THE BUSH-HOUSE: SHADY PARADISE RETREAT

by Jeannie Sim, 3rd April 2018

a talk for Friends of Brisbane Botanic Gardens and Sherwood Arboretum

(1) WHAT...

IS A BUSH-HOUSE?

- A bush-house is an Australian term for shade-house, created to grow plants that prefer shady conditions and thrive in warm climates. This shady environment simulates the rainforest understorey.
  Sometimes called a Fernery or Fern House.
- IT IS NOT A GLASSHOUSE or true conservatory.
- BHs linked to 19th century interior decoration and the use of potted palms, ferns etc. in "hall and table", and for decorating verandahs
- In design terms, this is where garden architecture and horticulture combine!

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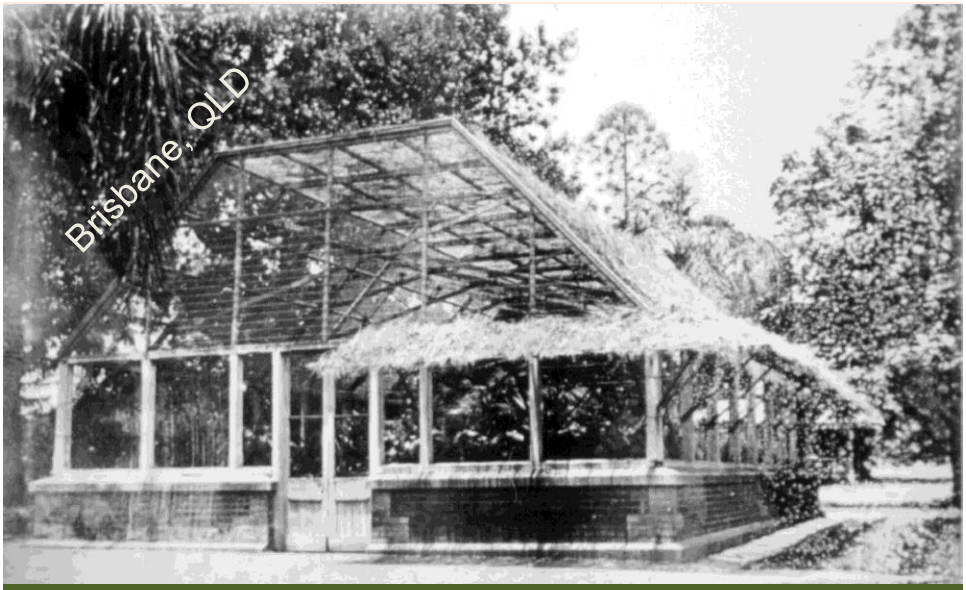

Acclimatisation: learning about new climates and horticultural capabilities

1893 'Glazed Fernery' = reroofed Conservatory (b.1877) thatched on western side with brush to create a shadehouse, Old Brisbane Botanic Gardens.
Source: BCC PHF/D0096-Part-13 = JOL #170638].

1912 POSTCARD:
under shady trees, outside Philip MacMahon's Fern House in Brisbane Botanic Gardens

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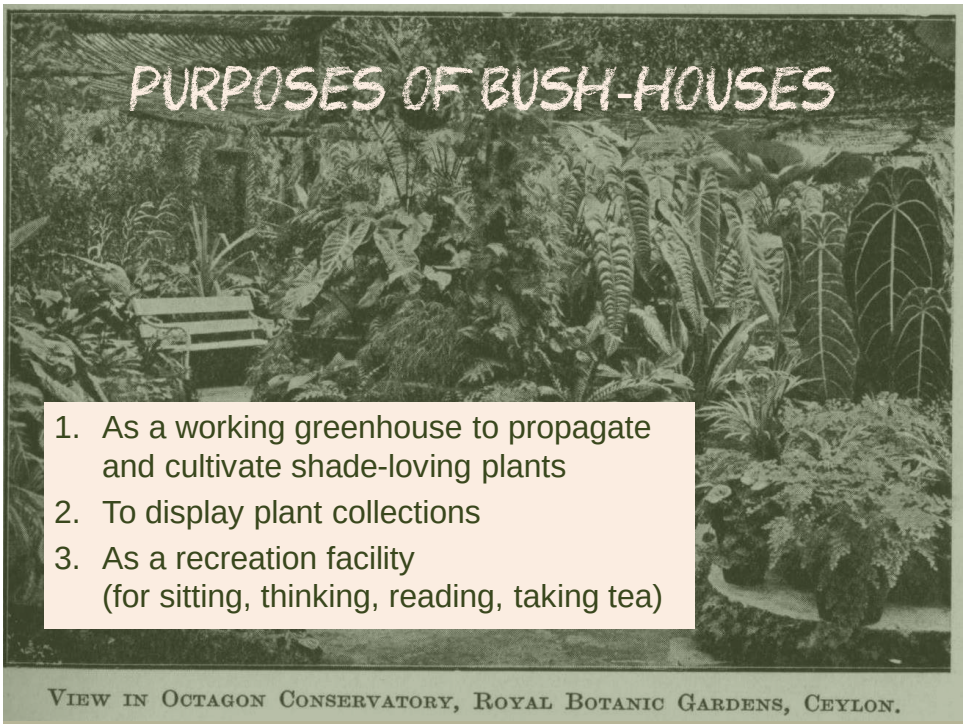
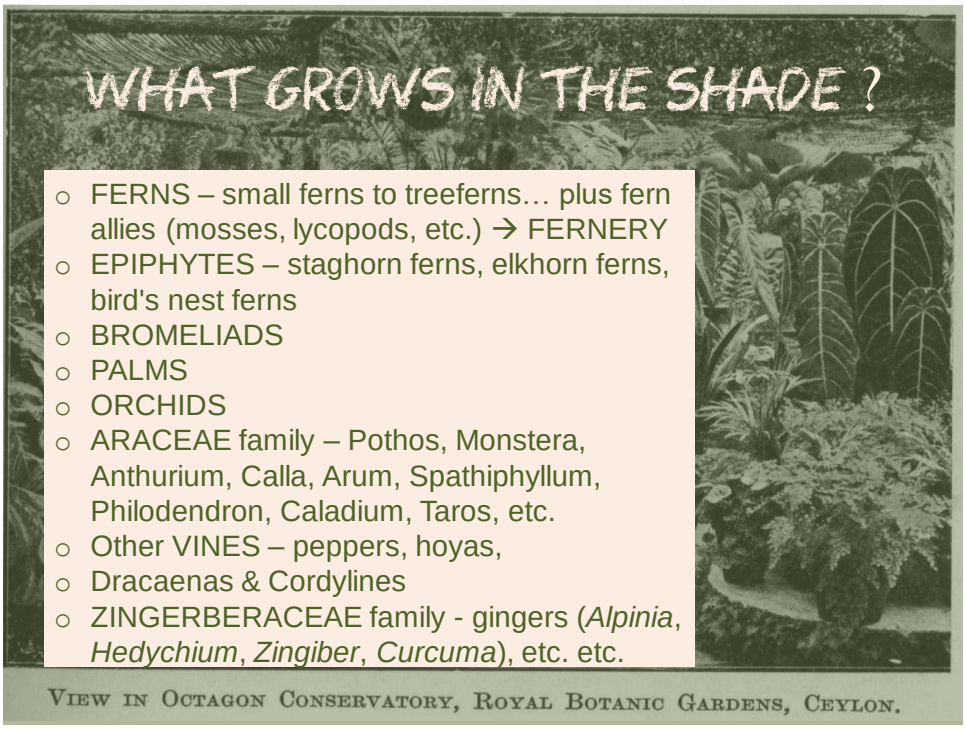
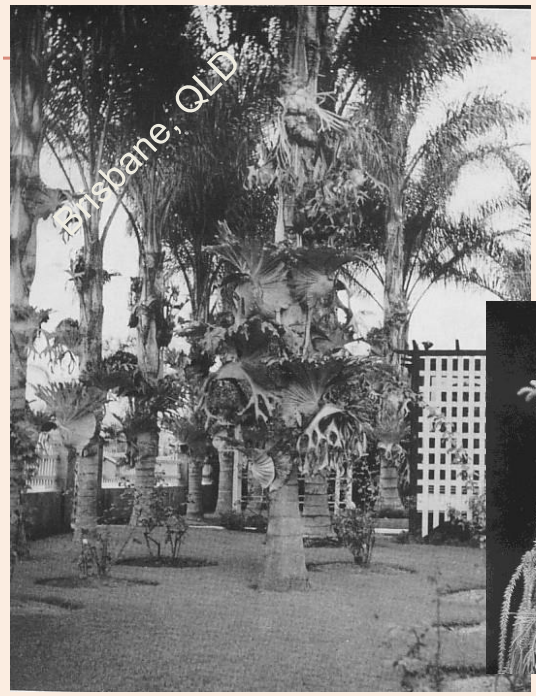

PURPOSES OF BUSH-HOUSES
1. As a working greenhouse to propagate and cultivate shade-loving plants
2. To display plant collections
3. As a recreation facility (for sitting, thinking, reading, taking tea)
VIEW IN OCTAGON CONSERVATORY, ROYAL BOTANIC GARDENS, CEYLON.

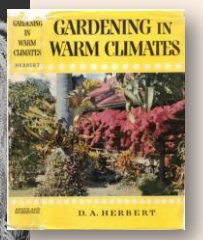

WHAT GROWS IN THE SHADE ?
○ FERNS – small ferns to treeferns… plus fern allies (mosses, lycopods, etc.) → FERNERY
○ EPIPHYTES – staghorn ferns, elkhorn ferns, bird's nest ferns
○ BROMELIADS
○ PALMS
○ ORCHIDS
○ ARACEAE family – Pothos, Monstera, Anthurium, Calla, Arum, Spathiphyllum, Philodendron, Caladium, Taros, etc.
○ Other VINES – peppers, hoyas,
○ Dracaenas & Cordylines
○ ZINGERBERACEAE family - gingers (*Alpinia*, *Hedychium*, *Zingiber*, *Curcuma*), etc. etc.
VIEW IN OCTAGON CONSERVATORY, ROYAL BOTANIC GARDENS, CEYLON.



