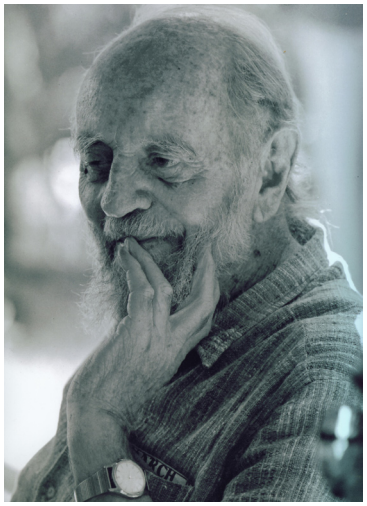
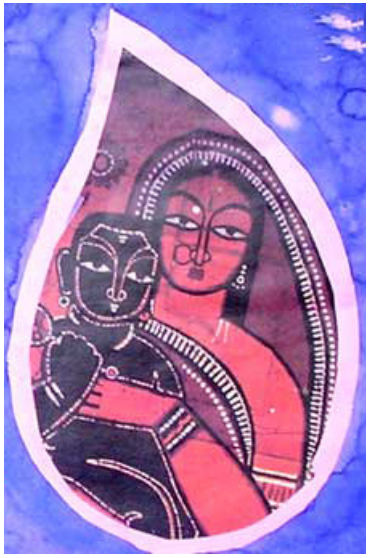


Abstract

Today, when the western images dominate design and architecture students' minds, they become disassociated with indigenous practices. With a jargonized consciousness around, the inspirations need to come from the self. Especially, when there is a wave of sustainability in design environment, and complex facial approaches towards it, there is a need to come up with relevant and simple methods. Architect Laurie Baker's work lies in the relevant domain of indigenous geniuses. His wide variety of works handled with not so common 'common sense' is boon for this century.

Being an architecture and design student, I always heard and acknowledged Laurie Baker's work, but never realised the strength of his way of building, which lie in the power of simplicity. So, I see this project as an opportunity to present, to our generation, a relevant philosophy towards design and life.



Declaration

I declare that this written submission represents primarily Architect Laurie Baker's ideas in my own words. The narration and execution part has my words and that too are reaction to Baker's are architectural work and philosophy. Where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/ source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Signature

Name of the student

Roll No.

Date:

a travelling exhibition on
Laurie Baker,
the architect,
his works and philosophy

a travelling exhibition on
Laurie Baker,
the architect,
his works and philosophy

Submitted in the partial fulfillment of the requirement for
the Master of Design Degree in Visual Communication as
Project-2
by
Saurabh Tewari
Second Year
of Masters in Design
(Visual Communication) Programme at
Industrial Design Center,
Indian Institute of Technology - Bombay,
Mumbai, INDIA

Guide:
Prof. Kirti Trivedi

Approval Certificate

The Visual Communication Project 2 entitled
“a travelling exhibition on
Laurie Baker,
the architect,
his works and philosophy”
by **Saurabh Tewari, 08625803** is approved
in partial fulfillment of the requirement of
the Master of Design Degree
in Visual Communication.

Guide: **Chairperson:** **Internal Examiner:** **External Examiner:**

Introduction

Today, in a global blast, with media options available, our country is exposed to several examples of work worldwide. Ideas are being exchanged on a larger and infinite scales. In the process, we are blindly following a copy-paste methodology where most of the things are not directly relevant to our context. In this situation, we are very much unaware of our own traditions and our own explorations.

In different technical and technological education disciplines, borrowing imagery and ideas are practiced. Architecture education at the undergraduate level in various schools is also one of them. Though we are claiming to have progressed a lot, in every field, but we have surely forgotten the development at the ground level. Ideologically, we claim that architecture is not a mere technological discipline but also a reflection of culture, climate and individuals. But hardly few examples are there which illustrate and support this famous teaching.

Post-independent architectural practices were primarily dominated by the imitated innovations of western world as systems. This was always sold in the name of Modernity and Modernisation. Even now, warningly, with the current technology available, the systems are just aped as images. The so-called global exposure is chiefly a non-Indian or western exposure. Our own innovations and relevant practices have hardly been documetnted and presented.

In the current scenario, the students of Architecture are also in a similar trap. With western images dominating their minds they are always disassociated with indigenous practices. The modern innovations have propagatively proven traditional wisdom as impotent for today's challenges. Only few examples of common-sense and ever-updating traditional wisdom of design are presented to students. At most students see them, realise them and may be they acknowledge them. Hardly, any practice is able to inspire them to adopt it, and finally available for implementation.

With so much jargonized consciousness around, it is the time is to realise the inspirations from self. Specially, when there is a breeze of sustainability in design environment, and complex facial approaches towards it, there is a need to come up with really relevant and simple methods. Architect Laurie Baker's work lies in the relevant domain of indigenous geniuses. His wide variety of works handled with not so common 'common sense' is boon for this century.

Being an architecture student, I always heard and acknowledged his work, but never realised the strength of his way of building, which lie in the power of simplicity. Most of the methods used by him are very much implemental and satisfy today's environmental needs. So, i see this project as an opportunity to present, to our generation, a relevant philosophy towards design and life.

The project attempts to be a meaningful tribute being a travelling exhibition on the Architect's Life, Work and Philosophy.

Acknowledgement

I would like to thank,

to my parents for giving me a wonderful education and supporting in continuing my formal studies,

to IDC, for creating a system where a student has a freedom to chose any area to work on,

to my Guide, Prof. Kirti Trivedi, who carefully listened all my points and notions and provided (have been providing) a 'real' guidance in realising the meaning and scale of the project,

to Smt Elisabeth Baker, Sri Tilak Baker, Sri P B Sajan, Col. Jacob and family, Smt. Nalini Nayak, Smt Seema K K, Jayesh Pillai, Mano Kurien from Thiruvananthapuram.

to Sri. Gautam Bhatia, for wonderfully documenting Baker's work,

to, all those who documented or have written about Baker's ideas, specially those who published them on the internet,

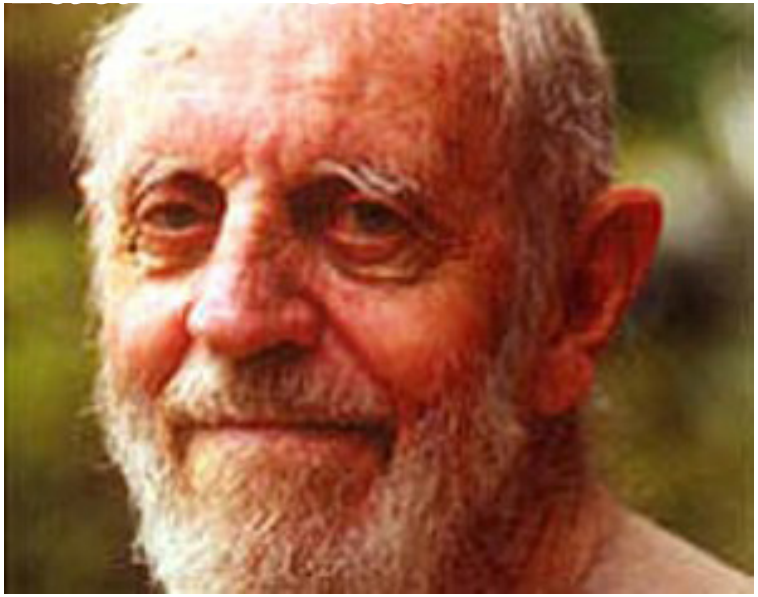
to my friends at IDC, specially Somya JN who introduced me to people at COSTFORD, my night-shift mates at studio who prepared cups of tea for me and never hesitated in asking about project's status,

and finally,

to the Brickmaster Laurie Baker, for defining a true role of an architect in a developing society.

Contents

Who is Laurie Baker?



Born in Birmingham, England, in 1917, Laurie Baker studied architecture at the Birmingham School of Architecture from where he graduated in 1937 and became an associate member of the, RIBA. During the World War II he was an anaesthetist to a surgical team in China where he also worked on control and treatment. On his way back to England he had to wait for about three months for a boat in Bombay. There he met Mahatma Gandhi and was influenced by him. He decided that he would come back to India and work here.

During 1945 - 1966, apart from his general freelance architectural practice throughout his life in India, Baker was architect to leprosy institutions in India and 1ived and worked in a hill village in Uttar Pradesh (now Uttarakhand).

In 1966, Baker moved south and worked with the tribals of Peerumede in Kerala. In 1970, he came toTrivandrum and has since been designing and constructing buildings all over Kerala. He has served at various times as Governor of HUDCO, on the working group on Housing of the Planning Commission, and on several expert committees at the national and state level.

Why not any other Indian Architect?

Why Laurie Baker?

Most of the Indian Icons (Famous Architects) in last century followed and explored their western mentors design approach,

Walter Gropius › **Habib Rehman and Achyut Kanvinde**
Le Corbusier › **Balkrishna Doshi**
Louis Kahn › **Anant Raje**

and even today...
Zaha Hadid and Reim Koolhaus › **Morphogenesis Studios**
and
Western Magazines, Internet Images, Coffee-table Books› **Contemporary Architecture practices**

The modern approaches by these architects were seen as the solution for the developing need of then Indian society. Through the years, they have failed to keep up the promises they made. In the whole scenario, the architecture of Laurie Baker seems smiling and still standing tall with ethical foundations.

Though being a foreigner, he adopted and adapted India more than any Indian. Examples of his practices are visible proof of his understanding of culture, climate and context. He broke away from the approach of typical standardization of design, he falls in the rare category of following a user-centric, here a family, design approach.

This is the kind of architecture which is needed most to the current jargonized understanding of sustainability and way of building.

Whereabouts

Users

Target Audience

The project's target audience (user) is the students of architecture studying in undergraduate level at different schools in India. Students from other countries can also equally benefit from this work. Inspiring a young students looks brighter than convincing a seasoned professional. The project language and details will be introductory in nature which ignite a need of self-experiencing Baker's work.

The versatility of Baker's ideas can also be comprehensively experienced by any design student or any individual who is seeking a true model of habitat development.

Medium

Exhibition Design

The Exhibition Design is here associated as an event which will happen in Architecture Colleges. It intends to ignite debates and discussion over this particular approach during the vent, or the time of exhibition. The experience of panels and drawings would offer a translation of thought in students' (of architecture) language and convince him of the implemental nature of this development approach.

Form

of the Project

It is a traveling exhibition (Portable, Foldable, Lightweight & Durable) with package-able, easy to install, flexible to layout and self standing units. To really make it a mobile system, the total weight attempts to within 30 kgs.

Why not a book design or a documentary?

First of all, books, documentaries and a website on the current have been explored. The Exhibition as an event looks an exciting concept to initiate a revival in complex thought process of young students by igniting them towards practising a meaningful way of life.

Position

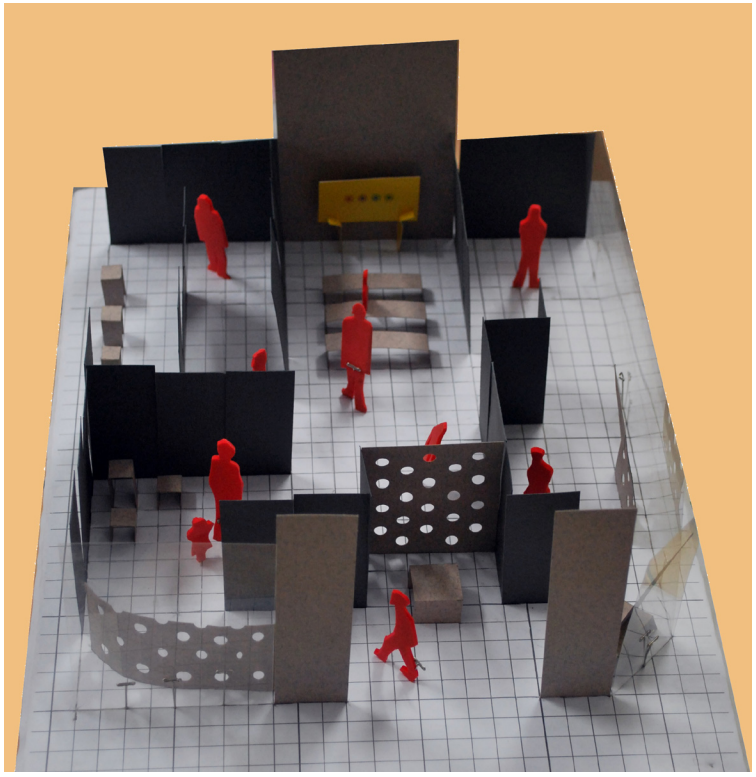
With the variety of content available, the original works and writings of Laurie Baker have been primarily focused. Directly dealing with Laurie Baker's work gives a first hand exposure of life and philosophy.

