



The Aga Khan Award for Architecture

ARCHITECT'S RECORD

CONFIDENTIAL

I. IDENTIFICATION

Project Title Cooperative Housing for Slum Dwellers, Chode Kampung,
Yogyakarta, Indonesia -
 Street Address Gondolayu - Bridge, RT 01 RW 25 Kotabaru
 City Yogyakarta Postal Code _____ Country Indonesia
 Telephone _____ Facsimile _____ Telex _____

II. PERSONS RESPONSIBLE

A. Architect/Planner

Name Y.B. Mangunwijaya Dipl. Ing. Arch.
 Mailing Address Jl. Sangaji 20,
 City Yogyakarta Postal Code 55233 Country Indonesia
 Telephone _____ Facsimile _____ Telex _____

B. Client

Name Slum Dwellers, Chode Yogyakarta RT 01 RW 25 Kotabaru
 Mailing Address Kampung Code, Gondolayu, Yogyakarta
 City Yogyakarta Postal Code _____ Country Indonesia
 Telephone _____ Facsimile _____ Telex _____

C. Consultants (e.g. Engineers, Economists, Sociologists, Historians, etc.)

Name 1) People's Housing Foundation, Yogyakarta 2) LPM, Duta Wacana
University -
 Mailing Address Jl. Dr. Wahidin 216
 City Yogyakarta Postal Code 55224 Country Indonesia
 Telephone _____ Facsimile (0274) 3235 Telex 25486 UKDW

D. Master Craftsman/Contractor

Name Prawiro and Comrades, Village craftsmen and Slum dwellers
 Mailing Address Mrican, Gg. Kuwera 14
 City Yogyakarta Postal Code 55283 Country Indonesia
 Telephone _____ Facsimile _____ Telex _____

III. USE

- A. Specify type(s) of use Cooperative housing and community life.
- B. User(s) or Occupant(s)
- Occupation/Profession becak drivers, garbage collectors, little food sellers.
 - Income Level (check one) ☒ Low ☐ High ☐ Medium all : Low < \$30/ Mixed month

C. Specify any change(s) between planned and actual use:

We had not a specific a-priori plan. All were built according the possibilities of the geographical site and the need of the people. Only the central location (as a focus of the community) of the House of the Brotherhood of Neighbours was thoroughly planned, especially relating to the children's activities.

IV. PROJECT TIMETABLE

(Please specify year and month)

- A. Design: Commencement 1983 Completion 1984-1985
- B. Construction: Commencement 1983 Completion 1985
- C. Date of Project Occupancy 1983

V. PROJECT ECONOMICS

(Please specify amount, currency and date of transaction)

- | | Amount | Currency | Date |
|--------------------------------------|---|---------------------------------------|------------------|
| A. Total Initial Budget | <u>200.000 Rupiahs</u> | <u>≈ US \$ 150,-</u> | <u>1983</u> |
| B. Cost of Land | <u>waste strip for garbage disposal</u> | | |
| C. Analysis of Actual Costs | <u>with the help of generous donations:</u> | | |
| 1. Infrastructure | <u>3.500.000,- Rupiahs</u> | <u>≈ US \$ 2500,-</u> | <u>1983</u> |
| 2. Labour (skilled) | <u>Rp. 540.000</u> | <u>The rest were voluntary works.</u> | |
| 3. Materials | <u>Rp. 1.200.000</u> | | <u>1983-1985</u> |
| 4. Landscaping | <u>neasily zero</u> | | |
| 5. Professional Fees | <u>Zero</u> | | |
| 6. Other | <u>Paint: Rp. 400.000</u> | | |
| | <u>Slope enforcement walls: Rp. 1.600.000</u> | | |
| D. Total Actual Costs (without land) | <u>Rp. 6.640.000,-</u> | <u>≈ US \$ 3.500,-</u> | <u>1985</u> |
| E. Actual Cost per sq.m. | <u>Rp. 30.000/sq.m. housing</u> | | <u>1985</u> |
| F. Cost Comparison | | | |