"Staghorn Fern (*Platycerium grande*)." opposite pp.169

"Tassel Fern (*Lycopodium phlegmaria*) growing in a basket."

D.A. Herbert 1952. *Gardening in Warm Climates* (J.R. Bailey photos)



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Sima Eliovson, *The Gardens of Roberto Burle Marx* 1991, pg56

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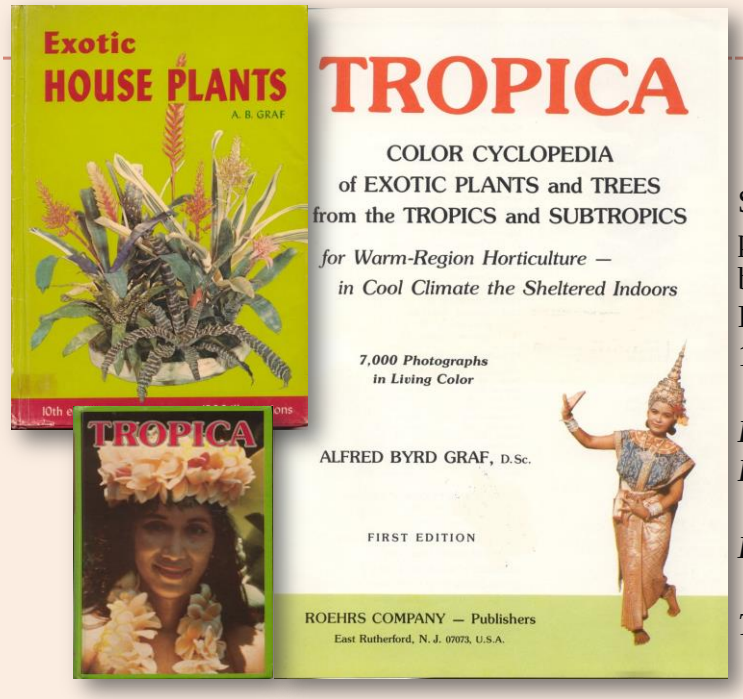

SOURCES: plants books by Alfred Byrd Graf 1950s-1990s

Exotic House Plants

Exotica

Tropica

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ORIGINS See *Lilygram* April 2018

FERNERIES → SHADE-HOUSES

FERNERY, a place, or living collection of ferns and fern-allies, typically found within constructions that protect the plants from outside weather conditions. At times during the 19th century, a fernery, fern garden or fern house was called a *filicetum* (after the Latin *filix*, fern or bracken). In cool climates, ferneries often have glazed roofs and walls to trap the sun's warmth and are also called hot houses, glasshouses or conservatories. In warm climates, ferneries are not glazed, but are shaded by timber laths or shade-cloth and are also called shade-houses (or bush-houses in Australia).

…The term fernery came into existence around the 1840s in Britain, as the botanical study of ferns became popular. This was soon followed by horticultural interest in fern collections and garden design using foliage plants.

…Whereas field botanists began the craze for ferns, nursery operators (especially Loddiges and Sons, London and specialists such as W. and J. Birkenhead, Manchester) and gardeners followed in the second phase of popularity for ferns (or pteridomania).

Sim, Jeannie (2001) "Fernery". In Schoemaker, Candice A. (Ed.)
Encyclopedia of Gardens: History and Design. Fitzroy Dearborn, Chicago, IL, pp. 454-456.

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(2) WHEN... WERE BUSH-HOUSES?

Bush-houses were extremely popular in Queensland from the 1880s to 1940s, ranging from from Government House (OBG and Fernberg) to suburban cottages and villas, to outback homesteads, in private & public gardens.

Richard Aitken noted the earliest use (found so far) in a Victorian publication: *Castner's Rural Australian, A Journal of the City, the Suburbs and the Country*, published in 1875 (1 November 1875, pg. 4)

The Queenslander newspaper began using the term 'Bush House' as a separate heading in the horticultural column around 1880. Authors included William Soutter who wrote as 'Coolibar' (1900-1925).

Theodore Wright's *The Queensland Horticulturist and Gardener's Guide* of 1886 provided a comprehensive overview of shade gardening and bush-houses for the Queensland newcomer, and is one of the earliest publications found on the subject.

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EARLY RECOGNITION OF VALUE

"Being quite certain that these structures are destined to play a very important part in our Queensland gardening, and increasingly so as they are better known, some attempt is made in this short article to make the matter more intelligible, so as to enable the general reader to set to work and construct one for himself."

Wright T. (1886), *The Queensland Horticulturist and Gardener's Guide*, Brisbane: James C. Beal, Govt. Printer , pg.97

"Where in Great Britain and on the Continent there are conservatories, there are less costly but quite as attractive structures in Queensland called "bush" or shade houses. These are made in various styles, and generally of very inexpensive materials, for simply creating permanent shade and thereby reducing the soil heat. …These structures are very frequently called ferneries; and with taste and skill in arrangement it is quite surprising what an attraction they can become."

Wright "Horticulture" In Price, Fletcher editor (1886), *Colonial and Indian Exhibition, 1886. Queensland: Its Resources and Institutions, Essays*, London: William Clowes & Sons, pp.3-12, pp. 8-9.

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(3) WHERE…

WERE / ~~ARE~~ BUSH-HOUSES?

- Climatically: in frost-free zones with ample water
- In all Australian states (even Tasmania using hardy ferns!), public parks & botanic gardens, private houses in suburbia and attached to rural homesteads
- Known by other names, in other British colonies (India, Malaysia, Hawaii) and former Spanish colonies (California, Florida) and Spain.
- Alternative names include Fernery, Fern House, ***Umbráculo*** (Spanish), ***Umbracle*** (Catalan), and Lath-house (Hawaii/USA)!

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(4) WHO…

~~MADE~~ THE BEST ONES?

A personal selection…

- 1890 Philip MacMahon's BH Fern House in OBBG [RIP]
- 1897 William Soutter designed the BH linkages at International Exposition in Brisbane [RIP]
- 1870s Fernery at Rippon Lea (Melbourne): vaulted and curved in plan
- 1880 Umbraculo Barcelona, Spain [Umbracle in Catalan]
- 1900 L'umbracle, Jardin Botanico University of Valencia
- c.1910 Conservatory at Peradeniya, Ceylon
- 1915 Botanic Building, Balbao Park, San Diego, USA
- 1936 Hugo Lasson Fernery, Rockhampton BG
- 1940s greenhouse at Sitio, Brazil (Roberto Burle Marx)

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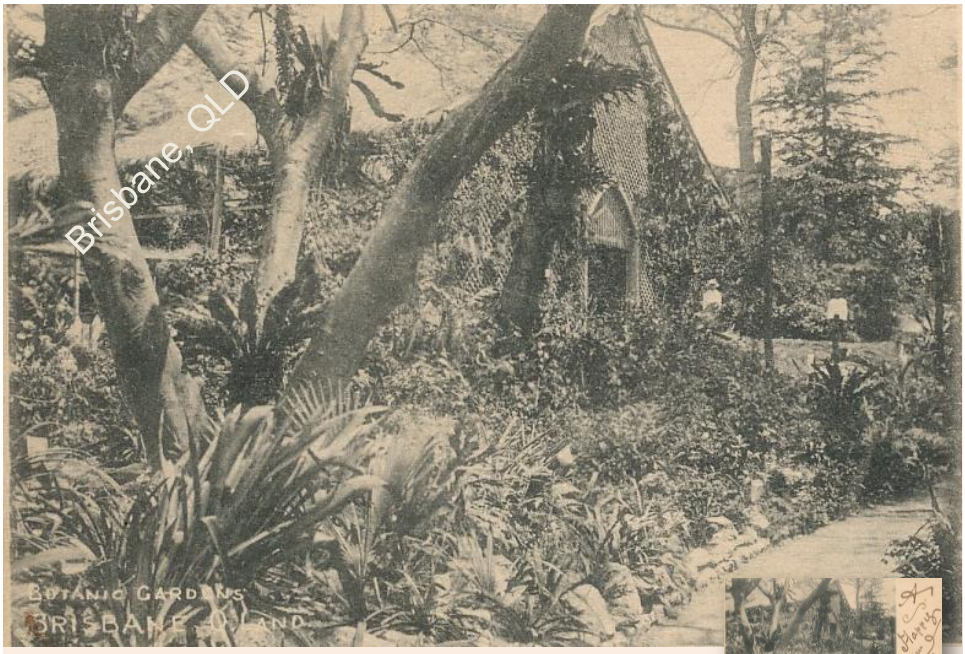

1904 POSTCARD: Outside view of Philip MacMahon's Bush-house or Fern House

Inside view of Philip MacMahon's 1890 'Fern House' in the Brisbane Botanic Gardens. Note twigs and branches and gaps in roofing.

"When you enter the door you will notice directly in front of you a pillar wreathed round with a very dark-green creeper [*Piper nigrum*, or the condiment pepper], which grows upon the pillar and an iron bar in a curious resemblance to a cross. The facility with which this creeper can be trained on the most slender support, such as a piece of wire stretched from point to point, makes it most useful for the purpose of forming wreaths of foliage in the shade-garden. With a little ingenuity, very artistic effects can be produced in this way. Some examples of arches so formed may be seen in another part of this [bush-house] structure."