His works on different medium is vast, like all the motifs used in this report are actually 'mango paintings' by Baker himself.

However, the descriptive information by various authors, like Bhatia, Kuriakose, have been taken into account and been remodelled only after actual seeing for the current context by the author.

For me, exhibition design offers me an opportunity of working in a nostalgic domain of space (architecture) and my current interest, visual communication.

Exploration Stage 1



Developing Exhibition Narrative

Stage 1

The very instinctive decision towards approaching a design, to explain about the subject, is defining it in a chronological order. The similar approach was taken where a chronological understanding of aspects like life incidents, architectural works, writings and conversations was applied in constructing a structure. Subsequently, allied concepts for low-cost building techniques and sustainable environment were discussed in the narrative.

Taking the IDC Exhibition Room as reference, this attempt was made. The physical exhibition environment includes reproduction of Baker's architectural features like a brick jaali, reproduced artifacts (his belongings), models, audio/visual narrations and space for them. The idea is to recreate a 'Laurie Baker' Space and a clear narration.

The sequential order of the exhibition narration:

1. Brick Jali (from one of his works)
2. Welcoming Artifact
3. Intent of Exhibition
4. Brick Jali guiding further
5. About Laurie Baker- Life history
6. Views on then Indian Society
7. PITHORAGARH Experience
8. LB Work- Residents, Institutes through Drawings and Models
9. Film Projection Area
10. Two Letters by LB to
    a. Government &
    b. Kerala CM
11. Construction Techniques
12. LB's "Rubbish by Baker"
13. Brick Jali
14. Quotes by LB
15. Vision
16. Visitor's Review

Basically, a structure of

Life
Works
Construction Techniques
Writings and Quotes

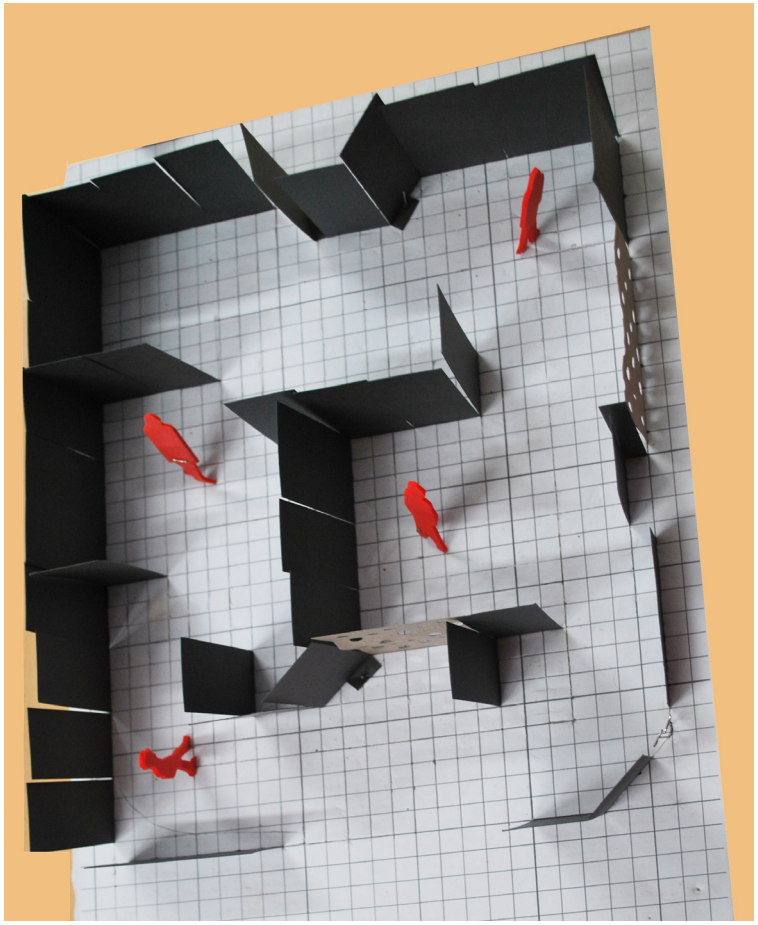
in a chronological order.

Discussion with Guide

1. Baker presented like a persona which is now dead.
2. Baker is sounding like a person rather than a philosophy.
3. Technical problems with the portability and mobility of the exhibition as artifacts, models and actual bricks are involved.
4. All the aspects life, work and writings are integrated. Isolating them makes the exhibition concept weaker.

At the first instant, arranging information in the chronological order appeared most logical to me, but i forgot that there is an end to a chronology.

Exploration Stage 2



Realising the power of words used in his quotes

Stage2

Baker's actions were the translation of his speeches and writings, which shows he walked his words. Some of his quotes wittily summaries the situation today and creates a question to be worth discussing. Answers lied in his work itself.

So, few of his quotes were taken to start of the new development of the narration. In addition, through literal meaning and metaphors were added to visualise the content.

Example,

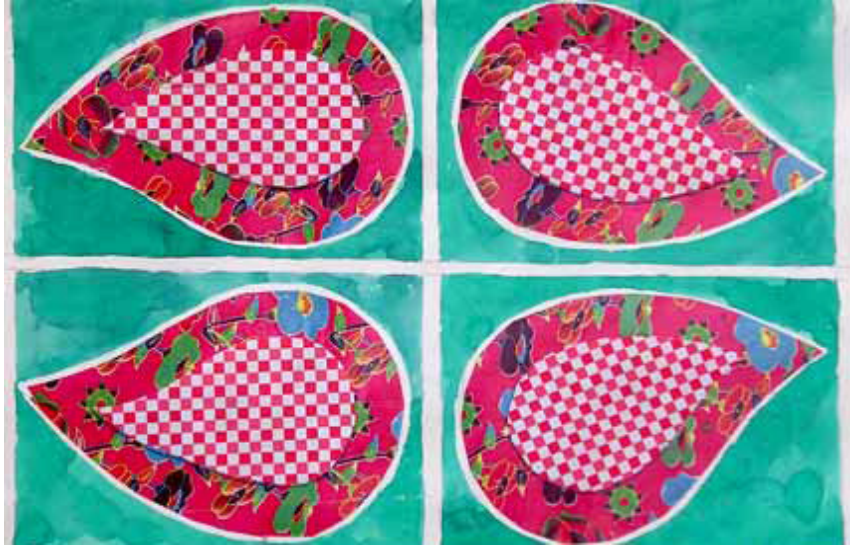
"Bricks to me are faces. All of them are made of burnt mud but they vary slightly shape and colour."

Visualisation through literal meaning,

- different walls, scultures
- different Houses
- different cities

Visualisation through Metaphors

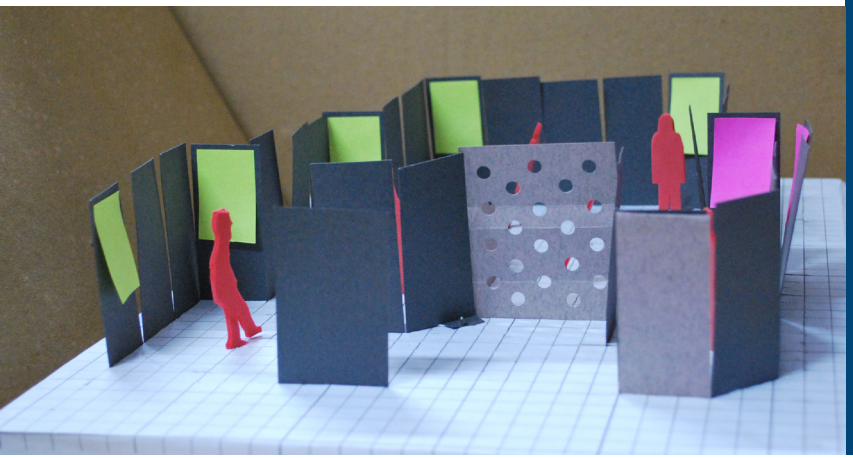
1. Crowd showing People from India
   - showing different clothes
   - having different occupation
2. An orchard Gardens with different Trees
3. Natural Objects only...



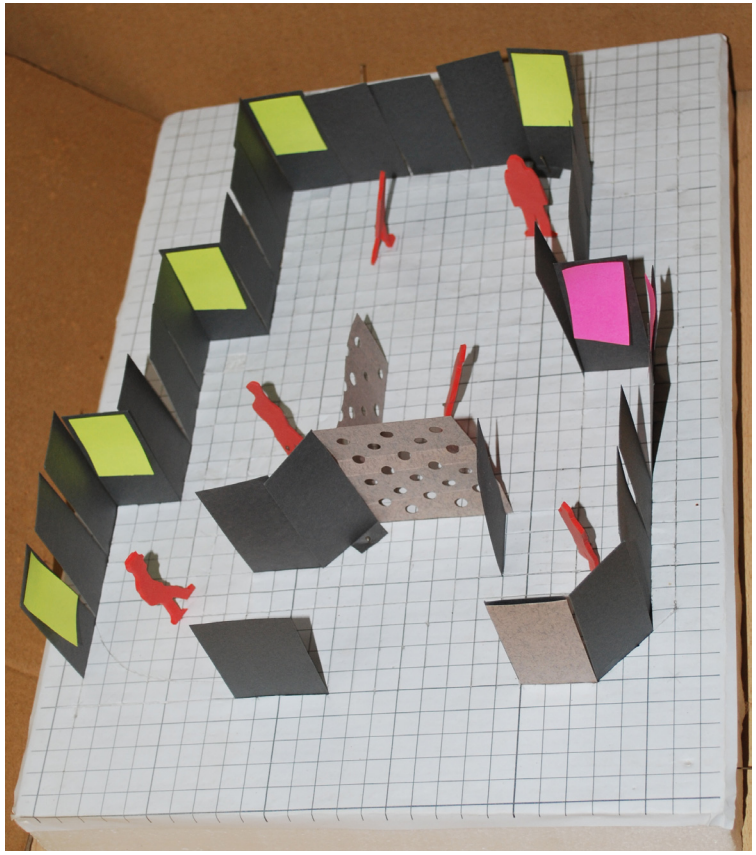
Discussion with Guide

1. Working on literal meaning can include everything.
2. No need to take external metaphors, as Baker's architecture offers the possibility to elaborate the concept in quote.
3. The exhibition is about Baker's ideas and Works, any external thing is redundant.
4. The 'quote can be kept' and elaborated to present his concepts towards approaching architecture.

Most of us struggle with language and life. We say something, practise something else. But in Baker's case his sayings are reflection of his life, attitude and practise.



Exploration Stage 3



Exploring the presentation of different aspects of Laurie Baker's Work and Philosophy

Stage3

To present the narration in an integrated way and to do away with a conventional chronological structure, various aspects of Baker's architecture were revisited.

Common Sense
India
Honesty
Nature
Low-Cost
Human
Rural
Adobe
Poor
Housing
Style
Vernacular
Tradition
Earthy & Eco-friendly
God
Gandhi ji
Aesthetics
Personalisation
Local
Natural Resources
Technology
Breaking myths
Inclusive Modernity

Baker's ideas on different aspects of philosophy and practice are very much integrated. Breaking them into different concepts is a difficult task as most of the concepts overlap. However, in the attempt to make a comprehensive exhibition narration, there was a need to break them into relevant concepts for today's generation. Therefore, few aspects were found which could become a category itself including different inter-related and intra-related subsets. They are:

Nation
Low-Cost
Nature
Tradition
Style & Individuality

One more aspect of '**Incorporating Modernity**' was included as several of his examples are built in the Modern Context.

With all these categories, a core concept was decided to present the overall philosophy of Baker's architecture. The concept is very much reflected through the following quote.

"I never build for classes of people, HIG, MIG, LIG, tribals, fishermen and so on. But I will build only for a Matthew, a Bhaskaran, a Muneer, or a Sankaran."

