalistic version of self-help” of “individual self-sufficiency”\footnote{Turner, “Introduction to the American Edition,” \textit{Housing by People}, xiv. Turner explicitly distinguishes his position from that of Samuel Smiles, who first popularized the term “self-help” in his 1859 book \textit{Self-Help: With Illustrations of Character and Perseverance}, a Victorian self-improvement manual.} but grounded in the “mutual aid” ethos advocated by Kropotkin. Their views of the state also contrast sharply: de Soto would limit government’s role to facilitating titling as a stimulant to entrepreneurship, while Turner envisages a substantial intervention in promoting equitable access to resources; Turner believes that the state has the responsibility to actively reshape markets in order to facilitate individual and community initiative, while de Soto’s faith in the free market is absolute.

Fundamentally, the two part ways on the question of the value of housing: of use value versus exchange value: of housing as an end in itself, versus housing as equity. For Turner, the emphasis is always on the “freedom to build” (not only building shelter, but always also building succeed after fifteen, twenty years, to get a property, and by that time it’s usually got the services, it’s got the water supply, the streets are paved and so on and so forth.... The actual market value represents, on average, typically about twenty years household income. So you’ve got a ratio of 20:1. So it is a very efficient way of investing—but hard. Initially, you’re living in pretty poor circumstances, and it can be difficult, but healthier than the inner-city slums.” John F. C. Turner, interview with the author, June 2007.}
community), while de Soto’s focus is on establishing the foundations for a “freedom to borrow”—
to undertake credit obligations as the basis for small-scale entrepreneurial initiatives. For de
Soto, the architecture of the “informal” or squatter settlement “works” in a very different sense to
Turner’s conception, literally acting as a generator of capital and an engine of economic growth
based on self-sufficiency. However both writers fail to address the question of how exactly this
architecture “works” and at what cost to the resident-builders themselves, while the cost to the
state is minimized.

On this point, sociologist Gustavo Riofrío’s response to El otro sendero—Producir la
ciudad (popular) de los ’90: Entre el mercado y el Estado (1991)—offers a very different vision
of the respective roles of the market and the state in facilitating access to very low-cost housing.
Riofrío’s analysis encompasses a critique of de Soto’s interpretation, methodology, and data
(which for both the Peruvian and the US editions was not included in the book itself—on the
grounds that this may have “discouraged readers”—but was only available as a separate
publication, which could be obtained by writing to the ILD offices). In Riofrío’s description, from
the perspective of a committed leftist, housing in squatter settlements existed in a highly
particularized “market”: “A market that is protected so that it only allows access to those who are
going to build their houses there, which they will occupy permanently … This market, called
‘informal’ by de Soto, only gives access to those who are willing to self-urbanize [autourbanizar]
and self-build [autoedificar].”121 In the barriada (Riofrío refuses de Soto’s coinage of
asentamiento informal, returning to this earlier designation), even if part of the dwelling is used
to generate rental income, it always “fundamentally has a use value, not an exchange value”;
the logic of the restrictions on resale and on taking out mortgages is that this protects the “social
interest” of the community as a whole, of the residents as a collective. Riofrío argues that this
very specific kind of market—governed by its own ethos which is not reducible to pure

121 Gustavo Riofrío, Producir la ciudad (popular) de los ’90: Entre el mercado y el Estado (Lima: DESCO,
1991), 114.
exchange—should be allowed to continue functioning according to its own rules, rather than “destroying the existing markets and replacing them with a single free market al estilo norteamericano.”

Riofrío also takes issue with de Soto’s account of the processes of construction in the barriada, which does not distinguish between the construction of urban improvements (urbanización) and the construction of housing per se. While de Soto suggests that residents are primarily concerned with building the individual house, Riofrío clarifies that in fact, the usual pattern is that “the community will immediately begin to make large investments in order to provide electricity and water—as well as other services and amenities—to the settlement. The construction of the family dwelling is not the first ‘large’ investment of families, and happens … when there are minimum services in the neighbourhood.” Further, Riofrío argues that de Soto exaggerates the importance of legal title in encouraging investment and consolidation, pointing out that generally establishing security of tenure alone is sufficient.

Importantly, Riofrío closely scrutinizes de Soto’s claim concerning the monetary value of extralegal housing, pointing out that de Soto’s estimated valuation of $22,038 per dwelling (which appears to be loosely based on the valuations used to calculate property tax) assumes that the average house is in much better condition than would actually be the case. For example, it seems to assume: that all the construction would be “in a good or very good state of conservation”; that more than half of the dwellings “would be less than five years old”; that only 4 percent would lack electricity, water, sewerage connections; and that 45 percent would have tiled bathrooms. In fact, in the 1987 survey jointly carried out by Riofrío and Driant, which focused on well-consolidated zones and thus above-average housing, found that less than half

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122 Riofrío, Producir la ciudad (popular) de los ’90, 115.
123 Riofrío, Producir la ciudad (popular) de los ’90, 133.
124 See in particular Riofrío’s discussion of de Soto’s comparative data on the Mariscal Castilla Alta and Daniel Alcides Carrión settlements. Riofrío, Producir la ciudad (popular) de los ’90, 141-145.
of the dwellings had finished floors, windows, doors, and surfaced walls; 16 percent of home-owners “did not have a separate room to cook”; almost all had bathrooms but 27 percent had to share them with tenants or lodgers.\textsuperscript{125} Riofrío concluded that this data had been shaped “in order to exaggerate the value of what is built by the popular sectors”\textsuperscript{126}; the total investment of \$8,319.8 million claimed by de Soto was thus essentially an empty figure, a fiction.

Finally, presenting his own vision of the path forward, Riofrío argued that the market alone could not provide an adequate solution to the problem of low-cost housing. Riofrío conceded that de Soto and his research institute had achieved some success in lobbying to simplify and speed up administrative processes in relation to housing, thereby correcting some of the inefficiencies of the state. However the complete deregulation of the housing sector, or the state’s further withdrawal of responsibility was not advisable: “the state has to fulfill the obligation to supervise the quality of habitat.”\textsuperscript{127} In particular, the state should provide technical assistance in construction and better access to credit (that is, credit to build dwellings, not to borrow against them). It should act in a supporting role to improve existing low-cost housing construction; the “self-build tradition [\textit{tradición autoconstructora}]” should be the starting point for the large-scale production of low-cost housing under the guidance of the state—an approach which Riofrío estimated could produce at least 20,000 dwellings per year.\textsuperscript{128}