Please indicate how the costs of this project relate to typical building costs in the country (check one):

Rp 90.000/sq.m Average Rp. 200.000/sq.m Above Average Rp 60.000/sq.m Below Average

G. Sources of Funds

1. Please indicate the percentage of funds that came from:

benevolent contributors Private Sources Zero Public Sources

2. If funding was public, what percentage was from:

Local Sources National Sources International Sources

VI. CONSTRUCTION DETAILS

A. Site and Building Area (please indicate in square metres)

1. Total Site Area 3,600 sq. m.
2. Total Ground Floor Area ± 326 sq. m. *
3. Total Combined Floor Area ± 602 sq. m. *
(including basement(s), ground floor(s) and all upper floors)

* only a to j buildings (see fig. 3) that was build by Mangunwigaya. Others

B. Construction and Technology building in this Project area was build by people himself.

Describe the structural system and the basic method of construction. For restoration projects, please describe the techniques used in the conservation of the original structure.

Being build on labile steep garbage-ground, the construction of terracing stone walls were necessary. The buildings should be also lightly structured with hard wood frames and plait bamboo walls, placed on the edges of an existing sewerage ditch or a grid of light horizontal concrete bars. Roofs must be light also, corrugated iron slabs.

C. Description of Materials

(please also indicate if locally produced or imported and whether fabricated on-site or elsewhere)

1. Foundations stone walls of an already existing 0,5 m high edges of a city-sewerage ditch partly not too heavy reinforced concrete bars.
2. Principal Structural Members
frame : cocos and keruning wood
walls : plait bamboo
3. Infill
simply soil for the ground-floor, covered with plait bamboo.
4. Rendering of Facades or Exterior Finishes
bitumen and colour paint
5. Floors
plait bamboo mats on bamboo bars
Sengon wood timber only for the House of the Brotherhood of Neighbours.
6. Ceilings
no ceilings
7. Roofing
corrugated iron plates or simple tiles.
8. Other elements (please specify)
triplex-wood for the windows on horizontal axis.

D. Type of Labour Force (please indicate percentage)

5% village Skilled Workers, 4 men and voluntary Unskilled Workers, the dwellers themselves.

E. Origin of Labour Force

100% Domestic 0% Foreign

VII. GENERAL GEOGRAPHY AND CLIMATE

Please describe the local climatic and geographic characteristic and the extend to which these have been taken into consideration in the design process.

Topographically the kampong site consist of a steeply slope on the east side of Cho-de river with its handicaps as well as its advantages too. Alas we have only garbage as foundation-ground, but being pressed already along so many years it offers sufficient bases for light construction dwelling.

The climate of the project is of humid warm tropical one with an average temperature of 24 - 32 Celcius and average rainfall of 2000 - 3000 mm/year. The quality of the air is still good. Those condition — especially the steeply slope — had inspired the designer to make an optimal use of ventilation and sun radiation, although an east river bank never is favourable. A kampong on a slope requires many steps on the walking paths, but for the sewerage system and the roof constructions it was of good advantage indeed for a good sight from every dwelling rooms, resulting in a good looking and pittoresk compound. Great care was given to the rainwater drainage system.

VII. EVOLUTION OF DESIGN CONCEPTS

Please describe the history of the project, from its conception to its final construction and actual use.

EVOLUTION OF THE DESIGN CONCEPT

The Cho-de kampong was, since the turbulent years of the post-Revolution fiftie's, dwelled by the so called sawah masyarakat (the foam of society, ex-criminals and prostitutes; the greatest majority of them however no out and out evil creatures, but only because of poverty, who live illegally but benevolently tolerated by the authorities under an important Gondolayu-Bridge and on the narrow strip of steeply east-slope of the Cho-de river, which flow like a big sewerage canal through the Yogyakarta-toen in Central Java, Indonesia.