Similarly, quotes representing the categories discussed above were picked from his writings and conversation.

Developing structure of each category

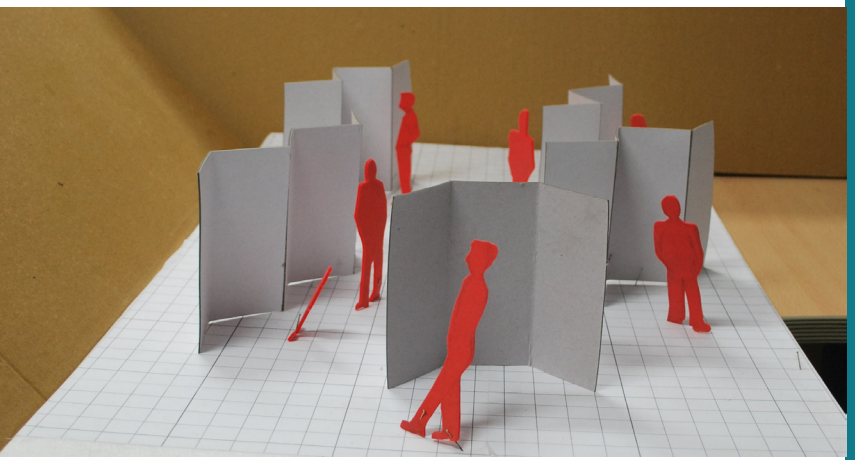
The quotes were actually chosen to show the translation of a thought into a physical form or architecture. So, the quote here is elaborated with a building or a methodology example with further extending it to a detail level. The details will be architectural and conceptual. Therefore,

a. Quote
b. Building Example as Thought Translation
c. Details

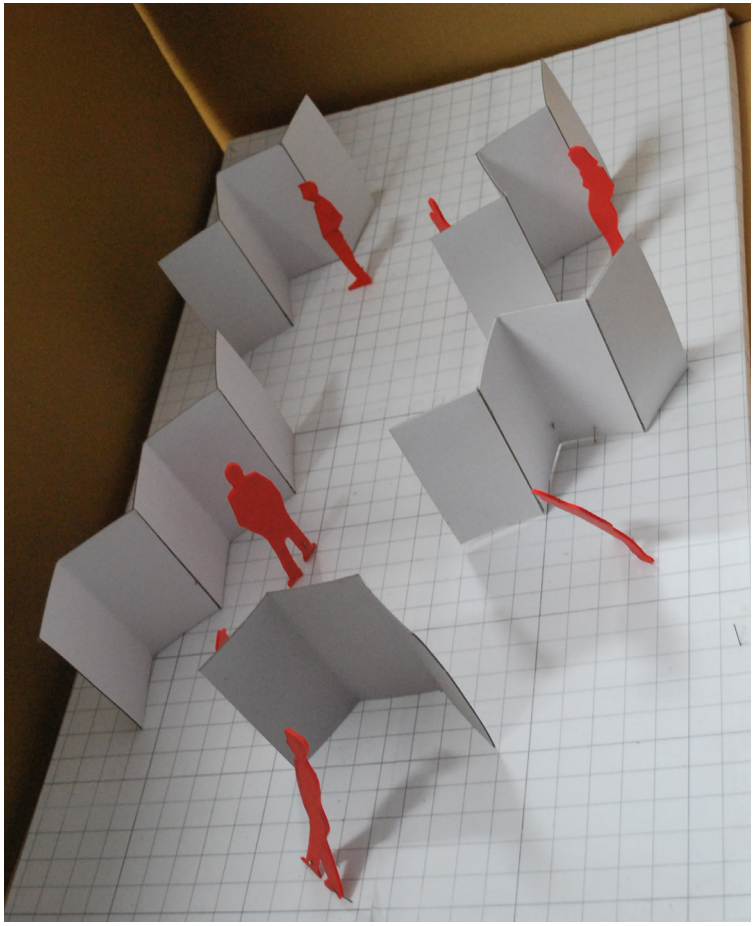
Discussion

1. The categorization was comprehensive.
2. The breaking up of linearity and making each category standing as a pillar of thought gives it an open circulation option within the exhibition, where starting and end are defined.
3. Logistically, it gives an option of using both sides of the exhibition display panels, which adds to the value of 'travelling' aspect.

Baker would have never imagined to work on different aspects and categories as i have broken him into for the convenience of communication comprehension. His approach was always integrated and following 'common sense'.



Exploration Stage 4



Developing the final concept and physical form

Stage 4

The six concepts (categories),

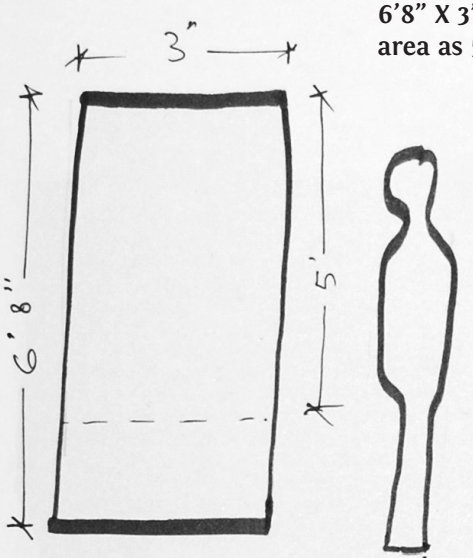
Nation
Low-Cost
Nature
Tradition
Modernity
Style & Individuality

are further elaborated, with a introductory and concluding category.

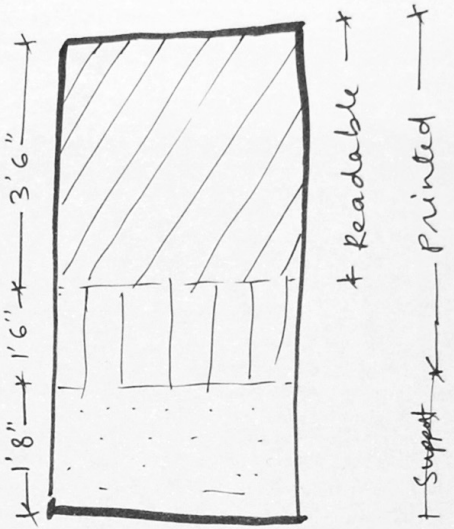
A trip to Trivandrum has enhanced the understanding of the subject.

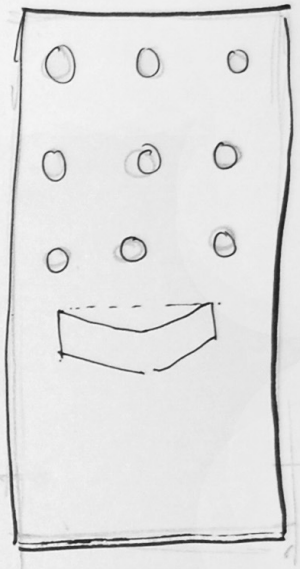
Here are the proposed display and layout possibilities, for the proposed exhibition followed bye the exhibition narration with proposed sections (categories).

The panel size is kept 6'8" X 3' with printed area as 5' X 3'.



PANEL SIZE

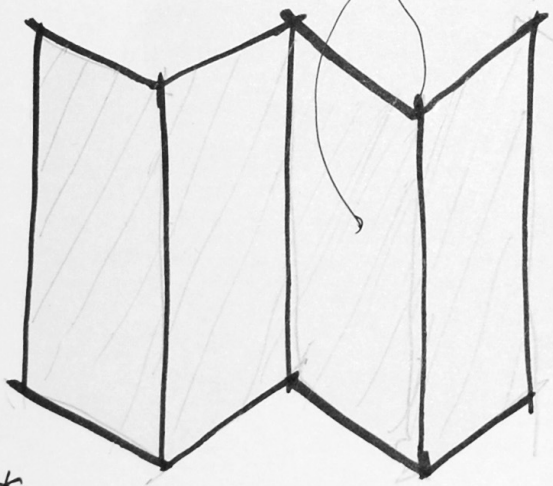


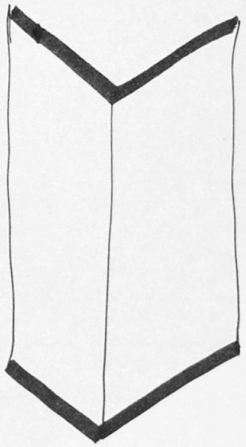


PERFORATIONS & 3D nets can be EXPLORED!

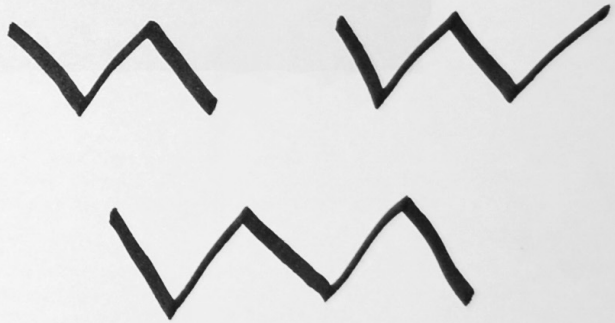
COST, WEIGHT REDUCTION

BOTH SIDE PRINTING

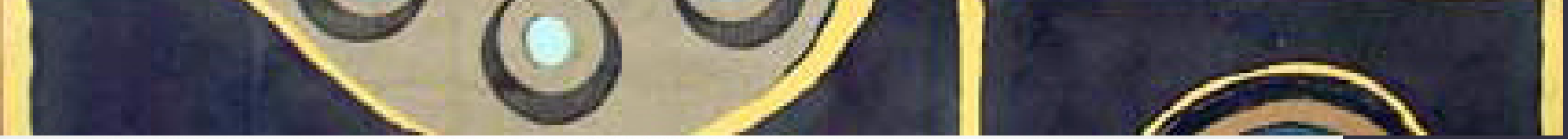




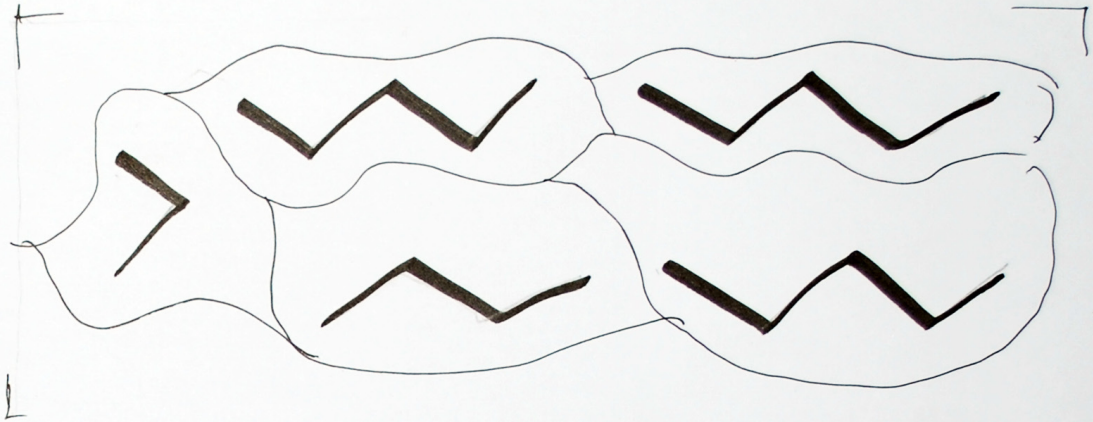
MIN. TWO REQUIRED for SELF STANDING



* PANELS CAN BE SELF-STANDING WITH A ZIGZAG ARRANGEMENT!