Notwithstanding the acuity of Riofrío’s critique, de Soto’s vision of neoliberalized self-help in \textit{The Other Path} gained a wide and enthusiastic readership, and the authority granted by the book ensured the success of de Soto’s follow-up, \textit{The Mystery of Credit} (2000).\textsuperscript{129} The

\begin{footnotesize}
\begin{enumerate}
\item Riofrío, \textit{Producir la ciudad (popular) de los ‘90}, 150.
\item Riofrío, \textit{Producir la ciudad (popular) de los ‘90}, 151.
\item Riofrío, \textit{Producir la ciudad (popular) de los ‘90}, 122.
\item Riofrío, \textit{Producir la ciudad (popular) de los ‘90}, 122, 123.
\item The ongoing appeal of de Soto (for architects, at least) is evident in an interview recently featured in \textit{Architectural Design}, which uncritically accepts his claims concerning extending the benefits of the “formalization” of land tenure to communally held indigenous property in the Peruvian Amazon in order to
\end{enumerate}
\end{footnotesize}
appeal of de Soto—characterized by one commentator as “a highly effective transnational policy entrepreneur”\textsuperscript{130}—largely stems from his position as “Third World” intellectual espousing neoliberalism, reinforcing existing arguments from an unexpected (geographical) position. On the policy level, the neoliberal turn represented a transfer of interest and funding from “housing” as physical object and as associated infrastructure, towards the granting of property title. The World Bank has been especially prominent in this shift. In 1993 it announced a revision of its policies in \textit{Housing: Enabling Markets to Work} (a report co-written by Shlomo Angel, formerly of the Center for Environmental Structure and one of the architects involved with its PREVI proposal): “The Bank now expects the housing sector, both formal and informal, to contribute to economic growth and public revenues, rather than to be a drain on limited public resources.”\textsuperscript{131} Accordingly, the World Bank proposed to focus on “property rights development”—with programs of “land tenure regularization in squatter settlements” (that is, granting formal property title) as well as privatizing “public housing stock, particularly in formerly centrally planned economies.”\textsuperscript{132} As far as the World Bank was concerned, the effectiveness of the “tenure regularization” approach had been proven by the example of Lima, where “the average squatter dwelling had a replacement value of US$22,000, and the total squatter housing stock had a replacement value of US$8.3 billion.”\textsuperscript{133} The appeal of de Soto’s message had transcended the veracity (or lack thereof) of his supporting data.

\textsuperscript{130} Bromley, “Power, Property, and Poverty,” 284. Bromley continued: “Because he primarily preaches to the converted—groups which abhor theories of imperialism and exploitation; which reject cooperatives, state enterprises, and government regulation; and which laud individualism, private property, and entrepreneurship—de Soto can spread his ideas widely without having to rigorously document the surveys and calculations that underlie them.”


\textsuperscript{132} World Bank, \textit{Housing: Enabling the Market to Work}, 64.

\textsuperscript{133} World Bank, \textit{Housing: Enabling the Market to Work}, 116n5, citing de Soto et al, \textit{The Other Path}. 
In 1996, President Alberto Fujimori established the Comisión de Formalización de la Propiedad Informal (COFOPRI, or Commission for the Official Registration of Informal Property) in order to facilitate the granting of property titles. The long-standing limbo of tolerated illegality—where unauthorized urban development was not policed or penalized—was replaced by active campaigns to promote the “regularization” of “informal” settlements [8.38], including the so-called “Law of Invasions”—a law to normalize the trangression of the law. Beginning in 1999 the World Bank supported these initiatives through a loan of $36.12 million. The objective of this program was less concerned with improving the quality of housing than stimulating economic development, as de Soto had espoused:

The principal benefit … would be economic: more efficient use of the property, thanks to market mechanisms, as a result of the greater legal certainty … [which] could result in increased value of the properties, more numerous and frequent transactions in the real estate market, and use of property as a guarantee for obtaining credit.134

A report on the successes of the program noted that in five years it had registered 1.4 million titles deeds, affecting some 5.7 million people, and that a large number of these properties had subsequently changed hands through the formal real estate market.135 However, the report regretted that the program’s impact had been less than anticipated due to a generalized “ignorance of the benefits of credit”—both on the part of lenders apparently wary of former squatters, and on the part of the residents themselves, most of whom were “not inclined to use their property to guarantee a loan” since falling behind on the mortgage meant that they would risk losing their home, which was often their only asset.136

Furthermore, as a second report observed, the property titles that had been granted covered the land, but not the dwellings themselves: in fact, since “most of these structures are

135 Varela and Archimbaud, “Property Rights and Land Tenancy,” 560.
self-built, they do not meet building codes so cannot be registered”—nor could they be mortgaged until they had been “upgraded and regularized.” Thus the inability to access the mortgage credit promised by the World Bank program was not due to “ignorance” alone, but was a direct consequence of the material reality of the residents’ housing as housing—not as imagined equity.

Other critiques of titling in practice have pinpointed central flaws in this approach: the limited value of property title in the absence of a market that would allow new residents to capitalize on their property (that is, a lack of effective demand), and the unwillingness of low-income households to exercise their freedom to borrow, to take on substantial debt that could fatally compromise the security of their tenure if repayments become too burdensome. Despite these shortcomings, the policy has managed to maintain active support.

On the ground, the “regularization” has been carried out without regard for the potential adverse impacts on urban development. With the removal of virtually all planning controls, pausing to assess the suitability of land for development, or the ability of residents to establish a viable community had become an unnecessary obstacle to legalizing—and thus capitalizing—the squatter city. Lima is now reaching the hard limits of urban expansion, and as a result the land invasions have moved further and further out, or onto difficult sites on hillsides or ravines, with steep gradients or poor soil composition. These newer squatter settlements are territorially isolated and, as a consequence, often socially fragmented [8.39-8.40]. In the words of a recent critique: “These residents are not, as in previous decades, courageous pioneers heading off into

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the desert to *found* new cities. They are families who are *camping* in the city.\textsuperscript{140} The policy has moved a great distance from “the aim of achieving the advancement of man, family, and community”\textsuperscript{141} proposed by the Revolutionary Government.

The revolutions in self-help discussed in this chapter have alternately inverted the values that they operate within and returned them to their original positions—cycling through the solutions offered by the individual, local community, state, international community, or market. The current outcome seems to suggest that the individual empowerment or self-realization of some formulations of self-help is to be validated, while the community development aspirations offer little that is productive to capital. Nonetheless, the fictitious communities of self-help housing—proposed by the Revolutionary Government, or by Turner—are perhaps still preferable to the negation of community by a culture of individualized ownership and “self”-sufficiency.

\textsuperscript{140} Gustavo Riofrío Benavides and Daniel Ramírez Corzo N., *Formalización de la propiedad y mejoramiento de barrios: bien legal, bien marginal* (Lima: DESCO, 2006), 33, emphasis in original.

\textsuperscript{141} ONDEPJOV, *Boletín 1, La organización para el desarrollo de los pueblos jóvenes*, 5.
9. Conclusion: The Informal as a Projection

When I began my archival research in Peru, many of the experts I met argued that aided self-help housing projects did not exist, and in many ways they were right. Self-help housing is a chimerical figure, much discussed but more rarely pinned down for analysis; much proposed and projected, but more rarely funded and realized. Like a chimera, self-help housing is a quasi-mythic and unstable assemblage of elements drawn from different traditions and disciplines, offering a monstrous appeal, a dangerous allure to the unwary. The concept has been remarkably resilient, mutating to accommodate various ideological conditions: for John Turner, it was informed by anarchism, mutual aid, local action; for the liberal policy-makers promoting initiatives under the Alliance for Progress, it signified personal initiative, enterprise, economic growth; for the Revolutionary Government of the Armed Forces, it embodied the principles of social mobilization, participation, collectivity; and for the neoliberalism of Hernando de Soto, it expressed the potential of entrepreneurship, a spontaneously emerging capitalist economy.

Self-help housing has shifted between different registers of architectural production, ranging from Turner-esque participatory, hands-on community development, to the mass-construction of sites-and-services projects directed by unnamed professionals working for state agencies, or the auteurist conceptions proposed by the avant-garde of international modernism.

If the informal as a “project” describes the unstable hybrid that emerges from the translation of self-built construction via the input of the architectural professional, then its status as a “projection” suggests the contingencies of this process and these practices. This dissertation oscillates between these two states, charting the territory between them. The intention of this survey is to demystify self-help housing—however sobering the resulting discoveries may be.

