

## HUMAN FACTORS IN PRIVATE, LOW-COST HOUSING

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THE public has long been aware of the urgent need for massive housing programs to eliminate squatter settlements. In the discussions that have arisen, solutions ranging from high-rise apartments to out-of-town relocations have been suggested. And in the debate as to which solution best suits the needs of citizens at the poverty level, the housing difficulties of another sector of urban society have been largely ignored — the low-middle income group.

This group is composed of citizens who are disqualified from public, low-cost housing because they earn too much but who cannot buy or build their own houses because they earn too little. Their number might not seem impressive since they comprise only 7 per cent of the total population, but taken by city — for they are largely urban-based — their number is indeed large. In Metropolitan Manila, for example, a full 21 per cent of the 361,000 households in 1961 reported an intermediate-range income of P3,000 to P4,999 a year — roughly P300 to P500 a month.

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REVISED version of a report on the seminar, "Human Factors in Private, Low-cost Housing in the Philippines," held in Makati, Rizal, in March 1968 under the joint sponsorship of the Land and Housing Development Corp. (LHDC) and the Philippine Sociological Society. Mrs. Hollnsteiner is associate professor of sociology and anthropology, director of the Institute of Philippine Culture, Ateneo de Manila University, and treasurer (1969-70) of the Philippine Sociological Society. Miss Esquivel is administrative assistant to the president, Bancom Development Corp.

Assuming the persistence of the upward trend in family income noted in 1956-61 and a predictable increase in population, the number of middle-income families will grow at such a rate that to house them, 19,317 new houses must be built yearly, from 1960 to 1980.<sup>1</sup>

With scarce government funds already apportioned to public housing for those at the poverty level, the low-middle income families become either perpetual renters, or uneasy sharers of a relative's house, or lately owners of ready-made homes built through the private sector. The last, a profit-making scheme for private developers because building costs are lowered through mass production, has been the only tangible solution to date to the problem of housing and ownership for the intermediate-income families.

It should be noted here that the purely technological response of mass-producing housing units to accommodate great numbers of prospective homeowners only solves part of the problem. Houses must also be viable socially if they are to be homes. Unfortunately, too often lost in the statistics of housing requirements and the demands of public policy is the realization that it is *people* who are going to live in the houses. Just as the social and psychological dimensions of family living can

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<sup>1</sup> Bancom Development Corp. Briefing kit on the operations of the Land and Housing Development Corporation. Makati, Rizal, Bancom Development Corp. 1968. Pp. 2-9.

shape the technological environment, so too can the technological environment of home and community influence family living.

It was for the purpose of investigating this systematic interplay that a seminar was held.

### *The seminar*

Recognizing the need for dialogue between architects, engineers, and businessmen on the one hand, and social scientists and planners on the other, the Land and Housing Development Corporation (LHDC) invited the Philippine Sociological Society through its president, John J. Carroll, S.J., to convene on March 23, 1968 a number of social scientists and housing specialists. The aim of the one-day seminar was to discuss the human factors relevant to the design of mass-produced houses and their placement in a community setting.

At that time, the LHDC was in the process of building the first group of 500 low-cost houses in Marikina, Rizal, to be sold to the public through the Social Security System (SSS). At the urging of Mary Catherine Bateson of the sociology and anthropology department of the Ateneo de Manila University and Sixto K. Roxas III of Bancom Development Corporation, the LHDC decided to seek information on how tenants were likely to use these homes and neighborhoods. Although house design and community placement in the 500-unit pilot project had already been determined, company executives assured the seminar group that suggestions regarding the social and cultural dimensions of housing could still be incorporated into the construction of subsequent sets of houses in the vicinity.

Fifteen social scientists and planners participated in the seminar: three anthropologists, three housing and planning experts, three social workers, two sociologists, one economist, one political scien-

tist, one psychologist, and one minister engaged in urban-industrial work (Appendix A). A number of other specialists, including four LHDC architects and engineers, acted as resource persons. Mary R. Hollnsteiner was designated chairman of the group.

While the focus of discussion was to be the LHDC housing scheme already in effect, the participants recognized that their potential contribution might well extend beyond the bounds of the Marikina project and contribute to a better understanding of housing problems in general. None of the participating social scientists had done research specifically on housing; yet, each had peripheral contacts through other scholarly interests. Hence, the group felt that the mere pooling of ideas and delineating of possible problem areas and research needs would make the day a fruitful one. The commitment to dissemination of the seminar results through publication further underscored the community-service aspects of their professional participation.

### *The LHDC plan*

*Physical arrangement.* The single-storey bungalow which our intermediate income families call "home" contains a combined living-dining room, two 12 feet by 12 feet bedrooms, a kitchen, bathroom, and small front porch. Almost square in shape, the floor area occupies 65 square meters of the 340-square-meter lot. Partitions are of plywood, and the external walls of hollow blocks (Figure 1). Nearly every wall has a window fitted with clear glass jalousies, thereby allowing optimum sunlight and cross-ventilation throughout the house. Outside the kitchen door is a faucet for laundry and garden purposes as well as a precast septic tank.

Located some 17 kilometers from downtown Manila in Bayanbayan, Marikina, Rizal, the 20-hectare area of this pilot project in low-cost housing accommodates

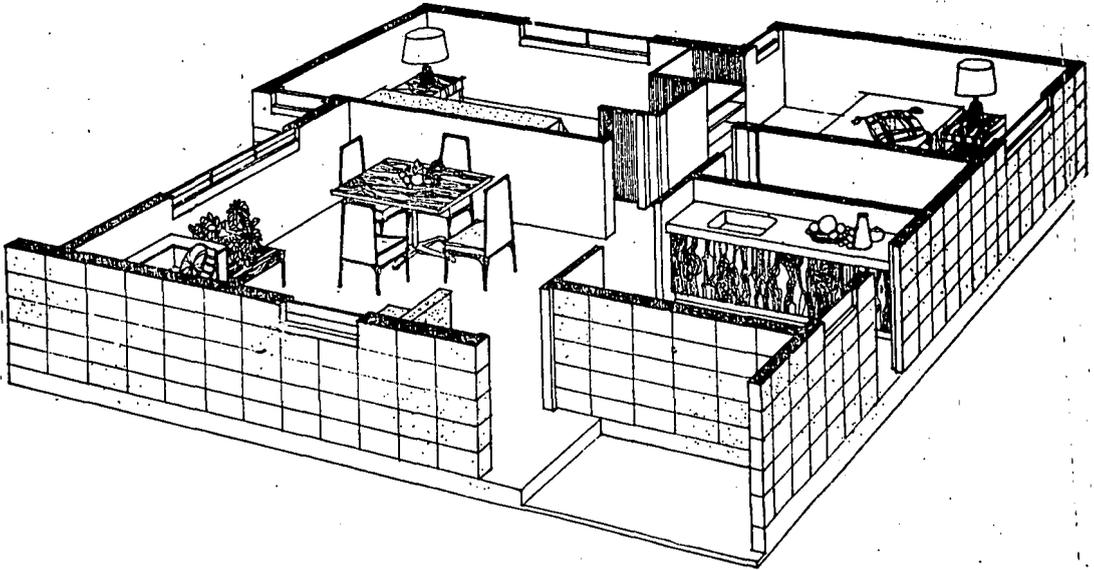


FIGURE 1. Cutaway perspective of a two-bedroom, single detached unit.

500 single, duplex, and quadruplex units in 17 hectares, the rest of the area being devoted to roads and other community facilities (Figure 2). In the center of the subdivision is the commercial section. Nearby stand two Catholic schools, one for boys and the other for girls, and at the southern end, a park. Concrete or asphalt roads divide the blocks into two rows of 19 houses each. Three deepwell pumps supply water, while the Manila Electric Company (Meralco) provides electric power. Buses and jeeps at the boundaries of the subdivision offer transportation to and from Cubao and Manila.

*Financial arrangements.* The cost of house and lot to the buyer is approximately ₱16,500, of which ₱9,000 represents the house itself. The rest comprises the lot valued at ₱22 per square meter and the amortization over a 25-year period at 7 per cent interest annually. The buyer must turn over a 10-per cent equity, or

down payment, the rest to be paid in monthly instalments of approximately ₱125. Financing is to be arranged through the Social Security System with priority given to the employes of the neighboring large-scale business enterprises. Possible assistance on the equity payment through a company loan may be provided by the buyer's place of employment. Some 150 families moved into the LHDC Marikina pilot project early in 1969, followed a few months later by another 350.

#### THE FILIPINO AND HIS HOUSE

To the 500 new homeowner-families and their neighbors, being at home means engaging in numerous and varied activities. A sampling suggests that they will eat, drink, wash, bathe, excrete, read, write, study, listen to the radio, watch television; exercise, pursue hobbies, keep pets, relax, talk, play, pray, rest, sleep; decorate, experiment, repair; accumulate, store

goods, expand, celebrate, relieve their emotions; make love, give birth, grow up, mature, and die. For some, their residence offers a means of improving income through raising pigs and chickens, accepting boarders, running a cottage industry, starting a *sari sari* store or beauty parlor, and even renting out the house.