MacMahon, Philip: "Our Botanic Gardens" (No. 8) *QAJ*, V.3, December 1898, pg. 439.

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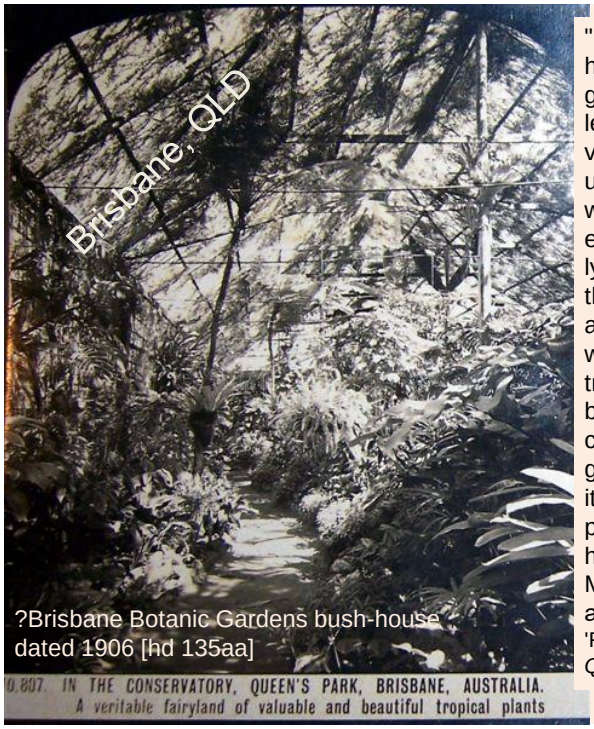

?Brisbane Botanic Gardens bush-house dated 1906 [hd 135aa]

"But it was in the beautiful "Bush-house" – and beautiful, indeed glorious, this place is – that the leafy volume of the Curator's volubility was brought to bear upon us at full pressure. There, where vines overarching embower, where orchids, lycopods, and tender mosses on their rocky ledges jostle one and another in charming confusion; where cyclamens cease their troubling and caladiums and begonias are at rest; where coolness and the goddess of greenery reign in joint supremity; it was there in his very own precinct – because this "bush house" was created by Mr. MacMahon himself six years ago… "

'F.D.' [author], "Sketcher", *The Queenslander*, 6 June 1896, pg. 1077

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1912 POSTCARD:
Giant Clamshell fountain inside Philip MacMahon's Fern House in Brisbane Botanic Gardens

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POSTCARD: Bowen Bridge Road and Gregory Terrace abutting Bowen Park, given over to International Exhibition 1897 with fountain in front and bush-house to right

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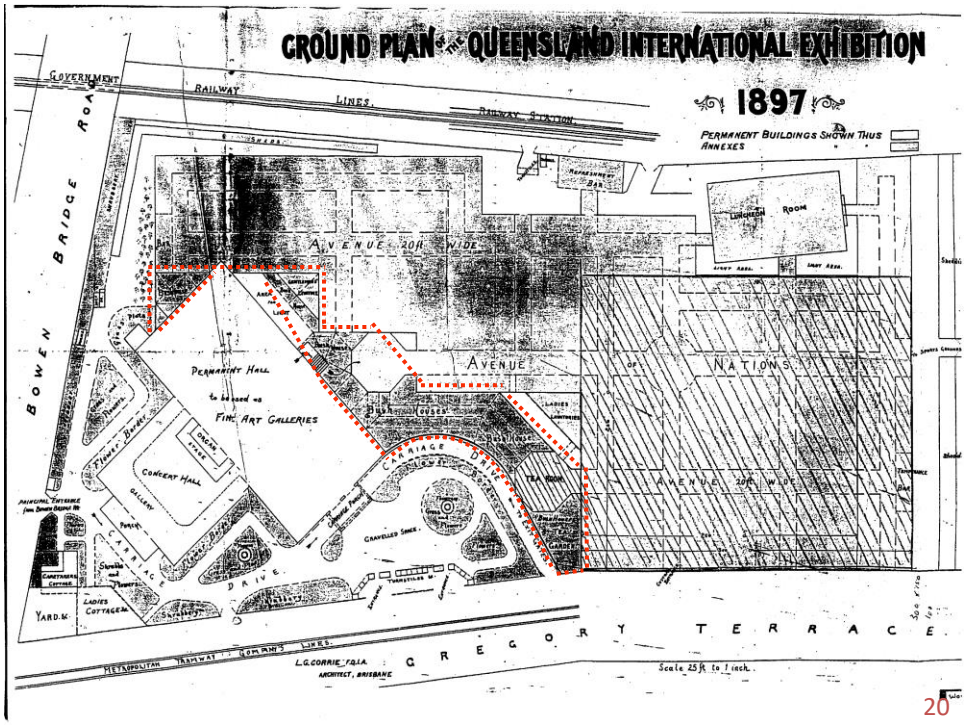

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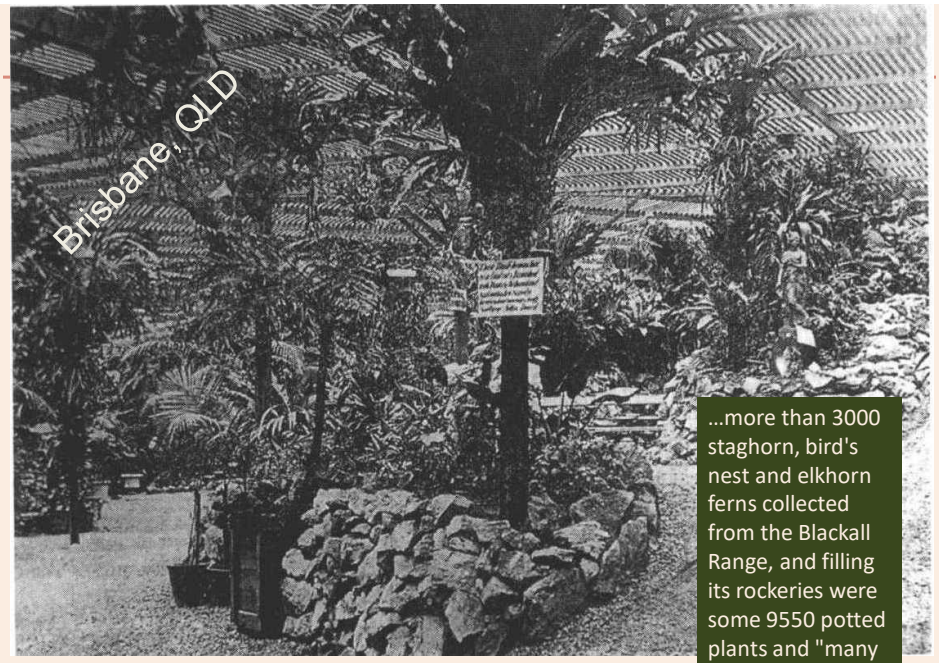

William Soutter's Award winning bush-house International Exhibition 1897 Image: *The Queenslander*, 19 June 1897, pg.1347

…more than 3000 staghorn, bird's nest and elkhorn ferns collected from the Blackall Range, and filling its rockeries were some 9550 potted plants and "many thousands" of other plants…

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Soutter's 1897 bush-house with water feature (right), decorative urns and seats Image: *The Queenslander*, 19 June 1897, pg.1347 and SLQ/JOL185176

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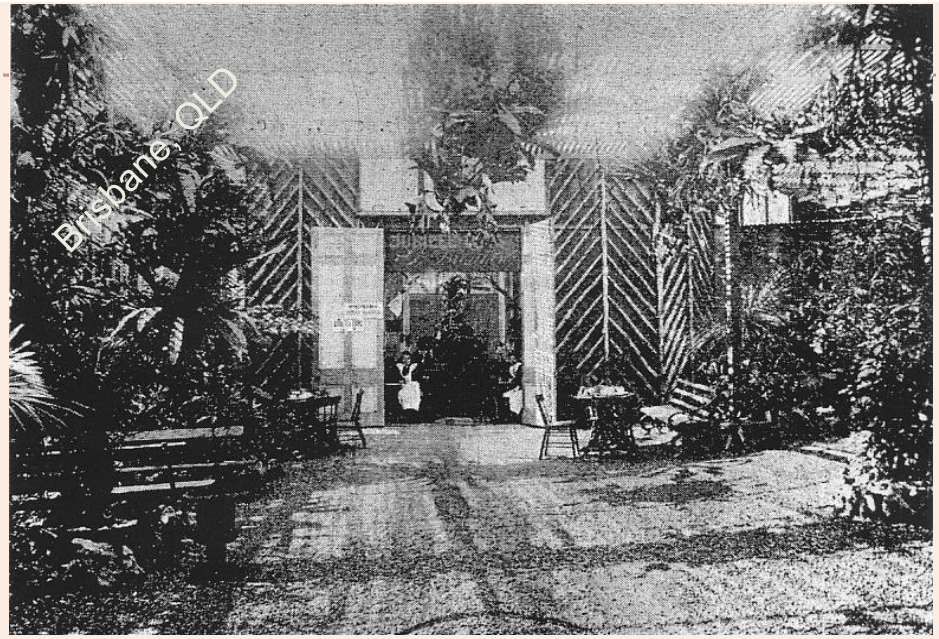

Soutter's 1897 bush-house with adjacent Tea Room
Image: *The Queenslander*, 19 June 1897, pg.1347 and SLQ/JOL185175

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Another 1906 interior view of bush-house near Exhibition Building.
Source: Mather, Patricia (1986), *A Time for a Museum: a history of the Queensland Museum 1862-1986*, pg. 27

