

## index and internet guide



national timber education program - architectural resource packages

1999

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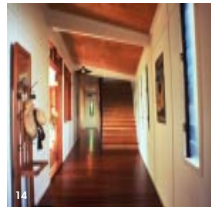
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# cultural



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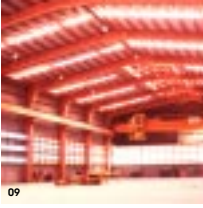
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**brand deykin & hay architects**  
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**innovarchi**  
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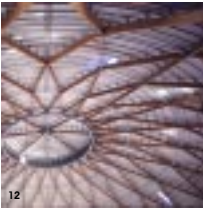
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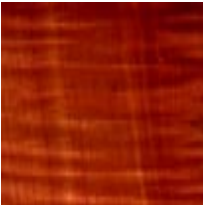
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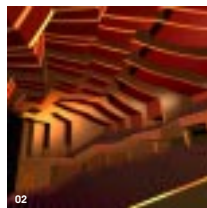
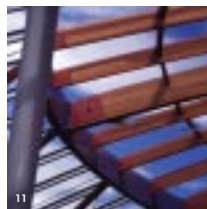
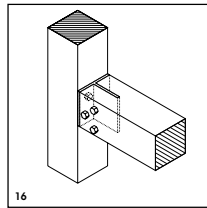


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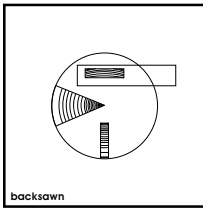
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backsawn

**adobe:** roughly moulded and sun-dried blocks made from puddled earth reinforced with chopped straw or other fibrous binders, for use in earth-wall construction [05]

**backsawn:** timber sawn so that the growth rings are inclined at less than 45 degrees to the wide face [05]

**barrup truss (or trussed beam):** a timber beam reinforced with a trussed metal tension rod [07, 11]

# glossary

**beam:** structural member, other than a triangulated frame, which supports load primarily by its internal resistance to bending [13]

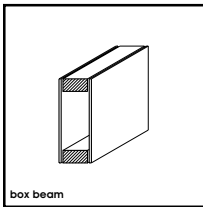
**beam grid (or space frame):** a three dimensional framework for enclosing spaces in which all members are interconnected and act as a single entity [07]

**berm:** an artificial ridge of earth [06]

**biodiversity:** a concept that encompasses the diversity of species and communities occurring in a given region [12]

**bowstring truss:** a truss where the top chord of the truss is curved to an arch shape [01]

**box beam:** a built-up beam with solid timber flanges and plywood or wood-base panel product webs [02]

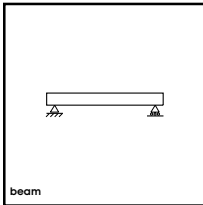


box beam

**cantilever:** a projecting structural member which is rigidly fixed at one end but unsupported at the other [14]

**cleavage test:** a test that measures the resistance of a timber to splitting longitudinally along the radial and tangential planes [12]

**clerestory:** a window, or row of windows, in the upper part of a room where it can admit light from above an adjacent roof [07, 10]

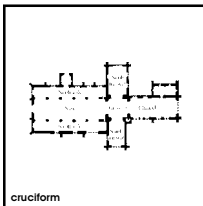


beam

**control joint:** a vertical or horizontal gap, filled or unfilled, to accommodate differential movement between various elements of a construction [03]

**coupler:** a metal sleeve threaded internally and used to connect threaded rods or bolts [12]

**cruciform:** in the shape of a cross [07]

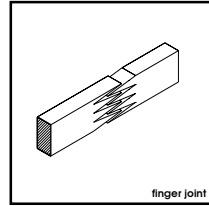


cruciform

**durability class:** the natural durability of a particular species expressed as one of four classes, based on field trials of untreated heartwood in the ground. It also indicates the resistance of the species to fungal and insect (termite) attack. **class 1:** highest natural durability, 25 to 50 years in the ground **class 2:** high durability, 15 to 25 years **class 3:** moderate durability, 8 to 15 years **class 4:** low durability, 1 to 8 years. The sapwood of all species is regarded to be Class 4 [16]

**equilibrium:** the moisture content at which timber neither gains nor loses moisture from the surrounding atmosphere [03, 15]

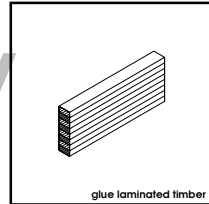
**finger joint:** an end joint in which wedge shaped projections in one piece of timber fit matching recesses on the other piece and are bonded together by an adhesive [11]