Their relations with others find expression in the home as they talk, communicate, quarrel, rear children, educate, entertain, meet people, have guests, gossip, and exclude outsiders. Through the frequent performance of these activities, alone or in the context of family, friends, and neighbors, they build up emotional responses to their surroundings culminating in symbolic meanings endowed on the home, which becomes a shelter, a castle, a prison, a place for relief, escape, privacy, an identity base, the sign of family unity, ownership, and status. Clearly, in building a house the architect, engineer, and businessman really only lay the foundations of the total complex; its occupants complete the unit, infusing life into the physical shell through their unique designs for living.

#### *The Cruz household as prototype*

To understand the distinctive stamp that household occupants give their dwelling, let us imagine the Cruz family comfortably settled in their LHDC two-bedroom bungalow. Francisco Cruz, the father, is 36 years old and earns ₱400 a month as a foreman in the Marikina factory he has served for 12 years. Born in Ilocos Sur, he arrived in Manila in 1955 with a vocational high-school diploma. A year later, he was married and began to raise a family in his wife's hometown, San Mateo, Rizal, adjacent to Marikina. In the 11 years of their marriage his wife, Milagros, augmented the family income by maintaining a cottage industry in their house in which she and five other women sewed shoe uppers. The *silong*, or ground

floor, of their two-storey wooden house served as their worksite.

The rest of the Cruz family is made up of two daughters, Anita, age 10 and in grade four at the local public school; and Belen, nine and in grade three; two sons, Carlos, six years old and not yet going to school, and Domingo, age three. Milagros is due to deliver her fifth child four months from now. This is her sixth pregnancy, one child between Belen and Carlos having been lost through a miscarriage. Also living in the household is Francisco's 20-year-old sister, Severina, who came to Manila from Ilocos Sur for a college education two years ago. She is enrolled at the National Teachers' College in downtown Manila and receives money for her support from her father in Ilocos Sur. Finally, there is Rosing Santos, the 16-year-old maid from Leyte who has a grade-two education. The family brought Bantay, their dog, to the LHDC house but decided to leave the chickens behind. Household appliances consist of a television set, a two-burner electric stove, and a heavy-duty sewing machine. The Cruzes do not own a refrigerator or a vehicle. They did own their former two-storey house but not the lot it was on.

#### *The Cruzes asleep*

Let us look into the Cruz household at 1 a.m. on a weekday. This will enable us to specify the activities and speculate on the needs of our LHDC family.

*Sleeping space.* Where is each member of the household likely to be sleeping? Mr. and Mrs. Cruz will be occupying the master's bedroom with their youngest child, Domingo, and possibly six-year-old Carlos, too. In the other bedroom will be Anita and Belen, Severina, and perhaps Rosing, the maid, unless she sleeps in the kitchen or the living room. When the fifth child is born, it will also share

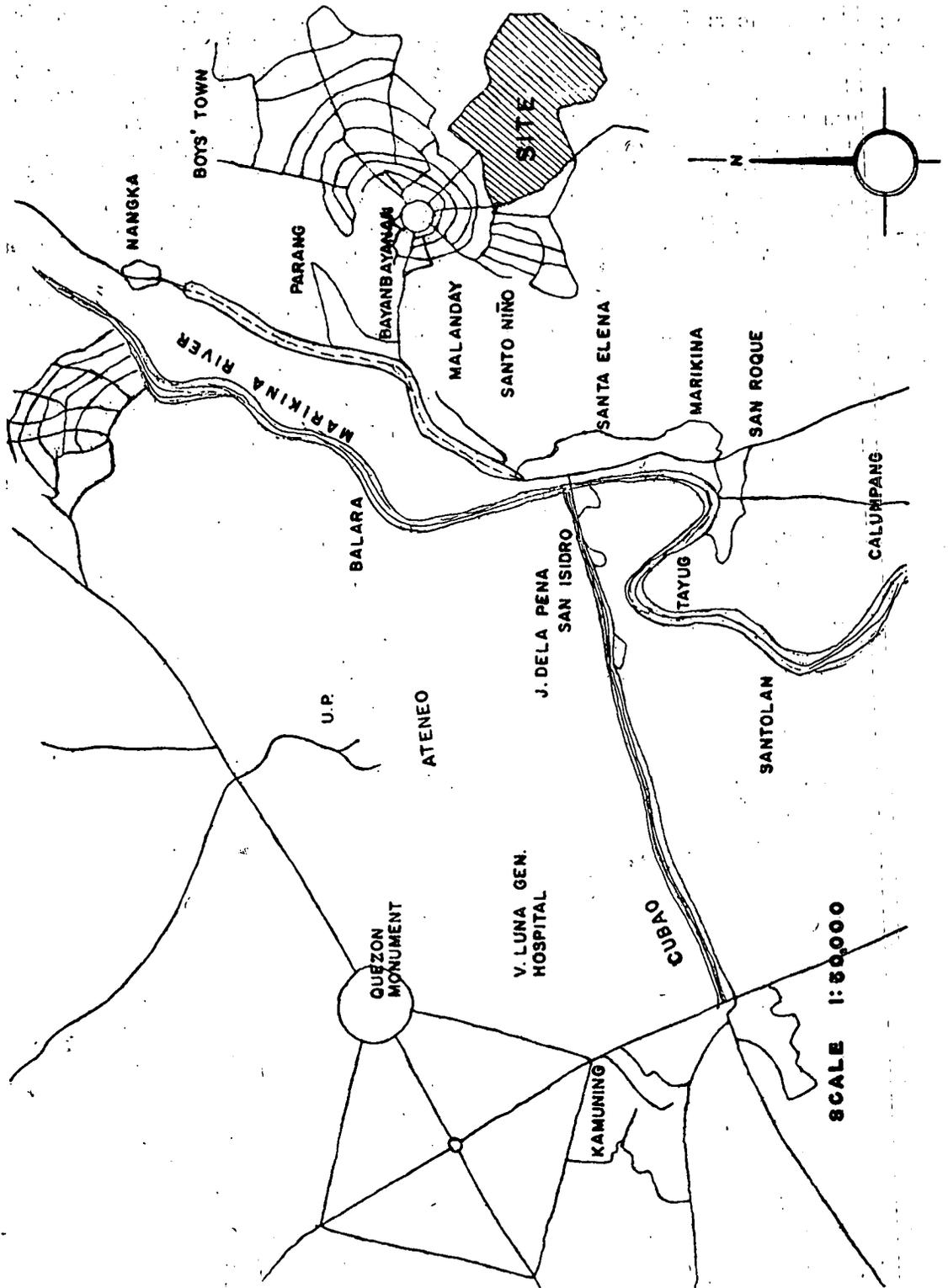


FIGURE 2. Location map showing relative distance of the LHDC low-cost housing project site (shaded) from Cubao, Quezon City, the nearest suburban population center.

the master's bedroom, forcing Carlos and Domingo to move in with the girls.

While Mr. and Mrs. Cruz may not mind their younger children's sharing the master's bedroom at the age of six, three, or one month, their attitude will likely change as Carlos, Domingo, and the baby go into their teens. Nor will they find it desirable to have adolescent boys in the same bedroom, much less on the same bed or mat, with Anita and Belen who will be in their late teens or early twenties by then.

For the present, however, how are four children and two adults to fit into a 12-square-foot floor space? Double deckers offer one alternative, plus a large sleeping mat accommodating several persons under one mosquito net. Or, the family could dispense with beds altogether in favor of the all-welcoming mat and net. Neither may be feasible, however, if the mats do not provide sufficient insulation from the cold concrete floor. The Cruzes can imitate the strategy chosen by several tenants of the government multistorey apartments in Vitas, Sta. Ana, and Fort Bonifacio — construct a mezzanine in the bedroom or even in the living room to provide enough sleeping space for the average six-person family. Convertible sofas in the living room will also ease the strain.

Aside from the health hazard of using a concrete floor as a daily rest area, the pattern of floor sleeping, while clearly a rural one, suggests another disadvantage: it may not conform to the standards of city residents at this income level. In the first place, urban dwellers have grown accustomed to a lifestyle that includes furniture in the house. They also retire much later in the evening, perhaps because of the availability of electricity and the desire to relax together after an eight-to-five workday. Moreover, the bedtime schedules of an urban family differ from one member to another; the children usually retire

first, followed by the adults, and finally by the maid after she has tidied up. In our prototype family, the extra member, Severina, studies until 11 p.m., tying up a sleeping area which in a rural setting would normally be available by dark. Clearly, some provision has to be made so that the early retirers can sleep despite television programs and the continuing conversations of those staying up. Undisturbed sleeping space is at a premium, especially in a two-bedroom bungalow housing eight people.

Patterns of home activities, therefore, as well as sex and incest taboos must be taken into consideration in the planning of sleeping spaces for the social mobility-oriented, low-middle income urban family.

