

Bobby Manosa



Francisco "Bobby" Manosa was born and raised in the Philippines, where he graduated in architecture from the University of San Tomas in the nineteen fifties. Having practised for a number of years with his brothers, both trained architects, Manosa set up his own office in partnership with Ludwig Alvarez, long-time associate and friend. Denise Manosa his

wife, although not an architect, has been a crucial member of the team from the outset. Featured as one of the visionary architects of the region in a 1982 Asiaweek cover story, Manosa has had projects as far away as Saudi Arabia, Europe and the U.S.A. He lives in Manila.

— Editors

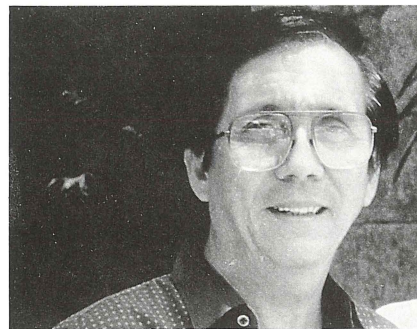
MIMAR: You have been described as the most outspoken champion of an indigenous Filipino architecture for your country today. Can you explain?

Manosa: In the Philippines, our first dwellings were the *nipa* huts, or the *bahay kubo*, of one sort or another which evolved to the present types of today but which differ depending on the region or the tribal context. This humble structure was instinctively designed for the requirements of the local climate and terrain as exemplified by its elevated structure, high-pitched roof, wide eaves and *tukod* windows. Built of bamboo and dried grass, lashed or woven to keep the interiors water-tight and well-ventilated, it had a simple room for all household activities. Spanish occupation of our country for 300 years brought a modification of this model, using stone and wood instead of bamboo and *nipa*, but not a new model.

MIMAR: What is your attitude towards the use of local materials upon which your own architecture seems to rely so heavily?

Manosa: A vision of a future Filipino architecture in our country cannot help but open doors to an awareness, assimilation and acceptance of indigenous materials, and to our vernacular heritage generally. These materials are coconut as well as bamboo, *cogon*, *nipa*, wood, stone, clay and rattan. The use of these materials is more economical than importing from abroad. There is, then, need to do research on what is one's own, to go back to our roots, to identify which elements and aspects of our roots are still applicable in today's society. We must also be aware of our indigenous materials — on how they have been used in the past, on how they are being used today, on the new technologies that can be applied on these raw materials to make them more responsive of our needs today. The architect must get a foundation by research and information on what makes up the psyche of his people, the needs of the different levels of his society.

Nipa hut model.



MIMAR: Does this have to do with a philosophy of development which you espouse in the Philippine context?

Manosa: Absolutely. Design efforts are directed at the development of new products utilising our raw materials and the many skilled craftsmen that abound in the country. This product development centres on the creation of totally new products in such craft areas as bamboo, wood, metal, weaving and tapestry, shells, ceramics and pottery.

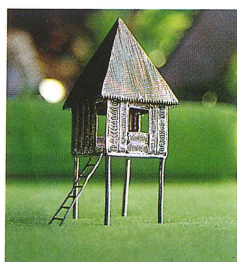
There is a dire need of industrial designers in our country for almost every imaginable industry or craft existing. Industrial design is needed in all fields, from building materials to furniture and furnishings, from car design to toy design. Anything that entails manufacturing requires industrial design.

Since the architect has undergone his formal schooling on the principles of design, proportions, and most importantly structure — I know of no other profession that can more easily fill this tremendous need for industrial designers than architects can. Although we may be in tough economic straits today, it is a matter of reorienting our attitudes towards self-development.

MIMAR: And so you believe this is an essential part of the process of establishing a national identity in architecture?

Manosa: Two important aspects give identity to the architecture of a country: 1) the architecture should be a reflection of the culture in which it is found. This is seen in the symbolism of the structure. 2) A building should respond to the local conditions, to the climate, to the materials and the techniques, and to the

Interview by Brian
Brace Taylor.
All photographs and
drawings courtesy of
the architect unless
otherwise stated.



budget available. In other words, the built environment reflects man's expression of his way of life, his emotional, philosophical, religious, and material values.

This relationship between culture and the built environment, between culture and technology, is woven very closely together and each is capable of modifying the other. If one is not careful and selective of new imported technology, one inevitably destroys the fabric of a nation's cultural traditions — and architecture.

MIMAR: But aren't there prejudices against certain materials that could obstruct formation of an architectural identity? Like the one against mud construction in some societies of the globe?

Manosa: The poor, for instance, have always had native materials but have been limited in their access to technology. The rich, on the other hand, who have access to technology have always discussed materials like bamboo or coconut as lowly. Not so today. We have experimented and created new possibilities of handling such materials, which are not only upgraded but allow exciting new spaces to come into being.

MIMAR: What can be the architect's role in bringing these elements into the mainstream economically as well as aesthetically?

Manosa: Our job as architects is to be alert for the opportunities to work together with the experts, the specialists, even the inventors. For the architect is not the man who just designs a building; he is the man who *designs it and sells it* to a client and sees it built. The architect is, therefore, a most important link in the development and promotion of a new product. In the past, it was always the architect or master-builder who dictated to the suppliers what type of material he wanted to use and their sizes. Today, due to mass production, we many times find the suppliers dictating to us architects the types and sizes of materials we use.

One should keep in mind that whatever one develops for home use should be of superior quality so that it may also be exportable — to Asian as well as western countries.

MIMAR: Speaking of Asia, can you describe attitudes which you feel Philippine culture shares with other cultures of the region?

Manosa: One of the basic attitudes which differentiates our Eastern cultures from the West is our view of Nature. The Western Man sees Nature as some-

thing to be studied, analysed, conquered, subjugated and cultivated to this rational will. This zeal for the physical mastery of Nature has been the cause of their fast growth in science and technology together with their work ethics regarding the need for incessant toil and struggle to achieve their materials goals and wealth. This view of life is responsible for the active, dynamic, progressive and materialistic attitude of the West and their obsession with time.

In contrast, the Eastern Man sees Nature as a perfect entity to which man belongs and with which he should live in harmony. There is no distinction between Man and Nature. More importance is placed on spiritual peace, harmony, friendship, total acceptance of Nature together with the tribulations it brings as well as its beauties and pleasures. This view, of course, is responsible for our more passive, static, enduring and spiritual attitude towards life — where man's individual actions are weighed against the infiniteness of Nature. With such contrasting philosophies of life — it is no wonder that most Asian nations today are suffering problems we never had in our past when we "knew" who we were and approached life and its problems in our own Asian way.

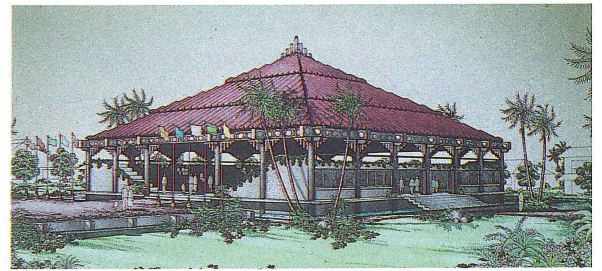
MIMAR: One of the unique cultural dimensions of the Philippines within the Asian context is the predominance of Catholicism. You have restored a number of churches and designed many new ones. How would you describe this realm of your work?

Manosa: Today, in cities, towns and villages, the church is often the most striking structure, an imposing monument to history and the zealous faith of the people. Perhaps more than any other buildings, the churches provide a tangible "feel" of the Philippines itself; they are the most part, rich in historical significance and play a direct part in the way of life of most of the country.

The religious designs I have made are one form of my service to God and our fellow men. There is no monetary value involved.

MIMAR: The term "nationalism", at least in architecture, seems to be rather out-of-date or irrelevant given that we live in such an "international" culture today. Moreover, Filipino culture is so diverse to begin with. How do you justify employing it?

Manosa: An increasing number of us are beginning to understand that our coun-



Mindinao cultural centre.

try, with its rich and varied natural resources, remains underdeveloped and poor in terms of per capita income and material and cultural progress. Four centuries of colonial habits of thinking and doing account for that. Thus, our great awakening means the fresh reassertion of our nationalism. Like all other newly sovereign people, Filipinos now want to practice and live by the same principles of self-determination practised and lived by western people.

The substance of national growth is economic and cultural progress. Unless the Filipino steps back and reviews his attitudes, his goals and objectives, and establishes the lessons provided by history, he will never be in a position to course his own destiny. A re-education is in order. The Filipino, historically a cultural accumulator-innovator, holds the reins of his own salvation. His creative genius must seek truth and the greatest force for enlightenment and understanding through the love for freedom and his own land and people. It is the simplest yet the largest element of nationalism.

MIMAR: What do you feel is the role of Filipino architects in the future, and is this not perhaps also relevant for other societies in Asia and Africa?

Manosa: The task at hand for Filipino architects is to stop the disastrous haste with which our architecture is rushing towards an empty, costly and at times impractical formalism. An architecture that belongs to a people is a repository of profound meanings and beauty; it can aid people in confronting the fact of their mortality with courage and serenity, for they participate, like in all arts, in the truest and perhaps the only kind of immortality. Thus, enlightened, let us continue the propagation of tradition and craftsmanship, which are far from being irrelevant relics of the past, and express the true soul of the Filipino, synthesising the genius of the Malay civilisation of which we are a part.

Tahanang Pilipino, Manila

Project Data

Client: Government of the Philippines
Location: Cultural Centre, Manila Bay
Architect: Francisco T. Manosa and Partners
Construction: 1978-1980. Inauguration 1981
Surface: 279 square metres

Literally, *tahanang pilipino* translates from the native Tagalog language as “the Filipino home”, an appropriate name in terms of design objectives as well as its symbolic functions. Commissioned under the previous political regime as guest house for visiting performing artists at the nearby cultural complex, the architect transformed the brief from a simple expression of Filipino hospitality to foreigners into a demonstration of cultural authenticity for Filipinos themselves.

Manosa seized the opportunity for research and development with the Philippine Coconut Authority into the application of coconut tree derivatives for building purposes. Some six million trees were to be cut annually to make way for replacement with a highly-productive new species. Construction of the *tahanan* (now destined for the public as a museum) offered a unique occasion to probe the rich variety of uses to which the wood and its by-products could be applied, sensitively and innovatively in the arts.