The distance between project and projection is manifested in the slippage between the apparent simplicity of the concept and the complexities of implementing effective projects on the
ground; the slippage between the ambitions of self-help, in terms of its claimed economic and social benefits, and the realities of what it has achieved. In hard figures, between 1946 and 1990 Peruvian state housing agencies built a total of 227,245 housing units nationwide (after which time the state had little direct involvement in housing production). Of this total, 42,628 units (19 percent) were conventional construction (single-family houses or apartments), 12,241 units (5 percent) were núcleo básico, and 172,376 units (76 percent) were in sites-and-services or lote tizado (chalk-drawn lot) projects. In very broad terms, these last two categories could be considered as self-help housing projects (whether aided or, more likely, unaided beyond the provision of the most basic services, with no technical assistance from architects). In total this represented 81 percent of state housing production, or 184,617 units. Assuming an average household size of five people, the Peruvian government had a hand in providing some form of minimal housing with a self-help component to roughly 920,000 of its citizens over four and a half decades. It is considerably more difficult to determine how many of these dwellings were produced with the contribution of meaningful technical assistance. For example, as noted in chapter six, funds from the Plan Bienal Perú-BID supported the construction of 4,106 dwellings using self-help in the period 1962 to 1965, but it is almost impossible to trace exactly how that money was spent and what kind of projects it supported. Yet even though the Perú-BID program was highly problematic, its 4,000-odd units probably represent the high-point of “aided” self-help housing in Peru.

1 I have compiled these figures from the information on state-built housing projects listed in the detailed report produced by the Instituto Nacional de Desarrollo Urbano, Estudio de evaluación integral de los programas de vivienda ejecutados y/o promovidos por el Estado, Vol. IV, Inventario de proyectos con participación del Estado, 1946–1990 (Lima: INADUR, 1991). The vast majority of these projects were built by national agencies, with a few constructed by municipal agencies.

2 These were listed as: sites-and-services, 35,230 units; lots, 59,970 units; lote tizado or lote básico, 77,176 units. For some (but not all) of these projects, the list included information on specifically what services or amenities were provided.

On the other side of the ledger, as José Matos Mar reported, in 1955 10 percent of Lima’s population (120,000 people) were living in squatter settlements. By 1961 the figure was 17.1 percent (316,420 people) and by 1981 it was 29.6 percent (243,054 households, or over one million people), with an additional 9.5 percent listed as living in tugurios, or degraded tenement housing. According to statistics compiled by UN-Habitat in 2001, 68 percent of Peru’s urban population was living in “slums” in Lima and other cities, a total of 12,906,400 people, roughly half the population of the country. By comparison, in Colombia 22 percent of the urban population was living in “slums” and in Brazil, 37 percent; in Latin America only Nicaragua (81 percent) and Haiti (86 percent) posted higher rates than Peru, although the raw numbers were much lower since the overall population of these countries was smaller. The majority of the urban “slum” households in Peru (87 percent) were judged to have a safe water source, but a significant number (around a quarter) did not have sufficient living space or durable housing, and a third did not have access to adequate sanitation. Against this, the state’s support for perhaps around 4,000 semi-aided self-help dwellings appears utterly ineffectual, resulting in limited solutions, abortive trials that disappeared almost without a trace into the improvised, unauthorized, “uncontrolled” city.

Yet this dissertation makes clear that efforts to make aided self-help housing work in Peru were thoughtful, innovative, and committed, and did produce successes. Specifically, this research has contributed to an understanding of this field by:

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4 I have compiled these figures from tables in Jean-Claude Driant’s Las barriadas de Lima: historia e interpretación (Lima: DESCO, Centro de Estudios y Promoción del Desarrollo, 1991), 55 (Table no. 4), 77 (Table no. 9).

5 UN-Habitat, “Information by Country: Statistical Overview,” <http://www.unhabitat.org/categories.asp?catid=2>. In summary, the urban populations living in “slums” in a range of Latin American countries were: Chile 9 percent (total population 15 million; 1,161,000 in urban “slums”), Mexico 20 percent (100 million; 15 million), Colombia 22 percent (43 million; 7,189,600), Argentina 33 percent (37 million; 10,744,800); Brazil 37 percent (173 million; 52,488,200), Bolivia 61 percent (9 million; 3,458,700), Nicaragua 81 percent (5 million; 2,268,000), Haiti 86 percent (8 million; 2,476,800). There was no statistical information listed for a number of countries, most notably Venezuela, where the “slum” population would likely be significant.
analyzing the debates between Fernando Belaúnde Terry and Pedro G. Beltrán on affordable housing beginning in the mid-1950s, as well as uncovering the history of Santiago Agurto’s “casa que crece” (growing house) project from 1954, a conceptual model that was employed in various forms over subsequent decades;

undertaking a close reading of José Matos Mar’s research on barriadas, situated in the context of the political and practical consequences of the Ciudad de Dios invasion;

elucidating the details of John Turner’s architectural practice in Peru, including the contributions of his colleagues such as Eduardo Neira, Federico Mevius, and Diego Robles, as well as outlining the development of his theoretical framing of self-help housing;

explicating the underlying principles of Law 13517 and analyzing projects that tried to think through the implications of this new approach to managing urban growth;

investigating the role of Father Daniel McLellan in establishing savings and loans associations in Peru, as well as the efforts of Hogares Peruanos to build profitable low-cost housing, including self-help housing schemes on a for-profit basis;

outlining the original aims of the Plan Bienal 1962–1963 Perú-BID in the context of the Alliance for Progress and assessing the actual outcomes of this ambitious program, focusing on a case study of Perú-BID projects in Chimbote;

delineating the process of organizing PREVI PP1 and presenting a detailed comparative analysis of the designs submitted by various of the architects involved, as well as surveying the other PREVI sub-programs, with particular attention to the framing of aided self-help in PREVI PP3;

tracing the conceptual reframing of self-help housing under the Revolutionary Government of the Armed Forces, and analyzing the convergences and as well as the significant differences between John Turner and Hernando de Soto concerning the potential and the significance of self-help housing.

This research also demonstrates that throughout its history conceptions of who should take primary responsibility in the provision of self-help housing have shifted repeatedly between the various actors involved—the individual builder/owner, the local community of an emerging self-built neighbourhood, the Peruvian state, the global community as framed by international development agencies, or the market extolled by neoliberalism. As the situation currently
stands, fostering the functioning of a free market is seen as paramount, as it is envisaged that individuals granted title to their improvised, self-built residences will be integrated into the market as property owners and credit consumers. Over recent years the Peruvian government, with the support of $36.12 million from the World Bank, has focused its efforts on a program to “formalize” property title, to the exclusion of any other solution. However the economic dividends of this approach have been less than anticipated, and although 1.4 million title deeds were issued in the first years of the program, by the mid-2000s it was unclear how this could be expanded, since those settlements yet to be formalized are the most physically, socially, and economically marginal, and thus more resistant to successful market integration.\(^6\)

This is then an opportune moment to revisit Gustavo Riofrío’s proposal made some twenty years ago to develop new state-supported aided self-help housing projects; if well-conceived and adequately funded, Riofrío estimated that this approach could produce at least 20,000 dwellings per year.\(^7\) However before embarking on any such program, it is essential to address the shortcomings of earlier initiatives, which faced challenges at many levels: the complex organizational dynamics of self-help communities, the logistics of implementation, shifting and unreliable political support, and—crucially—inadequate or inconsistent funding.