*Visitors from the province.* Another problem the Cruzes face is that of relatives in the provinces expecting to move in with them for brief or extended visits. Traditional cultural values make refusal difficult, forcing the Manilans to accommodate the *probinsyanos* somehow. The Cruzes' Malate counterparts, for example, harbor relatives in their households, in fact, in greater numbers than the poorer Tondo dwellers do. Tondo residents, for their part, encourage overstaying house guests to squat on nearby vacant lots. Other city residents add makeshift structures on to the house proper to create extra space for sleeping, ironing, cooking, and storage. At any rate, it is apparent that the economic factor is related to the actual expression of family solidarity. As far as the Cruzes are concerned, we can predict that they — as well as most other intermediate-income families — will be seen by their rural relatives as fair game, for they have what the provincial kinsmen would consider surplus space for the asking.

While it is possible to make regulations controlling the number of persons occupying a dwelling, public-housing experience shows that they are difficult to en-

force. Tenants tend to be secretive about the occupancy of their apartments. Units have even changed hands without the knowledge of the housing authority because the title to the apartment stays in the original occupant's name after dwelling rights have been sold illegally to another family. After the title to the property is turned over to the owner and the housing authority withdraws from the scene, control becomes even more difficult, for there ceases to be an effective policy-making body. Homeowners' associations elicit little interest from residents, while municipal government efforts to enforce zoning laws are sporadic and remote, encouraging further fly-by-night construction.

On the other hand, one must also consider that the kind of people attracted to the Marikina project may actually appreciate having fairly strict residence restrictions in the contract to protect them from migrating relatives. Citing the existence of such rules, they may be able to sidestep cultural expectations of their relatives without losing their esteem.

There are in fact legal minimum space requirements in most countries ranging from twelve square meters per person in European countries to two square meters in Hong Kong. The People's Homesite and Housing Corporation (PHHC) units average five to eight square meters per person. The eight-member Cruz household occupying a 65-square-meter floor space falls, therefore, into the optimum end of the PHHC scale.

Yet despite the satisfactory overall density, the placement of members in only two sleeping spaces continues to pose problems. The demands of heterogeneous activities and occupations in the urban family, sexual codes, and kinship expectations suggest the importance of having at least *three* separate sleeping areas as the family increases in size and age.

*The question of costs.* The realities of building costs force a careful look at alternatives to effect this arrangement in the Marikina houses. Incorporating a third bedroom into the initial construction would add another ₱3,000 to the cost of the house. Building it after the structure is already up may well mean ₱5,000 more for tearing down and rebuilding. A second-storey bedroom would strain the foundations of the house and, again, necessitate extensive renovation. Perhaps more feasible than the ground-level bungalow would be a raised house on posts, as in the rural areas, with a silong for possible enclosure later on. While it is conceivable, as the designers suggest, that families in need of more space will eventually move to larger houses, it is equally likely, in the face of inadequate evidence, that families will prefer to add a room rather than move elsewhere. And this preference must be considered in planning a house built to last 25 years.

The expense of adding another room can be eliminated by designing the interior of the houses with flexibility as a dominant theme. Rectangular-shaped rooms give more allowance for rearranging than square ones. If the two bedrooms were adjacent to each another, one large and the other small, then when the family needed another separate sleeping space, it could divide the large room in two. Moreover, if wooden partitions were used instead of concrete ones, they could be moved to accommodate new room-size needs without incurring a major expense.

The question of costs impinges on the thinking of the architects and engineers much more than it does on the social scientists. While the former understand the logic behind the flexibility theme, they caution that the lower the cost, the less the degree of flexibility possible. The margin for experimentation becomes too limited when one must try to provide the best house at this price and still make

a minimal profit. Notable features in the LHDC house are the generous floor area for the price, adequate natural lighting, cross-ventilation in every room, and sturdy building materials to meet the 25-year requirement. Allowing occupants to renovate a two-bedroom house into a three-sleeping-space structure will, the designers feel, undermine precisely those features in which they take legitimate pride. The needs of a tropical environment, reflected, for example, in the two spacious bedrooms, the walls that stop a foot short of the ceiling for proper air circulation, and two-panel windows for maximum natural lighting will be unfulfilled.

### *The Cruzes awake*

Having speculated on the sleeping patterns of the Cruz family now and in the future, let us turn to their waking hours. The earliest riser at 5:30 a.m. is likely to be Rosing, who sleeps in the kitchen or living room if not in the second bedroom with the girls. Not only must she begin breakfast preparations; she must also use the only toilet before the rest of the household begins to converge upon it. Here servant status will probably proscribe her use of the bathroom for bathing purposes; rather the kitchen sink will suffice for face washing and the outside laundry faucet for bathing with a *tabò*, or dipper, when her heaviest chores have been completed. Since she will bathe toward noon, some kind of screen will be necessary to ensure more privacy at the laundry tap, even though she will wrap a *tapis*, or sarong, around her. Taking this into consideration the Cruzes may even attempt early in their LHDC occupancy to add a cheap toilet bowl and shower outside the house for Rosing's benefit.

Of course, the Cruzes may have a more egalitarian viewpoint and permit Rosing the use of the inside bathroom, as do many similar-income families on the University of the Philippines campus, for

example. Nonetheless, in the absence of adequate information on attitudes and activities in this income bracket, one must prepare for the most likely contingencies. A reasonable hypothesis would suggest that oriented as these households are to upward social mobility and yet little exposed to egalitarian values through higher education, they will exhibit greater anxiety about the necessity of distinguishing social levels and the prerogatives open to each. As a group slightly above the poverty line, their status insecurity may foster measures calculated to reassure them of their proximity to the higher social levels rather than to the lower ones. Where the *acesoria*, or apartment, they presumably once rented allowed only limited renovation, having their own home makes it possible to cater to such personal preferences as separate servants' quarters.

To return to the awakening household, Severina (Mr. Cruz' sister) has by 6:30 a.m. gotten dressed, eaten a hasty breakfast in the kitchen, grabbed her lunch bag and books, and left the house in order to make her 8 a.m. class in Quiapo. She may have to walk as far as 10 to 15 blocks to the commercial center where the Divisoria-bound buses wait. If it is decided that buses should not be permitted through the subdivision streets in search of passengers, noisy, mechanized tricycles may have to be allowed in the community for those who cannot walk to the center or to school. A bus route serving every part of the community, yet having definite stops to minimize the smoke and noise of door-to-door idling, would be better. The bus stop would, moreover, serve as a meeting place for neighbors and encourage the personal encounters conducive to a sense of community. Besides, if the community center provided the only bus stop, residents like Severina would have to add another 20 centavos for the tricycle ride to the ₱1.50 they already spend on transportation per day, or close to ₱5 to the nearly ₱30 they spend per month. If her father

did not send her a monthly allowance covering her stay in Greater Manila, she would have to be supported by her brother, Francisco.

As Severina leaves, Mr. and Mrs. Cruz awaken to the sound of their two young children scuffling. In the other room, Anita and Belen have been roused as this is a school day. Mr. Cruz pounds impatiently at the bathroom door which his daughters have one after the other locked behind them as they dress in private. The modesty pattern has taken hold, so that the girls either turn their backs to others while undressing, or if possible retreat into the bathroom.

Meanwhile, Mrs. Cruz helps lay out breakfast for the family on the kitchen table, each member eating whenever he is ready. She also checks the children's *baon*, or midmorning snack, to see that Rosing has prepared it according to their preferences. But she also has to hurry in order to reach the market early enough to obtain the best buys. Not having a refrigerator, she can let only one day go by without marketing if she serves dried fish or meat, draws on her canned food stock, or relies on the neighborhood sari sari, or general, store for the main course. The question of where she markets bears mention but will be treated later in the section on the community.

Just as Mrs. Cruz takes advantage of the early morning hours to acquire the best market buys, so too must Rosing start the morning wash early enough to get the benefit of the morning sun for bleaching and drying. Propping up her cheap transistor radio nearby, she squats before her *batyá*, or basin, on the concrete slab by the outside faucet. Here she spends the next three hours, absorbed in soap operas and audience-participation shows, stretching her muscles occasionally to lay out the clothes on the concrete septic tank platform or sunny front lawn for bleaching, to check the starch she is cooking in the kitchen,

to hang the colored clothes on the line, or to look in on the two smaller children playing inside. Hopefully her laundry-tap site has a roof to protect her from the sun and the rain, otherwise she will be forced to use the crowded kitchen sink or inside bathroom taps for laundering.

Several questions arise concerning this period when Rosing, the lone adult, must remain in the backyard. Designed as the houses are to face alternately the street or the side, some kitchen doors will be facing the backyard. Given the latter arrangement, Rosing cannot see, while she is washing, whether anyone is coming up the walk, whether the smaller children have strayed into the street, or whether anyone is making off with her clothes bleaching in the front yard. She must make doubly sure, therefore, to lock the front gate carefully while attending to the laundry. The most convenient placement of the house on the lot is that one with the kitchen door facing the side, with the laundry faucet located in a direct line of vision with the front gate. This will maximize surveillance over the property.