The dwellers, scattered people from anywhere, becak-drivers, garbage collectors, little food sellers of some 35 families or single persons constitutes within this old Javanese cultural town a notoriously criminal black spot, and lived on miserable huts on a literally and figuratively rotten location, a huge garbage heap, thrown away by a large area of hotels, offices and its surrounding good looking houses of the upper class.

Since January 1980, I was started to work as a volunteer, living with the same kind of people in the Terban area, north of that Gondolayu-Bridge, cooperating with their charismatic kampong-chief, Mr. Willy Prasetyo, to improve Terban which was similarly poor and difficult with much more social problems. He asked me then in 1983 to move to the much more difficult part of Cho-de kampong.

The strategic principle of social and habitat improvement, which were derived from our three-years experience in Terban, include these points:

Being a black illegal settlement of ill fame, the Cho-de kampong people ought to be improved at the same place and not by pushing them away, because a body cancer one should not be 'removed' to another place. Pushing them away to another remotest part of the town, will risk of another cancer spots. Usually, kampongs like the one in Cho-de river bank would be shattered and destroyed, to give way to a green-belt, whereas the inhabitants would be kicked out on behalf of a more 'aesthetic' or commercially flourishing urban environment.

Nor we would recommend a sort of legalitation of the strip on behalf of an individual tenureship of individually owned parcels and houses from a formerly illegal land-occupation. The kampong instead had to be rearranged as a cooperative kibbutzy-like unit, because this sort of poor people who were naturally determined enough -- although too individualistic ego's -- to survive and develop themselves in a right way if united under the frame of solidarity. From being single fighters, the dwellers of this black spot should be encouraged to live thanks to two complementary tracks, like an electric train: first the of love and care; but secondly and not at least also with paedagogical force: according to the old Javanese wisdom of ajrih-asih (ajrih = fear, asih = love).

As operational and psychological entrance we first had to start with the care of the most suffering members of the kampong, namely the children. Afterwards their parents would take turns, especially the mothers and the women.

VIII. EVOLUTION OF DESIGN CONCEPTS

Thus strategically paramount would be the development of a community-house, in which the process of 'musyawarah' or community dialogue would be possible. So, this 'Balai rukun Tetangga' (House of the Brotherhood of Neighbours) was erected first, precisely upon the stone edges and above an existing 2,5 m width sewerage-ditch; during which the dwellers fully cooperated.

Physical Design Approach:

After a phase of discussions and deliberations some models of healthy housings were successively build. On the same time an enforcement by stone walls for a securely terracing of the weak garbage-soil were build also.

The modelling of the houses, regarding the too narrow steep strip of the available terrain can only be justified by a two leveled building. Some single floored houses should remain although a certain improvement were necessary.

Along the riversides there exist already a good number of clear watersprings, which by some improvement, granted by generous NGO-s, give splendid water to the community although it has to be cooked first before it could be used as drinking water.

Inshort we had to build a special sort of an urban version of traditional tribe-house, in which individual families could find their own private apartments, but nearly all aspect of life except their earning of a private livelihood shall be done in a cooperative manner; strongly united through daily informal dialogues, but also formally once in a month through institutional comunal meetings as well.

Most of the people don't have children as a consequence their past. They live in one-room sections, while those with children occupy two or three rooms apartments. For each room one should pay 50 rupiahs perday for the common treasury, which could be used for all kinds of purposes, especially for the maintenance of the houses and the whole kampung.

After two years of improvement and with some help of generous donors the people were able to ask electricity from the Government, which they luckily obtained. This could be regarded as a kind of a legal recognition of their staying there on officially illegal grounds.

In former days the naive strategy of those poor folks consists of remaining dirty or at least being unattractive; assuming that the upper classes would be prohibited from having an eye on the site. In that case they they could enjoy a place of no interest for the rich.

