
Bamboo Design and Construction in the Philippines:
the Cabiokid Experience

1. Bamboo and its appreciation
2. Geographical distribution
3. Species and construction
4. Bamboo and Cabiokid
5. Sample of bamboo construction
6. Innovations and Techniques
7. Other fields of exploration
8. Challenges and Conclusion

Overview


http://ReaEscalicas.sulit.com.ph


Nars Gumangan


www.alibaba.com

62 species

climbing/clumping species

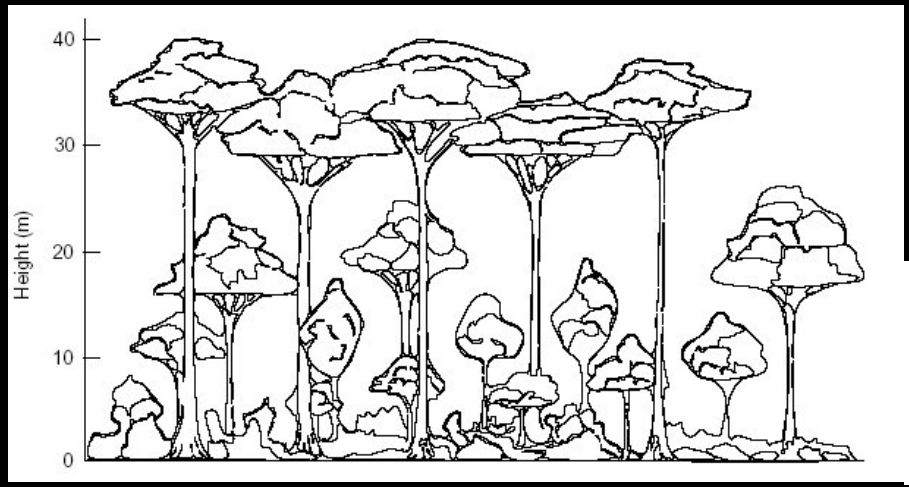
21-endemic

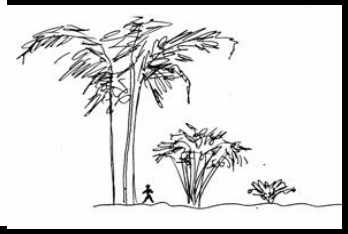
6 – commercially used

3 – used for construction

Bamboo in the Philippines

EDGE PLANTS in RAINFORESTS

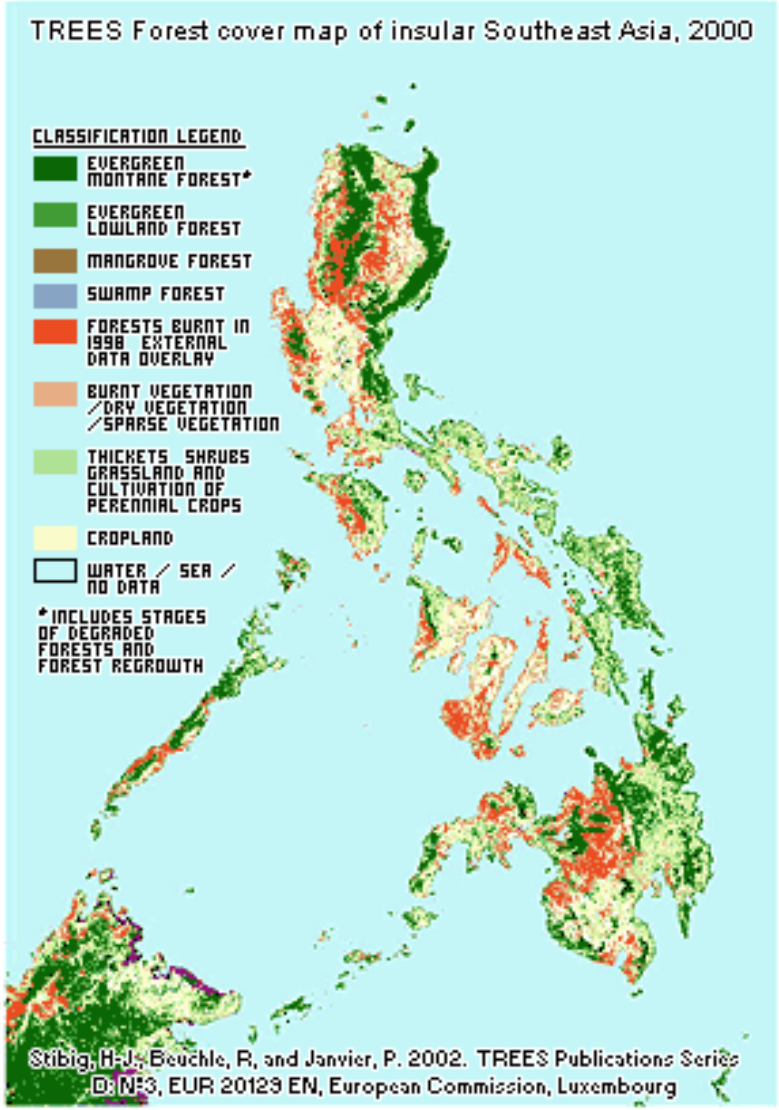




Bamboo in the Philippines

Naturally occurs along riverside

Bamboo in the Philippines



Humid tropical climate

7.1M hectares (23.9% of total land area)

Bamboo 39,000-52,000 hectares (estimated)