The plan of the house is based upon a hexagonal grid, which is not entirely arbitrary as it was inspired by the hexagonal section of the coconut tree when it is cut and milled. Hard outer portions of the coconut trunk are suitable for load-bearing structural purposes, such as posts, beams, joists, and rafters, whereas the inner portion could be employed for non-bearing, essentially decorative purposes. Thus, a series of hexagonal pavilions loosely grouped in U-shaped plan around a court, are defined by columns. On the exterior, according to the architect, these columns evoke the coconut tree itself, its bulging root turned downside-up to produce a kind of “capital”, the aluminium rings of which “seemingly emphasise the Filipinos’ penchant for bangles and bracelets”. The above architectonic devices suggesting the primitive hut, or *bahay kubo*, are carried further through the coupling of columns, as well as the combination of stone “stilts” on the ground floor and wood on the upper floor.

Numerous other elements recalling the traditional forms of Filipino habita-

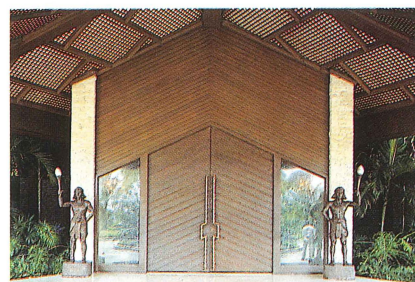


tions are consciously introduced: the verandah, the double roof (with coconut wood shingles), the triangular shape of the main door (evocative of the *nipa* hut), and windows that swing out from the bottom, and many others. However, it is not intended as prototypical housing to which all Filipinos might aspire (see elsewhere Manosa’s low-cost proposals), but as an ideal circumstance for working with Filipino craftsmen towards developing new products and stimulating a market demand. Ingenious solutions were found for coconut wood as floor tiles, or wall surfaces of laminated coconut shell that proved more lasting and heat-resistant than formica; or carpets, made from the fiber-like substance at the base of the fruit stem. Although the emphasis was upon coconut wood throughout, other indigenous Filipino materials are to be found; shells, *capiz*, marble, rattan, hardwoods of various sorts, bamboo, textiles, etc.

Seven bedrooms on the upper floor have each been decorated with traditional

designs, motifs and colours from the principal regions of this country of 7000 islands. In its totality the Tahanang Pilipino becomes an ethnological display under one roof. For example, the Maranao Room has kerchiefs woven by the sea-faring Tansugs, done in mosaics of brown, orange, green and purple; the stylised, three-spired headboards with brass inlay are set off by a four panelled glass divider with *sarimanok* etchings. These rooms contrast with the sober tones (browns, beiges) and purely geometrical configurations of the main ground floor.

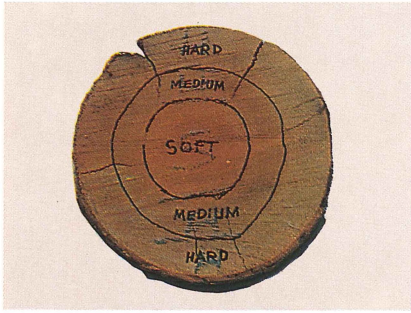
The “Coconut Palace”, as it has been nick-named, is a conspicuous showcase of grandeur and refined luxury but achieved with a most humble and unglamorous material, the coconut tree. Architecturally, from the overall conception to the minutest detailing it reflects a masterfully-controlled effort to regenerate pride in the intrinsic worth of Filipino resources and traditions. It is image-building on a high-profile level.



Top: View of the main entrance facade of the Filipino House (Tahanang Pilipino), or 'Coconut Palace' in its garden setting near the cultural centre of Manila Bay.

Left: Detail of one of the Tahanang Pilipino pavilions on the garden facade looking onto Manila Bay at sunset.

Above: Detail of the porte cochere and main or entrance doors with double panelling. The shape of these is meant to evoke the triangular roof of the traditional nipa hut.

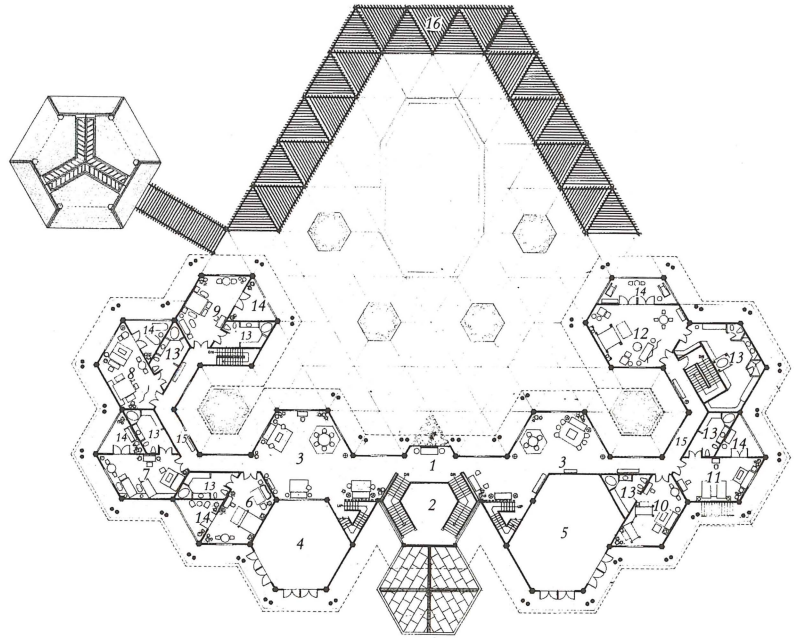
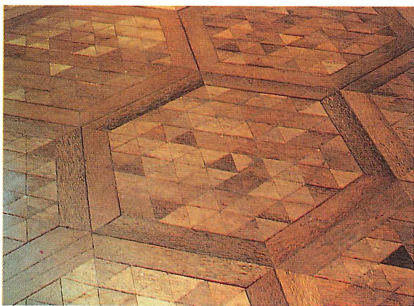


Top: Cross-section of a coconut trunk indicating the degrees of wood's resistance for purposes of load-bearing in construction.

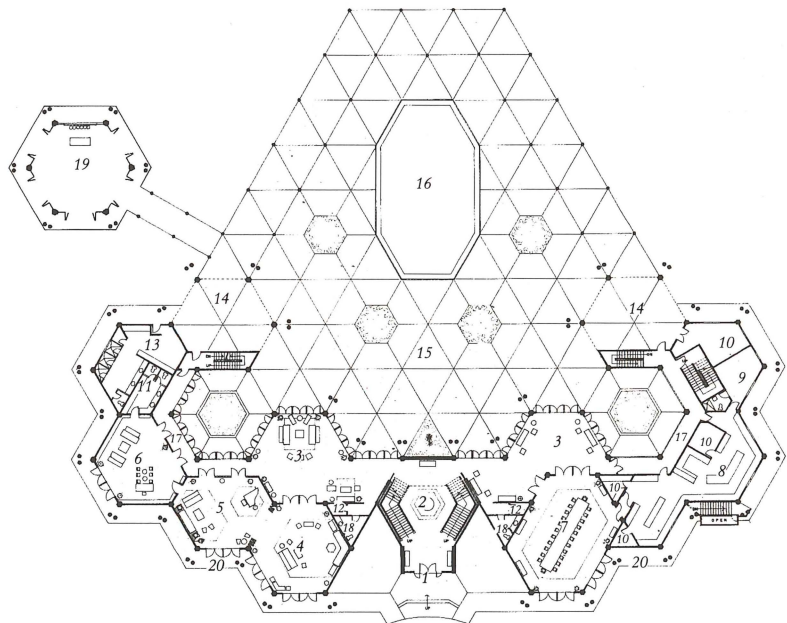
Above: Stripping the outer layers from the trunk of a coconut tree.

Below: Parquet flooring made from coconut.

Bottom: Detail view of paired columns of coconut wood under construction at the Tahanang Pilipino.