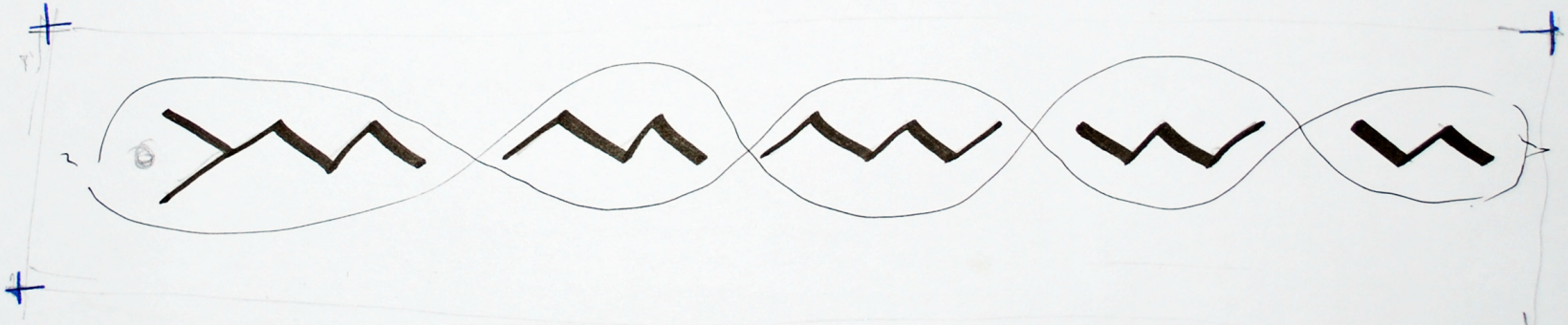


RECTANGULAR SPACE



LINEAR SPACE
RECTANGULAR

LAYOUT POSSIBILITY
WITH DUAL SIDE PRINTING
& a ZIG-ZAG ARRANGEMENT OF PANELS



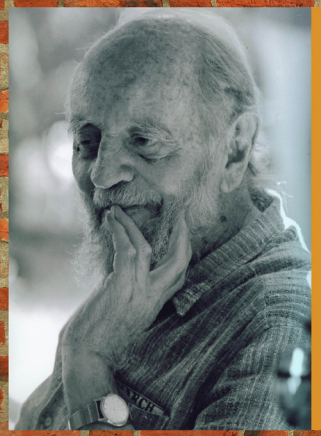
IN CASE of a CORRIDOR (Many Colleges have this possibility)

0a

Disclaimer
This exhibition is just a small and limited attempt to communicate the great ideas of a simple architect,

Laurie Baker.
A physical visit to any of his work (building) is more worth than the experience of this exhibition.

0b



Laurence Wilfred BAKER

2 March 1917 - 1 April 2007

The Man of Tao
Remains unknown.
Perfect virtue
Produces nothing.
'No Self'
is 'True Self'
And the greatest
man
is 'Nobody'.
Chuang Tzu. xvii.3

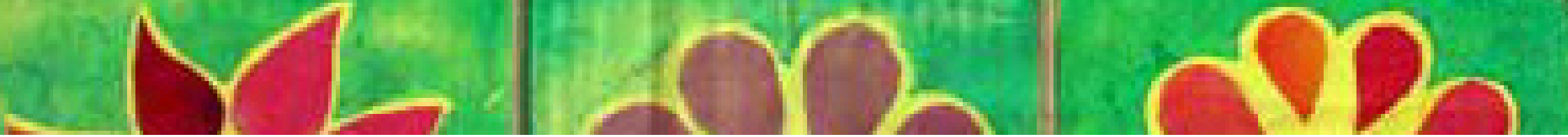
0c

Welcome

a travelling exhibition on
Laurie Baker,
the architect,
his works and philosophy

Date

Venue



1. Introduction to his central philosophy

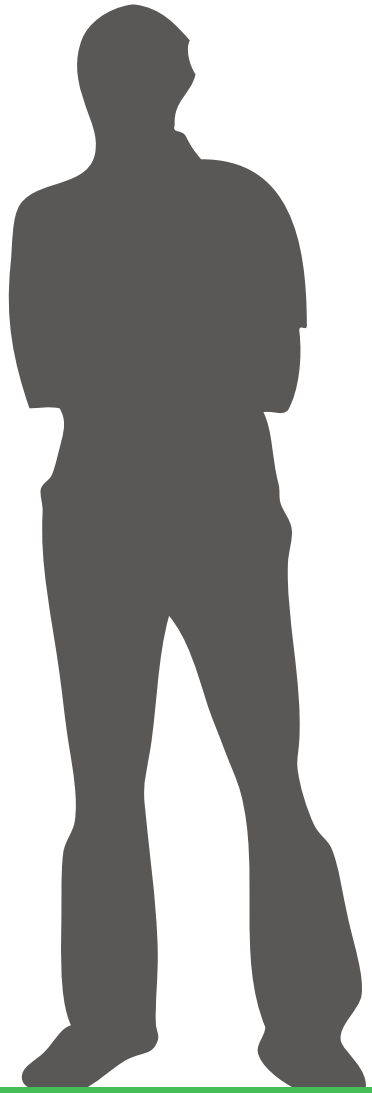
For Laurie Baker, every individual was unique. Every human being was beautiful and equal in his eyes. There was no bias towards his/her social, economic class rather there was an attempt to entertain the individual choices, habits and behaviour. Each of his projects is an amazing mix of clients' requirement and his crafty and innovative response.

So this introductory section is just about his overall philosophy towards a project. Following a narration programme, it starts with a quote which best explain this attitude towards the world.

The first panel (1a) illustrates a quote and his attitude towards his practice of architecture. Below the text, are the names of some of his clients for whom he made residences. All clients were different yet all were equal for him.

Again, following the narration programme, the second panel (1b) illustrates the residence of Col. Jacob and family, the initial condition and the brief for the project. The larger photograph at the bottom provides an external view towards the house. It also explains how beautifully this particular house merges with nature. Two photographs with the text give the hint of the clients' lifestyle.

The following panel (1c) talks about the spatial arrangements and architectural and interior spatial achievements of the master architect, Laurie Baker. The bottom photograph is a generalized statement of his work as he most of the time used exposed brick work and employed arches to their best. A photograph of 'Laurie Baker' can also be seen in the shelf, which shows the bonding and respect between client and the architect. Four different photographs illustrate the different spaces. Also, the floor plans are provided for architectural understanding.



1a

"I never build for
classes of people,

HIG,

MIG,

LIG,

tribals, fishermen and so on.
But I will build only for
a Matthew,
a Bhaskaran,
a Muneer, or
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For Laurie Baker, every individual was unique. Every human being was beautiful and equal in his eyes. There was no bias towards his/her social, economic class rather there was an attempt to entertain the individual choices, habits and behaviour. Each of his projects is an amazing mix of clients' requirement and his crafty and innovative response.

Nampboodripad Aniruddhin Archbishop Nalini Nayak K N Raj T N Krishnan Panikar Dr.Vaidyanathan T C Alexandar Thomas Lt.Gen.Pillai Narayanan Leela Menon Ramachandran Ravindranathan Abraham Verghese Jacob George Vasant Gawarekar Beena Sarasen Anna Mathew Peter Valiathan Mathew Sukumaran Sivanandan Sukhman Col. John Jacob Uma Devi Vinay Kumar Joseph Nampboodripad Aniruddhin Archbishop Nalini Nayak K N Raj T N Krishnan Panikar Dr.Vaidyanathan T C Alexandar Thomas Lt.Gen.Pillai Narayanan Leela Menon Ramachandran Ravindranathan Abraham Verghese Jacob George Vasant Gawarekar Beena Sarasen Anna Mathew Peter Valiathan Mathew Sukumaran Sivanandan Sukhman Col. John Jacob Uma Devi Vinay Kumar Joseph Nampboodripad Aniruddhin Archbishop Nalini Nayak K N Raj T N Krishnan Panikar Dr.Vaidyanathan T C Alexandar Thomas Lt.Gen.Pillai Narayanan Leela Menon Ramachandran Ravindranathan Abraham Verghese Jacob George Vasant Gawarekar Beena Sarasen Anna Mathew Peter Valiathan Mathew Sukumaran Sivanandan Sukhman Col. John Jacob Uma Devi Vinay Kumar Joseph Nampboodripad Aniruddhin Archbishop Nalini Nayak K N Raj T N Krishnan

1b

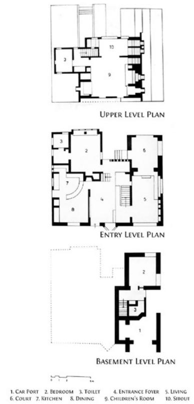
Building Example - Thought Translation

House for Col. Jacob & family

Kulasekhanam, Trivandrum, 1982

Funds were not so limited but slow in coming for the Jacob House, built on a long rectangular urban site somewhat narrow in breadth. Baker's resolution of the client's complex requirements and site constraints helped to generate in the plan, a degree of spatial and elemental playfulness, a characteristic absent in the houses of his less fortunate clients. According to Baker, 'The Jacobs were one of the most helpful and accommodating clients. They knew what they wanted, and they knew how to ease it out of me.' The subtle mixing of stone with brick, the overlapping of jaali walls and window, the minor adjustments in the interior levels may not have been possible if the house had been built with the desperation of shelter.

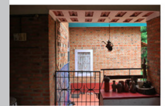
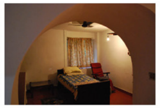
1c

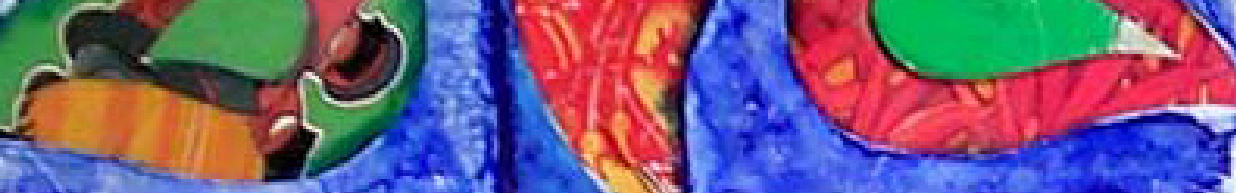


This was not to suggest that the Jacob house is pretentious, but merely that Baker has crafted a degree of personilised articulation into his regularly-used repertoire of architectural details.

The unusual feature of the house is the use if random stone masonry which forms the plinth line in front, rises to sill level in the rear, where the floor lines drops and becomes the retaining platform for the garden. It is to this, to this watery landscape so skillfully maneuvered, that the house is oriented. Windows in bays and clerestories, frame the view out of varying arches on both floors. The dual function of the operable shutter in the room wall and the arched opening in the outer wall combine to create intermediate verandas and sit-outs. The double wall, effectively tuned, controls the light, limiting the glare, and enriching the textures of brick and tile with an even glow.

Entry Level: Drawing, Living, Dining, Bedroom & attached toilet and Kitchen
Basement Level: Bedroom, Garage (outside)
Upper Level: Bedroom & attached toilet, Balcony

2. Contribution to Nation Building

After 62 year of independence, poverty and housing are still our biggest problems. Baker's whole life went into creating houses for the masses. Seeing his economic skills over the practice of building he was offered many housing projects by the Government of Kerala. The Fisherman village, where he was able to bring a communal harmony through his architecture and ChengalChoola Slum rehabilitation project, where he avoided a mass design repetition culture followed by planners and architect, are the notable ones. These projects can be seen as a serious contribution to nation building when most of the architects are busy in designing elite housings and residences.

The quote chosen here, in the panel 2a, explains the importance of keeping our priorities right in a developing context of India. Further, in the panels 2b-c, Chengal-Choola slum rehabilitation project is explained through its design and its current use. The panel will include the planning and architectural decisions taken and details of its execution.

Baker's mountain-life experience was beneficial to the nation when a study of the conditions of a variety of the earthquake hit villages in Garhwal was made after the three months of the disaster by him and COSTFORD. This panel, 2d, explains some of the features, recommendations and sketches by him.

2a

Nation Building

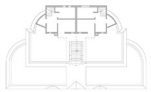
"I have
never doubted
that in a country like ours
any of us has
any **right** to
squander or **waste**,
or use
unnecessarily
money,
materials
or energy."

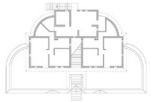
2b

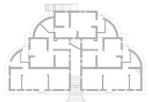
2c

Nation Building


Elevation


Second Floor Plan


First Floor Plan


Ground Floor Plan

Scale in M 1 5 10

Slum Rehabilitation

at Chengalchoola, Trivandrum

After 62 year of independence, poverty and housing are our biggest problems. Baker's whole life went into creating houses for the masses. The Fisherman village, where he was able to bring a communal harmony through his architecture and Chengalchoola Slum rehabilitation project, where he avoided a mass design repetition culture followed by planners and architect, are the notable ones. These projects can be seen as a serious contribution to nation building when most of the architects are busy in designing elite housings and residences.