**flashing:** a strip of impervious material fitted to provide a barrier to moisture movement into the interior of a building [14]

**FRL (fire resistance level):** grading periods in minutes of the fire resistance of building elements for structural adequacy/ integrity/ and insulation [18]

**geodesic:** the shortest line between two points on a surface, such that a geodesic dome is segmented into a series of straight elements [12]

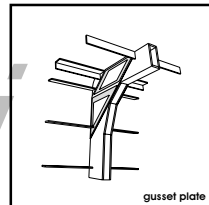


**glue laminated timber (or glulam):** laminated timber where the laminations are joined with adhesive [02, 07, 11, 12]

**grade:** the designation of the quality of a piece of timber or manufactured wood product in accordance with standard rules [17]

**green timber:** unseasoned timber, with free moisture present in the cell cavities [15]

**gusset plate:** plates, often steel or plywood, fixed by nails, bolts or other means to connect timber members in a truss or other frame structure - gusset plates may be applied to one or both sides of a joint [04, 05, 09]

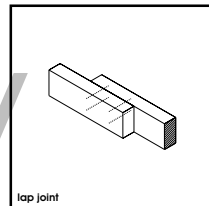


**hardwood:** a general term for timber of broad-leaved trees classified botanically as angiosperm - the term has no reference to the relative hardness of the wood [17]

**jig:** a device used to set a dimension, angle or shape for fabrication [06, 08, 15]

**joist:** one of a series of timber beams used to support the floor or ceiling of a building [13]

**laminated timber:** a built up product made of layers or laminations of wood, all with the grain laid parallel and glued or otherwise fastened together [13]



**laminated veneer lumber (LVL):** a structural lumber manufactured from veneers laminated into a panel with the grain of all the veneers running parallel to each other [04, 08, 09]

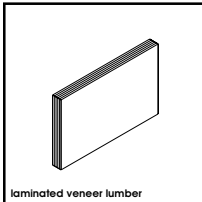
**lap joint:** a joint made by placing one member partly over another and fixing the overlapped portions [04]

**lateral force (or horizontal force):** a force applied horizontally to a structure in any direction, such as a force caused by wind or earthquake action [06]

**lateral movement:** movement in a structure that is perpendicular to the major axis of loading, ie. usually horizontal movement [13]

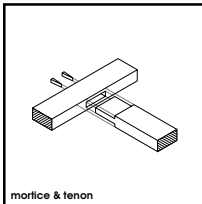
**light shelf:** a horizontal element below a window that reflects direct sunlight up onto a ceiling surface [10]

**loose assembled:** the fabrication of timber elements off site so that they are finished but not connected together until on site just prior to installation [03]



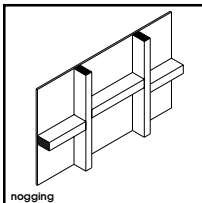
**lvl:** see laminated veneer lumber

**monoculture:** an environment that has a single species of animal or plant dominant usually associated with the artificial environments created by intensive agriculture [12]



**mortise & tenon joint:** a joint where a hole or slot known as a mortise is formed in a piece of timber to receive the reduced end of similar size, or tenon, from another piece - the joint is often secured with wedges or dowels [01]

**nail laminated timber:** a built up product made of layers or laminations of wood, all with the grain laid parallel and nailed together [05]



**nail plate truss:** a truss where the node joints are joined with nail plates [10]

**nail ring:** a generally rectangular pattern of nails used to join timber elements [04]

**nogging:** a short horizontal timber strut fixed between studs or joists in framed construction to provide lateral stiffening and intermediate fixing points for cladding or lining [14]

**open web truss:** a truss where the webs are open and visible [10]

**parquetry:** flooring of small matching pieces of timber laid on a substrate in geometric patterns [03]

**patina:** a surface change due to age or use, such as the fine oxidation of copper or the weathering of wood [11]

**performance based:** a code where the requirements are expressed as objectives to be achieved [18]

**prescriptive:** a code where the requirements are expressed as rigid rules or predetermined solutions [18]

**plantation:** an intensively managed stand of trees of either native or introduced species, created by the regular placement of seedlings or seed [12]

**plywood:** an assembled panel product made up of veneers of timber glued together so that the grain of alternate layers is at right angles [14, 15]

**portal ( or portal frame ):** a planar frame where the lateral and bending forces are transferred by moment resisting connections from the portal rafters to the columns [08, 09]

**post:** a column or a free standing axially loaded compression member, usually vertical [13]

**quarter sawn:** timber in which the average inclination of the growth rings to the wide face is not less than 45 degrees [05]