First floor plan

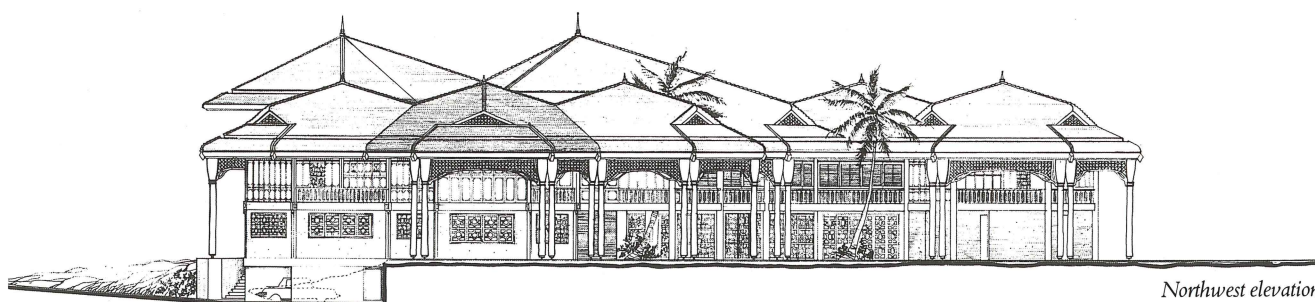


Ground floor plan

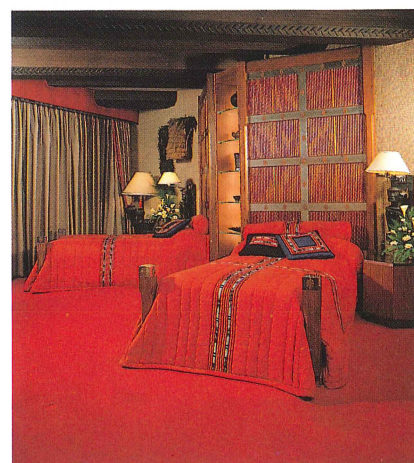
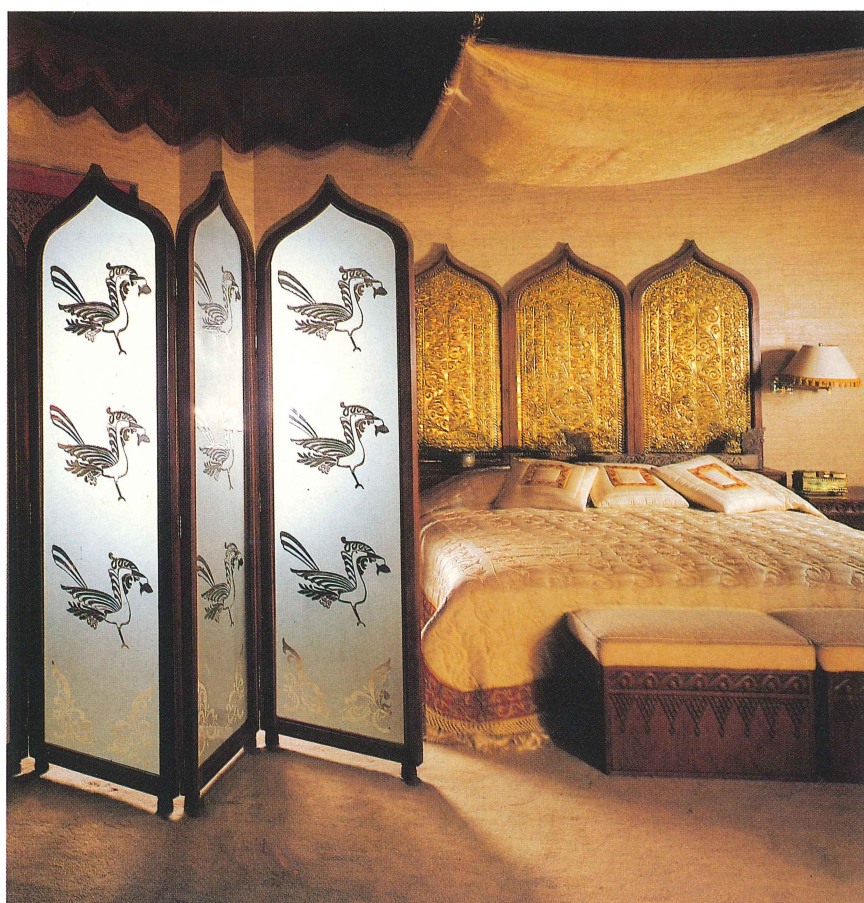


0 5 10 20m

- | | | |
|---------------------|------------------|-------------------|
| 1. Entrance porch | 8. Kitchen | 15. Terrace |
| 2. Foyer | 9. Helper's room | 16. Swimming pool |
| 3. Receiving room | 10. Storage | 17. Hallway |
| 4. Living room | 11. Toilet | 18. Powder room |
| 5. Music room | 12. Closet | 19. Chapel |
| 6. Library — Office | 13. Cabana F | 20. Walkway |
| 7. Dining room | 14. Pavilion | |



Northwest elevation



Top, left: View of a caida (lounge) inside the house, where the hexagonal pattern is carried out in coconut wood as well as marble floors.

Top: One of the twin stairways in the main entrance hall which bends with the angle of the walls to underscore the hexagonal grid pervading the plan of the house. Photograph: Brian Taylor.

Above: Interior of the Mountain Province Room with displays of antique baskets, basket weavings, and animal heads form the basis of a simple but intensely colorful decor.

Left: Interior of one of the bedrooms, in the Tahanang Pilipino called the Maranao Room. It is decorated with indigenous materials worked into traditional designs from this region of the Philippines.

Mary Immaculate Parish Church Las Piñas, Metro Manila

Bobby Manosa

Project Data

Location: Moonwalk Subdivision, Las Piñas,
Metro Manila
Owner: Parish of Mary Immaculate
Architect: Francisco Manosa & Partners
Contractor: Engineer Catalino Domangcas
Total floor area: 672 square metres
Completed: 1978
Cost: US\$44,000

Below: View of the church from behind the altar/sanctuary area. A three-metre-high mound, covered with a rock garden, ferns, bougainvillea, and other plants form a back-drop to the altar. Behind this is cavem-like sacristy (seen here under construction) and an artificial lagoon populated with tilapia fish. Bottom: General view of the church, with trees growing through the roof suspended from concrete pylons. There are no walls. Photographs: Brian Taylor



This project resulted from the desire and unflagging determination of the local parish priest to involve his community in building a new church to replace the converted street-front space that had been in use prior to his arrival in 1984. Moonwalk is the name of the densely-populated, 'middle-class' neighbourhood in Las Piñas, former fishing and salt-making suburb of Manila. An abandoned, half-century-old mango grove covering 4000 square metres abutted the old church, but was only acquired when, after long tractations, the client agreed *not* to cut down any of the mango trees to make way for the new edifice. Moreover, the budget for construction was extremely limited, so that much of the labour (including the architects'), materials and transportation were donations to the endeavour.

While neither suspended roof structures nor open-air sanctuaries are novel in contemporary architecture, their appearance here are unique yet appropriate in terms of the climate, traditions of building, and the above-mentioned constraints placed upon the designers. No walls, no windows, no doors, only a roof of chemically-treated *anahaw* leaves hung from a series of concrete pylons by steel cables. Not only were the trees preserved, but they became an integral feature of space which is almost completely defined by natural elements (except for electricity!).

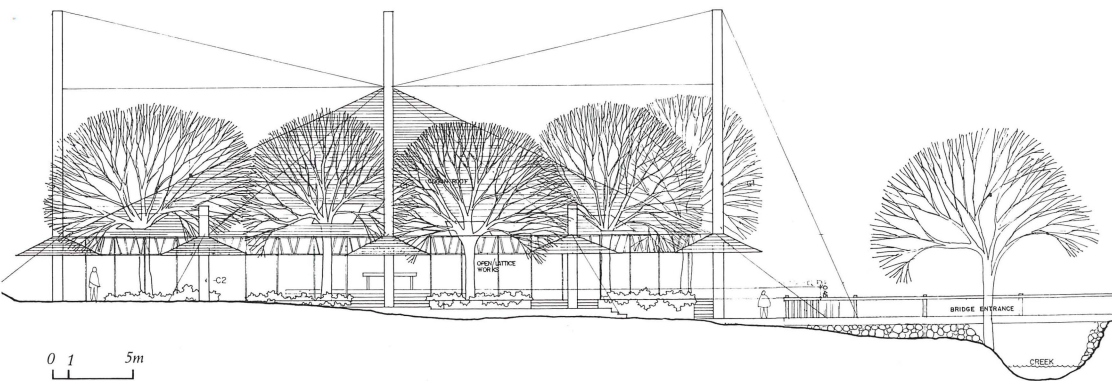
Capiz shell was employed by Manosa to create dove-shaped lanterns, arranged in a spiralling configuration just below

the tent-like ceiling, in order to light the space. This remarkable element, while quite convincingly suggesting movement in space above one's head, accentuates the ephemeral quality of the natural vegetal material used for the roof. The birds, without seeming to be decorative at all, hover beneath a canopy that, at particular points, seems to be held up by the trees not the six pylons.

An economy of means on the architects' part was undoubtedly dictated by the budgetary constraints, yet the solution is altogether typical of Manosa's theoretical approach and predilections. Innovation with natural materials of every imaginable kind, found in his own environment, and encouraged by his client, led him to the solution for the sanctuary area, for the paving, as well as the landscaping. Wooden pews (seen in the photographs here) of a conventional sort were a temporary solution, whereas the original idea of cut tree trunks for seating has now been installed and has established the intended harmony between paving and seating.

The parishioners of the church, although by no means rich are nevertheless of an upwardly mobile middle-class and understandably would not have expected as unconventional a solution as Manosa produced. Masonry would have probably suited local tastes. However, they now seem not only convinced but enthusiastic about this unique edifice and perhaps even Manosa's urge to evolve a specifically Filipino architecture.



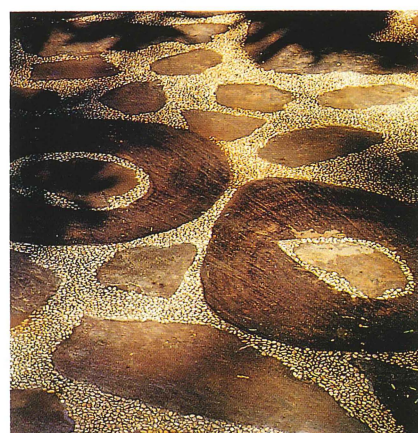
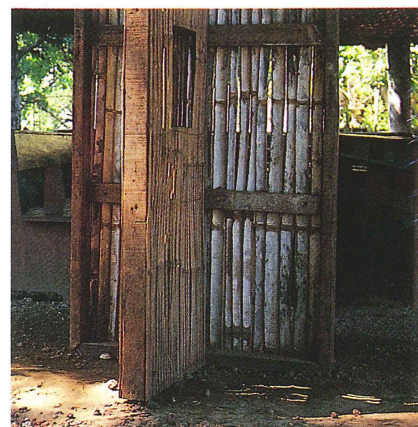
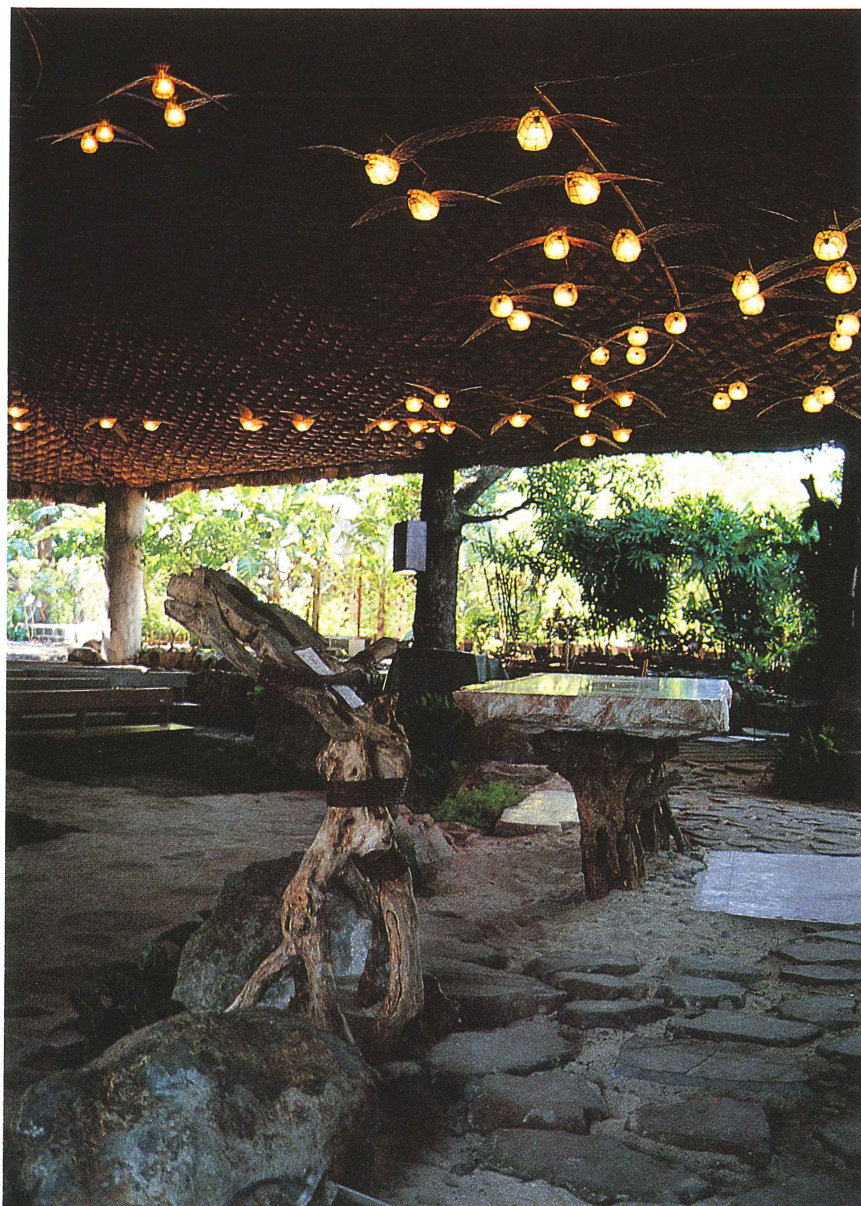