Having returned from the market sometime between 8 and 9 a.m., Mrs. Cruz promptly cooks the food to prevent spoilage. She tethers the live chicken she has bought to a stick in the backyard, planning to keep it there either until the following day or until it fattens sufficiently. When she kills it she will do so at the outside faucet, also the site for cleaning fish. With the meat on the stove, she prepares the fish for *daing*, or dried fish, by threading it onto bamboo sticks to be left in the sun, well out of Bantay's reach. She may soak some of the fish in soy sauce and *kalamansi*, or sour citrus fruit, for consumption that evening. All this is accomplished with the two boys running in and out, periodically looking for snacks or asking for water.

By 11 a.m. Rosing has completed the washing and comes in to clean the house. Shortly after noon Anita and Belen return

from school, and Mrs. Cruz and her four children have lunch together at the dining-room table. Rosing eats later in the kitchen. Siesta follows for the children, while Rosing gets a chance to rest briefly before tackling the enormous load of ironing that will occupy her afternoon. With the household now quiet, Mrs. Cruz pulls out her heavy-duty sewing machine and works on her shoe uppers for the next three hours while the light is good, or until it is time to begin supper preparations. She notices her neighbor, the beautician, go out to begin her home-service rounds in the community. By 3 p.m. the girls are up and play for an hour or two before settling down to do their homework at the dining-room table. Although they have relatively few assignments, these take Anita and Belen a long time to accomplish. Their eyes keep straying to the blaring television set with its afternoon programming of cartoons, movies, and children's participation shows. The boys watch television off and on, but prefer playing outside with the neighborhood children, yet they will not hear of the set's being turned off in the interim.

And where do they play? While the front yard offers one likely location, it might not accommodate all the children and their friends as each child will want to play with those of his age group. Neighboring yards provide additional space, but the street still offers the most flexible playground. This is especially true for older children seeking to avoid the direct surveillance of their parents, preferring to mix with now one play group, now the other, and wanting to be "where the action is." Some kind of recreation and traffic policy will have to be thought out to accommodate this pattern; the matter will be deferred to the section on living in the community.

It is now early evening. Lights snap on all over the community as all the residents begin to converge on their homes. Mothers call their children to come in out of the

evening dew, fathers sit in front of television sets awaiting the evening meal over which wives and maids bustle in the kitchen. Adolescents linger at the corner sari sari store or by a friend's gate, postponing their home entries until the last possible moment. In the Cruz household Severina sets the table and helps entertain the two younger boys to keep them from getting underfoot in the kitchen. Except when Mr. Cruz decides to have a few drinks after work with his co-employees, the family dines together at the evening meal. Rosing serves the food, with Severina, Anita, and Belen helping to clear the table. Severina then washes the dishes while her nieces put them away. Rosing never washes the dishes after an afternoon of ironing because of the common belief that wetting one's hands after ironing brings unhealthy results.

Supper over, the television set becomes the focus of attention, although Mrs. Cruz takes the opportunity to mend clothes during commercials or dull portions. Severina begins studying in the bedroom, transferring to the dining-room table when Anita and Belen are ready for bed. Rosing may go to the backyard or sari sari store to chat with the neighborhood maids. Or if she is especially tired, she rests her head on her arms at the kitchen table waiting for the family to retire. By 11:00 p.m. only Severina remains in the living room reviewing her lessons. At last even Severina retires, enabling Rosing to lay out her mat on the living room floor. The Cruzes' 24-hour cycle is complete.

#### *The Cruzes' other needs*

In looking at one prototype family like the Cruzes, the seminar participants managed to identify a number of problems relevant to most families in the community. That there are bound to be numerous deviations from the patterns described is of course obvious. Even within the Cruz household, Sunday activities will differ drastically from the weekday ones. For one

thing, nearly everybody will be at home, with occasional interruptions as members go to church at various times. Visitors add to the Sunday scramble for household space. To what corner of the living room for example, do Severina's suitors transfer upon the arrival of Mr. Cruz's compadres with their children? On a broader scale, deviations from the Cruz model emerge in families with mothers working full time, or in those composed largely of adolescent children, or those sheltering grandparents.

Yet the renovations mentioned earlier as necessary for the Cruzes would likely apply to other household types as well. In addition to a second bathroom outside, some kind of simple shelter adjacent to the house will have to be designed for a number of reasons. Colored clothes hung on a line under the brilliant sunlight fade quickly, necessitating a shady drying area. In the rainy season, Rosing will have to hang up all the wash inside the children's bedroom unless a roofed space outside is erected. This site can also double as the location of the charcoal fire used in broiling food and cooking rice when both inside burners are occupied. Furthermore, Rosing needs a place to entertain her occasional visitors, since the family would rather not have her invite them into the kitchen. Storage space for the odds and ends that every family accumulates can also find a spot here. Even Bantay the dog may discover in this shelter his sole haven. But these are speculations. Only a program of systematic observation of living patterns in various household types can provide the specific data needed for planning.

#### LIVING IN THE COMMUNITY

Thus far we have been looking at a prototype family safely lodged in its Marikina bungalow and coping with the problems raised in daily household activities. Now we turn to the broader dimensions of homeownership, in particular,

relations with the surrounding community. Our first question asks whether a family in the ₱400-per-month income bracket can afford this house and lot. Next, we consider the feasibility of planning for side-income ventures like home beauty parlors, poultry raising, cottage industries, and the like. These considerations affect both family and community. How should facilities be planned best to serve large-scale and individual desires? Relevant here is the matter of shopping areas, schools and playgrounds, roads, block size, sanitation, and security. We will conclude with problems likely to arise in the reshaping of a community, and in identifying the groups most likely to take responsibility for directing this process.

#### *What income group qualifies?*

Even assuming that each family manages to raise the equity amount needed as down payment for house and lot, one wonders whether families earning a total of ₱400 monthly can actually set aside ₱125 of that amount for housing amortization. Studies of Greater Manila family expenditures in this income bracket reveal a pattern (Table 1). If ₱70.80 was our Marikina family's previous item for shelter, then, obviously, an additional ₱55 per month is required to meet the ₱125 payment.

To expect our householder to divert to housing part of his standard allotment for food or education is unrealistic, since he already finds himself hard-pressed in these areas. More likely, he will decrease allocations for medical care and the like, or simply go into debt. Add to this readjustment the new burden of real estate taxes, needed renovations on the Marikina property upon initial occupancy, household and garden tools, and, if the chief earner does not work in the vicinity, increased transportation costs. Accordingly, one wonders whether it is not merely wishful thinking to program the Marikina houses for families earning only ₱400 per

Table 1  
*Greater Manila family expenditures per month.*

<i>Item of expenditure</i>	<i>Percentage</i>	<i>Amount</i>
Food	37.1	₱148.40
Shelter	17.7	70.80
Education	7.0	28.00
Clothing and other wear	6.8	27.20
Household operations	5.3	21.20
Transportation and communication	4.9	19.60
Fuel, light, and water	3.5	14.00
Tobacco	2.9	11.60
Recreation	2.9	11.60
Personal care	2.2	8.80
Medical care	2.0	8.00
Miscellaneous goods and services	1.6	6.40
Special occasions	1.6	6.40
Household furnishing and equipment	1.6	6.40
Beverages	1.3	5.20
Gifts and contributions	0.7	2.80
Personal effects	0.6	2.40
Taxes	0.3	1.20
<b>T o t a l</b>	<b>100.0</b>	<b>₱400.00</b>

*Source:* Institute of Social Order and Bureau of the Census and Statistics. Philippine Statistical Survey of Households Bulletin Series No. 4. Manila, Bureau of the Census and Statistics, 1957.

month. There is of course a ray of hope if the wife is not yet contributing to that ₱400 by working, or if husband and/or wife can take on a sideline occupation. With an additional ₱250 per month, and a little scrimping on other items, they might be able to maintain payments.

More likely, the bulk of the subdivision applicants will fall into the ₱650 to ₱800 bracket. While housing for this group can be justified in terms of their needs, its members can hardly be considered low income, for they fall in the bottom range of the highest income bracket of ₱5,000 or over per year. Again, the resolution of these speculations rests on empirical

studies of the actual household budgets of the first group of Marikina homeowners. Unfortunately, reliable income data are always difficult to elicit from wary respondents.

Observers further note that in the Philippines, for some undetermined reason, less disposable income goes to housing than almost anywhere else in the world. A 20- to 25-per-cent allocation instead of the current 16 to 18 per cent would place the Philippines at par with many countries. But even 16 per cent becomes difficult to maintain as income drops and the proportion devoted to food increases. While Social Security System records re-

port as much as 30 per cent of some families' incomes going to housing, they probably fail to reflect unreported supplementary income.

*The sari sari store for added income*

Given the difficulty of making ends meet on a P400-per-month income, many a family must seek other means for earning money. Apt to emerge high on the list of proposed supplementary ventures are those based in the home, thereby permitting the wife to combine her housewifely chores with a business pursuit. Hence, one can expect one room to be converted into or an addition built for sari sari stores, dressmaking and tailor shops, radio and television repair stalls, beauty parlors and barber shops, and cottage industries ranging from shoemaking and embroidery to pottery kilns and poultry raising. The question then arises as to whether a specific prohibition on even small-scale commercial establishments should be written into the housing contract at the very outset, or, alternatively, left to the discretion of the projected voluntary housing association. Municipal ordinances in the town of Marikina also bear investigation since they may already stipulate relevant zoning laws.