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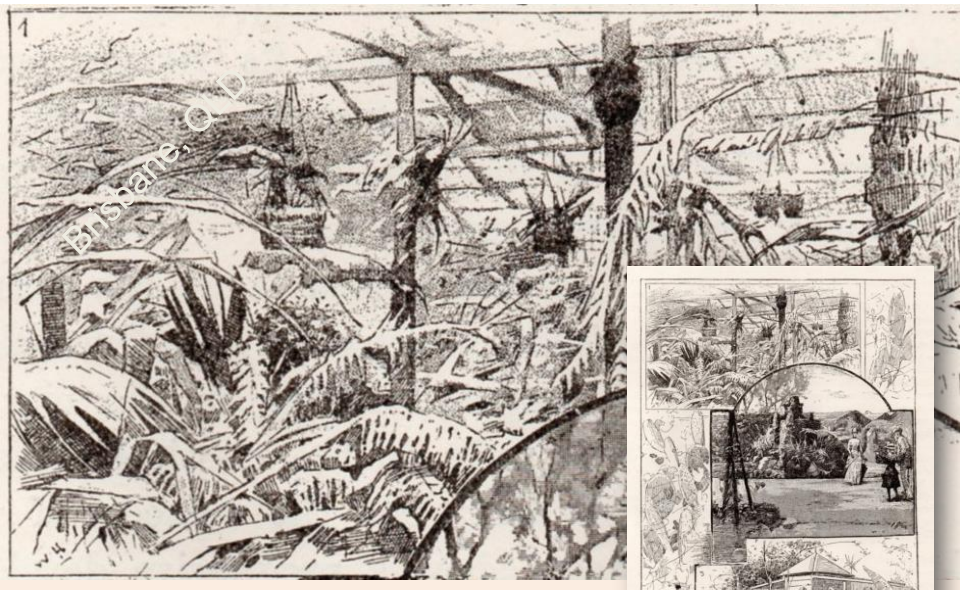

Printed views (extracted from a uncited book) of working bush-house at Bowen Park, ca.1890s.

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AMHERSTIA NOBILIS, WALL.
QUEEN OF FLOWERING TREES.

TROPICAL PLANTING
AND
GARDENING

WITH SPECIAL REFERENCE TO CEYLON

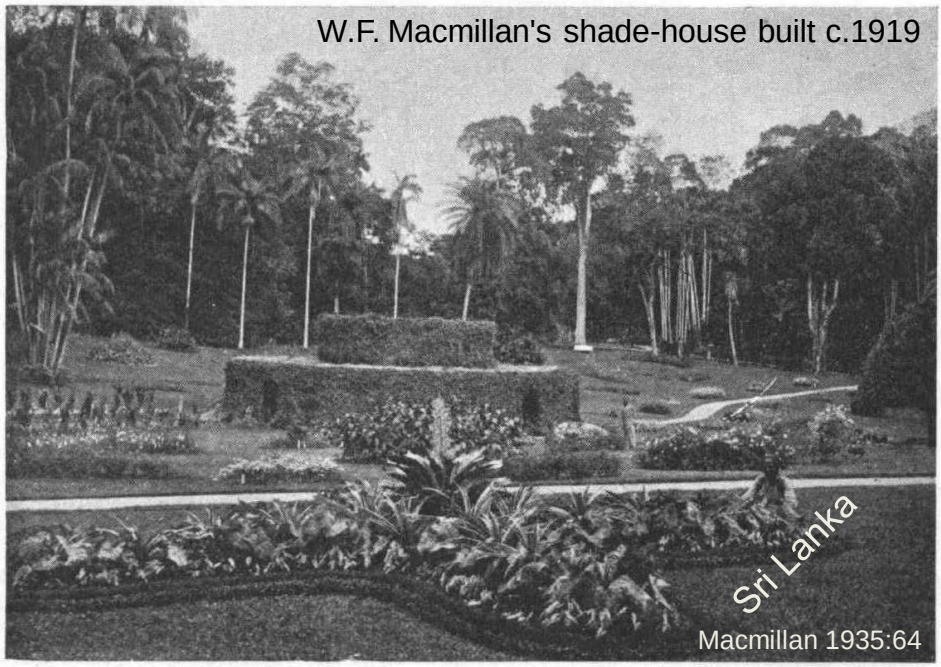
BY
H. F. MACMILLAN
(Late Superintendent, Royal Botanic Gardens, Ceylon, and Adviser to the Anglo-Persian Oil Company)

FOURTH EDITION

MACMILLAN AND CO., LIMITED
ST. MARTIN'S STREET, LONDON
1935

Editions:
1: 1910
2: 1914
3: 1925
4: 1935
5: 1943
6: 1991

Describes, verandah gardening and shade-house gardening.



VIEW IN FLORICULTURAL SECTION, ROYAL BOTANIC GARDENS, CEYLON.

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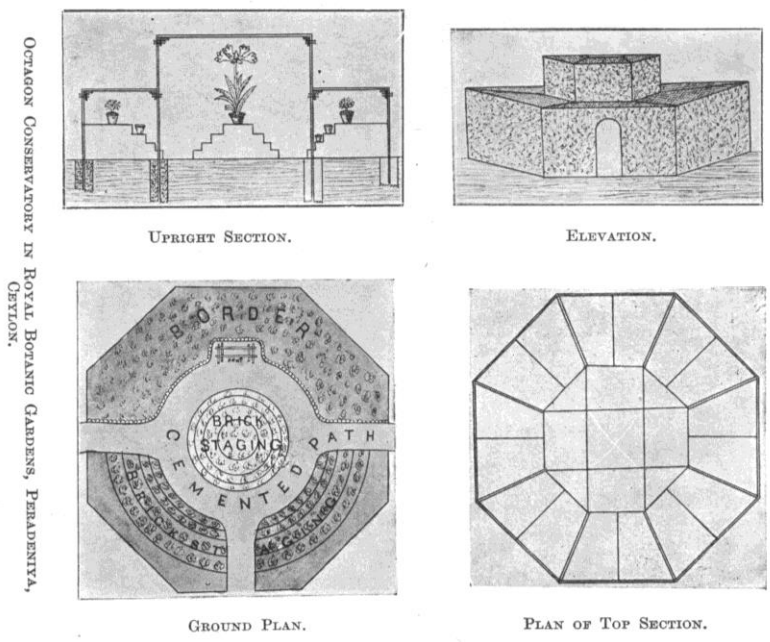

Conservatory = fernery = bush-house at Peradeniya (Sri Lanka, former Ceylon)
Source: Macmillan 1935:74

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View in Octagon Conservatory, Royal Botanic Gardens, Ceylon. 29

(5) HOW…
WERE THEY MADE?

Some examples of different TYPES from history…

1. Queenslander type: HWD framed, wide timber battens for sides and roof; flat roof or gabled
2. Rustic Queenslander type: HWD framed with cladding in rough bush twigs and branches or bamboo
3. Melbourne type: cast iron frame (curved trusses) and narrow timber laths (1½" x 3/8" as used in plaster walls) that will curve over frame
4. Barcelona/Valencia type: cast iron frame with narrow timber laths laid straight

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ADVICE FOR GROWING PLANTS AND BUILDING STRUCTURES

"This structure is intended to act as a shady retreat for plants during the burning hot, sunny days of summer, and a warm, cosy corner during the chilling days and nights of winter. But sometimes it is so constructed as to afford no protection from either. The shading after exposure to the weather for a few years, becomes thin in places, and renewal is neglected, with the result that many of the plants are sun-scorched in summer, and during the winter the cold westerlies cut up the lot badly.

…Branches from the small-leaved tea-tree [*Melaleuca* sp.], as it is known, make the best material for covering the structure, and it should be cut down some time prior to being used on the roof. …Shading with battens is favoured by some, but during heavy rains the drip is too pronounced, with branches the rain is diffused and falls in the form of a fine spray. "

William Soutter writing as 'Coolibar,' "Bush house" under "The Queensland Agriculturist," in *The Queenslander*, 29 January 1921, pg. 28.

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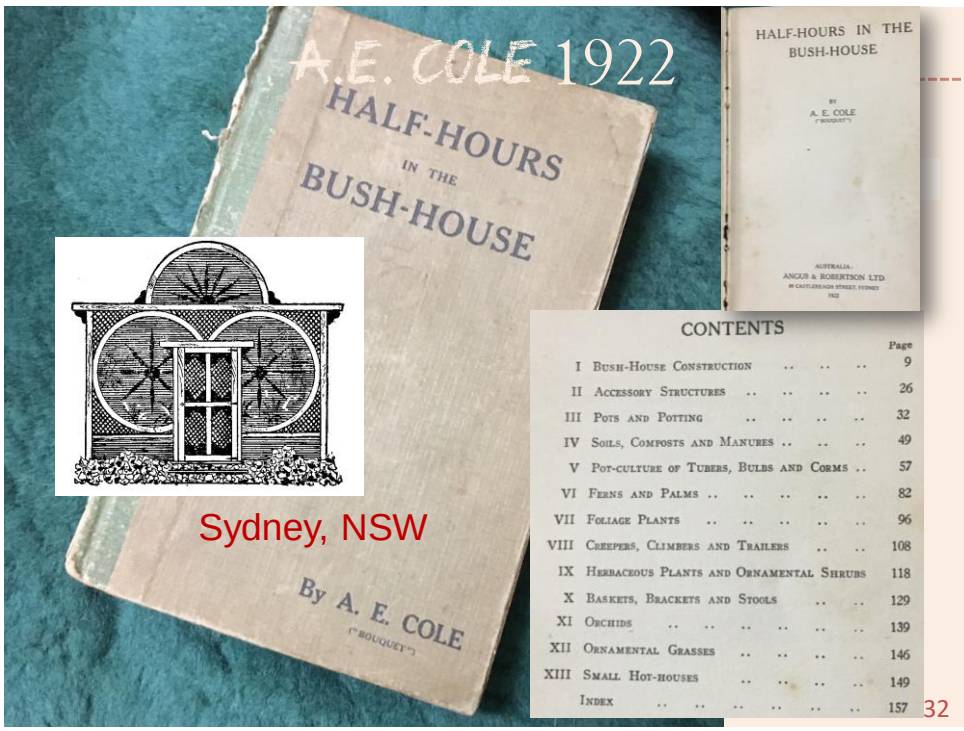

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GROWING, BUILDING AND MORE FOR TRUE PLANT LOVERS

"We seldom see sitting accommodation in bush-house. Personally we think no bush-house is complete without a couple of rustic stools and bracket table. When horticultural friends visit us, it is decidedly nice to take a cup of tea among our plants, while for quiet rest and reading our bush-house is the very thing."