Left: Elevation of the church, indicating the roof structure suspended from pylons and preservation of the existing mango trees.

Below: Interior of the church during evening mass, the 176 capiz lanterns in the form of circling doves light the space.

Bottom: View of the main covered space for the congregation as seen from the altar which is made of a cut and polished coral marble set upon two cacao driftwood pedestals.

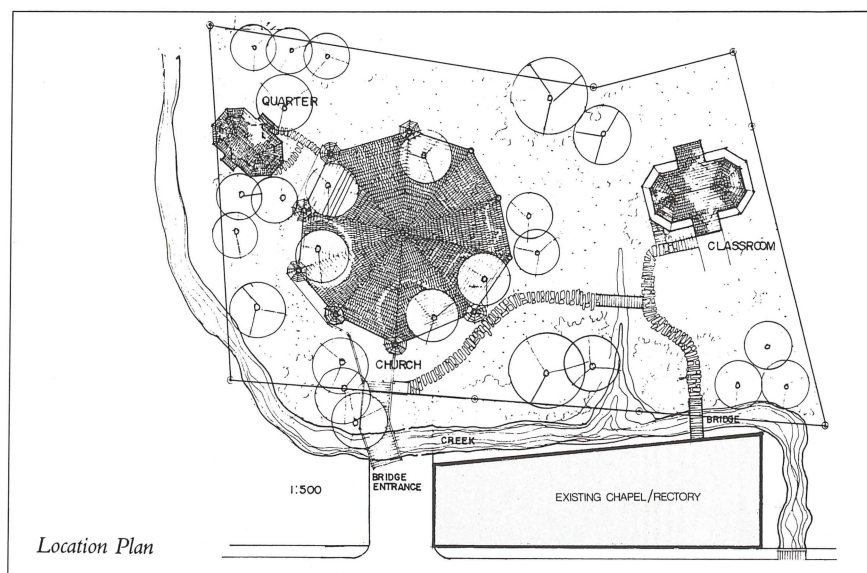


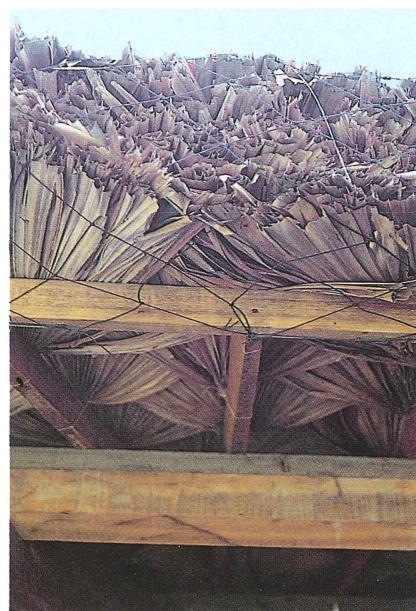
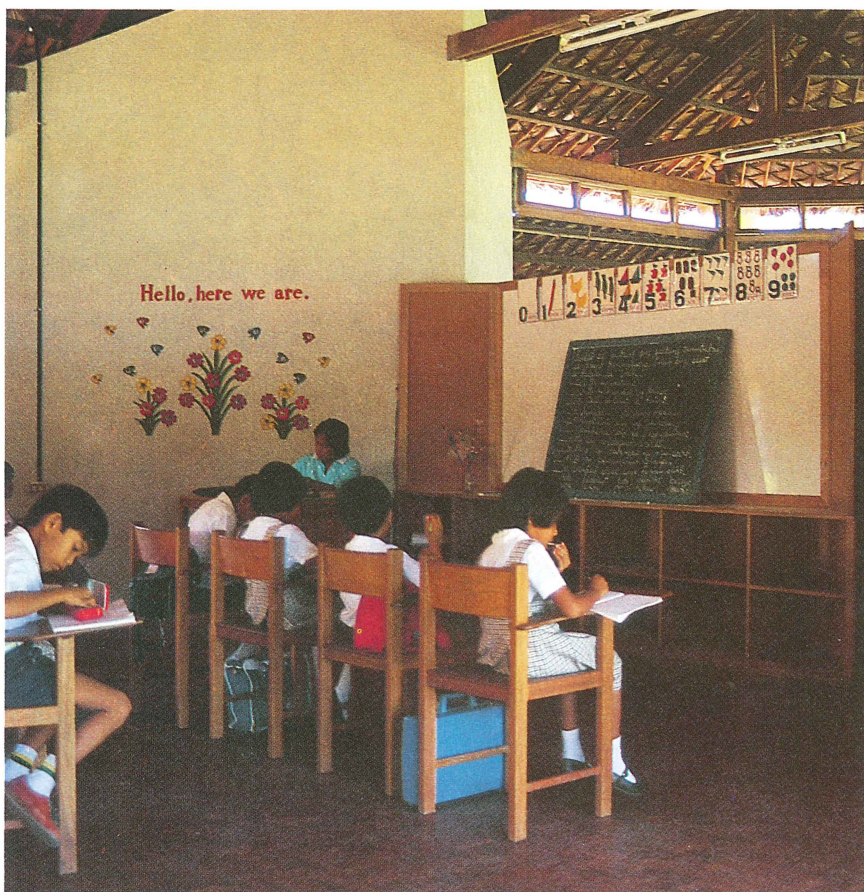


Left: The church sanctuary with altar and lector's ambo (foreground) made of naturally twisted tree trunks bound together with vines.

Top: Bamboo and wood confessional stands just outside the main space.

Above: Flooring of the aisles and altar area is composed of tree trunks cut crosswise to make tiles, flat stone, and white pebbles set in cement.





Top: A schoolhouse on two levels, each with two classrooms, was built as part of the complex. Its structure is constituted of concrete as well as wooden posts and trusses.

Above: The roof of the schoolhouse, composed of 3 layers of anahaw leaves (originally projected for the church roof as well), is a traditional form found in the Philippines with two levels and space between them to provide good ventilation.

Left: Interior of a classroom in the church school.

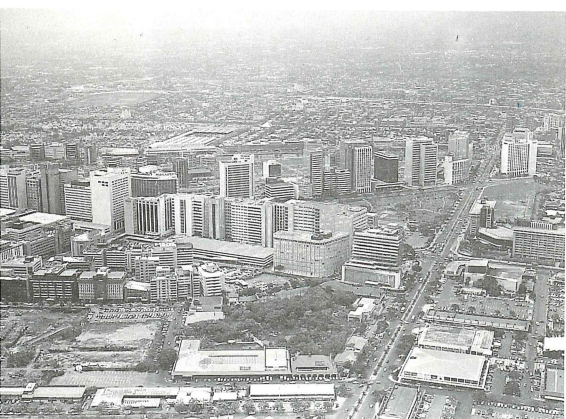
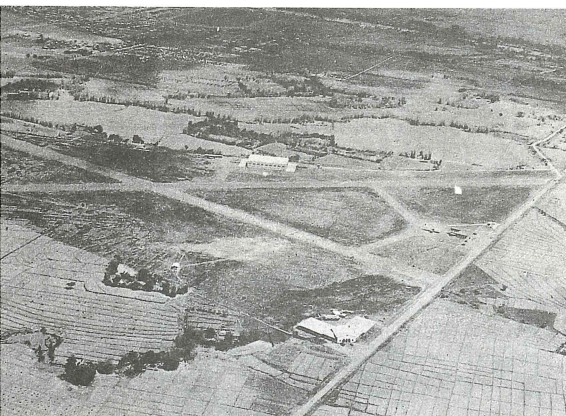
Nielson Tower Club and Restaurant, Makati, Manila

Historic monuments are often quite suitably given contemporary functions while being preserved for posterity. But how many airport terminals can one cite? Architect Manosa was commissioned to transform the passenger station and control tower of Nielson airport into a restaurant and club, saving it from certain demolition and giving it new life.