On this last point, a core claim of self-help housing has been that it presents an efficient, effective, and economically viable solution that is able to transcend the lack of resources available to low-income households. In the case of Peru, this questionable claim resulted in the (self-defeating) requirement that such projects be financially self-supporting—an impossibility, given the economic situation of the majority of the population. Thus while it is clear that

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\(^6\) These settlements “have difficult access, are risk zones, or have been affected by violence. The cost and duration of their formalization are thus necessarily higher.” David F. Varela and Jorge L. Archimbaud, “Property Rights and Land Tenancy,” in An Opportunity for a Different Peru: Prosperous, Equitable, and Governable (Washington, DC: World Bank, 2007), 565.

\(^7\) Gustavo Riofrío, Producir la ciudad (popular) de los ’90: Entre el mercado y el Estado (Lima: DESCO, 1991), 122, 123.
residents can benefit from the technical assistance offered by aided self-help housing, it is equally clear that they cannot cover the costs of such projects alone.

Assuming that outside agencies (whether national, municipal, or international) were to accept the responsibility of funding such programs, it is important to ask, how much would aided self-help cost in comparison to other potential solutions? How much would it contribute, comparatively, as a “productive investment” in the lives of low-income households? Specifically, property titling presents itself as a highly cost-effective solution: the $36.12 million invested by the World Bank resulted in 1.4 million title deeds; in a rough calculation, each title cost $25.80. However the actual cost-benefit of each title is almost impossible to ascertain—and by some measures may in fact be less than that of aided self-help in the form of supervised credit, for example.

In revisiting the potential of aided self-help it is necessary to reconsider fundamental questions, such as what should aided self-help housing provide? What is it trying to build—materially, or socially and politically? Architects drawn to aided self-help were initially driven by a modernist commitment to housing reform, a socially engaged practice, and a concern for constructing spatial order; in material terms, the housing they envisaged adhered to minimum standards, or at least strived to achieve them at some point in the future, as in the “growing house” model. For their part, residents focused on the fundamental struggle to improve their living conditions were less concerned with the material form of the dwelling than securing access to land and urban services. Consistently, when asked to nominate their priorities in receiving assistance, residents have identified infrastructure provision—water, sewerage, electricity, graded streets—and property title as core needs, rather than architectural input in the design and construction of their houses. In response, architecture needs to rethink what it can provide to these low-income households; what can it contribute to improving the dwelling in even its most basic form, at the *Existenzminimum* level of infrastructure.
No less essential is the task of clarifying the social and political stance of any revival of aided self-help. Throughout its history, the focus of the “self” of self-help has veered between the singular, and the mutual or communal. On the one hand, projects of the 1950s and 1960s tended to have a strong community development component, and in the 1970s the community-building of self-help was reinterpreted as social mobilization, a kind of training for “full participation” in the new society proposed by the Peruvian Revolution. On the other hand, Father McLellan and his supporters defined the cooperative movement of the 1960s as “self”-centred rather than communal-centred (that is, decidedly anti-communist), and more recently the “self” of neoliberal self-help assumes a singular individual—property owner, proto-capitalist entrepreneur—primarily concerned with capitalizing on the exchange value of the house.

One side effect of recent large-scale property titling initiatives (whether intended or not) has been to undermine collective action to campaign for the improvement of urban amenities and other community needs. Alternative solutions envisage providing security of tenure via the establishment of community land trusts or the installation of communal infrastructure rather than granting individualized transferable title. In such cases, the self-help technique of “mutual aid” reappears as a tool to organize residents’ demands for amenities ranging from basic utilities to schools and public spaces, in the process constructing a kind of strategic community mobilized to achieve shared objectives. It is through such projections of self-help housing—as opposed to the vision of each to his own projected by neoliberalism—that alternatives to the prevailing individual empowerment model can begin to be imagined.

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[2.1] “Lima: Regions”: Agricultural supply region; Sub-urban region, three hours travel; Urban region, Lima Valley.
Josep Lluís Sert and Paul Lester Wiener for ONPU, “Lima: Civic Center.”


*El Arquitecto Peruano* 3, no. 26 (September 1939).
_El Arquitecto Peruano_ 9, no. 95 (June 1945).

[2.5] “A Great Peruvian Achievement: Unidad Vecinal No. 3.”
_El Arquitecto Peruano_ 13, no. 146 (September 1949).
[2.7] Location of seven proposed unidades vecinales in Lima. *El Arquitecto Peruano* 9, no. 98 (September 1945).

[2.9] Fernando Belaúnde Terry, proposal for a group of low-cost houses, with ground-level shops along the main street. “Conjunto de habitaciones economicas,” *El Arquitecto Peruano* 12, no. 126 (January 1948).

[2.11] “A home of one’s own can cease being a dream.”
Carlos Morales Macchiavello and Eugenio Montagne,
Experimental house for the CNV. La Prensa, June 7 and June 20, 1954.
[2.12] “Above, one of the huts in which the rural people were living.
Below, the comfortable little four-room house which it has been
transformed into.”
“Lima has ample possibilities for expansion. Note that the 15 km-radius circle, which has its centre in the Plaza de Armas ... is only urbanized in approximately 1/8 of its area, with the possibility of extending on various sides, except in the hilly areas.”
Fernando Belaúnde Terry, “Let us build today so that we do not need to rehabilitate tomorrow,” La Prensa, June 13, 1954.
La Prensa, August 12, 1954.
"Their old dreams now have the form of a house"; "Today the roofs are placed on the casas baratas"; "The casas baratas will be delivered on October 4." La Prensa, September 6, September 13, September 26, 1954.

[2.18] Santiago Agurto Calvo, La casa que crece. 
La Prensa, October 24, 1954.
“Happy epilogue to ten years of an exemplary life.”
“Moraima looks at her flowers in El Agustino.”
“The low-cost house was the realization of a dream.”
“The lucky woman will give her mother the best present.”

*La Prensa*, December 26, 1955.
[2.23] “Cerro San Cosme.” “Recent barriada marginal.” “Barriada on the left bank of the Rimac”
CRAV, Informe sobre la vivienda en el Perú (1958).


[3.5] “The first public works project in Ciudad de Dios. All the men of the clandestine city, armed with picks and spades and working in shifts, begin the construction of a small market, raising clouds of sand in the desert.” *La Prensa*, January 4, 1955.
3.6 “The low-cost house is what we need, say the leaders of Ciudad de Dios.”
“Visit of thanks to La Prensa.”
Seated centre are Alejandro López Agreda (with cane) and Pedro Beltrán (gesturing). La Prensa, January 5, 1955.

3.7 “The population of Ciudad de Dios received the measures dictated by the government to resolve the severe housing problem with great demonstrations of joy. Forming groups, they read in a loud voice the pages of La Prensa which recorded the news.” La Prensa, January 23, 1955.
[3.10] Typical house, Ciudad de Dios. Black lines indicate the built section of House A, with cercos (perimeter wall) and sanitary core; hatched lines indicate the walls added to form the dining room and living room; clear lines indicate the form of the four-bedroom house.

Typical facade, with two doors: the main entrance opens into the living area, and the service entrance opens into the kitchen.
La Prensa, December 17, 1959.

[3.13] “Preparation of the community:
The Social Research Technician explains to one of the communities the
importance of understanding their problems through the Research;
The Research personnel respond to some questions from the vecinos,
following the Community preparation process;
They are shown how they should organize themselves in order to facilitate the
research.”