Cole, A.E. ('Bouquet') (1922), *Half-Hours in the Bush-House*, Sydney: Angus & Robertson, pg. 23.

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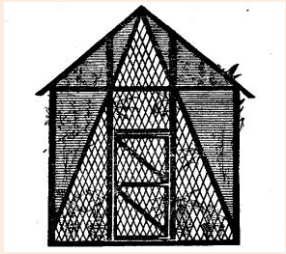
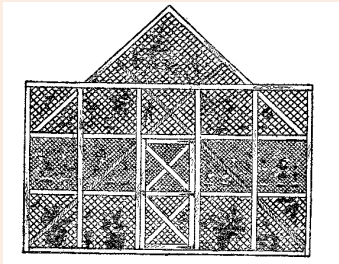
COLE'S BUSH-HOUSES



Cole 1922:15 "Design 1 – This is the front view of a simple bush-house intended for palms, aspidistras and half-hardy flowering plants. It provides good light with protection from sun-glare. The side walls of this and all bush-houses should be fitted with fairly open lath-work in the first panel, closer in the second, closer still in the third, and touching in the last. Extra shade in summer is thus secured."



Cole 1922:17 "Design 2 – Front view of a larger bush-house intended for tender plants. This can be made with a full gable roof having ornamental pieces on the facade ; or it can have a central gable and an area of flat roof along each side according to the height of plants it is to conserve. Note the close laths at bench level."

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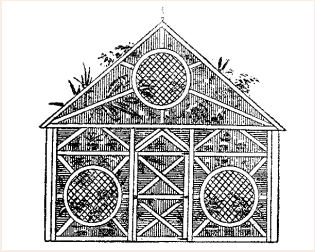
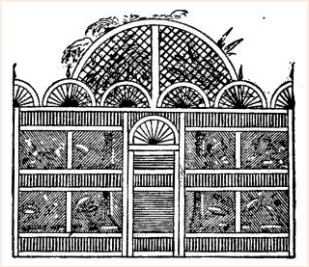
COLE'S BUSH-HOUSES





Cole 1922:19 "Design 3 – Front view of a good bush-house. The good light at high level is appreciated by tall plants. If intended for orchids the disks of open lattice should be continued along the side walls below bench level. Good air is thus provided."

Cole 1922:22 "Design 4 – This handsome front is for a bush-house of the highest grade. The half-cylinder [sic, vaulted] roof provides accommodation for tall, tender creepers, or for tall soft-wooded plants.
The roof laths should be fixed lengthwise and fairly open as the creeper provides shade to plants on the benches. Allow good air under bench level throughout"

NB. Creepers not recommended as they were too vigorous and created dense shade.

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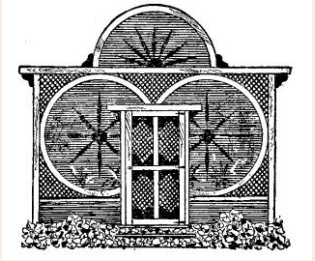
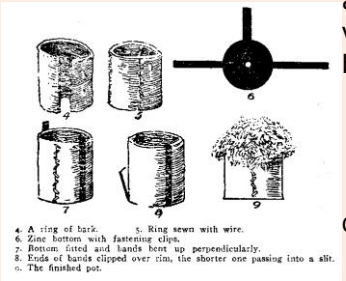
COLE'S BUSH-HOUSES

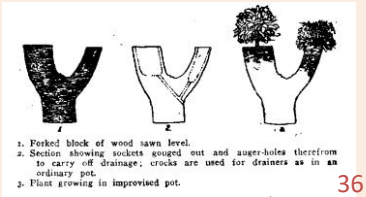




4. A ring of bark. 5. Ring sewn with wire.
6. Zinc bottom with fastening clips.
7. Bottom fitted and bands bent up perpendicularly.
8. Ends of bands clipped over rim, the shorter one passing into a slit.
9. The finished pot.

Cole 1922:24 "Design 5 – The front of a close bush-house intended for plants of the Mimulus, Calceolaria [both Scrophulariaceae] and Gloxinia [Gesneriaceae] types, tender ferns and tropical orchids. It is built upon rock-work and could be improved by a porch containing aquarium, etc. The shaded ornaments are of zinc tacked to supporting posts concealed by lath-work. When picked out in dark green against a lighter shade the external effect is very pleasing. Let the side-walls above the bench be closer that usual throughout."

Cole 1922 pp.35 & 36



1. Forked block of wood sawn level.
2. Section showing sockets gouged out and auger-holes therefrom to carry off drainage; crocks are used for drainers as in an ordinary pot.
3. Plant growing in improvised pot.

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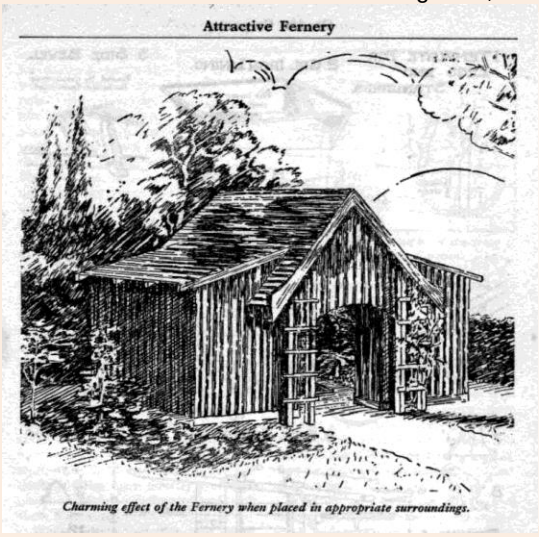
WILLIAM ARTHUR SHUM (1940)

"AUSTRALIAN GARDENING OF TODAY ILLUSTRATED"

Editor of the *Home Beautiful* magazine, Melbourne: Sun News-Pictorial



Alex Smith's clever design and instructions to build this charming Fernery or bush-house, allows for easy extensions if needed.

Source: Smith in Shum (c.1940:323)

NB. Uses small plaster type laths (1½"x 3/8") so not drawn to correct scale!

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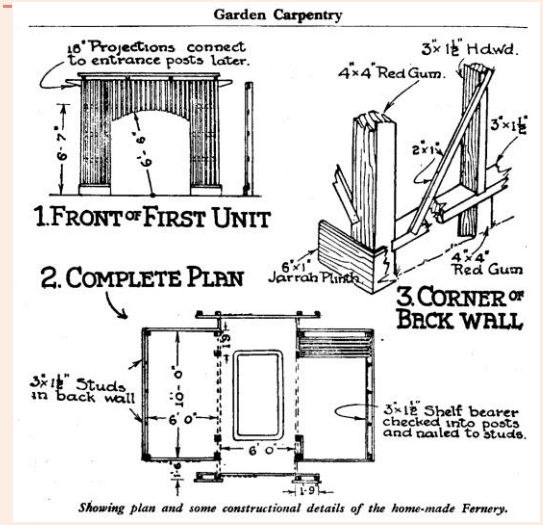
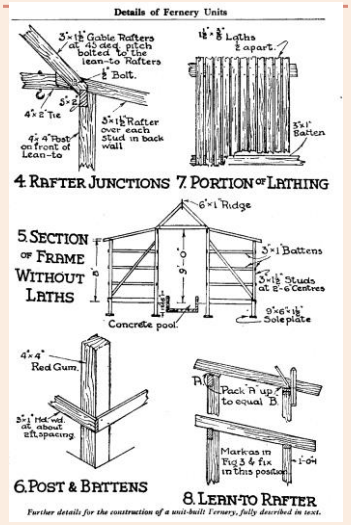
Smith in Shum (c.1940) Construction Details. pg. 320-321





"Such a shelter could be built 4 ft. from a neighbor's fence and would be complete in itself until such time as more came to be required, when a similar unit could be built 6 ft. away from the first, and later still a gable roof, pitched between the two would be carried past 18in. at each end to complete the design." Smith in Shum 1940:320.