Bamboo – Rainforest Distribution

90 km North of Manila

Permaculture development site

Rice production province

Bamboo propagation site

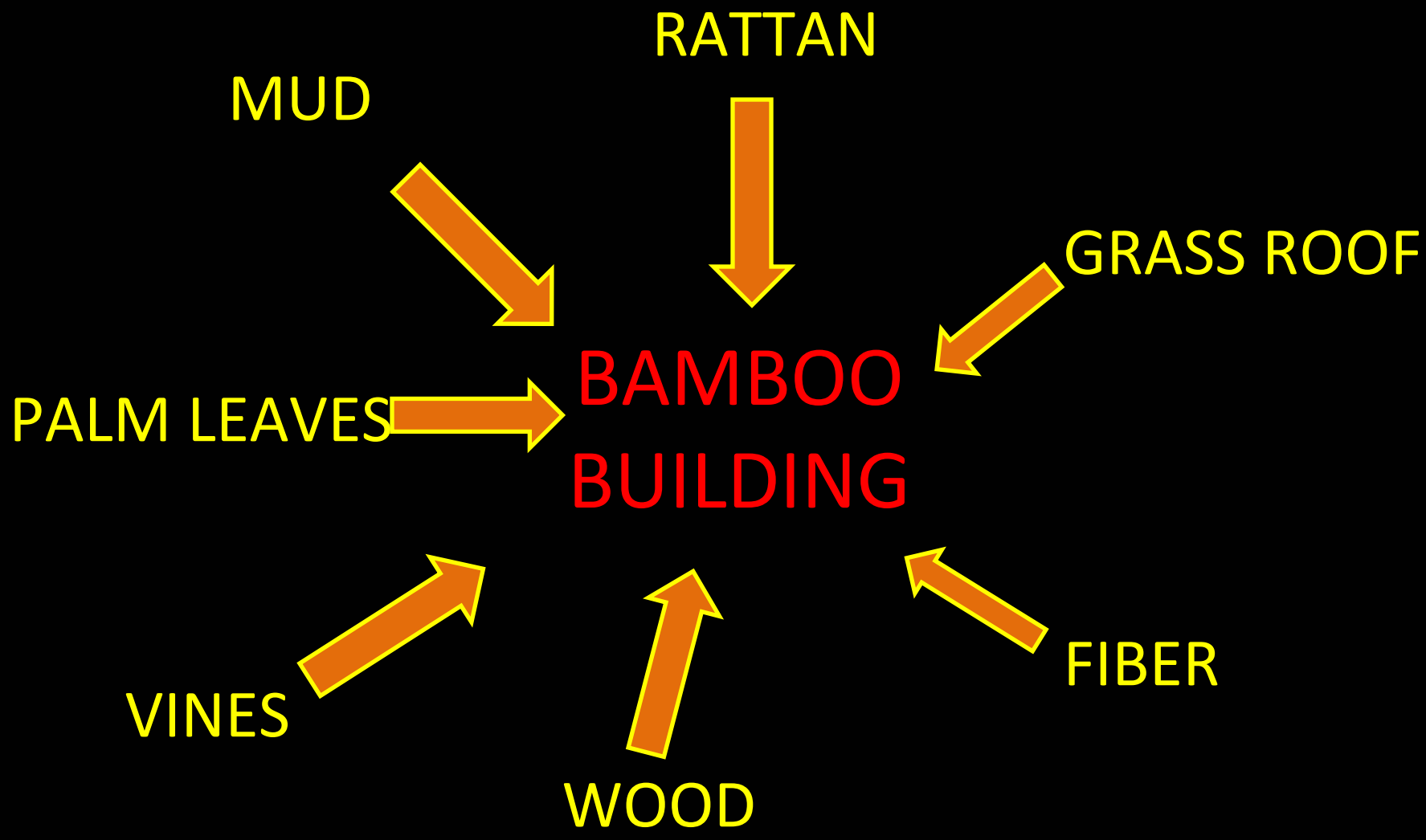
PERMACULTURE = ENERGY + PATTERNS

Kawayan Tinik
Bambusa blumea

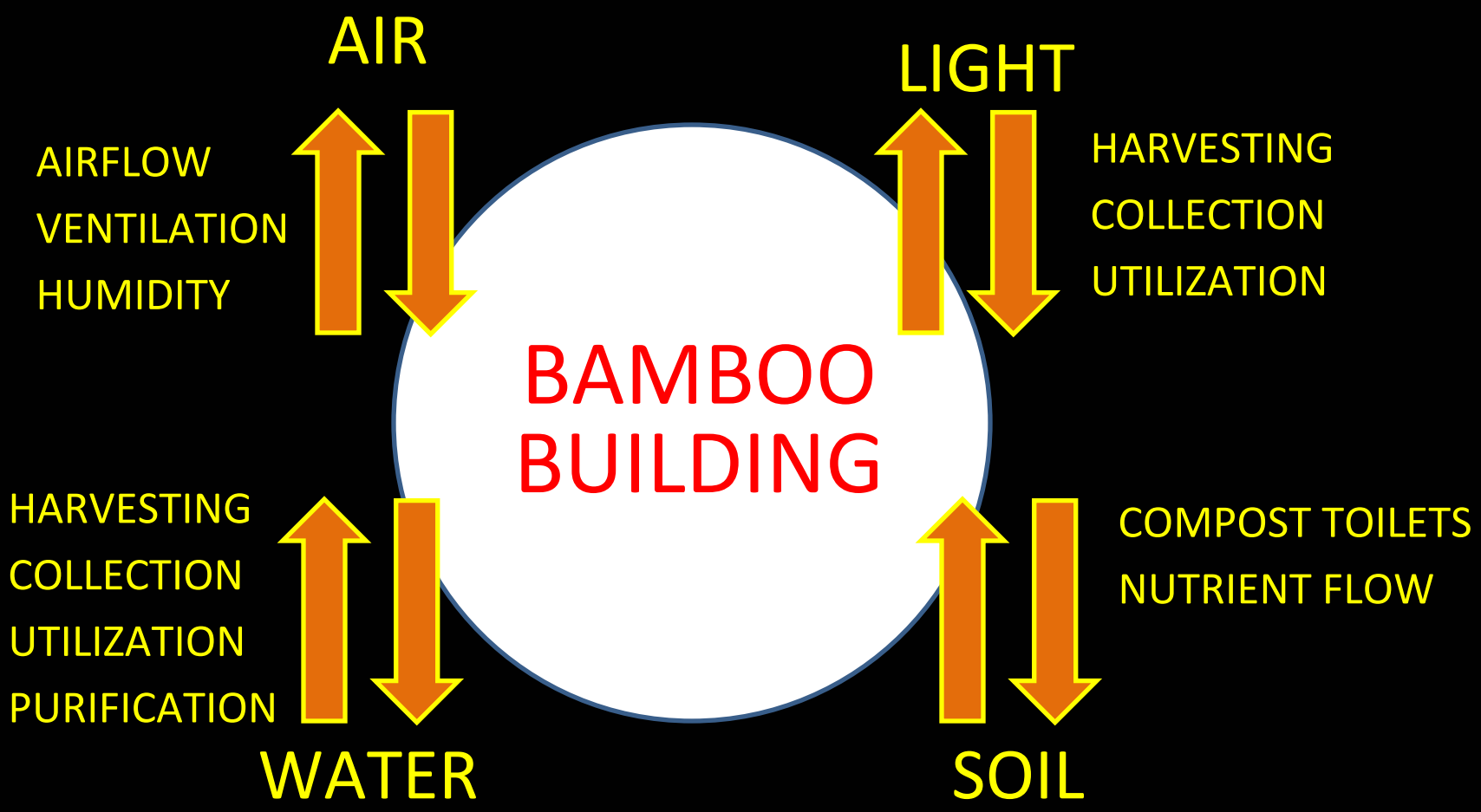
Buho
Schizostachyum lumampao

Bayog
Bambusa blumeana
Luzonensis

Bamboo species



OTHER NATURAL MATERIALS



Connect to natural elements

Soaking – 2 weeks

Traditional preparations in Bamboo