Built by American stockbroker L.R. Nielson in 1937, the 42-hectare field was located in Makati, the very heart of Manila's present-day business centre. In the first 10 years of its existence, Nielson airport became the largest, best-equipped and widely used field in the region despite the Second World War. It possessed hangar, repair shops, and pilots' school with five training planes and some 200 students when it opened in 1937. Passenger terminal and tower were designed in a form that (when seen from the air)

resembled an airplane: entrance and ticket offices were in the 'body', waiting lounges were in the wings, and the tower was the 'cockpit'. For a country of islands such as the Philippines, air travel became a communications' necessity both internally and externally; Nielson serviced international flights by Philippine Airlines to China and Singapore as well as to the West Coast of the U.S.A. in the post-war period.

Manosa's handling of the interior décor includes an entrance lobby display of documents recounting the history and significant role played by Nielson airport in Philippine development. In the restaurant itself, the attempt has been to evoke something of the ambience of the original 1930's building, but includes some of the architect's typical design trademarks, such as the use of *capiz* shell and other materials of Philippine origin.



Top: A view of Nielson field in 1937, showing the passenger terminal and tower to the right.

Above: Aerial view of downtown Makati-Manila today on the site of former airfield. The runways have become traffic arteries.

Photograph: Emie Rams



Top: Aerial view of Nielson airport tower building in its restored state today.

Above: Interior of one of the dining rooms in the converted terminal.

Right: Entrance hall to the Nielson Club Restaurant with displays on the building's history.



Tolosa Housing, Leyte

Project Data

Location: Triangulo Uno, Tolosa, Leyte
Owner: National Housing Authority (NHA)
Architect: Francisco Manosa & Partners
Contractor: Construction Group of NHA
Floor area per unit: 35 square metres
Total no. of units: 50
Completed: 1978
Cost per unit: US\$200

This low-cost housing for low-income rural families was a pilot project commissioned by the Philippines Ministry of Human Settlements. The challenge for the architect was to develop to a maximum the use of bamboo, not just a structural material but for everything from finishes to furniture. Bamboo, which is plentiful in the country and which modern research has shown can be treated for long durability, is nonetheless still considered by most people to be a "poor" material, technically and socially-speaking; hence, Manosa's urge to defy and even alter opinion by sound, innovative, aesthetically-appealing employment of bamboo.

A basic house-type composed of the two square modules measuring 3.5 by 3.5 metres was proposed, containing main living area, kitchen/dining and one bedroom. A verandah was included in front,

and toilet facilities in a separate block behind the house. In keeping with the spirit of the traditional *nipa* hut, the unit is raised off of the ground, high-pitched thatched roof and numerous windows for cross-ventilation are integral elements, but above all, there is extensive use of bamboo in all shapes, sections, and lengths for furniture. While the structural frame of the prototypical houses is of wood, the wall panels are of bamboo.

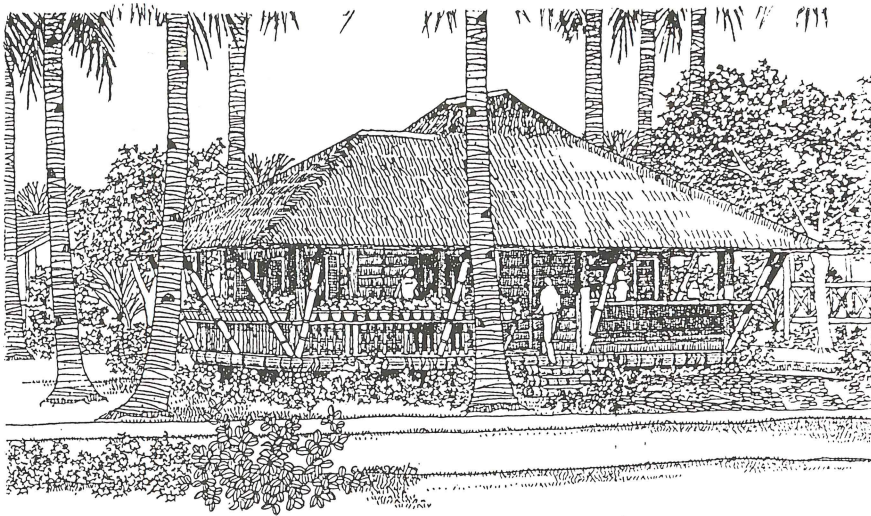
Seventy living units in all were built in this phase. Initial scepticism of the villagers concerning quality of the living environment which was being proposed dissipated with time, as they modified and adapted the basic dwelling to their needs: interiors could be used for a small shop or workshop (see photograph). Unfortunately, the expected government support for construction of additional units was not forthcoming.



Above: Tolosa housing unit, showing openness for good ventilation and extensive use of bamboo for cladding and furniture, including planters.

Right: General view of prototype housing using bamboo, based upon traditional Filipino *nipa* hut, built in Tolosa, Leyte.

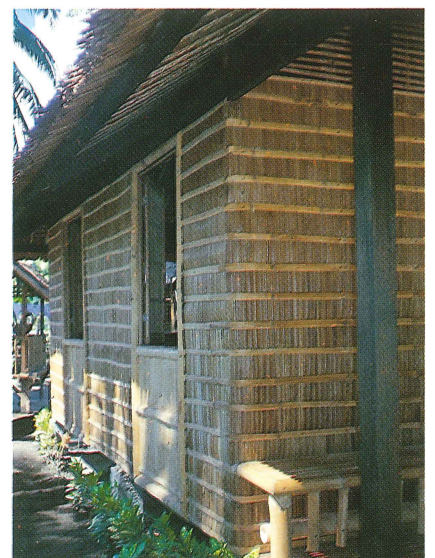
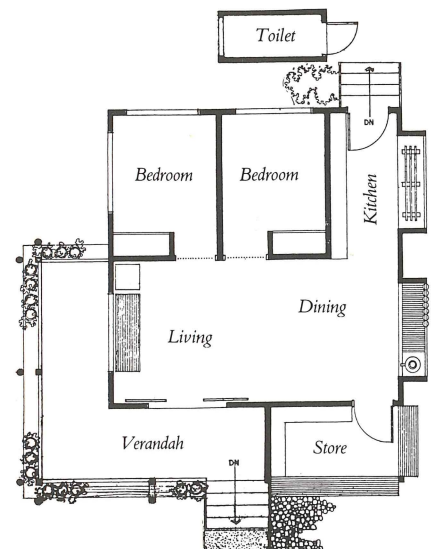
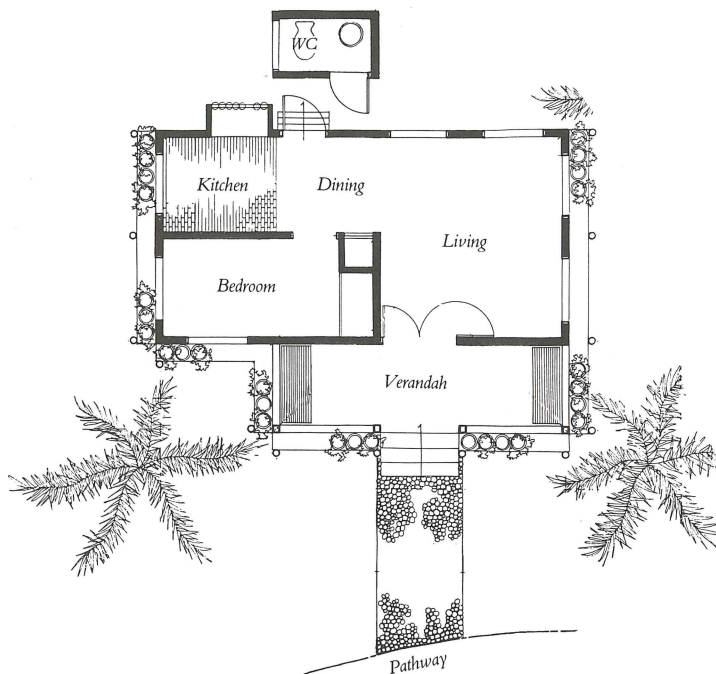


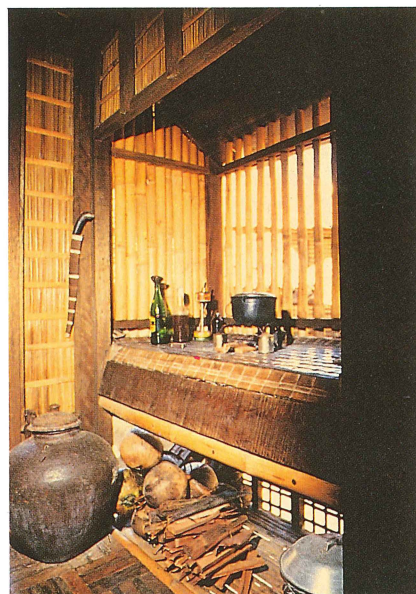
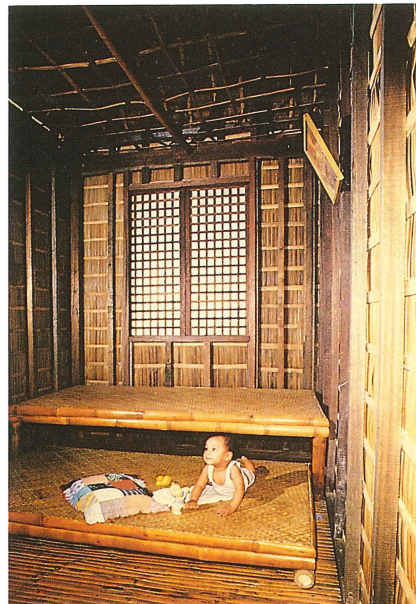


Below and below, left: Floor plans of a typical dwelling in the Tolosa project.

Bottom, left: Conversion of the verandah of a house into a village shop selling handmade crafts.

Bottom: Detail of exterior cladding of bamboo placed vertically with horizontal bands. Units are off of the ground on pilotis.





Above, left: Living room interior of a typical unit with innovative bamboo furniture.

Top: Interior view of the bedroom of a housing unit with traditional raised bed made of bamboo. A separate sliding bed for children fits beneath it.

Above: Kitchen area of a dwelling. Note the open wall for good ventilation.