Slum Rehabilitation project at Chengalchoola is an exceptional work within all known rehabilitation projects in India. The most visible reason is its appearance as beautiful exposed brick row houses, even in its current use, which has its no connotations with a slum. This scheme can also be seen as middle path to economic high density high rise and costly high density low rise. The sense of community within cluster and open spaces created by them is the secret of success for this particular scheme.

2d

Nation Building

Report from Mountains

A study of the conditions of a variety of the earthquake hit villages in Garhwal made three months after the disaster by Laurie Baker and COSTFORD.

Baker Reported:
THREE MONTHS HAVE PASSED SINCE THE EARTHQUAKE. MUCH OF THE RELIEF WORK HAS BEEN DONE NOW COMES THE TASK OF REPAIRING AND REBUILDING


A TYPICAL "TOTALLY DESTROYED" HOUSE


ALL ROOFING & FLOORING MATERIAL COULD BE SALVAGED & USED


A TYPICAL SMALL MOUNTAIN SIDE VILLAGE UNSCATCHED BY THE EARTHQUAKE. MANY SUCH VILLAGES WERE SEEN


THE SAME VILLAGE DEPICTED AS "TOTALLY DESTROYED" A RELATIVE FEW SUCH VILLAGES WERE SEEN AND VISITED.

Observations from Site


A TYPICAL HOUSE ANIMALS LIVE BELOW A FAMILY ABOVE


CONCRETE ROOFS HAVE COME TO SOME ROAD SIDE VILLAGES, BUT THEY ARE AS VULNERABLE AS THE TRADITIONAL WOOD AND SLATE ROOF


THE OTHER END OF THE SAME HOUSE AFTER THE EARTHQUAKE ONE HALF DESTROYED THE OTHER HALF UNTOUCHED


WOOD & SLATE CAN BE SALVAGED AND REUSED

Recommendations

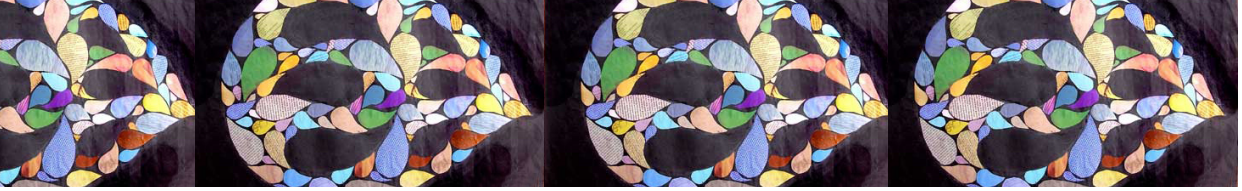
1. Remove compensation bogey
Use photos
Get on with salvage & cleanups
All villagers participate

2. Train old & new masons
Control wages
Don't waste skilled labour

3. Demonstrate only one earthquake proof House but mainly show how to re-build with Existing local materials

4. Train carpenters and sawyers

5. Incorporate improvements such as energy Efficient stoves, water storage etc.



3. Low Cost

Laurie Baker always followed a cost-effective way of building. Low Cost was just a resultant of his tradition rich innovative ways. After his death, Costford is actively following the ever-updating approaches framed by him.
This section talks about his cost effective philosophy, an example and various architectural techniques.

The first panel (3a) quotes the ideal role for today's architects, which triggers a query of looking for cost-effective solution.

The next panel (3b) explains the building of Laurie Baker Centre which is mainly built by Costford through Baker's innovative methods. It also explains the story of its evolution and how his client converted his own house into a tribute to Baker, so that present generation can learn about his work.

The following panels (3c & 3d) explain the various simple architectural construction techniques, from brick-work to windows-doors, through which we can save unnecessary spending on our building needs.

3a

Low Cost

"The equation that
a cost-effective house is
a house for the poor,
implying a bad looking house,
can definitely be proved wrong.
Isn't it the responsibility of
the upper and middle classes to
stop indulging in extravagance and
make better looking houses
instead?"

Laurie Baker always followed a cost-effective way of building. Low Cost was just a resultant of his tradition rich innovative ways. After his demise, Costford is actively following the ever-updating approaches framed by him.

3b

The Laurie Baker Centre

Laurie Baker Centre

Vellapilsala, Trivandrum, 2009

A culmination of Baker's low cost ideas can be seen in the Laurie Baker Centre designed by Costford. Initial concept was done by Baker himself when it was thought as learning school as a part of Mr. Keith S' *Navyatra*, a 3.42-acre plot at Vilappilsala, on the outskirts of the Thiruvananthpuram city. The idea of reforesting the two-third of the site and building along the natural accessible levels and contours itself saved lot of money which is generally used in construction of site development.

After Baker's demise, the building was conceptualised as Laurie Baker Centre by Costford to perpetuate his memory and ideals of his vision. The original owner of the site willingly gave away his property for this noble thought. Now, it plan to promote appropriate technology, especially in construction and public works, including development of building materials and technology relevant to green architecture. The Centre is managed by a governing council chaired by Elizabeth Baker, Laurie Baker's wife. It is also assited by the State Government of Kerala.

It will have special programmes on urban and spatial planning, natural resource management, eco restoration, environmental engineering and management and alternative sources of energy. As many as 40 students are to undergo a three- month training course.

3c

Cost saving methods used by Baker

The Rat Trap Bond is still unknown in India, though used in England for past 100 years. It is as strong as other bonds, Flemish or English, and uses 25% less bricks and mortar. Thermal Insulation is better with this bond. Bricks are laid on Edge, not flat and create a "bonded cavity",

The Cavity ensures good insulation from heat and cold. This can be ruined by a poor mason carelessly slopping mortar into the cavity while he is building. To avoid this

1. Make sure the Mortar is not too wet
2. Use a 3" wide strip of wood, laid over the central cavity and place the mortar on both sides.

No mortar required on the middle of the cross brick.

Frequently, when building a brick wall, a half brick is needed. **Do not cut up a good whole brick!** Just bend down and you will find several brick bats, or chipped bricks, lying on the floor. **USE and CUT them.**

Bricks are increasingly costly!

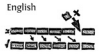
BROKEN BRICK PIECES

On most sites where brick is being used, there are plenty of broken pieces lying on the ground. USE THEM!

Beat hard and level your earth in filling 'floor'. Lay the broken bricks close together. Mix on top a weak lime mortar and brush it in and you have an excellent base for the tile or plaster flooring.

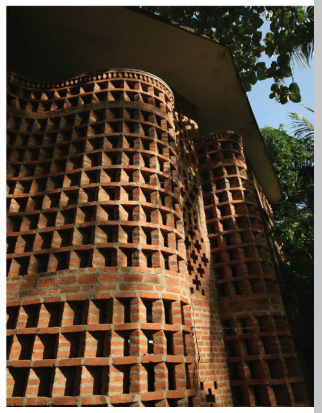
Brick Spacing

When laying out a brick wall of a specific length, always first lay out one row of bricks. This may leave a small gap, or over-run the end of the Wall.



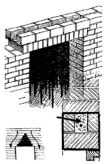
Do not insert a small piece - by doing so you will create bonding problems up the whole height of the wall.

Just by moving each brick a tiny fraction - you can make the right number of bricks fit correctly into the length of the wall required.



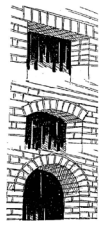
3d

Cost saving methods used by Baker

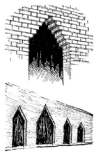


Lintel

A lot of unnecessary steel and cement concrete is used for lintels. Instead, place one row of bricks on the edge over the frame (or space) and then above the, one on each side, a row of more bricks on edge. The space between these upper two rows of bricks is then filled with concrete in which a small steel rod is placed. The only weight the lintel is eventually carrying is a small triangle of brickwork. All other weight of walls, floors etc. above are carried by the wall at the sides of the opening.

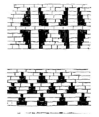


Arches can be of different shapes and sizes and are much less costly than R. C. Lintels. But while constructing them, some sort of frame work or support is necessary. There may be arches of different sizes so make the frame for the smallest, and add a row or two of dry bricks. No mortar is required for larger arches.



Corbel Arch

The usual round and segmental arches need shuttering or support during construction. The corbel arch needs no support and is extremely simple and easy to make. One quarter of a brick is extended out from the brick below it. Baker used such 'arches' over openings up to 5 meters wide.

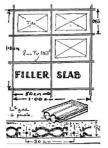


Brick Jali

'Jali'- formerly pierced stone panels - is one of India's oldest methods of letting into a building filtered light and ventilation but maintaining privacy and security.

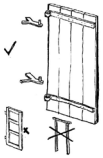
Brick Jali can function in the same way - either as panels or as complete load bearing wall.

Many patterns can be innovated through bricks. A good Mason can devise and enjoy doing them.

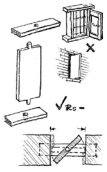


Filler Slab

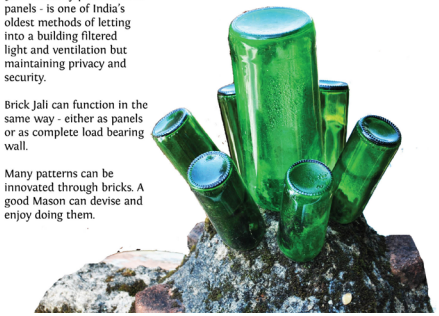
In the orthodox reinforced concrete slab the dead weight of its concrete is heavy. This weight can be lessened by putting light weight material between the steel rods. The simplest 'filler' is to use two low grade Mangalore Tiles. These have no structural strength value and they are mere 'Fillers'. Using them saves about 30% dead weight of the 'slab' - so less steel - so much sand steel, sand, cement metal and cost is saved.

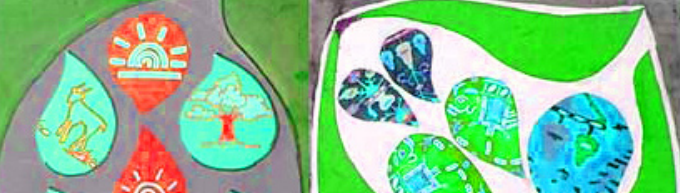


Doors do not have to have frames, panels etc. A few planks can be fixed together with strp hinges to form a strong door. A little bit of cutting can give a small pattern. The cost will be much less than half the cost of a normal door.



A **Window** with a frame and a shutter, with glass, and perhaps a metal grill, is very costly. A simple 1" thick, 9" wide plank of wood, with a rounded protrusion at both ends, will fit into 2 strips of wood (30 or 35 cm long, 8 cam wide) and you have a 'window'! Even when it is open, no one can climb through the two 4 inch openings, so no grill is required. While designing, if a larger window is needed, put 2 or 3 in a row.





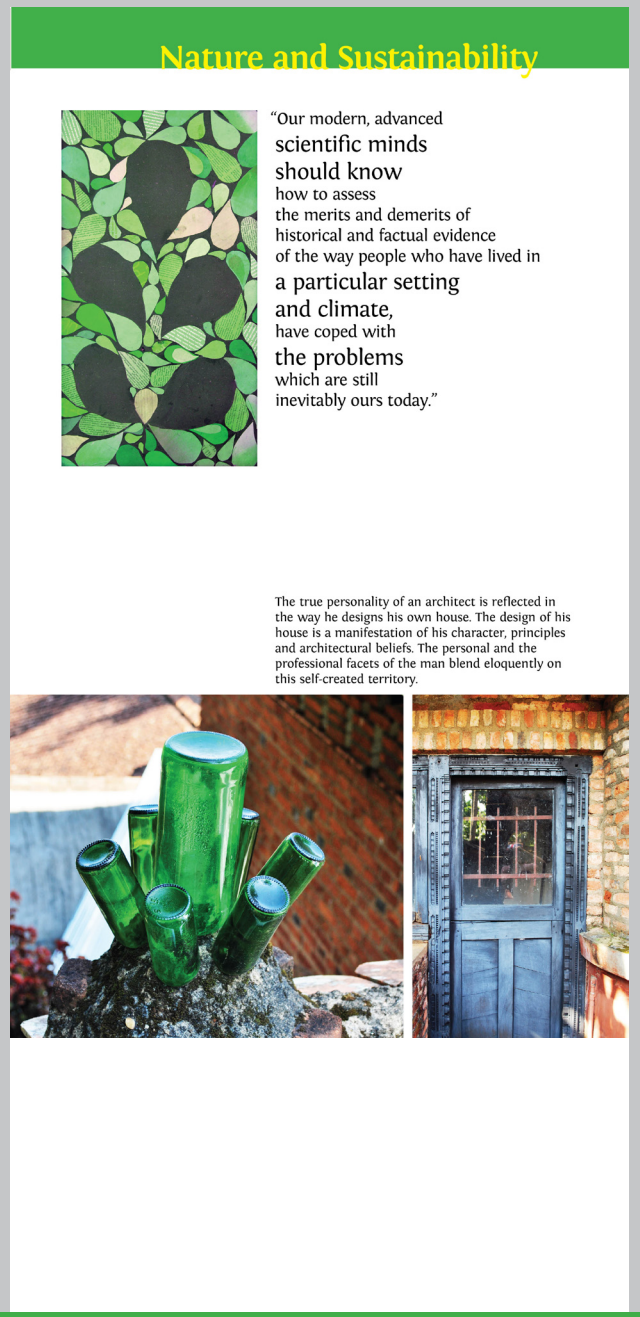
4. Nature and Sustainability

The true personality of an architect is reflected in the way he designs his own house. The design of his house is a manifestation of his character, principles and architectural beliefs. The personal and the professional facets of the man blend eloquently on this self-created territory.