Where a zoning policy still needs to be formulated, one can predict that the incidence of sari sari stores in the area will need some regulation. For judging from other communities of similar economic level, the planner can assume that the sari sari store will be a favored choice among prospective supplementary-income ventures. Its very popularity, however, frequently renders it uneconomical. Research in the Naga City area reveals that a small sari sari store needs 10 client-households to break even. Serving as the neighborhood financier through credit-extension, the storeowner must make up for losses incurred through delayed payments or outright default by jacking up his prices. Local residents who cannot afford to pur-

chase needed items in bulk from lower-priced establishments necessarily patronize his conveniently located store despite the higher rates. Given the low-income consumer pattern of buying only two or three items at a time, one must admit that the sari sari store is economical in terms of location. It is near enough to people's residences to eliminate transportation costs for emergency buying.

The extraordinary success of the sari sari store as a neighborhood institution, whether in small-unit housing projects or multistorey apartments, can only be explained, however, by going beyond strictly economic considerations and investigating its broader social functions. This ubiquitous store does in fact serve as an informal community center. Little wonder that it attracts nearly all local residents, with its candy and other sweets for children, snacks and soft drinks for teenagers, beer and hard liquor for older adolescents and male adults, and, of course, the staple grocery items for housewives and their domestic help. Some stay only as long as it takes to transact business, while others linger to further local acquaintances and relax in the night air.

From this socializing activity emerges another crucial function of the sari sari store, namely, street surveillance. Whether or not policemen patrol the block, the presence of the sari sari store at a strategic site ensures that adult eyes scan the neighborhood streets from early morning to late evening. An injured child, a heated teenage argument, or a suspicious character loitering in the vicinity are seen and dealt with. In the evening the store with its small crowd serves as a beacon to women scurrying through the darkened streets on their way home. Embarrassed though the ladies may feel about having to pass in review, especially the young and attractive ones, they nevertheless value the safety this collective critical eye provides. On the other hand, the drinking bouts that liquor-selling sari sari stores invite can turn them

into trouble spots instead of security points. One cannot ignore the store's potential for attracting undesirable elements like *kanto boys*, or street-corner hangers-on. The very people who exert some form of social control over public streets may themselves need watching. Perhaps the significant element determining which alternative will dominate in a specific community lies in the makeup of its residents. In a community made up largely of employed residents, the unemployed *kanto boy* presence may be minimized, with a concomittant decline in neighborhood disorder.

While there is no questioning the need for a sari sari store, still other questions must be considered: What should be the optimum number of stores in a given community? What economic arrangements are open to individuals and groups desiring to set up shop or to protect all from price fluctuations? Where should the stores be?

There seems to be little doubt about the need to limit the number of stores in the neighborhood. In our community, the ideal proportion seems to be one store for every 25 to 50 houses. At any rate, whatever proportion is deemed most feasible upon more careful examination should be adhered to, with no other competing stores permitted in the neighborhood.

Unless an efficient retailing system with a minimal price increase over standard rates is instituted, residents will find their already limited resources further depleted. Two alternatives worth exploring are: (1) a combination chain-resident-owned store system which would provide for decentralized distribution; or, (2) a central distributor controlling and regulating all the small outlets. The second alternative would seem more feasible, since the sari sari stores' prices and services would be stabilized at levels at once profit-making and non-exploitative of lean purses.

The identity of the central distributor also warrants discussion. Under the law,

can a homeowners' association operate the retail outlets, presumably thereby catering largely to the residents' interests? Or should the system be run on a concession basis? In view of the inevitable delay in organizing a working homeowners' association, while retail outlets will be needed immediately upon occupancy of the houses, the concession scheme seems more feasible.

The next question is where to locate these retail outlets. Acknowledging the surveillance and meeting-place functions of the sari sari store, a crossroads site would facilitate the desired four-way view. Moreover, to ensure that a local resident manages the store, it should operate on the premises of his corner house, either utilizing the proposed third bedroom or an extension of his dwelling. Of course, this arrangement raises the problem of continuity in running the establishment should the householder lose interest in it. He might, in such a case, be allowed to sublet it. The issue of whether adjoining property is likely to drop in value as a consequence of the store's proximity needs to be considered, too, as does the possibility of a detached sari sari store site independent of any of the surrounding household units.

#### *Providing community facilities*

*Small shopping centers.* In addition to sari sari stores, developers might plan a number of small shopping centers located at various points in the subdivision, in the proportion of one to every 100 or 200 houses. These centers would take the place of every fourth sari sari store and serve as nuclei for a small grocery store, beauty parlor, barber shop, dressmaker's shop, coffee shop, billiard hall, bus stop, and small park with a basketball half-court. Since the subdivision householders will not constitute a car-riding population, several small centers augmenting the large commercial center as planned are called for. This would be preferable to having the

currently planned single commercial complex situated 500 meters away from the LHDC site and meant to service the entire subdivision series of several thousand homes.

Establishing smaller shopping nodes within walking distance of every household marks only one of the important considerations in accommodating a lower-income population. The kind of shopping sites available also merits attention. Building a modern grocery-supermarket in the central commercial complex, for example, does not answer the need of budget-conscious, ₱400-a-month housewives; it caters rather to a wealthier, refrigerator-owning clientele. Limited by her meager food allowance, the LHDC housewife will have to seek out a *palengke*, or traditional native market, with its wider selection of the cheaper cuts of meat and the humbler varieties of fish, vegetables, and fruit. Its many small stalls make possible comparison and bargaining for the lowest prices, and a *suki* relationship with a favored seller who saves for his steady customer the choicest items at the most economical prices. While the grocery-supermarket of the subdivision represents a necessary contribution to the community, it is not sufficient to give the low-income housewife the flexibility she must have to make ends meet. Unless a traditional market is established in the subdivision, large numbers of residents will be forced to market in the town of Marikina or even as far as Cubao, compounding the problems of rising transportation cost and already overcrowded early morning buses.

*The church.* The location of other service areas also needs scrutiny. While the subdivision plan shows a site reserved for a school and church, their being placed almost at the boundaries of the subdivision rather than in a central location means forfeiting a number of natural advantages. Fewer children will have access to the school's playground facilities after hours. The potential of the

school and the church as community meeting places for residents of all ages diminishes if they are not easily reached. More students and churchgoers will have to walk longer distances from their homes, a serious consideration in rainy weather. Moreover, not apparent in the plan are the commercial facilities that schools and churches inevitably attract into their periphery.

One wonders whose responsibility it is to build the school, and how soon. Should it be public or private? Will the existing private Catholic school in another sector of the subdivision be adequate to take in the 600 additional children of elementary-school age that 500 families can be expected to yield? If so, can the LHDC families afford the tuition fees? A public-school alternative for those unwilling or unable to attend the Catholic schools is clearly called for, since the Marikina public schools will not admit a sudden large influx of newcomers.

*The school and pocket parks.* No matter where the new school is placed and how large its playground, additional play space is needed. Parents living more than two or three blocks away from the school are apt to feel uneasy about sending their children to a playground out of sight or hearing from home. Pocket parks should be distributed throughout the LHDC area to relieve this anxiety and answer the children's play needs. The 5 per cent of subdivision areas that government regulations specify be allocated to park and recreational sites need not be clustered into one contiguous sector. Rather, local needs might be better served if each neighborhood had its own small park possibly adjacent to each corner sari sari store, or to every other one. A ratio of one pocket park for every 50 to 100 houses would service some 150 to 300 children. While it could not cater to more than a small proportion of this clientele at any one time, it would take off the streets at least that many more children. By setting aside space in

each neighborhood for a small playground-park, planners simplify the problem of maintaining recreational facilities. Neighborhood residents are likely to be more enthusiastic about keeping clean, safe, and in good repair a play area located in their immediate vicinity and patronized by their own children than one large unit designed to serve the entire LHDC sector, but in effect belonging to no one. The upkeep and improvement of the pocket park might, in fact, become a focal point for neighborhood civic projects and help generate community spirit.

### *Shaping a community*

Planning the housing and neighborhood environments of several hundred families presents a valuable opportunity to structure a community's attitudes and dwelling patterns. With urban and suburban life on the increase in the Philippines, a serious look at people's aspirations in housing and their actual lifestyles can contribute much to building sound residential communities. Yet one must be cautious in the relative weight assigned to the ideal and the real, for to emphasize one at the expense of the other bodes trouble. Planners can try to simulate people's housing dreams, yet if the actual manner in which the people live hinders the attainment of the ideal, the goal of beautiful surroundings is lost. House and lot may be attractively arranged, but mountains of garbage dumped in the streets outside detract from the overall image. On the other hand, if planners make no provision for regular garbage disposal, they can hardly blame residents for foregoing beautiful street scenes when there is little other choice.