But our volunteers had managed to convince them of precisely the opposite way to see the whole things. If, the argument goes, the Cho-de Kampung could proof its capability to become an ordered healthy neighbourhood, recolouring itself from a black spot and a garbage heap into some bright flower bouquet, then there could be obtained some guarantees that government would tolerate its existence. Even with some luck the Kampung would be valued as a successful example of a selfhelp rehabilitation from a formerly dirty and dangerous swamp.

With the help of a group of student-volunteers from local Academy of Arts, the people were then inspired to paint their bamboo houses with colourful decorations, which at the beginning failed to gain approval from authorities, who were used to discipline uniform patterns and colour, and therefor judged these creations as merely remnants of old and wild uncivilised behaviour. Nevertheless, after a while they benevolently tolerate it, all the more because they saw well how foreign tourists were always attracted by the colourful Kampung of Cho-de and never forget to take pictures of it. In fact the motivation behind those colourful painting of such bamboo houses were not activated by some sort of romanticism but a question of to-be-or-not-to-be.

VII. EVOLUTION OF DESIGN CONCEPTS

Construction and Maintenance

The construction of the houses were entirely made of coco-wood and bamboo to enable simple restoration by the people themselves. Only the community-house were built with stronger and more beautiful -- though of modest price -- keruning-wood. The floor of each dwelling was made of bamboo plait mats which the dwellers themselves had to cover with plastic or rubber sheets. The roof was constructed of corrugated iron slats or just common earthen tiles.

A very important thing to be implemented by the dwellers is that they decorate their houses with hanging flower plants or those of coloured leaves. The cleaning of the whole compound certainly belong to the most important duties of the community, especially on Sundays, when they regularly do communal work for the maintenance of their own kampong and the passing river as well. Naturally the Cho-de kampong people were very happy when they once got the first prize plus a beautiful trophy for the most disciplined clean neighbourhood of the area.

IX. PROJECT SIGNIFICANCE AND IMPACT

In what way is this project important ? Please describe the aspects of the project which represent a particular achievement (for example the technical, economic, or social achievement, or its response to culture, climate, etc.).

The most happy impact of our endeavor was the change of attitude of our society and government as well towards the sort of people, who in former days simply was outlawed as 'sampah masyarakat' (dirty foam society) but who was then rehabilitated under a formal name -- promulgated by the President himself by the name of 'pemulung' (collectors) -- with their new found charming title: 'lasykar mandiri (independent militia) to denote their self-employed activities.

From a horrible black spot, the kampung of Cho-de emerge out as a picturesque interesting example and shortly afterward recognition from the central government of the existence of so called 'informal economic sector', beside the formal modern internationally based economic sector. The importance of that informal sector as one of pillars of Indonesian economy as a whole upheveled our former Cho-de slum onto a recognised status of poor brothers but still men of dignity.

Thus Indonesia architects too begun to realise that a part of their duty as architects of a Third World country consist of thinking and searching for the best solution of the big problem of underrated slum and disordered regions of the poor.

Student in general and especially in architecture begun then also to take interest to the problem of the poor. Very often on feast occasion they like to make voluntary work for the poor.

Municipal government of Yogyakarta inspired by the concept of the informal sector and the 'independent militia' coined by the central government never again choose the hard way of pushing away slum dwellers. They search now some more plausible ways to solve the problems of slums.

Innovations were also conducted to search more in the direction of how to make use of 'native' materials like bamboo for decent and aesthetic results. Bamboo is recognised now not only as a material good enough for the poor. Flat building system built with relatively cheap material like bamboo proofed to be constructively possible. On the side of the poor providing the system allow the neighbourhood to live together in a cozy atmosphere where brother and sisterhood could be formed within and among the composition of the buildings and open spaces.

The same occured an asking the right questions to conserve steep slopes of riverbanks, which, to my contention, would be more secure and better maintained by the dwellers rather than by keeping these areas empty as 'green belt'.

Much more was learned also on the field of poor communities that a cooperative system is much better, both for the member themselves and the government as well, rather than a loose heap of egotistic individuals.