“On identifying a dwelling with the corresponding letters and numbers,
it remains to register the dwelling as well as the head of the household;
After registration data is collected as indicated by the census form.”
FNSBS, Barriadas de Lima Metropolitana (1960).
Laboratory work: The collected data are: 1. Compiled and classified; 2. Tabulated and converted into statistical tables; 3. Archived.


Fig. 28. *Four Elements of Action.* Following Patrick Geddes’ interpretation of the classic and universal differentiation of inner and outer realities, and of active and passive modes of being, essential differences and complementarities of the elements of action are clarified. The most common confusions today are between general issues and particular problems, and between general principles and particular practices. When treated synonymously, issues and problems lead to useless generalizations or blindness to others’ experience. When principle is confused with practice, action is locked into rigid programmes or it becomes incoherently empirical.


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Fig. 40. *The elements of change.* Whether explicit or implicit, consciously recognized or not, action generates and is generated by the experience of previous action and administration, information, theory, and norms – which may be habits or customs or laws and regulations.


The figure representing architecture is Ernesto Rogers, who taught for a brief time at the AA in this period.

JNV, “Plano básico de Arequipa con urbanizaciones y barriadas populares actualizadas según aerofotografías,” ca. 1963. JFCT-UW.

Aerial photograph overlaid with the schematic plan for the Satellite City;
“Diagrammatic Interpretation of the Suggested Plan.”
ONPU and OATA: "Project for the New City."
“Las Urbanizaciones Populares de Arequipa,” November 1957. JFCT-UW.
4.20] Hernán Bedoya for ONPU and OATA, “Aerial view of the site from 250m.” and “The same view showing the projected stage of the city.” “Las Urbanizaciones Populares de Arequipa,” November 1957. JFCT-UW.

[4.22] Tiabaya village, 1960. Patrick Crooke’s assessment of the damage from the 1960 earthquake to a house constructed in the wake of the 1958 earthquake: “It’s the only building standing for about 50 yards all round!” JFCT-UW.
AIDED SELF-HELP HOUSING PROJECT
II - ROUTINE

40 Weekly group meeting with staff to
discuss problems and plan work. The
staff and group representatives sit
together.
Photo: La Prensa 1958

41 ARCHITECT CHECKS INDIVIDUAL PLOT
As the plots were scattered and non-
standard each had to be examined in
order to determine the best siting
for the construction.
photo: Becerra 1958

42 OPENING AN ACCESS ROAD TO A SITE
A typical Sunday morning shift -
the entire group at work.
photo: Patrick Crooke 1959

43 LEVELLING & EXCAVATING A SITE
Another Sunday morning shift.
Note the high proportion of
women working.
photo: Mevius 1959

WEKEDAY SHIFT WORK
44 Social Assistance checks attendance
while the
45 Architect checks work and progress.
photos: Becerra 1958

John F. C. Turner, The Housing and Planning Problems of Arequipa, Peru,
1959–1960. JFCT-UW.
46 CONCRETING THE ROOF
With the whole group participating the roof of one house is concreted in one Sunday morning shift; afterwards the owner usually throws a party.
photo: Patrick Crooke 1959

47 SOME OF A WEEKDAY SHIFT RETURNING AFTER WORK
This photograph emphasises the important part played by women in the construction work; though not usual for women to take part in building work these participants evidently enjoyed it.
photo: Becerra 1959

48 AUTHORITIES' PARTICIPATION
The Mayor of the city and the Archbishop's Representative place the symbolic bunch of flowers and bless the completed house respectively.
photo: Becerra 1959

49 RECIPROCAL CONGRATULATIONS
&
50 Staff and Participants thank and congratulate each other at the ceremony.
photos: Becerra 1959

[4.27] Series of six forms used to administer the directed aided self-help program in Arequipa: Form for the group; Form for the house; Daily activities; Form for the participant; Price of materials; Control of materials. JFCT-UW.
[4.28] Community meeting, Arequipa, ca. 1958. The drawing on the blackboard illustrates the principle of foundations. JFCT-UW.
Voting at a community meeting, Arequipa, ca. 1958. JFCT-UW.
367

[4.29] “Stages of Squatter Settlement Growth.”

[4.32] Existing company housing in Paramonga, ca. 1959. JFCT-UW.


“Self-improvement efforts prove futile because the original settlement was too dense.”
“Initial clustering has rapidly become dense, planless settlement.”
“Settlers unite to lay utilities—in vain, because of built-in blight.”
[4.43] John F. C. Turner in Peru, consulting with residents; Community meeting. JFCT-UW.
[5.1] “The Constitutional President of the Republic, Dr. Manuel Prado, at the moment of promulgating the historic Ley de Barriadas, which benefits 700,000 Peruvians of modest economic condition.” CNV, Ley de Remodelación, Saneamiento y Legalización de los barrios marginales (1961).

[5.2] Leaflet publicizing Ley 13517, March 1961: “Prohibited:
1. The formation of new barriadas
2. Taking possession of new lots
3. Trespassing on lots
4. Violence in evictions from lots or houses
5. Collecting fees for purposes of inscription, occupation of lots, construction of public works, etc.

.... groups or persons requiring the outfitting of new sites for the purpose of housing are being attended in the Corporación Offices... Monday to Friday 8am to 1pm.”


[5.5] Cadastral plans: Veintiocho de Julio, Gonzales Prada, and Ramon Castilla Baja.


Lima, 1962: the planned city is shaded in grey, barriadas in yellow, and inner-city slum housing (corralones) in red. While the highest concentration of barriadas is still along the Río Rímac in central Lima, the areas of Comas (northern cone) and Surco (southern cone) are starting to be developed. CNV, “Mapa Regional de Lima: Barrios Marginales y Urbanizaciones Populares,” October 1962; 1:100,000.
[5.7] Plan Río Rímac, divided into ten unidades vecinales; Belaúnde’s Unidad Vecinal No. 3 is to the south. CNV, *Plan Río Rímac: Memoria Descriptiva* (February 1962).


[5.10] Plan No. 4. Lot size. Key: outlined, grey - lots under 70m$^2$, outlined, white - lots under 100m$^2$.

CNV, Plan Río Rímac: Remodelación Unidad No. 6 (1962).
[5.11] Plan No. 8. Remodelling plan. The proposed sites for the two schools are highlighted with red circles. CNV, Plan Río Rímac: Remodelación Unidad No. 6 (1962).
Key: red - blocks with Type-H houses, blue - blocks without Type-H houses, white - amenities.

[5.16] Urbanización Valdiviezo: Dwellings developed from the basic unit: Subdivided into five dwellings; Additional living and bedroom space without windows; Basic extension with provisional multipurpose room.

[5.18] Housing in Cantagallo, prior to eradication.
Location of Cantagallo and Caja de Agua in the Rímac area.
MVC, Evaluación integral del proyecto de vivienda Caja de Agua-Chacarilla de Otero (1970).
[5.20] UPIS Caja de Agua, 1964. Plans for Nucleus No. 1; Nucleus No. 2; Plan for completed dwelling. MVC, Evaluación integral del proyecto de vivienda Caja de Agua-Chacarilla de Otero (1970).
[5.21] Plans of the actual extensions carried out by residents of various Nucleus No. 2 dwellings (original nucleus shaded in grey): Case No. 6; Case No. 10; Case No. 9 (lower and upper floor).