The first panel illustrates a quote by Baker which highlights the traditional and natural way towards habitation and development. Following panels (4b & 4c) illustrates his own house where he followed the command from nature to design.

The last part (panel 4d) of this section presents the illustration from Baker's book "Rubbish by Baker", where he explains the source, growth and re-growth of rubbish in today's' environment. The black ink drawings are conceptually very strong as they present a scope for the simplest thinking towards sustainability in the form of very visible material, 'rubbish'.

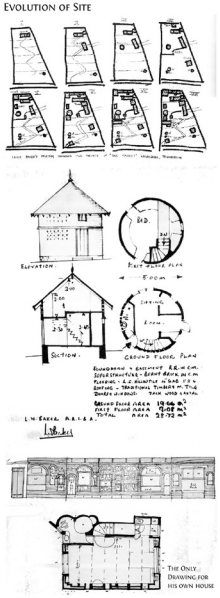
4a



4b

Baker's Own Lifestyle

EVOLUTION OF SITE



THE ONLY DRAWING FOR HIS OWN HOUSE

4c

The Hamlet

Bakers' Residence at Nalanchira, Trivandrum

Baker's philosophy of sustainability and living with nature is best reflected in the process of building his own house.

When Bakers moved to Trivandrum, they bought from the Bishop half-an-acre of land It seemed, at the time, an unusable purchase: an awkward triangle of stone and scrub, sloping steeply towards the main Nalanchira road. However, Laurie Baker saw such limitations as an architectural challenge; and wishing to have a more permanent foothold in the city, they moved to Trivandrum.

At first, he built only a single-room hut of timber and thatch at the top of the site. It was an inconspicuous structure protected by the shadow of the hill. Initially it served as a bedroom, living room, dining and study. Later, with the increase in requirement and a sense of permanence towards the place, the first permanent structure was made. The main house began in the form of one on the top of the hill and it then grew downwards, each portion relating to one preceding it, the floor levels following the contour of the land. Later he added three annexes at different points of time. Access to each is by terraces which are connected together with steps in a meandering way, handling the contours as they move along. The views are to the valley below and inward on to the terraces.Built solidly of conventional brick and tile, it made no pretensions to monumentality. 'It was sited', as Baker said, 'right into the rocks'.

Interestingly, in all the construction, the material has come from rather unconventional sources over a period of time. Fish tiles from a palace, dormers and roofing wood from a dilapidated house, wood from a jetty and pieces of stone or tile which he picked up, all juxtapose in harmony. The house reflects the owner's philosophy of simple living and high thinking and there is no ostentation.

In many ways it is a museum of architecture reflecting Baker's thought and methods and possibly the material which could be scavenged over a 30-year period.

4d

Rubbish by Baker

5. Tradition and Vernacular

The big decision of Modern Architecture to neglect and ignore the traditional knowledge is not relevant for a country like ours where tradition is full of tested innovations. Like, other crafts and knowledge, habitat building and architecture is one of the areas where we have neglected everything about tradition in the name of modernity and practicality.

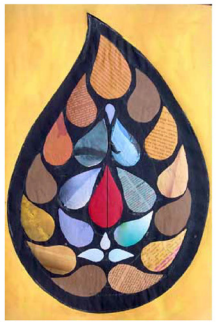
Baker always respected the traditional wisdom and applied to his architecture. He always kept upgrading himself with more exposure to vernacular ways of doing things, be it his early years in China or later in Kerala.

This particular section illustrates the Baker's ideas and his application that he learned from the traditional and vernacular architecture of the regions.

The introductory panel (5a) explains about the amount of knowledge we have developed in the centuries. Following panel (5b) talk about the different types of vernacular houses like mud, stone, wood. The next two panels (5c & 5d) illustrate some of the local and vernacular techniques of the construction which today's students and architects can learn and apply.

5a

Tradition and Vernacular



"The use of
local materials is an example of
economy
because there are
no transport costs.
These styles show that people
have discovered
that there is
a right way and
a wrong way
of putting materials together so
that they are
strong and durable."

There are many reasons to explain this -people do not do or make things themselves these days, they get others to build and plough for them, they have jobs to do and older children can't be used because they now carry on with their education until they are grown up. So there is no time to do and make things. More and more people never acquire the simple rural skills, which were known to all of us fifty years ago.

5b

Building with Mud

Thought Translation

Mud Houses

How a mud house is built?

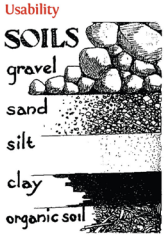
Where will the mud come from?

The ideal is to find mud on your own site. If this is not possible, bring it from as short a distance as possible, or find the nearest stabiliser available and then you only have to transport that to your site.

Remove the Top Soil

Remove the top soil. Dig a pit and see that there are different layers of soil - on top is organic soil full of decaying leaves and fibre.
Below it is sand and even below it is clay. You cannot use the top layers of organic soil for wall building - so remove it in heaps.
Excavate the sand and clay for building your walls. When you have finished the work you can replace the organic soil for growing plants.

Usability



Gravel: alone is of no use for mud wall building - the tiny lumps of stone have nothing to bind them together.
Sand: similar to gravel, it is of no use for wall making by itself - but if mixed with clay, i.e. sandy clays or clayey sands, it is the ideal mud wall building soil.
Clay: can be rammed or compressed but in drying out they often shrink. During the monsoon they get damp and expand again and crack form.
Laterite: is also a type of clay, which contains red iron or aluminium material. It is strong and stable and is cut out of the ground in blocks and hardens further when stacked and exposed to the air.
Organic Soils: are mainly useless for wall building. A reliable rule is that if a soil as good for growing plants in, it is not good for building walls with.
Mixtures: Find out which soils are contained in the mixture and then the usability depends on the proportion of the various types of soil listed above.

Stabilisers

When a material is week, or if used on its own it tends to collapse. We say it is not stable. Some types of soil like gravel, sand, silt on their own, are not stable and we cannot build a wall with them. This does not mean they are useless. We can remedy their particular defect by adding something that will make them stable. That is, strong and capable of holding together when shaped into a block or a wall. These extra "something" we call stabilisers.

Cement

Cement, is a modern contemporary stabiliser. It is good in most circumstances but there is always the question of availability, cost, and the excessive use of energy in its production, etc.

Bakr said, "It should also be pointed out at this stage that this sort of lack of precision is one of the main factors why mud .has not been accepted by the current engineering and contracting fraternity. If you say there might be 5.7362% of cement, they will be happy, but to say "anything between 1% and 5%" is too - vague for them! Science is our Sacred Cow and unfortunately is impatient with and intolerable towards; empiricism."

Lime

Lime, on the other hand, is made from the same basic material as cement, but is thousands of years old, can be manufactured almost anywhere, on the spot, for a fraction the energy and cost of cement and is a first class stabiliser for mud. Slaked or un-slaked lime is both acceptable but slaked lime will give less trouble to the workers hands and feet.

Lime probably is the most used stabilizer. It is made by burning shells and limestones in a mud kiln.

Rural Stabilisers

Traditional building has used many other stabilizers. There is a list of common, well-tried ones:
Straw

Cow Dung & Urine

Gum Arabic and other gums and resins

Sugar and molassecrude

Waste jaggery

Tannic Acid

Oil

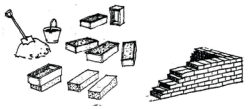
5c

Adobe and Wall Making

Adobe or Sun Dried Bricks

Adobe in India we know it as sun dried bricks. This is probably the most popular form of mud walling because the mud blocks or bricks can be made by anyone and after drying, they can be stored until there are enough of them and the right time to build has come.

MOULDS FOR ADOBE BLOCKS can be of any size. But if the block is too big then it is difficult to lift. An ordinary, large burnt brick size is good, then masons need no special training to build. You can make moulds so that several blocks can be made at one time.

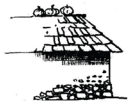


A small box or mould of wood or metal is used and the stiff clay is squeezed into the mould and then turned out to cure and slowly dry. After that a mason can use them in much the way as he would use burnt bricks or cement blocks. The adobe bricks can be made to any size. They can be the same se an ordinary burnt brick (about 9" x 4.5" x 3") or they can be bigger (12" x 6" x 4") if a thicker wall is preferred or indicated.

Pressed Earth

This system is similar to the adobe blocks but the bricks are Machine Made and Compressed in a simple machine. These Machine Compressed blocks are very strong and those using a small amount of stabiliser are usually as strong as the local countr3 made burnt bricks. The same precautions of slow drying, and protection from moisture apply to compressed blocks also.

Local Systems



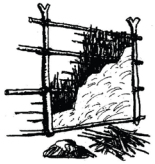
Stones bedded in the base of a mud wall

Mud used as a mortar for burnt brick walls

Cob

The simplest and almost certainly the oldest system is called "COB". With only a little water to form a very stiff mud, a large lump of it - as much as you can hold together between your two hands - is roughly moulded into the shape of a huge elongated egg. The usual size is anything between 12 to 18-inches, (30 to 40-cm) long and about 6-inches (15-cm) in diameter.

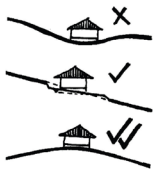
Wattle and Daub



This system uses mud as a plaster to cover thin panels of cane, split bamboo or other stalks that are woven together and held in place by wooden or bamboo posts and beams. This is called WATTLE AND DAUB. It is very common in areas like Assam and the North EasternStates, parts of West Bengal, the Andaman Islands, that is, where bamboo and cane grow freely and plentifully.

Usually the frame structure supports the roof. Sometimes when rainfall excessive of cyclonic winds dashdriving rain against the walls, however, wide the roof overhang is, ordinary solid mud structures collapse and the mud from Wattle and Daub structures gets washed off. However, the structure itself and the mesh of cane or split bamboo remains intact and after the heavy rain is over the mud is plastered on again.

Sitting a Mud House



Try and avoids at all costs putting the house in a low-lying trough or depression.

5d

Curing

Put the block for one or two weeks under damp sacks, straw or leaves. Then two weeks or so under the shade.

Mortars

Always seive the soil to remove the gravel.

Plasters

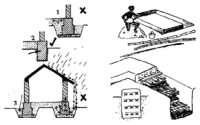
The finish of adobe, rammed earth and cob walls is often a bit rough and the need for plaster is felt. The mortar between the blocks should be left rough to act as a key to hold the plaster, which may be of mud, or mud and any stabilizer such as cow dung, lime or cement etc.

Pressed earth blocks are usually very smooth and it is difficult to apply plaster to them. It is better to apply two or three coats of whitewash, or thin slurry of sieved earth with lime or cement mixed in it. Colouring matter may of course be added if required.

Termites

Mud seems to be the natural home of termites so in areas where they are common the same precautions have to be taken as in all buildings to prevent their moving up into the walls and eating wooden frames etc.