One can also carry too far predictions of how people will live, based on their previous dwelling patterns. Given a change of environment and the opportunity the new subdivision provides to break with the past, LHDC residents may adopt new ways more easily than their earlier lifestyles suggest. They may seek different

kinds of furniture, clothing, and other symbols of their new-found lifestyle rather than attempt to maintain former habits. The actual outcome is likely to reflect a pattern of desired shifts in some habits, and retention in others. The problem then comes down to predicting which habits will fall into each category. If planners recognize that they can restructure a group's lifeways, they should be daring in their attempts to shape a community for the future as well as for the present. This perspective will help Filipinos move faster in their society's inevitable modernization effort. Again, only time and empirical research can verify the suggestion that people can change their living habits given the concrete opportunity of responding to new situations. Much can be learned from studying communities made up of populations similar to the prospective occupants of the LHDC houses, or indeed, by observing the latter group as it develops in its new context.

*The community block.* A number of forecasts as to probable developments have already been made. Several more concerning both the physical and social environments conducive to a sense of community can be proposed. The very placement and number of houses in a block, for example, make a difference. By fronting the most "lived-in" sections of the house, namely, the living room, kitchen, or laundry area, on the street, designers automatically foster greater local surveillance and safety of common areas. But this strategy fulfills only a portion of the requirement. For unless the number of houses along one street is cut down from 19 to about half that number, and unless the current grid arrangement of streets is reworked, there is little hope of developing significant community spirit. For residents will not be naturally clustered in a manner allowing fairly regular interaction. Friendships are harder to develop with families strung out in straight lines on either side of one's house. In

a perpendicular direction, families across the road will become friends in approximately inverse proportion to the width of the street and the frequency of vehicular traffic on it. Put more simply, the wider the street and the heavier its traffic, the less likely a family will be to get to know the neighbors on the other side.

*Streets and footpaths.* Shifting to a subdivision plan of curved streets whose ends emerge on the same thoroughfare should further diminish through-traffic and augment acquaintances with families next door and across the way. Where main roads require longer straight stretches, these might be cut through with footpaths between every tenth house to decrease block size. A danger in this scheme, however, is that such footpaths too often degenerate into unsightly garbage dumps, especially when not readily visible to passersby. Moreover, subdivision residents seem to prefer vehicular cut-throughs to footpaths. This corresponds to the observation that Filipinos will ride whenever possible, choosing to walk only when no other means of transportation is available. While there are, of course, exceptions to this statement, the overwhelming number of pedicabs, jeepneys, and buses in Philippine cities and towns, stopping as they do wherever the passenger indicates, attests to its validity. But regardless of the disagreement among community planners as to whether a pedestrian or vehicular cut-through is best, the need to partition long streets at more frequent intervals is indisputable. Nineteen-house blocks simply do not engender community consciousness. Strung out in a line, the houses are too uniformly arranged to give residents a comforting sense of individuality in mass-housing schemes.

*Fences and clotheslines.* Careful planning can prevent other physical impediments to a spirit of concern for the neighborhood. While fences may be considered essential by householders seeking to keep

children and animals in and intruders out, certain kinds of fences should be prohibited at the outset. Walls over two feet high, whether of adobe blocks, wood, or natural bushes, present an almost insurmountable barrier to neighbor contacts; wire fences that permit a view of the inside property may be slightly higher. A happy medium between extreme privacy and excessive neighborliness can be achieved either by low walls or see-through fences. They allow contacts from one household to another even as they restrict indiscriminate access to or passage across a resident's lawn. Furthermore, they do not give home dwellers the opportunity of ignoring paper or garbage littered in the space just outside the property, an opportunity offered by high walls.

To augment over-the-fence socializing between the four adjacent houses within a square, planners might set up a single anchor pole for a clothesline at a point central to the four backyards. Since all the lines for the four houses would converge at this pole, face to face contact among housewives would be maximized. Laundry areas might also be clustered in pairs for the same reason. However, backyards and laundries are perhaps associated with maids, while the families themselves congregate in the front yard. If this is true, then the clothesline pole and laundry placement suggestions might serve primarily to bring together the domestic servants in the block rather than the home-owning families.

*Sidewalks.* A sense of community, therefore, does not necessarily require for its development the building of an elaborate structure labeled "community center." Any popular meeting place, indoors or out, can contribute to the general awareness of common interest. Seen in this light the argument favoring sidewalks in housing projects becomes more meaningful. Although walking arouses little enthusiasm in the Philippines, strolling about one's

neighborhood in the late afternoon or early evening with no particular destination in mind is a traditional Filipino pastime. And it should be nurtured for community life. But if taking a *pasyal* means picking one's way around mud puddles or jumping out of the way of passing vehicles, residents may decide to forego this pleasurable activity and the local friendships it fosters. This is where the builder can exert some influence. If instead of the all-too-frequent patchwork of concrete, grass, and open ditches that currently substitutes for sidewalks in many subdivisions, LHDC puts in continuous concrete sidewalks, it will boost the fraternization rate significantly.

The added investment in design features aimed at enhancing a collective interest may turn out to be sound in a financial as well as social sense. Rising property values depend on how well the community is maintained by its residents. In turn, the personal desire to keep the surroundings clean, safe, and attractive should correspond to a shared sense of identity with one's neighbors. Residents themselves will deal with below-par deviations from the norm of higher standards. Informal group pressure frequently carries stronger sanctions than do formal regulations.

*Zoning laws.* Nonetheless, one cannot discount the importance of laws for ensuring conditions beneficial to the greater number. If appropriate zoning regulations do not already exist in the Marikina area, then they need formulation to prevent the occasional homeowner from turning his property into a noisy factory site emitting noxious fumes and industrial wastes. On the other hand, because of the low-income character of the subdivision, certain kinds of cottage industries or simple commercial enterprises should be tolerated as long as they do not offend the senses or pose health hazards. Thus, a housewife interested in earning extra income through dressmaking or run-

ning a beauty shop, or a man wishing to be a barber or shoe repairman on the side should be allowed to hang up shingles advertising their services. Whether or not a radio or car repair shop with its associated noise and its air of disarray constitutes a nuisance, the residents themselves might decide.

As in any situation governed by formal rules, the problem of enforcement cannot be sidestepped. Unless there are sanctions for violations, someone will abuse his privileges and infringe on the rights of his neighbors. Who, then, or what entity will impose punishments for failure to comply with the law? The LHDC cannot, since it relinquishes its power once it turns the subdivision over to the Social Security System. The SSS in turn will probably consider such a duty beyond its competence. Presumably the Marikina municipal council has the potential right to regulate local activity but is it prepared to take on this task? Through a process of elimination only one possible candidate remains — the homeowner himself.

A realistic assessment of the residents' time and interest cautions against an over-ambitious attempt to vest household heads with the sole responsibility for initiating and controlling community endeavors. If the Cruz family is at all typical, it reveals that the working man in the family has little leisure time for active participation in formal associations. Yet some organized effort is needed.

*Homeowners' associations.* One solution may be to constitute a homeowners' association with membership organized around *households* rather than actual household heads. In this manner meetings can be called, with each household designating one of its available members as spokesman for the family. This representative might be the head, his wife, an adult brother or sister, or an older teen-aged son or daughter. He would have a full voice in the body's deliberations,

whether young or old, male or female, because he represents the household in his own right and not as a mere substitute for the family head. Such a system would have the advantage of establishing the needed structure, a residents' association, as well as the operational flexibility requisite in a community of households with varying activity patterns and personal abilities. Local organizations need not suffer from apathy if those free to contribute their time and interest are encouraged to participate in the necessary communal deliberations and project activities.

Flexibility within the homeowners' association should also extend outward to its role in the community. As the subdivision residents become acquainted with one another, a number of clubs drawing their members from smaller units are bound to arise. They should not be taken as rivals by the homeowners' association but rather as sharers of the overwhelming development burden. The most active sector will most likely be the teenagers and young, unmarried adults, and to them should go the task of welding the community into a cohesive unit through social-recreational means. They qualify as organizers by virtue of their time and interest, and possess the freedom from home and family responsibility which allows them to be community-oriented. Women's clubs also play an important part in fostering activities like improved nutrition, home and garden beautification, arts and crafts, and the like. Groups like these centered around task accomplishment and at the same time fostering camaraderie add a meaningful dimension to community life.

In fact, as spontaneous patterns of local activity emerge whose specific improvement projects overlap with those of the homeowners' association, the latter can start withdrawing from such activities. Its pump-priming function having been realized, it can restrict itself to the task

which it alone can handle satisfactorily, namely, that of *legislating* in matters of overall interest. While neighborhood units can organize successful block activities, only a subdivision-wide association has any hope of effectively regulating and enforcing zoning regulations, for example, or petitioning public utilities and government entities to extend their services to the area. People in an urban community have so many divergent interests beyond their jobs that if any side interest demands too much of its practitioners, it jeopardizes its own existence. Hence, keeping the number of homeowners' association meetings to the minimum necessary for performing the most essential tasks gives the association a better chance of success.