Left: Verandah. Panelling and furniture are all of bamboo.

IN-HAND (Industrialised Handicraft)

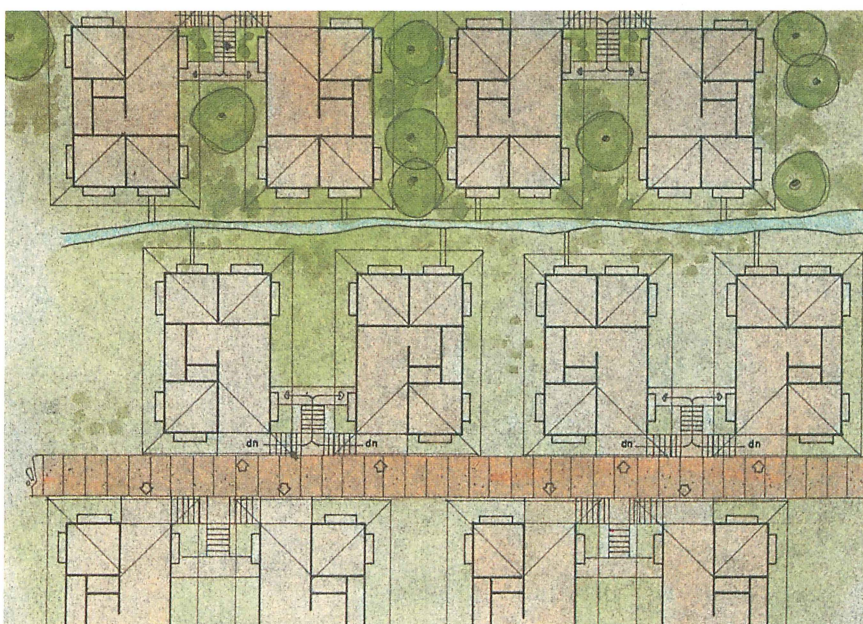
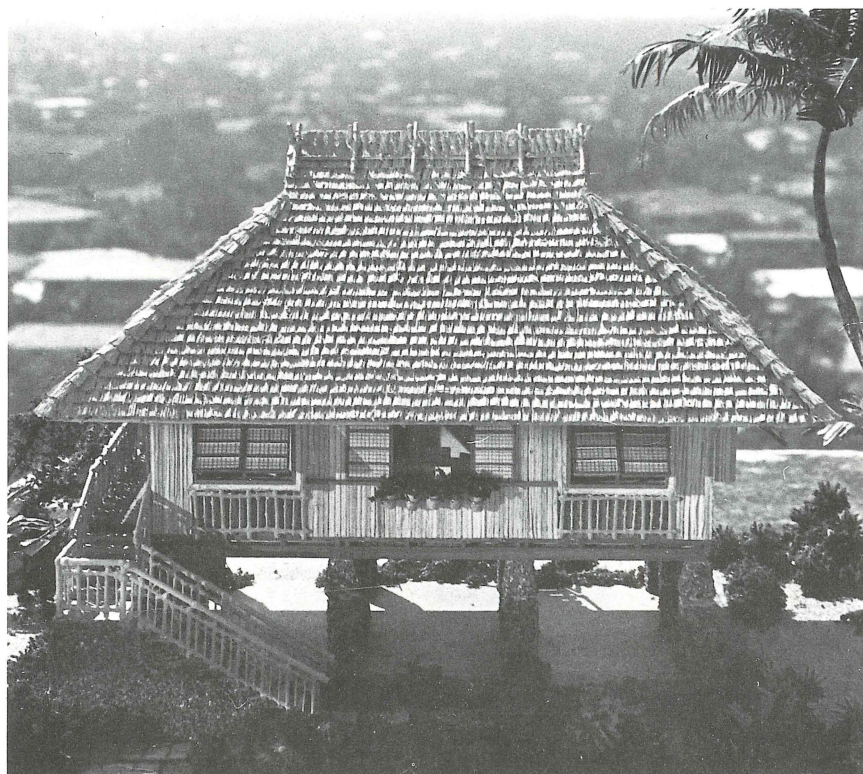
Bobby Manosa

Bobby Manosa, his wife Denise, and countless like-believers have never thought that architecture and urban planning can be divorced from the fundamental issue of development. Like the creation of a toy-making enterprise (see MIMAR 18) some years ago, IN-HAND is a community-based effort on both local, regional, and national level, intended in the long run to assist the Philippines in combating its economic and social underdevelopment. The following excerpts from texts explaining IN-HAND's objectives — primarily written by Medilen Singh, militant, articulate, co-founding organiser of the movement — is illustrated by examples of IN-HAND's range of activities. — Editors

The ideal of a prosperous Philippines and a high quality of life for us all is possible. But for it to happen, IN-HAND believes that the need is for *Trade not Aid*, and for complementation and integration of what we individually have with what we do not similarly possess — Group Technology.

IN-HAND is short for Industrialised-Handicrafts, Inc., a non-stock, non-profit private corporation and is a proponent of the Trade not Aid policy and Group Technology. Through its network of micro-enterprises in the various communities, IN-HAND endeavours to channel the technology, education and the spirit of entrepreneurship to the Filipino craftsman, and in the process industrialise "village level" handicrafts in the country. The objective of IN-HAND is to train and develop new entrepreneurs, middle managers, supervisors and skilled workers through group technology, and marketing new product lines. The goal is to evolve self-managed community-based industries and factories by enabling the people to be work-ready and the community to be production-ready.

The idea behind Group Technology is to encourage by means of assured productive incomes made possible through volume orders, village level raw material, farmers/suppliers and craftsmen on one hand, to organise themselves into



Right, top: Model of a prototype unit IN-HOUSE, to be built in conjunction with IN-HAND.

Right, above: Elevation drawing of the IN-HOUSE prototype house unit, combining living spaces (above) and production area (below) for 'small cottage industries'.

Right: Site plan of a group of IN-HOUSE dwelling units to be built as a demonstration project near an existing factory for building materials owned by Manosa outside Manila.

communities or groups of communities specialising in material(s) or production process(es). Each individual member, rather than being a mere worker or labourer, becomes a participant in the enterprise entitled to stock ownership and dividend income aside from labour income by virtue of community incorporation by laws. These community groups/enterprises are linked up with private and government research/service/development/funding agencies and marketing firms on the other hand, in effect, forming a self-reliant network specialising along product lines. Later, this network can link up with similar network(s) specialising in another product line using similar materials or components. Group Technology is thus a machinery of coordinated sequences of several operations which go through a cycle at just the right time. It is seen as the intermediate process towards industrialisation.

The general objective of Group Technology is to gradually facilitate through production the means whereby each organised community shall possess the financial resources and capabilities for self-reliance in local area management.

Under Group Technology, the forces of Demand and Supply shall be such that networked communities shall endeavour to cooperate with each other in assuring the continuity and price stability of raw material supplies at one end, and likewise with that of the volume, quality and cost control of finished products manufacturing at another end for their economic survival as individuals, as a productive community and as a network rests in each other's hands.

Research and development into raw materials, appropriate technology and Process Design is where the bulk of IN-HAND's earnings shall be expended in together with Market Research and Marketing in support of Group Technology, and each product/line for production. A mutual Fund being established by IN-HAND shall serve the purpose of prime pumping each community into production.

"The inspiration behind IN-HAND is the forty-year old philosophy advocated by an educator and economist, Dr. Salvador Z. Araneta who said: "The fruits of production should be channelled through the owners of physical labour, the labourers, and less to the owners of machines and automatic gadgets, the capitalists".

Science and technology through the use of time and motion techniques. Systems & Procedures streamlining and Tools & Jigs innovation for efficiency in productivity. Directed spirit of entrepreneurship through constant Skills & Values Training at each and every level of IN-HAND's Ladder of Opportunities. The Ladder of Opportunities is a progression scale starting at the level of a skilled worker at the base, up to that of a Supervisor, then Manager, and, ultimately, Entrepreneur.

Similarly, maximum utilisation of existing organisations with social and economic development thrusts shall be encouraged to support community groups. These processes shall ensure that methodologies are developed with a balanced view between the individual and group productivity on one hand, and the humanist, socialising approaches towards team building and cooperation on the other hand.

Investment in Man cannot fail. The United States of America, Japan, South Korea, Taiwan, Singapore, Hong Kong, and now China all made this investment. As the late poet Nietzsche said: 'He who has a why to live for can bear almost any how.' ...

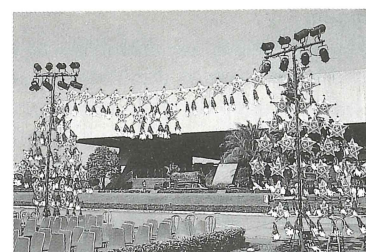
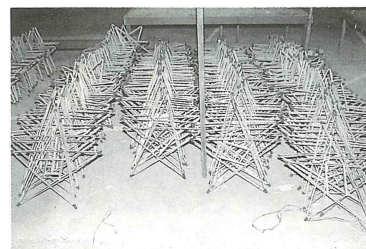
As small and medium scale industries develop, it will naturally need areas like factories to house these. Is it right to build more factories when people are still homeless? Why can't homes instead be built on stilts very much like our "bahay kubo" and situate the workshops under the home? If the costing formula of IN-HAND is followed with guaranteed profits — it is very possible that the homes may be paid for by the business in 5 years.

A group of 12 homes each 66.66 square metres in area can comprise an 800 square metres workshop.

The first workshop is charged with building, mass produced homes of indigenous materials for the community. As the next houses are built, which shall comprise the next workshop — it shall be charged with manufacturing septic tanks and bathrooms.

The following workshop is charged for example with building windmills for electricity, and others with roads, farm implements, toolshops, and finally small and medium scale industries in line with group production for Exports or local sales.

Initially, 12 communities are thought of in 12 different regions of the Philip-



Above: The Filipino 'Star of Hope' Christmas decoration which was assembled, shipped and displayed as a key start-up project for IN-HAND community-based cottage industry.

Photographs courtesy of Bobby Mañosa.

pines. These communities will then be charged in developing the other communities in their regions."