Skinning – humidity control - beauty

Traditional preparations in Bamboo

LIFE SPAN-HEIGHT-TOPOGRAPHY

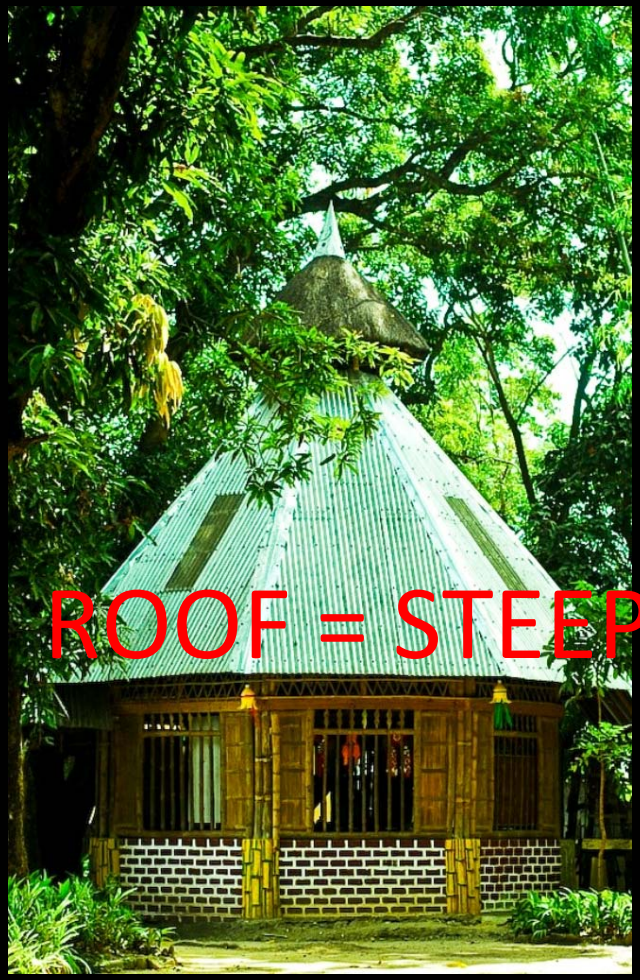
Traditional structural methods

JOINTING-SPLITTING-BEATING-WEAVING

Traditional preparation techniques

TYING-LASHING

Traditional preparation techniques



ROOF = STEEPER -> BETTER

Traditional Roof Structures

Promotion

Protection

Production

Processing

Bamboo Architecture

DESIGN FOR - EDUCATION

Bamboo Projects

Community-Based Learning Resource Center, TUMANA – Tiwi, Albay