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Bush house at Folkestone December 1885 SLQ41590

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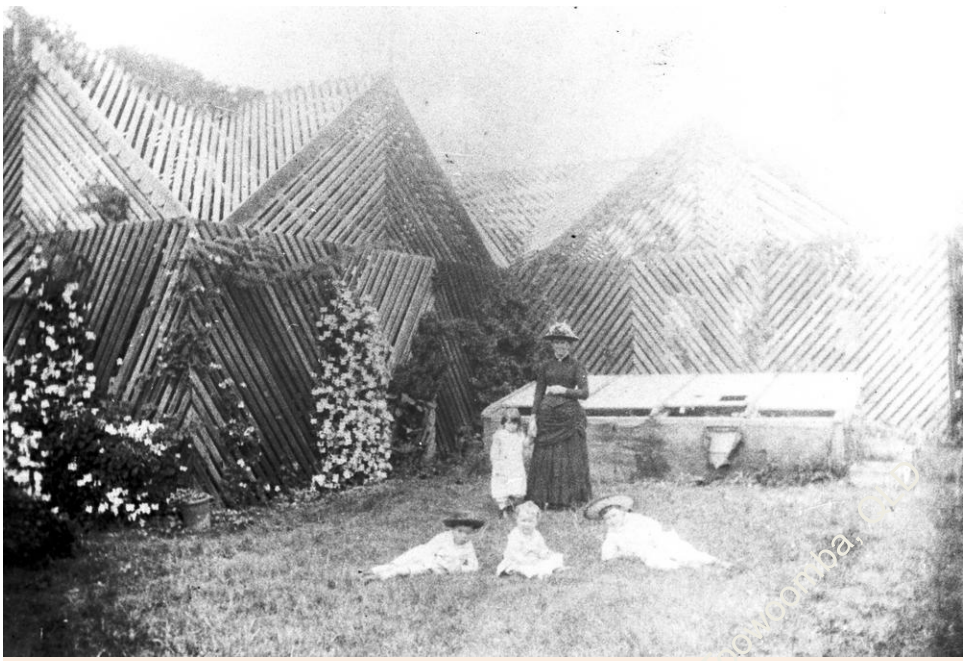

Shade house at Toowoomba residence Roslyn c1889
SLQ138763

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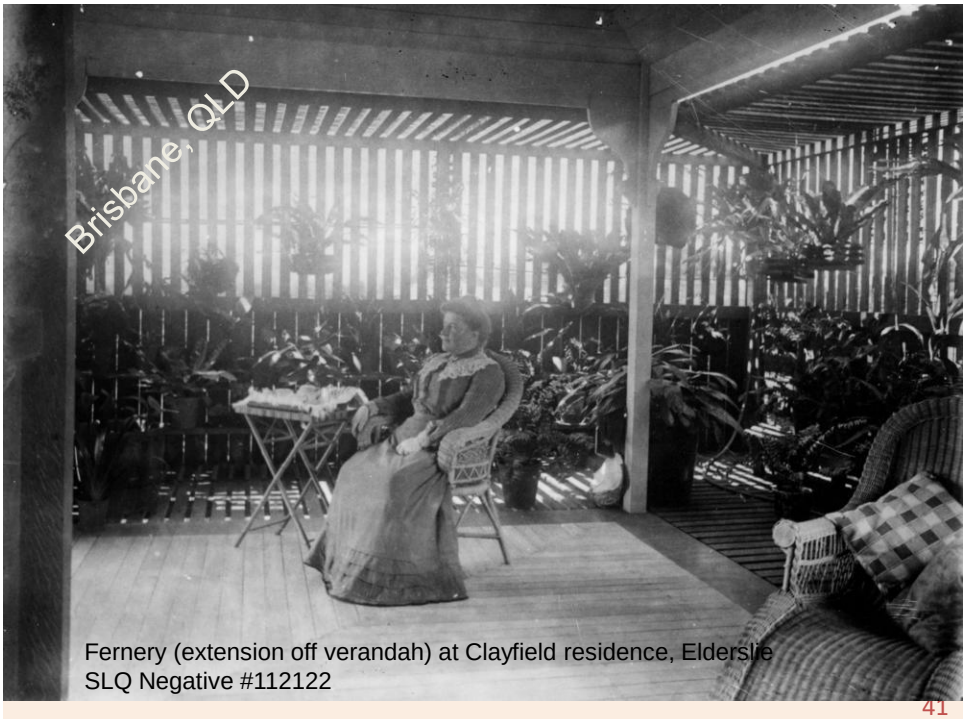

Fernery (extension off verandah) at Clayfield residence, Elderslie
SLQ Negative #112122

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New fernery at The Hollow, Mackay ca. ?1877 Edmund Rawson SLQ raw00066

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Verandah at The Hollow, near Mackay about ?1875 Edmund Rawson SLQ raw00010 43

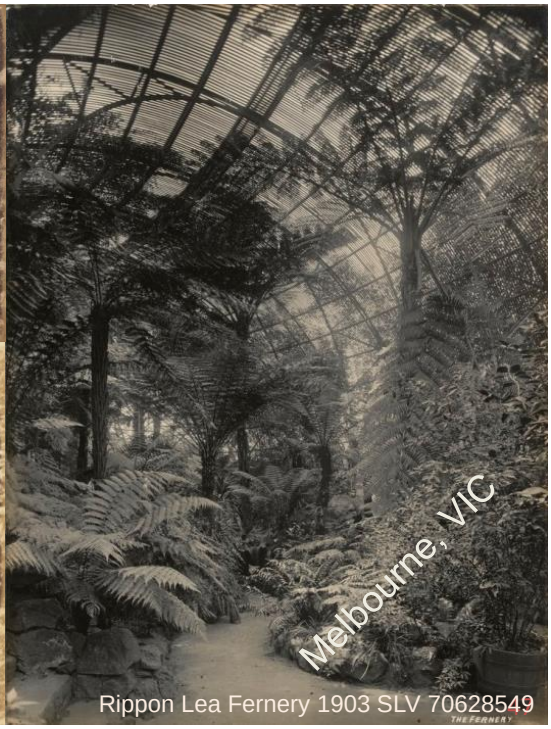
Shadehouse in the garden at Merthyr House Brisbane ca. 1908 SLQ86893 44

Australian War Memorial 086801 1945

45


1880 SLV 70313150


1880 SLV 703931700



Rippon Lea Fernery 1903 SLV 70628549

"Even on a hot summer day it is a cooling experience to walk through the fernery. It features meandering paths, trickling streams and hundreds of species of ferns and palms, from native to rare and unusual varieties. Built in the 1870s, when ferns were the height of fashion, almost every Victorian home featured ferns in some form. At that time, larger ferneries were developed in the Geelong and Ballarat Botanic Gardens. Many of examples have fallen into disrepair or disappeared entirely."

http://www.ripponleaestate.com.au/event/talk-the-rippon-lea-fernery/
TALK: 12pm & 2pm
Friday 11 May 2018

Geelong Fernery SLV H39358 27 702676875

Ballarat BG Fernery SLV703091357

POSTCARD: inside Ballarat Botanic Gardens [SLV #702660764]

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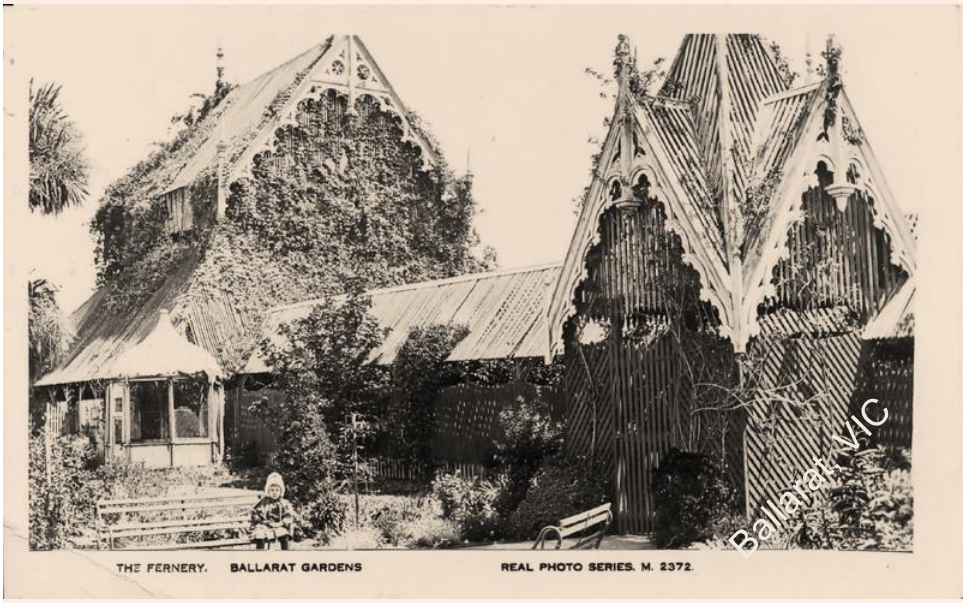

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Botanical Gardens The Bush-House, Queens Park, Townsville ca.1900 SLQ: APE-082-0001-0004

(6) WHY…

ARE THEY IMPORTANT?

- BHs are distinctive creations for warm climates (i.e.as example of Tropicalian design)!
- They don't work in cool climates because most of the plants are frost sensitive. In cold climates these same plants require expensive heated glasshouses to survive.
- Alternatively in temperate climates, hardy ferns can be grown outside in shade-houses (Ferneries).
- BHs highlight the vitally important ongoing role of the gardener / horticulturist in garden design.
- BHs highlight the under-recognised compulsive-obsessive tendencies in gardening (and links to healing qualities and non-chemical mood enhancement)!

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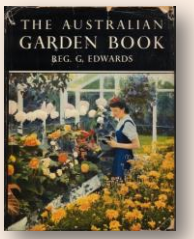
CONTRIBUTION TO HORTICULTURE

"In the early days of Australian settlement somebody hit upon the idea of imitating the English glass- or green-house by substituting what is known today as the bush-house or fernery. This is really the only valuable addition to the gardening world that Australia has provided in our brief period of settlement. While some of our rock gardens are the envy of the world, the bush-house is the only typically Australian touch added to horticulture."

Leading Australian horticulturist R.G. Edwards made this claim in 1950. The extraordinary creations of the late 19th century were still alive in memory at that time.

The Americanisation of Australian culture was just beginning. The Australian Institute of Landscape Architects was almost two decades away while the Society for Growing Australian Plants would appear in the late 1950s.

Much has happened since Edwards's insight was revealed, but the claim still resonates!



Edwards, Reginald George (1950), *The Australian Garden Book: With practical hints on the culture of all the principal flowers, bulbs, shrubs, trees, fruits, and vegetables*. (1st edition). Sydney: Angus and Robertson, pg. 309.