MVC, Evaluación integral del proyecto de vivienda Caja de Agua-Chacarilla de Otero (1970).
"Map of barriadas to the north of Lima showing age and population of each." Architectural Design 33, no. 8 (August 1963).
Members of the Assault Troups proceed to destroy the rustic dwellings that the invaders of Pampas de la Cueva erected yesterday morning.” El Comercio, November 19, 1960. JFCT-UW.

Plan Carabaylo: Plan urbanización, including Tahuantisuyo, Pampa de Cueva, and El Ermitaño. CNV, Plan Carabaylo, October 1961.
Greater Lima and the proposed locations of four future satellite cities: Ventanilla, Canto Grande, Vitarte, and San Juan. 

“The employment of your family’s free time is worth money. Take advantage of it! You can build your house!”

CNV, brochure for Urbanización San Juan, ca. 1961. JFCT-UW.
Ventanilla, View of the typical environment.


Ventanilla under construction, ca. 1963. JFCT-UW.
“A city arises …”; “Imagine to yourself what it would mean to found a city!”

_Ciudad satélite Canto Grande_, ca. 1962. CDI-MVCS.
“Christian family life can hardly exist in a mud hut,’ says McLellan. Now rapidly replacing the huts are comfortable dwellings such as this one, bought with a credit-union loan.”

“Tomorrow begins today with mutual savings.” Vivienda 1, no. 10 (October 1965).

“Place the first stone with mutual savings.” Vivienda 2, no. 16 (April 1966).

“Your effort remains at home.” Vivienda 2, no. 22 (October 1966).

“If you could put together all the houses financed by SAVINGS IN MUTUALS it would form a city for more than 100,000 residents.” Vivienda 4, no. 38 (February 1968).
A modest family has won a modern and spacious two-storey house in the lottery,” Vivienda 5, no. 51 (March 1969).

“Electricity for Pasaje Defensa,” Vivienda 2, no. 22 (October 1966).
[6.7] Howard Wenzel (centre right) with prospective buyers, Hogares Peruanos Model House, architect Ernesto Aramburú, 1960. WHC.

Hogares Peruanos, Sol de Oro brochure, ca. 1962. WHC.
General view of Sol de Oro housing project outside Lima, Peru.

Nestness, symmetry marks Sol de Oro streets, houses.

‘Every Man a Homeowner’ Means As Much in Lima as in Wichita

[6.12]
Sol de Oro with the Villa Los Angeles site in the background. *The Wichita Beacon*, June 26, 1965. WHC.

Rodolfo Salinas at Sol de Oro, August 1967. WHC.
[6.13] Willard Garvey (far right) with engineer Rodolfo Salinas (second from right) inspecting houses at Sol de Oro, February 8, 1964. WHC.

Senator Robert Kennedy (centre) and Father McLellan (far right), at Sol de Oro, November 1965.

Typical block of houses.

House Type A1, B, C, and D.

Traditional Peruvian Style Home:

- 1 living room
- 2 bedrooms
- No services

About 3,000 of these were built several years ago by the Corporacion de Vivienda.

Shell Home:

- Proposed thin shell concrete hyperbolic paraboloid roof.
- Monolithic concrete slab floor (new system in Peru.)
- Concrete slab to rear of house for kitchen.
- No interior partitions except around bath.
- Walls to be built on lot sides to enclose jardines if there are no existing walls.

NOTE: Above diagram is simply schematic to indicate the relative position of old and new construction.
“Coordinating the resources of the state and the resources of the people is INVI's plan.”
INVI, Materials for the “Una obra en marcha” exhibition, Lima, April 1962. JFCT-UW.

“Labor que viene desarrollando expone el Instituto de la Vivienda: En la galería del Banco Continental se exhibe la muestra,” La Prensa, April 17, 1962.
INVI, “Urbanización El Trapecio, Chimbote,”ca. 1962. JFCT-UW.
[6.33] “Belaúnde, Architect of a New Peru; Thousands of Houses with Belaúnde Terry; Belaúnde Did It ...Belaúnde Will Do It: Acción Popular.”
La Prensa, June 7, 1962.
President Belaúnde inaugurates the first stage of San Felipe, “President inaugurate Urbanización Santa Cruz”; At Santa Cruz “262 more families are homeowners due to savings in mutuals.”
“A Latin American Architect of Hope: Peru’s President Belaúnde.”
“Belaúnde and models of projects: ‘Their day is dawning.’”
[7.5] Herbert Ohl, PREVI PP1 I-6: Site plan; Complete urban scheme; Model. *Baumeister* 67 (1970); *Summa* (December 1970).
[7.6] Herbert Ohl, PREVI PP1 I-6: Site layout with moving crane. Elevation, section, and plan, showing construction with crane. 
Herbert Ohl, “Prefabricated space-cell system.” *Arts and architecture* 83, no. 6 (July 1966).


THE GENERAL PATTERN IS:

Context:
Any house in Peru.

Solution:
A second floor window, with a seat by it, looks up and down the street outside. This window is either in the girl's bedroom, or on the passage between this bedroom and the stair.

Problem:
The most private kind of involvement with the street is watching from an upper storey window. For young girls, especially, this is a favorite activity - they can watch the street, from a window, without any impropriety: something they cannot do so easily from the front door. If anyone looks at them too hard, they can pull back into the window.

To be truly useful, such a window must be closely associated with places where the girls will often be - either the girls' bedroom, or the passage between this bedroom and the stair.

The process of watching the street from upper storey windows is strongly embedded in traditional Peruvian culture, in the form of the "mirador", the beautiful ornamented gallery which sticks out over the street from many colonial buildings in Lima.

Problem:

"Hanging out" is a standard part of Latin culture. People like to watch the street. But people do not always want the same degree of involvement with the street. The process of hanging out requires a continuum of degrees of involvement with the street, ranging all the way from the most private kind, to the most public kind. A young girl watching the...
[7.14] PREVI PP1 I-13, CES: Site plan; Subculture cell.

Step 1
Assignment of houses to cells
Assign each family to a cell in the site plan, on the basis of their answers to questions 14 or 15 on the choice sheet. Location across the site is determined by choice 14. If they want to be in a busy area, place them along the main axis. If they want to be in a quiet area, place them far from the main axis. Location along the length of the site is determined by the community facility they want to be near (choice 15).

Step 2
Determination of house length
Fix the house length as the sum of the lengths of the chosen cell, patio, family room, kitchen and back patio (choices 1, 2, 3, 4, 8).

Step 3
Assignment of houses to sites, within the cell
Within the cell fixed by step 1, assign each house to a lot whose length is as near as possible to the length determined by step 2, and which also satisfies the family's choice concerning shop location, rental back door, and distance from parking lots (choices 9, 10, 11). (At this point, the new site plan will be slightly different from the current site plan—since each house will have a slightly different length, it will be necessary to make minor changes in layout and arrangement of houses, so that pedestrian paths, stepped roads, and parking lots still have a coherent form.)

Step 4
Details of site conditions for each house
Since the house is now fixed within the site plan, the positions of next door houses, positions of adjacent paths and roads, the front end of the house and orientation of the house are now fixed. Transfer these to the drawing of the individual house.

Step 5
Position of patio openings
The patio openings are always on the east side of the house. Sketch in patios for different orientations as shown.

Step 6
Detail of front door, if at front end
The front door is on the east side of the front end of the house (step 6). Its detailed treatment depends on the position of the house next door and on the east, and on the area of the house (step 7). Draw according to this table.