But how shall this homeowners' association be established? To say that neither LHDC nor the SSS should administer the subdivision, as was stated earlier, is not to suggest that these entities should absolve themselves completely from the responsibility of helping set up a governing structure. The SSS might write into the home buyer's contract automatic membership in the association and an agreement by each household to pay a monthly membership fee. It could further stipulate that when a certain percentage of the houses has been occupied, it will call an organizational meeting for the purpose of electing officers and planning a program of activities. This done, the SSS will then turn over the management of the subdivision to the homeowners' association.

*The designer as shaper of the community.* In the hope of proposing guidelines for a low-income housing community geared to Filipino aspirations and cultural patterns, the seminar participants clearly opt for a setting which stresses community involvement. They are not unaware that present urban arrangements often reflect the opposite preference, at least if one is to judge from the high walls and apparent lack of neighborhood

concern that characterize many of Greater Manila's middle- and upper-income residential areas. They know of data gathered in lower-income Tondo, for example, revealing a desire to leave the crowded city blocks with their mandatory neighborliness. In lieu of the Tondo pattern, many residents favor a modest suburban house with a small garden where one can mind one's own business and expect the neighbors to do likewise. While the seminar participants respect these wishes, they also see in them the very source of much of today's urban malaise. Given the chronic lack of public funds to provide basic services like garbage collection and police protection, and acknowledging the slowness of government bureaucracies to respond to specific local needs, the urban resident must recognize that his image of the ideal community will come alive only if he and his neighbors take an active part in shaping it to their wishes.

Urban design that takes only current realities into account, and that fails to profit from past mistakes and ignores a vision of a better future, finds no justification in the modern world. The LHDC and other building corporations have a precious opportunity not only to solve a present housing shortage by constructing needed dwellings, but also a chance to instill new values among the residents through the planning of these communities. The kind of houses they build can make the difference between a family's being merely sheltered and its being welded into a healthy, secure, and happy unit. The kind of communities they design can result either in a cluster of houses, with each resident family oblivious of the rest, or one in which each family is responsive to the concerns of its neighbors and identifies with the goals of the larger community, even while it retains a desirable degree of privacy and independence in this personalized milieu. Indeed these same trends proposed for the LHDC community reflect the patterns that

urban analysts see as mandatory for the modern city if it is to be the site of twentieth-century man's hopes for a better life.

New communities then, offer numerous possibilities for experimentation and innovation. Designers, both technical and behavioral, can try out such schemes as communities with a class mix, so that the specific advantages and deficiencies associated with a particular status group can be evened out through interaction between higher- and lower-class neighbors. What may be leisure or working time for one class, may not be so for another; hence the greater likelihood that with mixed income groups, street surveillance, for instance, will be more consistent through the day and transportation facilities less clogged at particular hours. Differing lifestyles and aspiration levels promote a healthy variety of approaches to community goals. There is no really sound reason why mass housing communities must contain clusters of single-level income families only, especially when the same subdivision builders plan similarly homogeneous higher-income sectors in the vicinity. Why cannot the lots within a subdivision encompass a range of sizes for varying levels of income groups, so that modest two-bedroom houses stand adjacent to somewhat more expensive three- or four-bedroom models?

This heterogeneous arrangement is nothing new for the Philippines. One might even say that it comes closer to the traditional as symbolized in the Philippine town. Here the residences of the elite stand near the distinctly less imposing houses of ordinary townspeople. While it is true that upper-class homes tend to fringe the plaza area, they do so in non-exclusive fashion. The symbiotic relationship between upper and lower classes that welds separate roles into a coherent community system of mutual reciprocity demands that the two groups interact with each other even while maintaining sepa-

rate lifestyles and attitudes. Prewar Manila by and large reflected this fairly mixed residential pattern. The beginnings of today's elite enclaves with their high walls (and in the postwar period, armed security guards) came as suburbs offered more attractive surroundings, and the automobile enabled suburbanites to get in and out of the city proper quickly, for work or shopping. The wealthier elements of Manila society have been drained off to Quezon City and parts of Rizal province from central-city neighborhoods like Sampaloc, San Miguel, and Ermita, leaving behind the lower-class elements and a rising population of commercial and industrial establishments. Unless imaginative planning occurs around these changing elements of the central city, the process of deterioration is likely to accelerate.

Apparently this kind of ecological segmentation arises as land values shift in response to industrialization. That the pattern shows a dismaying lack of concern for the city as a whole while emphasizing the particular interests of a specific locality is true not only in Metropolitan Manila but in most of the world's great cities. But where the industrial nation must combat the now entrenched pattern through expensive, massive urban redevelopment projects, the Philippines can still avoid the pattern. Since its industrial revolution has only recently begun, it has the enviable option of shaping particular mass-housing communities in such a way as to encourage concern for the total environment without segregating the group behind high walls. Planners must seize this opportunity to educate the Filipino urbanite for metropolitan living. By learning from the Western experience, where the community's concern for the city was allowed to languish, we may yet sidestep the problems of urban decay. This will be possible through a concerted effort to foster a sense of personal involvement in the city's well-being and in one's own residential community.

Other kinds of experiments can contribute significantly to effective housing programs for Filipinos, among them company housing, more deliberate attempts to evolve a Filipino architectural tradition blending the old and the new, and high-rise and prefabricated housing complexes.

Company housing can go far toward expressing a business firm's interest in the welfare of its employes. Organizing a neighbors' association would be facilitated in one sense because of the concomitant interaction at work as well as at home. Yet there could be problems, too, stemming from the transference of office status positions to the conduct of neighborhood activities. On the other hand, transportation facilities would be notably easier to manage if employes lived in the vicinity of their workplace.

While the development of distinctly modern styles of architecture embodying aspects of Filipino tradition may have little direct bearing on the human factors in housing, and may even raise costs, planners might investigate this aesthetic dimension somewhat more intensively. This can be pursued not only in terms of decorative elements but in relation to functional features as well. Certainly the raised house with the large windows and the silong, or open portion below, capture the elusive breezes so welcome in a tropical climate. The silong also allows families to exploit its neutral space in a variety of ways according to their specific needs, among them storage, cottage industry, extra bedroom, servants' quarters, garage for a car, bicycle, or baby-stroller, children's play space, and rainy-day clothes-drying area. In decorative terms, Filipino motifs might well augment the growing sense of national identity which promises to become a dominant theme in the years ahead.

The feasibility of prefabricated dwellings will have to be evaluated against the norms presented in this discussion.

High-rise apartment dwellings, however, constitute a relatively new form for the Filipino landscape, and will require a good deal of experimentation before they are acceptable. What few examples exist indicate that planners should multiply the space within the private upkeep responsibility of individual households, and minimize public space having no personal entity clearly in charge of it. Unclaimed public space leads to unkempt and unsafe public surroundings. The generalization is, the greater the public space not clearly within the domain of particular households, the less the responsibility felt for it.

Designing a community, therefore, means just that — shaping the actions and attitudes of residents toward a sense of common identity. Having experienced it, they can more readily grasp the need for concerted action to make the community the kind of place that is good for them and for the metropolis at large. That this strategy will need the combined efforts of many specialists has happily already been recognized. The sponsorship of a seminar on human factors in low-cost housing, by the Land and Housing Development Corporation and the Philippine Sociological Society reflects this awareness. To the seminar initiators, Sixto K. Roxas III, and Mary Catherine Bateson, go the praise and esteem of their colleagues in the social sciences.

#### THE NEED FOR RESEARCH

To propose, as the seminar participants have, that people will behave in certain ways if placed in specific situations is one thing; whether people will actually do so is quite another. The only way to verify how closely predictions based on impressions approximate reality is by undertaking empirical research.

For evidence immediately applicable to the LHDC community, the social scientist can investigate several alternatives. Instead of speculating on the kinds of

people and families the community is likely to attract, he can gather much of that information by tabulating entries in the actual application forms submitted to the Social Security System. Where the form excludes data essential to a social-psychological analysis, he might insert question items eliciting them in subsequent revisions. Hence, by a mere tally of SSS files, the investigator can learn much about the kinds of families that apply and, once the houses and lots have been awarded, the characteristics of their future occupants. Or, applicants might be asked to fill out a questionnaire (designed by social scientists), which elicits basic data. Companies planning an employee housing program could also utilize this guide for planning purposes. From these sources one can build a profile of the residents in regard to birthplace, residential history, income, occupation, family size, age of household members, place of employment, and other basic data.

This information in itself provides the underpinnings of sound planning. But records and basic-information questionnaire have their limitations. Researchers also need to interview the prospective residents as to the kinds of organizations they joined in the past, their spending habits, their aspirations, and what they hope to achieve by moving into this community. They can show residents a variety of house models constructed to scale and ask them to rearrange the furniture and the people in them, shift rooms about, and place the models in the community setting of other houses and public facilities, according to their particular household needs and desires. To find out what clients want, they must be asked.

Participant-observation can expand the data gathered through interviews by providing greater depth and locating them in the total neighborhood and city contexts. In this manner the skilled participant-observer, preferably himself a resident, gains insights into living habits, the

uses of space both in the house and in the surrounding area, adjustments to neighbors, and the emergence of incentives or deterrents to a sense of local identity. Having this kind of crucial information will be further enhanced by research pursued at various time periods, giving us a better understanding of how communities develop at different stages in their life-span.