**reverberation:** the persistent echoing of sound within an enclosure after the original source of the sound has stopped, due to repeated reflection between the enclosing surfaces [02]

**ridge beam:** a beam located at the highest part of the roof to support the upper ends of the common rafters [04, 05]

**rough sawn:** surface condition of wood after sawing, ie. not dressed or final sawn [11]

# glossary

**seasoned timber:** timber that has been dried so that the moisture content anywhere in the piece is between 10% and 15% [15]

**shear panel:** a section of wall designed to resist lateral forces acting in, or parallel to, the plane of the wall [10]

**skillion roof:** a monoslope (single pitched) roof without a ridge or peak, providing the main roof or part of a roof [07]

**softwood:** a general term for timber of trees classified botanically as gymnosperm commercial timbers of this group are nearly all conifers, the term has no reference to the relative hardness of the wood [17]

**space frame:** see beam grid

**stud:** a vertical structural member in a framed wall or partition [14]

**triangulation:** joining structural members together so that they form a rigid triangle [06]

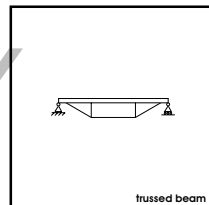
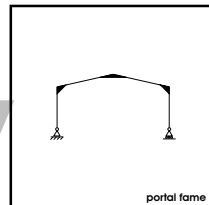
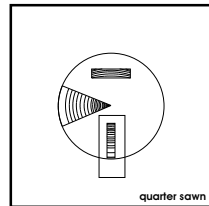
**trussed arch:** an arch where the main member is made up of elements arranged as a truss [01]

**trussed beam:** see barrup truss

**veneer:** a thin sheet of wood of uniform thickness [06, 11]

**web:** any transverse lateral stiffener [01]

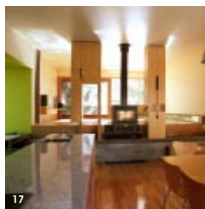
**weatherboard:** boards that cover external surfaces and overlap to keep out the rain [16]



[02] acoustics  
 [17] aesthetics  
 [12] anchor, mortlock & wooley  
 [15] andresen, brit  
 [13] australian capital territory  
 [15] [17] beach house  
 [07] beam grid structures  
 [05] bloodwood  
 [18] bourke street apartments  
 [13] bracing  
 [04] brambuk living cultural centre  
 [07] brand, deykin & hay  
 [14] brannigan house  
 [14] brannigan, bud  
 [02] [03] brush box  
 [15] building code of australia  
 [04] [05]burgess, gregory

# key words

[06] [07] [08] church  
 [10] clare design  
 [03] colour in timber  
 [15] composite members  
 [05] connections  
 [04] [06] [15] [17] cypress pine  
 [10] design for expansion  
 [14] design to a module  
 [06] detail - standardisation of  
 [01] [04] durability  
 [01] economy  
 [13] elements - standardisation  
 [10] environmental performance  
 [13] exposed structural element



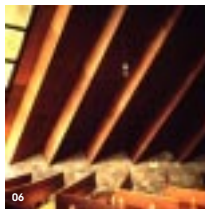
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[11] finishing  
 [11] forestry building  
 [07] [11] glue lamination  
 [12] greenhouse effect  
 [03] grey box



10

[02] hall, todd & littlemore  
 [15] hardwood  
 [09] henry, ross  
 [10] [17] hoop pine  
 [11] horizontal scrub  
 [08] innovarchi  
 [17] isacson/davis beach house  
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 [07] john 23<sup>rd</sup> college chapel  
 [13] jones, james



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[02] laminated hardwood  
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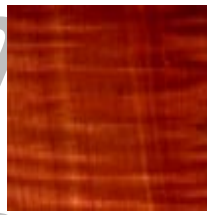
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victoria [01] [04] [17] [18]  
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### On the Internet:

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Note: If the acrobat reader plug-in is installed your browser may open the document rather than downloading it. In this case use the save icon on the menu-bar



# internet guide

### Download

Each of the documents can be downloaded as a pdf from:  
[www.timber.org.au/education/architecture/](http://www.timber.org.au/education/architecture/)

The project documents are numbered ( and named ) according to this guide. Each project has been sampled twice ( with different compression ) for optimal results depending upon output requirements... for screen ( 72dpi, approx 350kb download ) or laser print ( 300dpi, approx 1mb download ).

### On the internet

Each project can also be viewed on the Timber Building in Australia website at:

<http://oak.arch.utas.edu.au/projects>

A more comprehensive timber glossary can be accessed at:

<http://oak.arch.utas.edu.au/gloss.html>