Step 7
Size of front patio
The position of the front wall of the family room and corridor and veranda column positions are fixed according to the family's choice of patio size (choice 3) and the size of the site (step 1). Draw according to this table.

Step 8
Family room
The family room is fixed directly by the amount the family wants to spend on it (choice 2). Draw as shown.

Step 9
Stairs
The position and size of the stair landing vary according to the size of the front alcove. Draw as shown.

[7.18] PREVI PP1 I-13, CES: Generic plans for small house and large house.


[7.20] Cross-ventillated house; Light on two sides of every room; Tapestry of light and dark.
PREVI PP1 I-13, CES: Sandy Hirshen, drawing detailing the construction process as a combination of mass-professional construction techniques and self-building; Building materials supply store, Lima; Mortarless block cavity wall; Bamboo-urethane foam plank and beam. *Houses Generated by Patterns* (1969).
[7.23] PREVI PP1 I-2, Knud Svenssons: Plan of basic house and extensions, upper and lower storey; Model.

[7.25] PREVI PP1 I-7, Charles Correa: Detail of urban plan showing the community spine; Original house plan, model, showing wind scoop; Original house plans, type C and B; Plan of house as built. 
PREVI PP1 I-5, Toivo Korhonen: Variations—possible building configurations; Growth pattern for house type A; Dimensional system, applied in house type 1; Two of six structural variations (timber and light concrete).

PREVI PP1 I-8, Kikutake, Maki, Kurokawa: Site plan; Unit grouping; Floor plans, variations for house types A1 and A2; Bathroom, kitchen, and storage units.
Lima Mai 1971: A valley invaded by thousands of desperate people: The sign for the invasion; Candilis with the builders; A crayon and a decimetre to design the town; The drawing where the parcels are organized; Universal participation; Lopez and Garcia who never received their photo.

[7.31] PREVI PP1 I-12, Candilis, Josic, Woods: Site plan; First floor plan.
Growth pattern—Plot layout, Contractor-built, Self-build.

PREVI PP1 I-11, Aldo van Eyck: House type A, ground floor plan; Houses as built with front and back patio space; House entrance and corridor leading to the rear patio.

[7.35] PREVI PP1 I-1, James Stirling: Site plan; New settlement of ten neighbourhoods; Twenty-house grouping.

[7.36] James Stirling, PREVI PP1 I-1: Four-house cluster, ground and first floors, after development; Minimum and large houses as built in stage one and as developed by occupants.


[7.41] PREVI PP1 I-4, Atelier 5: Site layout; Layout detail; Street frontage of WE houses in various stages of development. *Atelier 5: 26 ausgewählte Bauten; Atelier 5* (2000).
PREVI PP2: Area for project execution, and Zone of study; Dwellings to renovate and to rehabilitate; Single-family and multi-family dwellings.

Outline of PREVI PP4: Catastrophe, Evaluation, PROBLEM, Complete replacement, Alternatives, Organization, Autofabricación, Autoconstrucción, Objective achieved.
PREVI PP4: Casma. “Expansion from one-bay basic unit to four bays.” “Group of two-bay concrete block houses with asbestos-cement sanitary cabins in position.”
PREVI PP4: Catac. “Finished houses along main street nine months after completion, showing expansion in process.”

[7.48] “It is a different model urbanistically”; “Conjunto Túpac Amaru is a model of security.” Brochure for Conjunto Habitacional Túpac Amaru, Ministerio de Vivienda, ca. 1971. CDI-MVCS.
[7.49] PREVI PP1 35 years later:
PREVI PP1: Houses designed by James Stirling and Kikutake, Maki, Kurokawa as developed by residents.
[7.52] Plan for expropriations in Metropolitan Lima.

“Velasco: ‘This process does not have a return path.’”

Túpac Amaru: Boletín mensual de la dirección de promoción y difusión de la reforma agraria 1, no. 1 (November 1969).
[8.2] “Popular revolutionary work; Popular participation is revolution.”
SINAMOS, Guía para la organización de los Pueblos Jóvenes (ca. 1971).
“What is the Peruvian Revolution?” SINAMOS, 8 preguntas a la revolución peruana (1973).

[8.5] “We are a team that is making the revolution that Peru needs. We represent, then, not a movement in the service of one man, but in the service of the nation.”
President’s Message to the Nation, General Juan Velasco Alvarado, October 3, 1969.

“Architect Diego Robles, Director of the National Plan for the Development of Pueblos Jóvenes, explains the scope of the Plan of Immediate Action.”
“Collaboration of civil and military elements for the socio-economic development of the pueblos jóvenes in Trujillo.”
“Collaboration of religious and military elements in order to achieve the socio-economic development of the pueblos jóvenes in Cuzco.”

Lt. Col. José Otárola Salcedo, General Coordinator of ONDEPJOV explaining the organization of ONDEPJOV. 

“Offices for the Development of Pueblos Jóvenes have been established in the North, South, East, and Callao Sectors, and are under the charge of Senior Officers of the Army and Navy.” 
4. “What needs to be done in our pueblo jóven? We arrived in the barrio … without knowing each other. But … communal needs became evident to us.”
5. “With this unity we did various projects. Then … little by little and without us realizing it, enthusiasm and unity were lost.”
8. “Joining together and organizing ourselves.”
9. “Why is organization necessary? Because organization allows us to contribute ideas, gather together criteria, and plan our progress. Because organization makes it possible for state entities and other institutions to listen to us.”

“In order to put its objectives into practice, ONDEPJOV had to equip itself with suitable material and human resources. It should be especially emphasized that the participation of the materials and crews of the Armed Forces is invaluable.”

“The projects underway are realized without a paternalistic character, motivating the resident’s involvement so that he feels the responsibility of his participation, which creates a greater consciousness of the construction and maintenance of the projects executed.” ONDEPJOV Anuario, 1969–1970 (1970).
“Participation is revolution.” Participación 2, no. 3 (August 1973).

“There is no social mobilization without popular organization”;

“Social mobilization is the people’s task.”

“You are SINAMOS.”
SINAMOS, 8 preguntas a la revolución peruana (ca. 1973).

“This is SINAMOS:
At the national level
At the regional level
At the zonal level
At the local level.”
SINAMOS, ¿Por qué se ataca al SINAMOS? (ca. 1973).
“What are property titles?”

“Why is it prohibited to sell the lot?
1. The lot is for those that need it
2. The law forbids it!
3. Because it attacks the interests of settlers.”

“Popular Revolutionary Work.”
SINAMOS, ¿Qué son los títulos de propiedad? (ca. 1971).
“Don’t invade: The state will provide 50,000 lots!”

“The sturdy assault guards of the GC Special Services Unit did not hesitate yesterday in momentarily exchanging their weapons for spades and picks in order to assist their homeless brothers in the construction of their dwellings at Villa El Salvador.” *Expreso*, May 13 and May 16, 1971.
“The ‘invaders’ went en masse. Now they are on the land that the government promised them.” “Development of the project: residential group (pop. 2,000); barrio (pop. 7,500), sector (pop. 10,000-30,000).”

Expreso, May 17 and May 18, 1971.

Structure of residential group (sixteen blocks).
“Artefacts for the home: payment facilities.” Caja Comunal, Villa El Salvador, ca. 1973: “Because we have nothing, we make everything.” Collection Michel Azcueta.


“A callejón or passageway in central Lima. At the far end is a court for hanging out clothes where there may also be some toilets.”

“A primitive shelter on a newly set-out lot; the beginning of a new barriada or squatter settlement site”; “A squatter family, recently arrived, erecting their shack.”