Because of the importance of the homeowners' association as a quasi governing body for residents, much more has to be known about the legal basis for such a body, in particular, the existing ordinances that regulate its activities. For a comparative framework, a study might be undertaken: the history of such associations in the Philippines, their problems, and their accomplishments.

The plea for research on the human factors in housing stems not so much from the social scientist's commitment to furthering a better understanding of human behavior — although he never forgets this mandate. Nor is it derived from the awareness that designers, builders, and, ultimately, homeowners can save themselves substantial amounts of money by supporting sound research. Important though these considerations are, of far greater significance is the designer's, the builder's, and the social scientist's commitment to the people who will inhabit these houses and make them the core of their lives. They have a right to the best that the modern world can offer them within their means and tastes. And we, the standard-bearers of modern science, technology, and esthetic concepts, have the obligation to provide it. For when the bulldozers start clearing the land, when carpenters and masons begin hammering and placing stone upon stone to fashion what to the untutored eye looks like a simple residential cluster, these machines and craftsmen will be building not merely houses, but a human community

## APPENDIX A

## Housing Seminar Participants, Resource Persons, and Observers

*Participants, their professional affiliation, and research interests*

Belinda T. Aquino, M.A. Research Associate, Local Government Center, University of the Philippines. Income patterns in Barrio Magsaysay, Tondo, Manila.

Wilfredo F. Arce, Ph.D. Assistant Professor of anthropology, Ateneo de Manila University. Community social structure; industrialization process.

Mary Catherine Bateson, Ph.D. Visiting Assistant Professor of anthropology, Ateneo de Manila University. The effect of physical space on people's relationships; urbanization.

Mercedes B. Concepcion, Ph.D. Director, Population Institute, University of the Philippines. Family patterns.

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Abraham Felipe, Ph.D. Chairman, Department of Psychology, University of the Philippines. Psychological adjustments to urban living.

Mary R. Hollnsteiner, M.A. Associate Professor of sociology and anthropology, and Director, Institute of Philippine Culture, Ateneo de Manila University. Urban patterns of neighborhood interaction in low-income areas.

Francis C. Madigan, S.J., Ph.D. Professor of sociology, Xavier University. Migration of population; recreation.

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Richard P. Poethig, M.S. Program Director, Industrial Life and Vocations, Unit-

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- Teresita Silva, M.S.S.W. Chief, SWA-UNICEF Assisted Social Services Project, Social Welfare Administration. Urban community welfare.
- Jacobo S. de Vera, LL.B. Assistant General Manager, People's Homesite and Housing Corporation, Quezon City. Planning and administration of housing schemes.
- Bernard Wagner, Ph.D. Chief, Division of Housing and Urban Development, U.S. Agency for International Development, Manila. Planning and administration of housing schemes; long-term interest in LHDC proposal.
- Resource persons and observers, their professional affiliation, and background*
- Francisco Cacho, President, F. Cacho and Co. Management.
- Efrenilo Cayaña, Corporate Secretary, LHDC. Lawyer.
- Maria Angelina Esquivel, Administrative Assistant to the President, Bancom Development Corporation.
- Maurillo Garcia, Member, LHDC Technical Committee. Architect.
- Claudio Luzuriaga, Victorias Milling Co. Management.
- Angelo B. Manahan, Assistant Treasurer, Bancom Development Corp. Engineer.
- Geronimo B. Manahan, Instructor, Institute of Planning, University of the Philippines. Planning.
- Lamberto Un. Ocampo, Vice-President, DCCB Engineering Corp. Engineer.
- Sixto K. Roxas III, President, Bancom Development Corp. Economist.
- Antonio Sindiong, Member, LHDC Board of Directors. Architect.

Luis F. Yrure, Vice-President for Operations, LHDC. Engineer.

## APPENDIX B

### Sociological and Cultural Considerations\*

#### A. House designs

There are three house designs being contemplated, namely, a single detached house, a duplex, and a quadruplex. The criteria for the design are as follows: (1) that the cost of the house and the lot in which it stands should be no greater than around ₱16,500; and (2) that the house should last for 25 years implying that the materials used in its construction should be durable and lasting.

With this in mind the technical staff of LHDC has decided to construct houses with the following materials. The roofing material will be made of zinc-weld G.I. sheets imported from abroad. This has the advantage over the local material in that it has a thicker zinc coating and hence a greater resistance to corrosion. Another alternate for a roofing material being considered is rib-core aluminum. The trusses will be of the gang nail truss type which was chosen for speedy construction. All lumber used will be treated so as to give resistance to termites, "bok bok," and dry rot. External walls will make use of concrete hollow blocks in order to give the necessary load-bearing strength and insulation. Windows will be made of jalousies with clear glass for the living room and industrex for the bedrooms. Partitions within the house will make use of plywood or placarol, while the electrical circuits will be in PVC conduits. All toilet accessories will be those produced by Philippine Standard with the fittings imported from the U.S. The kitchen sink will be a local steel enameled type. All paintings will make use of Dutch Boy paints (best-known brand locally) or any of its equivalent. Human waste dis-

\* Bancom Development Corp. Briefing kit on the Operations of the Land and Housing Development Corporation. Makati, Rizal, Bancom Development Corp. 1968. Pp. 24-29.

posal will be through precast septic tanks. Interior ceilings will be made of plywood while the exterior ceiling will make use of tempered Lawanit.

The flooring of the houses occupies an area of 65 square meters with two bedrooms, a dining room, a living room, a kitchen, a toilet, and a porch. The house is somewhat square measuring roughly 32 feet by 26 while the bedrooms measure 12 feet by 12. The toilet is located such that it is readily accessible from any point in the house. Most of the walls have windows for optimum ventilation and sun-lighting.

### B. *Community plan*

The 20-hectare pilot project in Marikina is really just a portion of a subdivision complex by the Tuason Enterprises, Incorporated, known as the Marikina Heights Subdivision.

The overall area of around 600 hectares at present is more than 90 per cent developed with two existing exclusive schools now in operation. The Sta. Scholastica College school for girls is located near the center of the community while the Marist School for boys is located at the east from the center of the area. There are also two public elementary schools within the subdivision. It is planned that a commercial center be at the center of the subdivision with several open spaces adjacent to the commercial center to serve as parks and playgrounds. The pilot project in itself is envisioned to have a school and church site right next to the area.

It is planned to sell the units to employees working within the vicinity of the area within a radius of four kilometers from the pilot project. This will have the advantage of living within a comfortable distance from their working place thus realizing a savings in time and money in the process.

What might be lacking in the area is a hospital, the nearest at present being the Ortaña Hospital which is approximately 10 kilometers from the area.

### C. *Some considerations for association rules and regulations*

#### 1. *Introduction*

In today's rapidly multiplying residential developments certain problems regarding common properties constitute a major question mark in the practical application of these new land concepts. The problem is twofold: (a) how to assure that the common facilities planned during the development stage are adequate for the continuing needs of the homeowners and practical for maintenance; and (b) how to assure that they will be properly maintained and controlled continuously by a responsible body for the benefit and enjoyment of the homeowners. A solution to this twofold problem would be the creation of a homes association.

#### 2. *Restrictions and rules*

a. *Use of lots.* The following points should be considered under this heading: subdivision of a single lot or the consolidation of two or more lots; the use of lots either for commercial or residential purposes; the number of family houses to be constructed on the lot; the construction of commercial or advertising signs; and the maintenance of domesticated animals.

b. *Buildings and architecture.* Under this heading the following points should be considered: the materials to be used; heights of the house and fence; approval of the building plans; the minimum cost of main residence; restrictions on easement areas; and the means of sewage disposal and system of drainage.

c. *Terms of restriction.* The length of time the restrictions are to be enforced and the addition, amendment and abolition of particular restrictions must be of great concern. These restrictions can best be enforced by court action by the home association.

d. *Home association restrictions and rules.* The following points can be considered for the cleanliness, safety, and decency of the association: the entering of

pedicabs, public utilities, and animal-drawn vehicles into the subdivision and straying of animals; the loitering and wandering of persons other than members, residents and their guests, and visitors in the subdivision; the burning of waste materials; the entering of vendors, agents, canvassers, or solicitors into the subdivision; the use of playgrounds and parks and the hunting of birds within the subdivision.

e. *Garbage collection service.* Under this heading the following points should be considered: the collection service either by a public or a private entity; the shouldering of the cost if done by a private entity; the type of containers to be used and the collection time.

f. *Fire prevention.* The cutting of grass so as to reduce fire hazard and the telephone numbers of fire departments within the area the residents can call up in case of fire should be considered.

g. *Police protection.* The association can have its own police force aside from the local police force. For better control of entry of unauthorized persons in the area, residents can require their household help to secure ID cards from the local police force or from the municipal police.

h. *Traffic.* The regulating of speed limits and the observation and obligation of the speed limit should be considered.

#### APPENDIX C

#### Social and Cultural Dimensions of Housing in the Philippines: A Partial Bibliography of Suggested References\*

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