The first product conceived and produced for marketing internationally by IN-HAND is the popular Filipino symbol of Christmas, the *parol*. This particular design is a simple five-pointed star measuring 24 x 24 inches, made of strips of bamboo, white paper, green and red paper cut-outs, hanging tassels, and christened the Star of Hope. Six communities were chosen, both in Manila and the provinces, and out-of-school youngsters, jobless and other persons were organised to produce the collapsible *parols*, some 18,000 of which were exported to various destinations in the fall of 1986. The enterprise, symbolic of President Cory Aquino's policy of mobilising self-reliant resources for development received her personal endorsement. Other products are currently under research and development by IN-HAND, including housing prototypes (illustrated) and related building components.

Chan House, Ayala Alabang Village, Metro Manila

Bobby Manosa

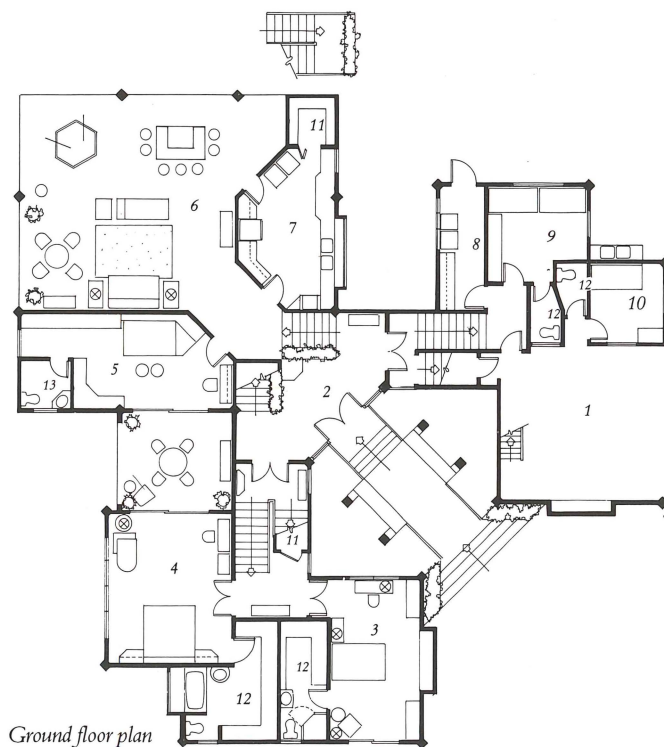
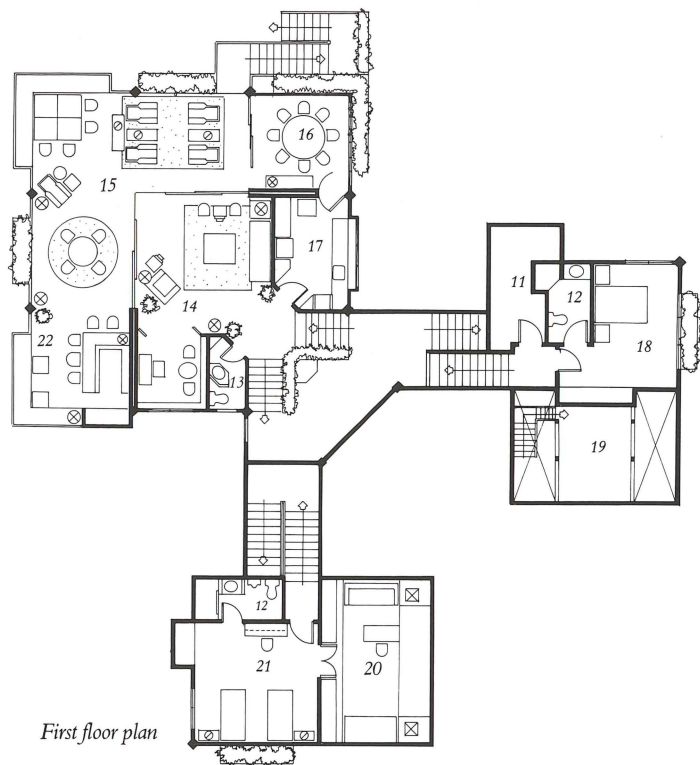
Project Data

Construction: 1987
Total Floor Area: 700 square metres
Cost: (US\$140,000)

The client for this house initially asked Bobby Manosa for a house just like the architect's own (see MIMAR 26), which was literally impossible. However, the present solution can be compared to the model, as a kind of 'variation on a theme'. The idea of a central living core and wings to house the bedrooms (parents below, children above) on one hand, and garage, utility rooms and guest room on the other, is an adaptation of the previous plan. So, too, is the central living room bordered on two sides by an open verandah based upon the Manosa residence.

Many elements are distinctive to the Chan House, such as the bridge over a fish pond to reach the main entrance, the wood and plexiglass canopy above the entrance, the stairs to the main level placed at a 45° angle to the main axis of the entry, etc. The roof here is covered with undulated plastic sheeting rather than the wooden shingles of the Manosa house. In general, it seems to be more compact spatially than the original model and, quite naturally, a number of the changes are the result of the Chan family's own particular wishes and tastes, conceived nonetheless within Manosa's tradition-oriented philosophy.

View of the Chan house from a distance. High, pitched roof like Manosa's own house is inspired from traditional local nipa hut.



- | | | |
|-------------------|---------------------|---------------------|
| 1. carport | 9. maids' room | 17. kitchenette |
| 2. foyer | 10. driver's room | 18. guest room |
| 3. master bedroom | 11. storage | 19. gardener's loft |
| 4. master bedroom | 12. toilet and bath | 20. playroom |
| 5. den | 13. powder room | 21. boy's room |
| 6. zaguan | 14. living room | 22. bar |
| 7. kitchen | 15. azotea | |
| 8. utility | 16. dining room | |



Top: Entrance bridge with benches over a fish pond. Note the sculpted wooden door frames in the form of banana trees. Inside the doorway stairs mount laterally to the main level at an angle.

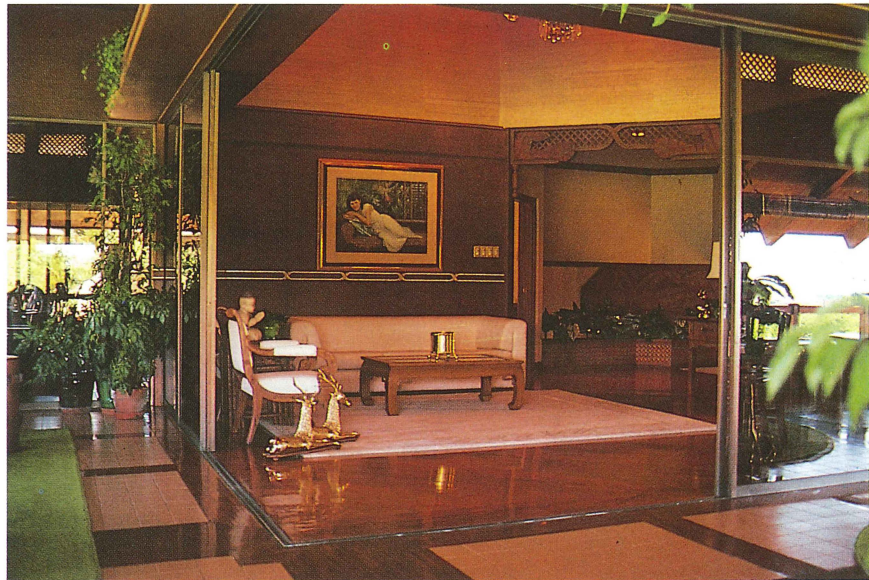
Top, right: Main vestibule with entrance doors closed (left), and banana-leaf motif repeated above them.

Right: Living room as seen from the verandah. Entrance stairs' landing is at far right, with access to the room at the corner of the square volume. A combination of tile and wood is used for flooring of verandah.

Below, right: View of the verandah with low overhanging eaves of the high roof to provide protection against sun and rain, but ample natural ventilation.

Below: Detail view of an exterior corner of the house, showing double roof system and completely open verandah (with cantilevered benches).

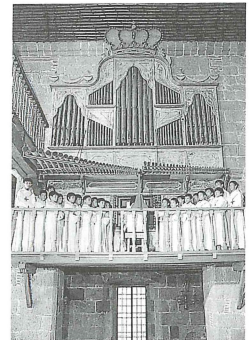
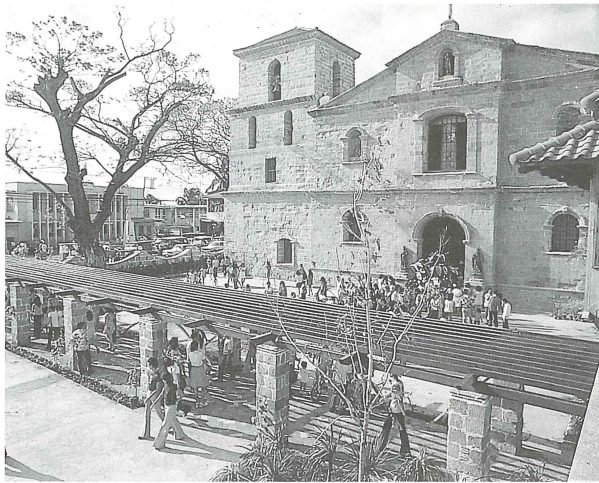
Photographs: Brian Taylor



Chronology

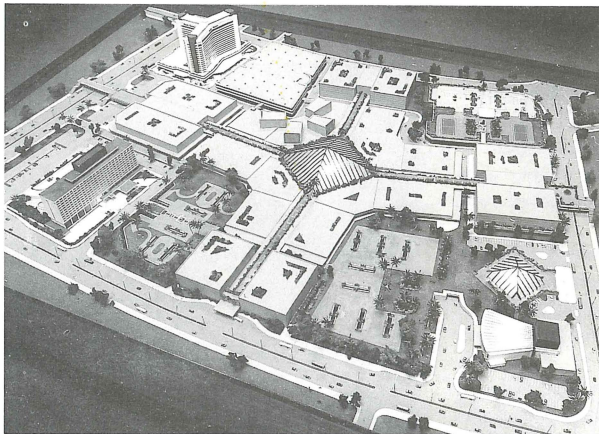
1972-76 Restoration of Las Piñas Church and Bamboo Organ, Las Piñas

An 18th century church of quarried adobe stones in a seaside village on the outskirts of Manila was restored through the active participation of parishioners who donated their time, skills, material and financial resources to the project. The world-famous bamboo organ was even dismantled, sent to West Germany for restoration, and returned to its place as a cooperative effort. Now, 150,000 foreign visitors per year and many more Filipinos benefit from the project and an international Bamboo Organ Festival.