Foundations

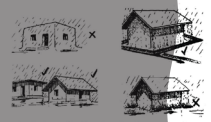


1. An orthodox foundation of a wide trench, lined with concrete on which stepped stone walls form a basement. But...

2. A 45-cm stone wall in a 45-cm wide trench is normally adequate.

3. The soft infilling often absorbs falling rain and damp walls are the result.

Protection from Rain



The fashionable "modern" cubist style of architecture is not suitable for a mud wall building. The best way of protecting any wall from either rain or sun is to have a good big overhang to your roof. The sloping, or pitched roof is better because the walls need not be so high as for a flat roofed house.

The easiest way of dealing with the splashing rainwater problem is to observe just where the rain falls and then dig a trench there. Therein falls into the trench, only splashes against the sides of the trench, and is then carried away so that it also does not soak into the ground and make the foundations damp.

Who is going to build for you?

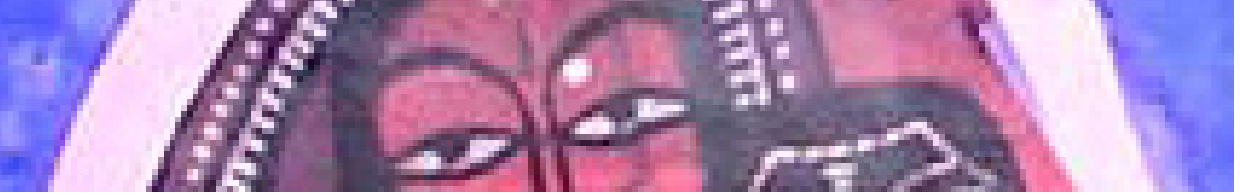
If you have the time and inclination you can do it yourself!

If not, you have to seek out people who are traditional mud workers. This may not be a great problem in rural areas and on the outskirts of small towns, but it can be quite a problem for really urban areas (and in Development Authority areas you may have difficulty in obtaining permission to build).

It is worth mentioning that people will tell you that it is not possible to build mud houses in a city because there is no mud there to use. Such people have to be reminded that neither is there burnt brick or cement nor steel, if you can bring in these things, you can bring in mud also.

There are a growing number of organisations in different parts of the country, very often staffed with young scientists and men of advanced education with practical knowledge of civil engineering - who are turning to these various forms of alternative technology as an answer to some of India's tremendous building needs.

'COSTFORD' the publishers of this book, or HUDCO or CAPART of New Delhi would put you in touch with such organisations for advice and help about building with mud.



6. Incorporating Modernity

Baker's wisdom is not just limited to tradition. He intelligently handled the Modernity through his innovative solutions. This was best explained in various blocks of Centre for Developing Studies, where the institution wanted modern infrastructure, and Baker used his wisdom in his response.

All the residences and the institutes he designed were in a way were response to the all three directions of time.

Though large part of his life was spent in serving people through designing residences, but he also exhibited his range of concepts in various functions, scale and dimension through a public building given to him in 1967. The Centre for Development Studies, Trivandrum design accommodates functions from administrative office to residences and library to amphitheater. Baker's expertise was required not merely to make this into a cost-effective complex, but to provide a setting with an image consistent with its development conscious goals.

The first panel (6a) here discusses the meaning of development and our attitude towards it.. The next panel (6b) illustrates the overall approach taken by Baker in the architecture design for CDS or the Centre for Developing Studies. The Last panel (6c) of this section, particularly illustrate his reaction towards incorporating a modern function at that time, the Computer Centre, where he used his architectural details to come up with a unique solution.

6a

Incorporating Modernity

"We should remind
ourselves that it is not
'Advancement' or
'Development' or
'Progress'
to indulge in modern
building materials and
techniques
at tremendous expenses
and to no good effect
when there is no
justification
or reason for their use,
instead of
older, simpler,
inexpensive methods."

Baker's wisdom is not just limited to tradition. He intelligently handled the Modernity through his innovative solutions. This was best explained in various blocks of **Centre for Developing Studies**, where the institution wanted modern infrastructure, and Baker used his wisdom in his response.

6b

Centre for Developing Studies

Site Plan

Building Example - Thought Translation

Centre for Developing Studies

Ulloor, Trivandrum, 1971

Main Building + Men and Women Hostels + Computer Centre + Auditorium + Amphitheatre + Cafeteria + Residences

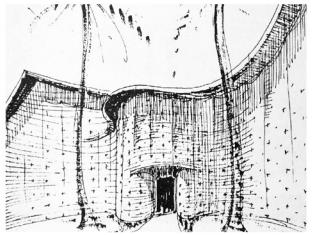
Though large part of Baker's wlife was spent in serving people through designing residences, he also exhibited his range of concepts in various functions, scale and dimension through this public building given to him in 1967. This institutional design accommodates functions from administrative office to residences and library to amphitheatre.

Baker's expertise was required not merely to make this into a cost-effective complex, but to provide a setting with an image consistent with its development conscious goals. On a hillside, overlooking paddy fields, the site rises in a difficult gradient of rocky soil up to the crest of a hill. Here, at the summit, the library dominates the centre with a seven-storey tower; the administrative offices and classrooms are scattered in a randomness determined by each one's position on the slope. However, the buildings remain tightly connected through corridors that snake upwards to the library along breezy walkways and landscaped courts.

At the Centre all buildings are located along the slope of the hill, taking their shapes from disposition of land. Connections between them are along brick-walkways lined with lights having brick supporters.

6c

CDS - Computer Centre



Elevation

Section

First Floor Plan

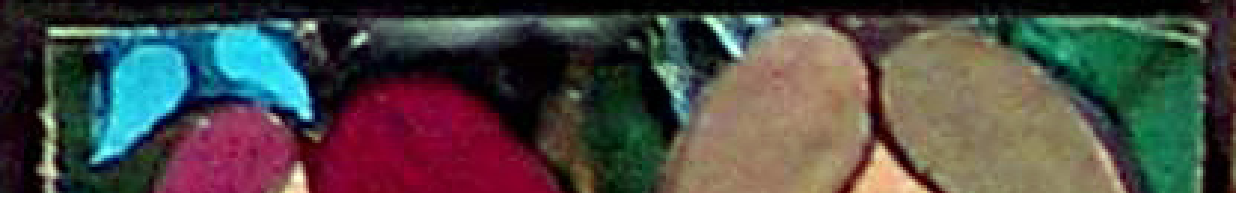
Ground Floor Plan

Computer Centre

Centre for Developing Studies

Baker says, *"One of the problems with computers is that they have to be air-conditioned. Electric supply here is comparatively irregular. So, instead I wanted to make the rooms at a steady temperature. So, I had a double wall. Meaning, just a 41/2" wall, only half a brick thick. Then a space you can walk inside and then another wall inside. The wall gets hot, emits it heat into this cavity. And immediately, it goes out. So, inner wall doesn't get hot et all, room inside doesn't get hot."*

The Computer Centre came after 25 years of the Main CDS building. For him, challenge was not just designing a response towards a modern requirement, but was also to act harmoniously with existing forms which were dancing through as curved walls in the whole campus of Centre of Developing Studies. This building is an example of Baker's innovative approach towards incorporating modernity and technological advancements, without surrendering to the readily available but unsustainable commercial solutions like air-conditioning.



7. Style and Individuality

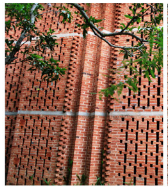
Baker said, "What I did was talk with the client, ask the family what they wanted, what kind of buildings they would be happy in. If the were fairly orthodox I gave them a straightforward plan. If I thought they were more adventurous then I did an outlandish plan – a round one or a triangular plan."

This was his attitude which makes him above the league of ordinary designers. As his each client was different, their houses were also different. The material selection according the context made them like a "Laurie Baker" house. The clients had a major role in designing by defining the requirements through an interactive process.

Here, the first panel (7a) starts with the quote explaining his concern over minute habits of a client. In the following panels (7b & 7c), the residence of Nalini Nayak is illustrated to explain the reflection of clients persona on design. The style emerging through various needs of client makes the design unique.

7a

Style and Individuality




"If it is to design a house,
I want to know the
client's eating habits.
Do they all eat together at regular times?
Or is it a smash-and-grab affair?
I also want to know about the bedroom.
Do they merely use it to sleep in?
Or does
he do his writing in one corner (like me)
and his wife do her sewing or embroidery in
another corner?"

This was his attitude which makes him above the league of ordinary designers. As his each client was different, their houses were also different. The material selection according the context made them like a "Laurie Baker" house. The clients had a major role in designing by defining the requirements through an interactive process.

7b

Style and Individuality

Above: Sketches by Laurie Baker.
Opposite: South facade.

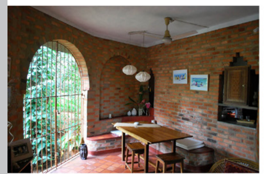
Residence
for Nalini Nayak

Nalini Nayak's, a social worker, '*Sadanand*'- the always happy house is used for the meetings of basket weavers and fisherwomen, and training of home nurse. This requires the rooms to function as classrooms in the day and as dormitories in the night. In-built furniture of brick, surfaced with terracotta tile serve as sofa and bed.

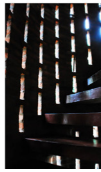
The main house sits on a tiny wedge shaped plot. The access is from the west through a tropical garden with ferns and you enter at an angle into a foyer at the core of the house. Its design follows Baker's tower house model. The tower is formed by a simple three-floor stacking of the pentagon with the staircase core at one of the corners. Internally each floor divides into the bedroom, bath and landing. The lowest level which houses the living/dining and kitchen is larger and opens out on the west.

Frameless pivot windows have been used with the protective grille. On the first floor is Nalini's bedroom cum office, which has entry onto a large terrace. The house has a wonderful quality about it and Baker has weaved many subtle nuances into the design, such as a series of bay windows in Nalini's Bedroom and a jali wall on the uppermost level.

This residence literally stand tall for its beautiful and crafty workmanship with a unique design within surroundings. The coconut trees around give this form a company in balancing it visually.

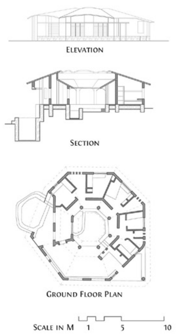




7c

Style and Individuality



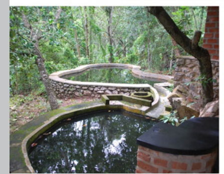
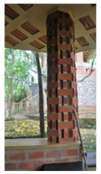
Residence
for Keith S.



Keith S, came back to India after spending more than half of his life in Canada. He was an established Economist there. He came back specifically wanting to start a new life in India. With his life earning he was able to buy a big chunk of land in the rural outskirts of Trivandrum. In 1997, he met Baker and conceptualized 'Navyatra'. The unanimous decision was to plant forest trees on the barren land. The seeds waited for natural water and have now seasoned themselves into thick trees. The eight other buildings in the campus, is the part of the concept of a school which Keith wanted to start at the site. After Baker's death he dropped his idea and has given campus to the Laurie Baker Center as a tribute to its Architect.

Keith's residence is complete reflection of his lifestyle. It doesn't use electricity and is totally dependent on nature's laws. The small animals and creatures, which may look wild to an urbanized mindset, are domesticated here. Keith says Baker combined the soul of client and soul of creator and creates something out of this world.

The residence is now being converted into the guest house for the faculty at Laurie Baker Center, and he has been provided with a new house built by Costford in a nearby plot.


8. Concluding Section

The concluding section includes a panel, 8a, providing a brief introduction about his life, formal responsibilities held and achievements. The panel 8b lists the architecture works; institutions, residences and modifications completed by him.

The next panel, 8c, explains about his views on different religions. The panel 8d lists available resources on Laurie Baker, including book by him, about him and other communication medias like internet and videos. The last panel of this section, 8e, has information about a current practice, Costford, which is following his ideology in architecture.

8a

8b

Life

Laurie Baker

Born in Birmingham, England, in 1917, Laurie Baker studied architecture at the Birmingham School of Architecture from where he graduated in 1937 and became an associate member of the, RIBA. During the World War II he was an anaesthetist to a surgical team in China where he also worked on control and treatment. On his way back to England he had to wait for about three months for a boat in Bombay. There he met Mahatma Gandhi and was influenced by him. He decided that he would come back to India and work here.

