

feli

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FELIX RIEDWEG ARCHITECTS PTY LTD

CLIMATE RESPONSIVE HOUSING

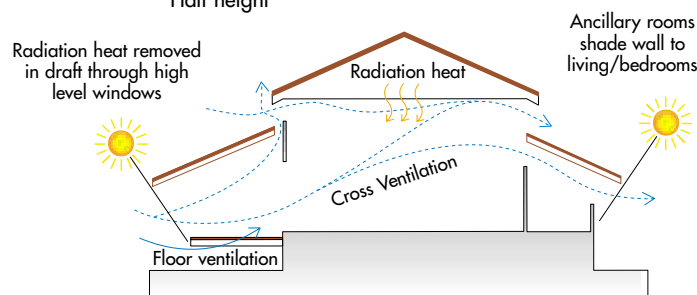
LIVING IN THE TROPICS

Comfort is achievable by creating an environment considering temperature, humidity and air movement. Whilst we can't do much to reduce the humidity, we can improve on the temperature and air flow through appropriate choice of building material (thermal mass), the right **ORIENTATION**, the provision of adequate **SHADING** (built or naturally grown landscaping) and the selection and placing of windows for **CROSS VENTILATION**.

CROSS VENTILATION

WINDOWS Geometry and size
Location

WALLS With gaps
Half height



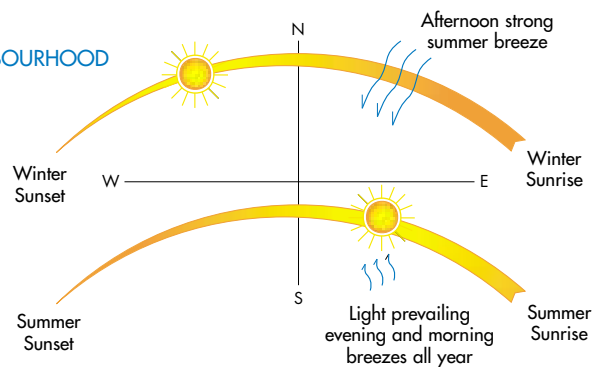
ORIENTATION

SUN (Note: summer sun on south wall)

BREEZE

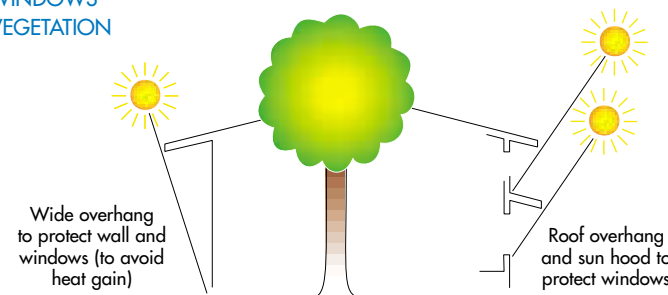
VIEW

NEIGHBOURHOOD



SHADE

WALLS
WINDOWS
VEGETATION



KEY ELEMENTS

ENERGY EFFICIENT

TROPICAL

AFFORDABLE

FOR ALL, AT ALL STAGES OF LIFE

ENERGY EFFICIENT

- Use less energy
- Improve cross ventilation
- Select appropriate building materials to reduce heat gain
- Use solar power (solar hot water)
- Landscape for natural shading

TROPICAL

- Design for the humid coastal climate of latitude 20° (Townsville/Thuringowa area)
- Open planning, outdoor orientated
- Breeze to improve comfort by cooling body and building
- Lots of shade (wide roof overhangs, landscaping)

AFFORDABLE

- Innovative use of conventional construction methods
- Consider overall costs = Construction costs PLUS running and maintenance expenses

AWARDS

1996

- Energy Efficient Home Design Queensland Tropical Climate Winner
Queensland Department of Mines & Energy

1997

- Tropical Housing Design Design Award
Queensland Department of Public Works and Housing
Cairns City Council

1999

- 1999 Smart Housing Design Award Tropical Humid Regional Zone
Queensland Department of Housing

2001

- Smart Housing Design Award
Queensland Department of Housing

2003

- 1st Prize – Climate Responsive Housing Design Competition
Thuringowa July 2003

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THE ARCHITECTS

EXPERTISE

- Climate Responsive Housing
- Energy efficient tropical design (awards)
- Renovations, alterations, extensions
- Residential (single dwelling or multi-storey unit developments)
- Heritage
- Commercial
 - Shops and warehouses
 - Office developments
 - Educational buildings
 - Sporting facilities
 - Hospital work

SKILLS

- Design skills (awards and competition success)
- Feasibility studies and reports
- Urban design and master planning (Seychelles - international competition winner)
- Design and documentation, contract administration
- Project management
- Design and construct
- Interior design (award)
- Heritage work (award - 250 year old inner city complex, Burgdorf/Switzerland)

EXPERIENCE

Over 30 years uninterrupted professional activities in the tropics and overseas



THE ROYAL AUSTRALIAN INSTITUTE OF ARCHITECTS