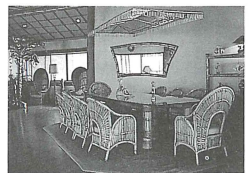
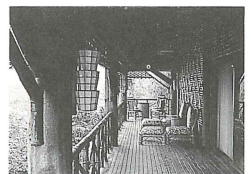
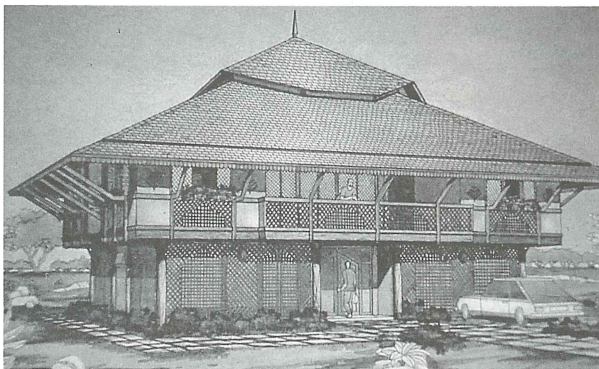
1979 Makati Commercial Complex Redevelopment, Metro Manila

A unique opportunity was presented to Bobby Manosa when he won a closed competition against six other architects to restructure a 'modern' (barely 65 years old) shopping centre. Zobel, the developers, recover the buildings as leases expire and commissioned the project to intensify land-use and at the same time to create more congenial, tightly inter-related and aesthetically pleasing spaces. Eight shops have already been renovated.



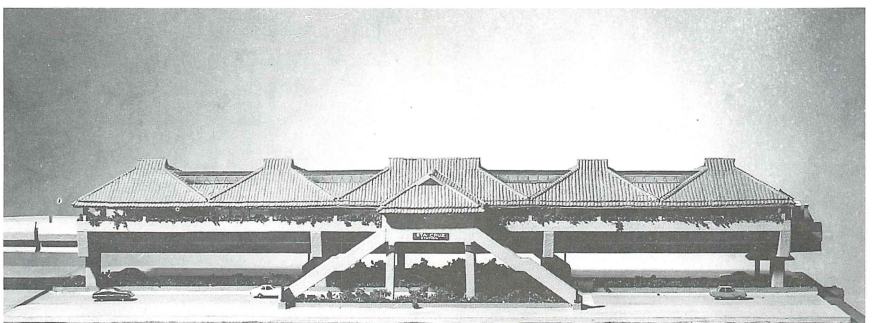
1979 Bamboo House, Cavite

Following closely on the achievement of the Coconut Palace, this large-scale commission offered Manosa the chance to experiment with all forms of bamboo for construction, detailing and furnishings. Although altered and poorly maintained today, it served as an excellent testing ground for prototypes and enhanced the public image of this indigenous material.



1984 Metrorail Transit System Stations, Metro Manila

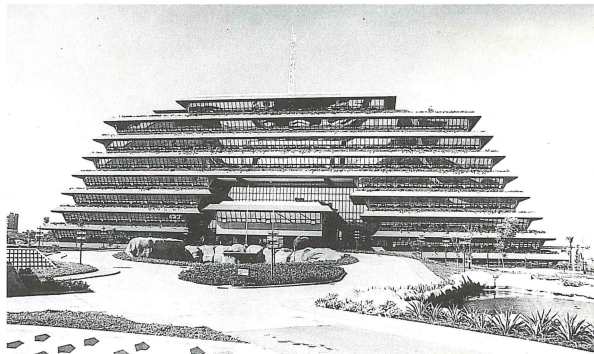
A series of stations for passengers of the capital's light rapid transit system were designed with the harsh realities of the tropical climate in mind: bright sunlight, heavy rains and wind. Roofs recall the traditional *nipa* hut's sloping form. Although built the architect was not allowed to supervise and changes were made.



1984

**San Miguel Corporation Building,
Metro Manila**

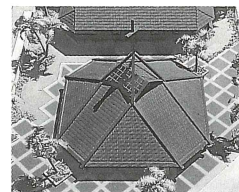
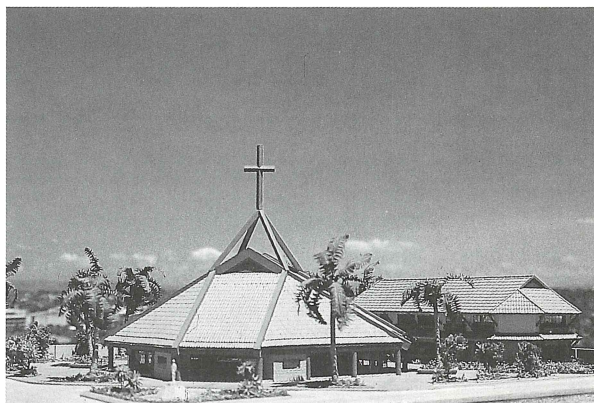
This office building was designed by the Manosa Brothers partnership prior to Bobby's setting up his own practice. It is particularly noteworthy for its pyramidal shape with floors stepped back, planters on the periphery and slanting glass to reduce glare.



1984

**San Lorenzo Ruiz Church and
Cultural Centre,
Tondo, Manila**

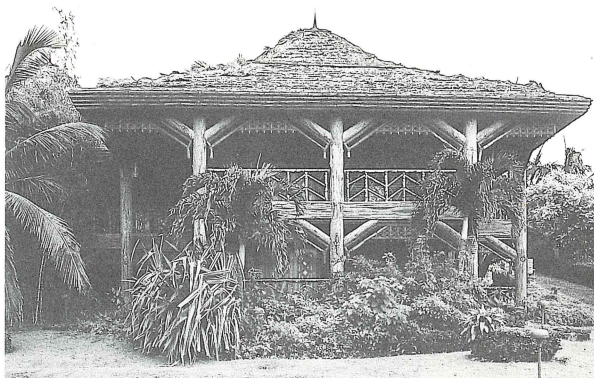
The 700 square metre church serves squatter population on the outskirts of Manila. An octagonal structure, open on all sides, is covered by a roof inspired from the *Salakot* (Filipino gourd hat). Traditional imagery and materials abound inside: a giant kite hovers above the altar, whose ornate *retablo* is done in tin; native clay orchid pots turned upside down form ingenious chandeliers.



1985

**Banana House,
Project**

Technological innovation in the realm of locally available materials has preoccupied Manosa to the point of experimenting with banana leaf fibres combined with other substances for roof tiles, wall panels and finishes, and flooring.



1987

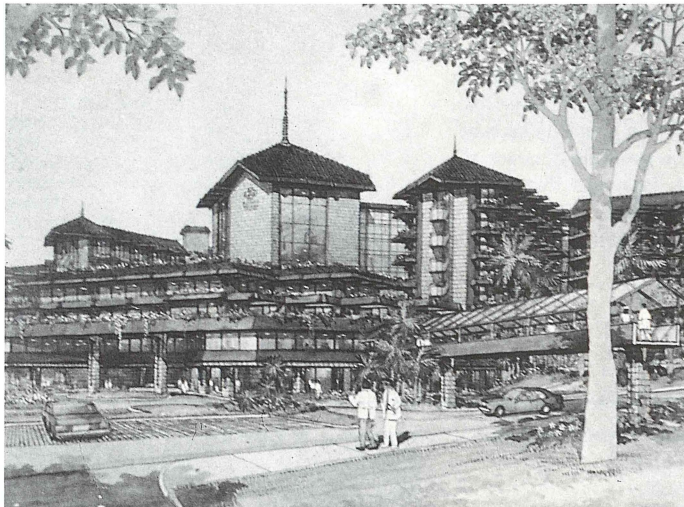
**Mersing Resort,
Malaysia**

Presently under construction on a 10-hectare site on the east coast of Malaysia is this resort complex containing 154 condominium units of varying sizes, a hotel, and extensive recreational facilities. Efforts have been made to incorporate indigenous building materials and components as well as local crafts; however it is in the overall massing which tries to break up the volume into clusters, eliminating corridors as much as possible, that allows each unit to have privacy, character and maximum view.



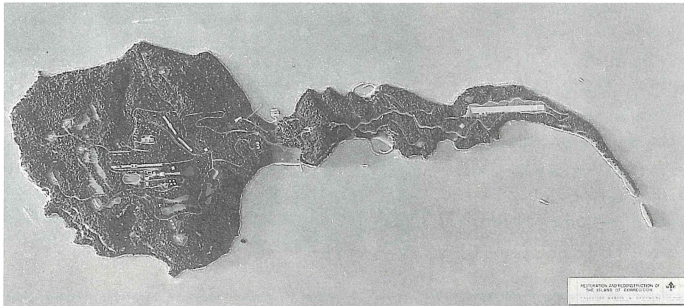
**Carlos P. Romulo Medical Centre,
Metro Manila**

Located on a suburban site surrounded by upper-class low-density residences, this hospital project rejects the conventional monolithic tower solution in favour of a dispersed, relatively low-rise structure. Its design reflects influence of the Philippine *bahay na bato* of traditional housing with buildings raised above ground on stone columns, high-pitched roofs, with clay tiles, projecting eaves, and exterior covered terraces. Accent has been put on domesticity, in both scale and furnishings, to diminish the institutional aspects.



**On going Restoration and Reconstruction
of the Island of Corregidor,
Cavite**

A development project by Manosa for the Department of Tourism separates the Memorial Zone to World War II heroes from a tourist zone which seeks "to integrate the historic past and the recreative present". Some structures will be restored, while all new ones must conform to, or be similar in spirit to, the original architecture of the 1930's.



**I.T.B. Exhibition,
Berlin, Germany**

The architect has designed the Philippine stand at this international trade fair for the past several years.