During 1945 - 1966, apart from his general freelance architectural practice throughout his life in India, Baker was architect to leprosy institutions in India and lived and worked in a hill village in Uttar Pradesh (now Uttarakhand). In 1966, Baker moved south and worked with the tribals of Peerumede in Kerala. In 1970, he came to Trivandrum and has since been designing and constructing buildings all over Kerala.

Awards & Recognition

Baker had no interest in awards and fame. Nevertheless his work was recognised by numerous national and international organisations and institutions. Citizenship of India was the only award he actively pursued in his life.

1938: Associate of the Royal Institute of Architects (ARIBA)
1970: Fellow of the Indian Institute of Architects
1981: D.Litt conferred by the Royal University of Netherlands for outstanding work in the Third World
1983: Order of the British Empire, MBE
1987: Received the first Indian National Habitat Award
1988: Received Indian Citizenship
1989: Indian Institute of Architects Outstanding Architect of the Year
1990: Received the Padma Sri
1990: Great Master Architect of the Year
1992: UNO Habitat Award & UN Roll of Honour
1993: International Union of Architects (IUA) Award
1993: Sir Robert Matthew Prize for Improvement of Human Settlements
1994: People of the Year Award
1995: Awarded Doctorate from the University of Central England
1998: Awarded Doctorate from Sri Venkateshwara University
2001: Coinpar MR Kurup Endowment Award
2003: Basheer Puraskaram
2003: D.Litt from the Kerala University
2005: Kerala Government Certificate of Appreciation
2006: L-Ramp Award of Excellence
2006: Nominated from the Pritzker Award (considered the Nobel Prize in Architecture)

Work

List of Architectural Work

Institutions and Buildings

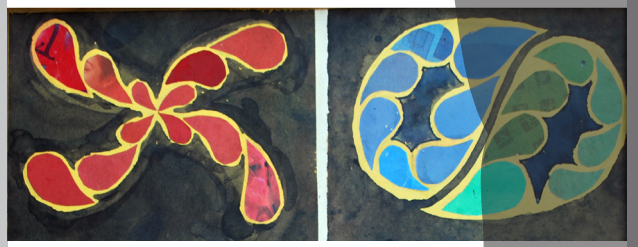
Leprosy homes for Mission to Lepers across India
Pithoragarh house, school and hospital complex
Nepal Hospital
Allahabad Agricultural University
Lucknow Psychiatric Centre, Noor Manzil
Literacy Village, Lucknow
Centre for Social Studies, Surat
Ahmedbad & Baroda – factories
Jyothi Pumps, Baroda
Children's Village, Kulashekaram, Tamil Nadu
Mitraniketan, Vagamon
Horst Kowski orphanages and homes across India (other than Childrens Village Nagercoil)
Houses for the Archbishop of Trivandrum
Tourist Resort near Muttam
Loyola Women's Hostel, 1970, Sreekaryam
Loyola Chapel & Auditorium, 1971, Sreekaryam
Centre for Development Studies (CDS), Ulloor
St.John's Cathedral, 1973, Thiruvella
Nalanda State Institute of Languages
Chitralekha Film Studio, 1975, Aakulam
Pallikoodam (Corpus Christi), 1972, Kottayam
Fishermen's Village, 1974, Poonthura
Mitraniketan, Vellanad
Tourist Centre, 1980, Ponmudi
The Indian Coffee House, at Thiruvananthapuram, Kerala, India
Chapel for Sacred Hearts Centre, Quilon
Navjeevodayam, Thiruvalla
Nirmithi Kendra, 1987, Aakulam
CSI Church expansion wing
Paruthipara Church
Salim Ali Centre, Anakatti, Coimbatore
The Hall near Jawahar Nagar
Attapadi Hill Area Development Society
Latur Eathquake buildings
Jilla Panchayat Office, Thevally, Kollam
Kanyakumari Boat building Yard
Nrityagram, Bangalore
Dakshina Chitra, Chennai, 1996
Building Centre at Anna University, Madras
Some buildings in Kishkinta, Madras
Sewa, Villapilshaala
International Blind Children's School
Chengalchoola Slum Dwelling Units, Trivandrum
Nava Yatra, Villapilshaala, Trivandrum
Karimadom Colony, Trivandrum

Residences

Jayan and Asha, Kakkanad
Neeta's House
HUDCO Suresh
IAS Colony
Abu Abraham, 1989
Major Jacob, 1988, Kulasekharam
Leela Menon, 1973
Mr Narayan's Mango house
Vellayani
A M Jacob
Anirudhin - 1969 first house in Trivandrum to have a preponderance of jalis
Nambudrinpad, 1973, KEsavadasapuram
Nalini, 1989, Anayar
KN Raj, 1970, Kumarapuram
TN Krishnan, 1971, Kumarapuram
PK Panikar, 1974, Kumarapuram
Vaidyanathan, 1972, Kumarapuram
T C Alexander, 1982, Vikramapuram Hill
P J Thomas, 1972, Kuravankonam
Lt Gen Pillai, 1971, Jawahar Nagar
P Ramachandran, 1975, Pottakuzhy
Ravindranath, 1975, Gourishapattom
Varghese Jacob, 976, Kottayam
K V George, 1987, Karakullam
Vasanth Gawerekar, 1982, Manvila
Beena Sarasan, 1989, Kowdiar
Valiathan, 1985, Pulliyankotta
K J Mathew, 1984, Vattiyurkavu
C T Sukumaran, 1984, Vattiyurkavu
P Sivanandan, 1984, Vattiyurkavu
Sukhman, 1984, Vattiyurkavu
Uma Devi, 1984, Ulloor

House Modifications

Anna Mathew, 1986, Kuravankonam
K Peter, 1988, Nalanchira
Vinay Kumar, 1990, Kunjavuzni



8c

8d

Resources

Website/pages
- a dedicated website, **www.lauriebaker.net**
- a Compilation of articles about Baker on www.arvindguptatoys.com
- online communities on Orkut and Facebook

Books by Laurie Baker
- Houses: How to reduce Building Cost?
- A Manual for Cost Cuts for Strong Acceptable Housing
- Brickwork
- Earthquake
- Mud
- Rubbish by Baker
- Rural Community Buildings
- Rural House Plans

* all books are published by Costford and are available as PDF on www.lauriebaker.net

Books about Laurie Baker
- **Baker Elizabeth**, 'Other Side of Baker', DC Books
- **Bhatia Gautam**, 'Laurie Baker : Life, Works & Writings', Penguin, New Delhi 1994
- Japan Architect **'A+U'**, Special Issue on Laurie Baker, 2000 Dec

Films and Video
-'the Brickmaster' Directed by Priya Krishnaswam,
- Laurie Baker : Poor Man's Architect

*both documentaries available on youtube.com

8e

Current Practices

COSTFORD is a voluntary organization, which provides technological assistance for rural development. It was founded as s a non-profit voluntary organization in 1984 by Dr. D. R. Chandradutt, Dr. K.N. Raj an economist and the then Chairman of the Center for Developmental Studies, Mr. Achutha Menon, the former Chief Minister of Kerala and Laurie Baker. The idea of COSTFORD took root when Mr. Achutha Menon showed interest in the alternative building technologies promoted by Mr. Laurie Baker.

COSTFORD started its construction activities in 1986. It has carried out massive rural development projects of Central and State Government agencies. Collectively COSTFORD has been able to realise about 20,000 buildings.

COSTFORD attempts to use some of Baker's construction systems such as Rat Trap Bond walls, Filler Slab roofing, exposed brickwork.They use natural stabilizers such as lime instead of cement. For their core activities, COSTFORD is supported by The Department of Science and Technology, Govt. of India; the department of Rural Development Govt. of India; the department of local Self Government, Govt. of Kerala and Housing and Urban Development Corporation (HUDCO).

Address: c/o The Hamlet
Benedict Nagar, Nalanchira
Trivandrum 695015 Kerala, India
www.costford.in

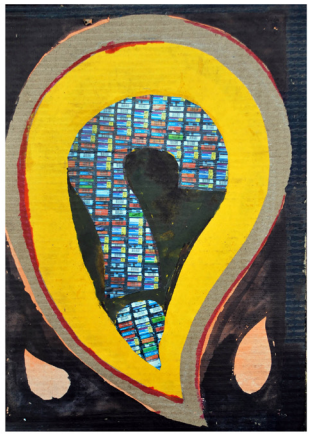
9. The End

The last panel (8f) illustrates the important priority for today's practise. Whenever, a young architect is in dilemma towards any project, he can refer this thought to escape out of complexity. This thought can be compared with Mahatma Gandhi's Talisman.

8f

Remember

"I want
young architects
& masons
to understand
why this so-called
Baker style has come
about
– so that
ordinary people can
afford to build
houses
for themselves."



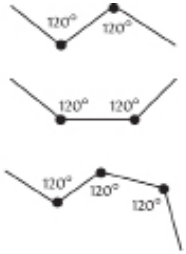
Yin and Yang

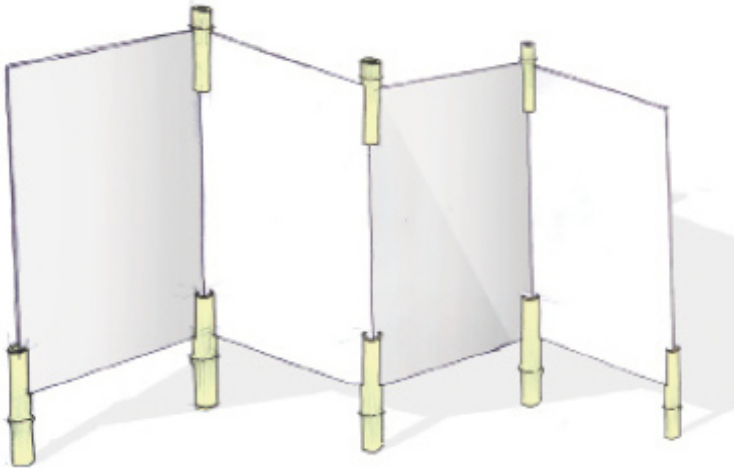
TYPICAL JOINERY DETAILS OF THE EXHIBITION

YIN is a 3" diameter 18" long, bamboo shoot. There are two 7mm grooves cut along the length which run upto 15". The Yin holds two panels together like a clip.

YANG is like the base of the exhibition panels. It is a 5" diameter bamboo shoot cut to a length 30", it which has two grooves which run upto 15" each.

Both the Yin and Yang are cut at 120°, this angle gives possibilities to deviate the layout in different directions.





The above sketch is an example of how the panels can stand on Yang with Yin as clip. Stability increases with the elongation in a continuos layoutw

Resources

Books by Laurie Baker

- A Manual for Cost Cuts for Strong Acceptable Housing
- Houses: How to reduce Building Cost?
- Brickwork
- Earthquake
- Mud
- Rubbish by Baker
- Rural Community Buildings
- Rural House Plans

* all books are published by Costford and are available as PDF on www.lauriebaker.net

Books about Laurie Baker

Baker Elizabeth, 'Other Side of Baker', DC Books, Kottayam

Bhatia Gautam, 'Laurie Baker : Life, Works & Writings', Penguin, New Delhi 1994

Japan Architect 'A+U', Special Issue on Laurie Baker, 2000 December

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Ramanathaiyer Sundar, 'Call a brick wall a brick wall', Frontline, April 07-20, 2007

Shankar G, 'Master Mason', Frontline, April 07-20, 2007

Singh Joginder and Wakhandkar Shrinivas, 'Creative Journey', Frontline, April 01-14, 2003

Website/pages

- a dedicated website, **www.lauriebaker.net**

- a Compilation of articles about Baker on www.arvindguptatoys.com

Films and Video

-'the Brickmaster' Directed by Priya Krishnaswam, Duration: 30 mins

- Laurie Baker : Poor Man's Architect

*both documentaries available on youtube.com,

All mango paintings/patterns were drawn by the Architect Laurie Baker. The buildings in various photographs are also done by him.

All Baker Photographs, provided by the Baker Family.

Building Plans by Costford and Mr. Gautam Bhatia.

Buildings' Photographs on Panel 2a, 2b, 2c, 6a and 6b by Ms. Seema KK. Rest of the documentation by Author.

Elaboration of this project on http://bakerproject.wordpress.com/