[8.25] “Pruitt-Igoe, an architectural award-winning public housing project ... was partly demolished twenty years later as a result of its unpopularity and vandalization.”

“Fergusleigh Park, Paisley, Scotland: abandoned houses destroyed by ‘vandals’ forty years after this once popular model public housing estate was built.”

“Housing generated and maintained by network structures, in contrast, may flourish indefinitely. This street in Chiddingstone, Kent, has changed little during the last four hundred years.”


“Relocation and adjudication of basic lots to the families evicted from the ex-Fundo Bocanegra in Ciudad ‘Mi Perú’ Ventanilla.”
“Provision of basic services in ‘Mi Perú’ (public latrines, water supply, access roads).” Ministerio de Vivienda, 1986.
“Inauguration of the Manuel Seoane Corrales School, Ciudad ‘Mi Perú’ Ventanilla”; “Mobilization of the population of Ciudad ‘Mi Perú’ in thanks for the projects realized with the support of the government.” Ministerio de Viviendas, 1986.
[8.36] “House and building in the asentamiento informal San Martín de Porres thirty years after its formation.”
“Private streets—the paving only goes in front of the houses of those who contribute to its construction, La Balanza, Comas, 1986”; “Defending the invaded property—pickets in the Huaycán settlement, 1984.”
Hernando de Soto, El otro sendero (1986).
# Abbreviations

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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AMCV</td>
<td>Asociación Mutual de Créditos para Vivienda (Savings and Loan Association for Housing)</td>
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<td>APRA</td>
<td>Alianza Popular Revolucionaria Americana (American Popular Revolutionary Alliance)</td>
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<td>AUPA</td>
<td>Asociación de Urbanizaciones Populares de Arequipa</td>
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<td>BANMAT</td>
<td>Banco de Materiales</td>
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<td>BANVIP</td>
<td>Banco de la Vivienda del Perú</td>
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<td>BID</td>
<td>Banco Interamericano de Desarrollo (Inter-American Development Bank, or IDB)</td>
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<td>CINVA</td>
<td>Centro Interamericano de Vivienda (Inter-American Housing Center)</td>
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<td>CNV</td>
<td>Corporación Nacional de la Vivienda (National Housing Corporation)</td>
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<tr>
<td>COFOPRI</td>
<td>Comisión de Formalización de la Propiedad Informal (Commission for the Official Registration of Informal Property)</td>
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<tr>
<td>CRAV</td>
<td>Comisión para la Reforma Agraria y la Vivienda (Commission for Agrarian Reform and Housing)</td>
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<tr>
<td>CRYRZA</td>
<td>Comisión de Reconstrucción y Rehabilitación de la Zona Afectada (Commission for the Reconstruction and Restoration of the Affected Area—i.e. the area affected by the earthquake of May 31, 1970)</td>
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<tr>
<td>CUAV[E]S</td>
<td>Comunidad Urbana Autogestionaria de Villa El Salvador</td>
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<td>DATV</td>
<td>División de Asistencia Técnica a la Vivienda, within the FNSBS</td>
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<td>FNSBS</td>
<td>Fondo Nacional de Salud y Bienestar Social (National Fund for Health and Social Welfare)</td>
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<td>FONAVI</td>
<td>Fondo Nacional de la Vivienda (National Housing Fund)</td>
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<td>INADUR</td>
<td>Instituto Nacional de Desarrollo Urbano (National Institute for Urban Development)</td>
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<td>ININVI</td>
<td>Instituto de Investigación y Normalización de la Vivienda (Institute for Housing Research and Standardization)</td>
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<td>INVI</td>
<td>Instituto de la Vivienda (Housing Institute)</td>
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<td>IUP</td>
<td>Departamento de Inspección de Urbanizaciones y Obras Públicas de Arequipa</td>
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<td>JNV</td>
<td>Junta Nacional de la Vivienda (National Housing Council)</td>
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<td>JRDA</td>
<td>Junta de Rehabilitación y Desarrollo de Arequipa (Restoration and Development Council of Arequipa)</td>
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<td>MSP</td>
<td>Movimiento Social Progresista (Social Progressive Movement)</td>
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<td>OAT</td>
<td>Oficina de Asistencia Técnica (Technical Assistance Office)</td>
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<td>OATA</td>
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<td>ONDEPJOV</td>
<td>Oficina Nacional de Desarrollo de Pueblos Jóvenes (National Office for the Development of “Young Towns”)</td>
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<td>ONPU</td>
<td>Oficina Nacional de Planeamiento y Urbanismo (National Office for Planning and Urbanism)</td>
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<td>SINAMOS</td>
<td>Sistema Nacional de Apoyo a la Movilización Social (National System of Support for Social Mobilization; “sin amos” means “without masters”)</td>
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<td>UPIS</td>
<td>Urbanización Popular de Interés Social (Low-Income Social Housing Subdivision)</td>
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<td>Term</td>
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<td>auto-ayuda</td>
<td>self-help</td>
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<td>self-building</td>
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<td>mutual aid or mutual help</td>
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<td>self-help</td>
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<td>flat roof</td>
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<td>squatter settlement</td>
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<tr>
<td>barrio marginal</td>
<td>marginal neighbourhood, squatter settlement</td>
</tr>
<tr>
<td>casa-núcleo</td>
<td>core house</td>
</tr>
<tr>
<td>casa propia</td>
<td>home of one's own, one's own house</td>
</tr>
<tr>
<td>catastro</td>
<td>cadastral survey</td>
</tr>
<tr>
<td>cerco</td>
<td>perimeter wall</td>
</tr>
<tr>
<td>cocina ramada</td>
<td>exterior kitchen space</td>
</tr>
<tr>
<td>empadronamiento</td>
<td>official register of residents; the process of compiling the register</td>
</tr>
<tr>
<td>empleado</td>
<td>middle-class, white-collar worker</td>
</tr>
<tr>
<td>esfuerzo propio</td>
<td>one's own effort</td>
</tr>
<tr>
<td>estera</td>
<td>bamboo matting</td>
</tr>
<tr>
<td>faena</td>
<td>work team</td>
</tr>
<tr>
<td>lotes tizados</td>
<td>chalk-drawn lots</td>
</tr>
<tr>
<td>mutuales</td>
<td>savings and loans associations</td>
</tr>
<tr>
<td>núcleo básico</td>
<td>basic core unit</td>
</tr>
<tr>
<td>obrero</td>
<td>working-class, blue-collar worker</td>
</tr>
<tr>
<td>poblador</td>
<td>settler, resident of a squatter settlement</td>
</tr>
<tr>
<td>poseedor</td>
<td>property holder</td>
</tr>
<tr>
<td>propietario</td>
<td>property owner</td>
</tr>
<tr>
<td>pueblo joven</td>
<td>young town, or young community; squatter settlement</td>
</tr>
<tr>
<td>sala</td>
<td>formal living room for entertaining guests; parlour</td>
</tr>
<tr>
<td>técnico</td>
<td>professionals with specialized technical knowledge</td>
</tr>
<tr>
<td>tugurio</td>
<td>tenement slum</td>
</tr>
<tr>
<td>unidad vecinal</td>
<td>neighbourhood unit</td>
</tr>
<tr>
<td>urbanización</td>
<td>subdivision, settlement</td>
</tr>
<tr>
<td>urbanizadores</td>
<td>urbanizers, city founders</td>
</tr>
</tbody>
</table>
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