55

SOME EXISTING EXAMPLES OF SHADE HOUSES

- Rockhampton Botanic Gardens → Hugo Lassen Fernery
- Queens Park, Mackay → Orchid House
- L' Umbracle at Parque de la Ciudadela, Barcelona
- Umbráculo at Jardín Botánico de la Universidad de Valencia
- Botanical Building (lath-house) at Balboa Park, San Diego, California.

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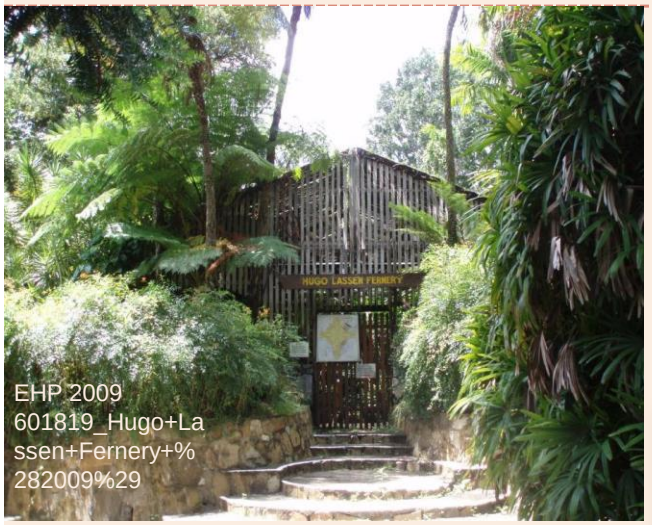

EHP 2009 601819_Hugo+Lassen+Fernery+%282009%29

"Hugo Lassen Fernery was built in 1938. Hugo Lassen was a local dentist who bequeathed money to the Rockhampton Botanic Gardens. The fernery, a sophisticated cross form bush house, contains extensive rockeries and houses an impressive exotic fern collection."

https://environment.ehp.qld.gov.au/heritage-register/detail/?id=601819

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Orchid House [Ken Burgess Display House], Queens Park

Photo: Jean Sim 2006

https://www.mackayregion.com/queens-park-orchid-house
Photo: Jean Sim 2006

Orchid House [Ken Burgess Display House], built 1988, Queens Park, Mackay
Photos: Jean Sim July 2006

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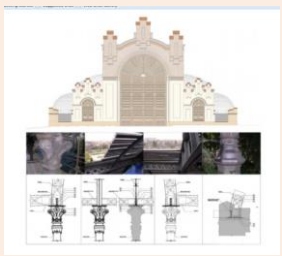
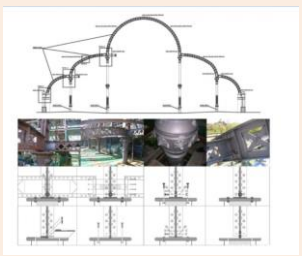
Orchid House [Ken Burgess Display House], built 1988, Queens Park, Mackay [MRC Brochure 2010]

BARCELONA: L'UMBRACLE

- Umbracle (Spanish = Umbráculo) at Parque de la Ciudadela, Barcelona
- designed by Josep Fontsere i Mestre for the Universal Exposition of 1888 in Barcelona, Spain.
- Construction between 1883-1887
- Influenced design of Botanical Building at Balboa Park, San Diego (1915)





Measured Drawings at http://bta.cat/portfolio/umbracle-de-la-ciutadella/

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https://ca.wikipedia.org/wiki/Parc_de_la_Ciutadella#/media/File:Umbracle_del_Parc_de_la_Ciutadella_(Barcelona).jpg

65

http://www.todocoleccion.net/fotografia-antigua-artistica/0609h-l-umbracle-umbraculo-barcelona-parque-ciudadela-10x6-cm~x42816512

66

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Construction:
curved cast iron frame and columns with small timber laths laid straight.

http://lameva.barcelona.cat/barcelonablog/es/insolito/el-umbraculo-del-parque-de-la-ciutadella

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VALENCIA: UMBRACULO

- Location: Jardín Botánico de la Universidad de Valencia (established 1798, but earlier gardens back to 1560s)
- *Umbráculo* built 1900, designed in 1897 by Madrid architect Arturo Mélida y Alinari (Mélida Alinar) – "it was constructed of iron on a base of brick, and was inspired by the glass canopies of railway stations of the time."
- Used to display tropical plants in summer that were housed in glasshouse in winter.

https://en.wikipedia.org/wiki/Botanical_Garden_of_Valencia or
https://es.wikipedia.org/wiki/Jard%C3%ADn_Bot%C3%A1nico_de_la_Universidad_de_Valencia

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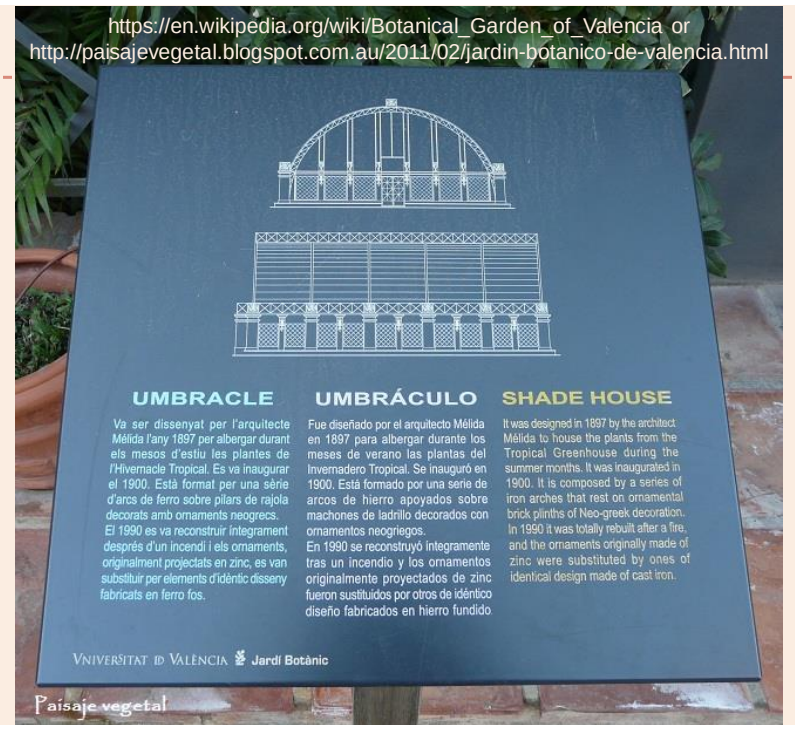
https://en.wikipedia.org/wiki/Botanical_Garden_of_Valencia or
http://paisajevegetal.blogspot.com.au/2011/02/jardin-botanico-de-valencia.html



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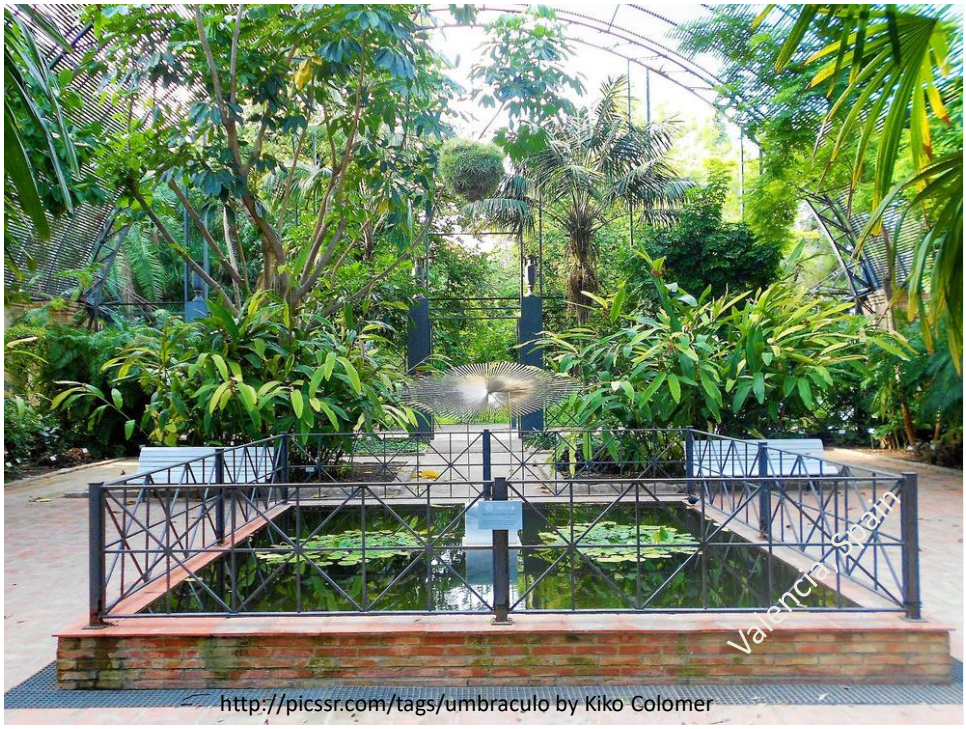
http://picssr.com/tags/umbraculo by Kiko Colomer

http://picssr.com/tags/umbraculo by Kiko Colomer



http://picssr.com/tags/umbraculo by Kiko Colomer

SAN DIEGO: BALBOA PARK

- 'Botanical Building' is a lath-house created for 1915 Panama California Exposition (and Opening of Panama Canal)
- "The brainchild of Alfred D. Robinson (1867–1942), the world's leading begonia breeder at the time, the Botanical Building was intended to serve as the anchor for a botanical garden in Balboa Park." https://balboaparkconservancy.org/project/botanical-building/
- Designed by Carleton Winslow as one of the original 1915 expo buildings built to last, it measures 250 feet long, 75 feet wide and 60 feet tall and currently contains some 2,100 tropical plants.