REBUILD – LEARN - PLAY

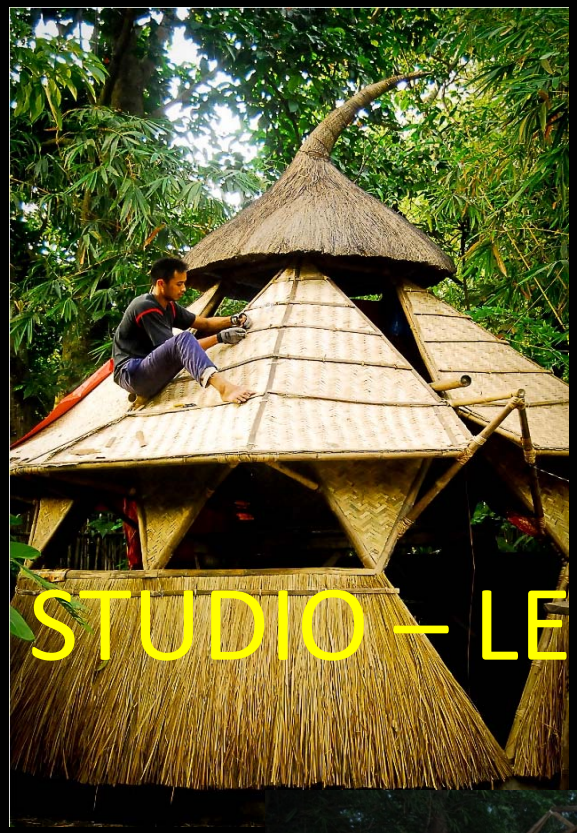
EkoPalas

DESIGN FOR - HABITAT

Bamboo Projects

LIVING SPACES – 10 - FOREST

Social “Tent” Houses



STUDIO – LECTURE - CONFERENCE

Geodesic Dome building

RECYCLE - COLLECT – USE – SLOW DOWN

RAINWATER HARVESTING

DESIGN FOR - MOBILITY

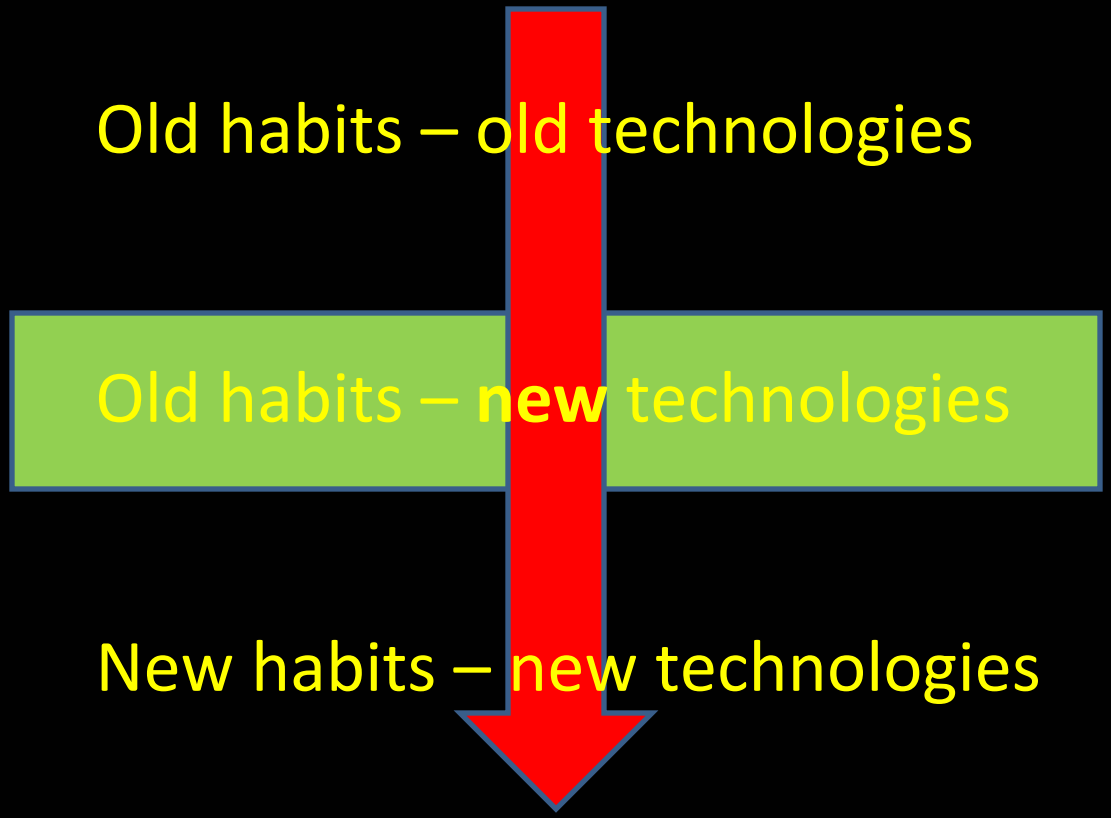
Bamboo Projects

BAMBOO E-TRIKE

BAMBOO BIKES

- Growing bamboo in different environments
  - more water – faster - thin
  - Less water – slower - thick
- CAREFUL COMBINATION OF MATERIALS
- BUILDING CODES / LAWS

BAMBOO BIKES


Old habits – old technologies
Old habits – new technologies
New habits – new technologies

CONCLUSION

IMPROVE BIODIVERSITY
CONNECT TO LOCAL SPECIES -> KNOWLEDGE
USE NATURAL MATERIALS

CONCLUSION

SMALL-SCALE
USE NATURAL MATERIALS
CREATE LOCAL ECONOMIES

CONCLUSION

AIM FOR MULTIFUNCTIONALITY
GROW AND IMPROVE COMMUNITY
FORESTS
ATTITUDE

CONCLUSION

THANK YOU FOR LISTENING