"The view of the Botanical Building with the Lily Pond and Lagoon in the foreground is one of the most photographed scenes in Balboa Park and a "must-see" destination in San Diego. Built for the 1915-16 Exposition, along with the adjacent Lily Pond and Lagoon, the historic building is one of the largest lath structures in the world.
The Botanical Building plantings include more than 2,100 permanent plants, featuring fascinating collections of cycads, ferns, orchids, other tropical plants and palms. The Botanical Building also presents some of the Park's vibrant seasonal flower displays" http://www.balboapark.org/in-the-park/botanical-building

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Botanical Building, Balboa Park (2013)

(7)

FUTURE POSSIBILITIES

- We start using the evocative word: **UMBRÁCULO** !
- We could engage architects to design exquisite 21st century structures in public botanic gardens or in the garden around the Exhibition Building or up at Government House (former Fernberg)!!
- Or we could challenge everyone to experiment with DIY and expand upon the current (blah!) off-the shelf metal frame with shadecloth solution!
- Join the groundswell of interest and make your own Umbráculo! And enjoy the verdant surrounds for tea or a tipple!

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Morning tea in the fernery on Lindeman Island Queensland 1957 SLQ135282

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The long verandah of Burle Marx's house, featuring plants and pottery, is the gathering place for guests. Old ship prows, fashioned like horses' heads, ornament the walls.

Sima Eliovson, *The Gardens of Roberto Burle Marx* 1991, pg.35

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Edwards, Reginald George (1950), *The Australian Garden Book*. (1st edition). Sydney: Angus and Robertson.

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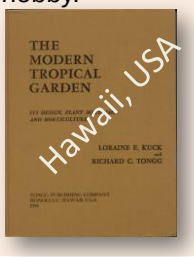
Kuck & Tongg *The Modern Tropical Garden* 1960:176

"An architect-designed lath house can become an extremely attractive adjunct to the house or lanai [freestanding verandah], where its plants offer constant interest and beauty and their care can be an absorbing hobby."



Hawaii, USA

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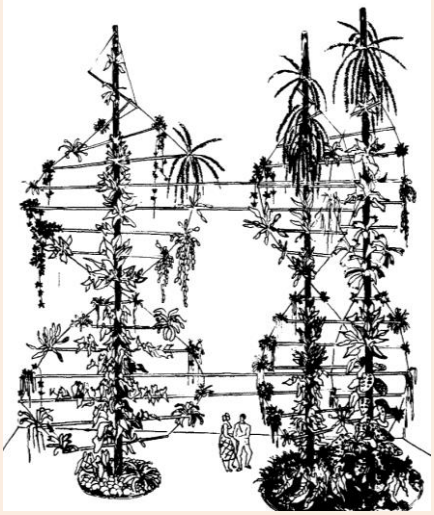
EPHIPHYTIC EXPERIMENTS: different ways of growing plants



EPIPHYTE 'TREES' / trellises by Burle Marx [Bardi 1964] and Lawrie Smith for Expo'88 Brisbane

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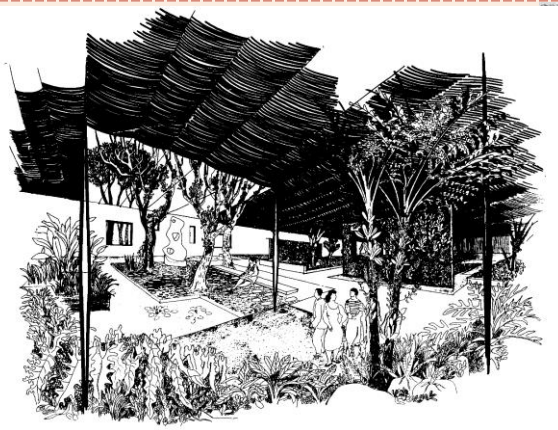
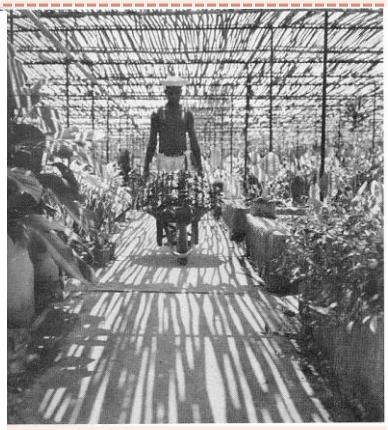
Shade qualities from different roofing materials

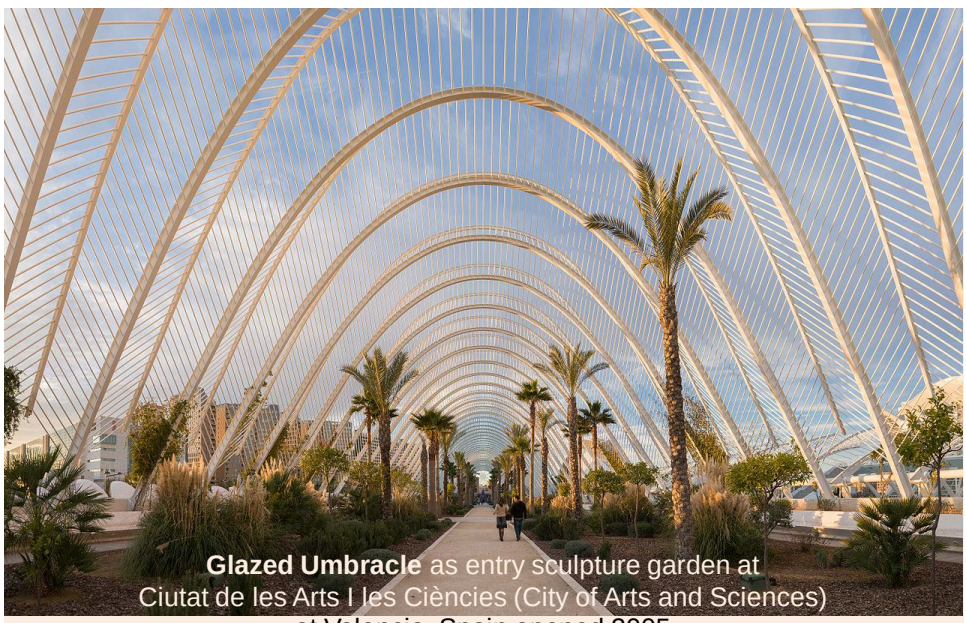


"Drawing by Burle Marx, 1960, of a lathwork structure for undergrowth flora, planned for the Caracas Parque de Este, Venezuela." Source: Bardi, P.M. (1964), *The Tropical Gardens of Burle Marx*, London: Architectural Press, pg62.



Plant House or Nursery, Roberto Burle Marx's own propagating house at his farm (Sitio) called Santo Antonio da Bica, in Guaratiba, Brazil. Source: Bardi 1964: 25

83



Glazed Umbracle as entry sculpture garden at Ciutat de les Arts I les Ciències (City of Arts and Sciences) at Valencia, Spain opened 2005

https://en.wikipedia.org/wiki/L%27Umbracle

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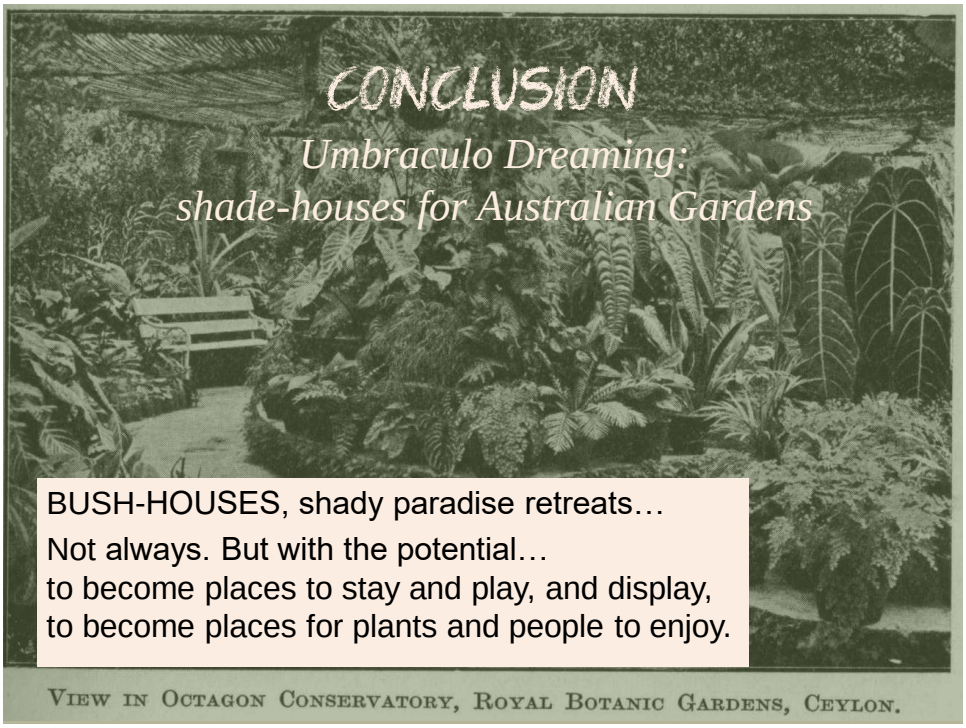
CONCLUSION
Umbraculo Dreaming:
shade-houses for Australian Gardens
BUSH-HOUSES, shady paradise retreats…
Not always. But with the potential…
to become places to stay and play, and display,
to become places for plants and people to enjoy.
VIEW IN OCTAGON CONSERVATORY, ROYAL BOTANIC GARDENS, CEYLON.