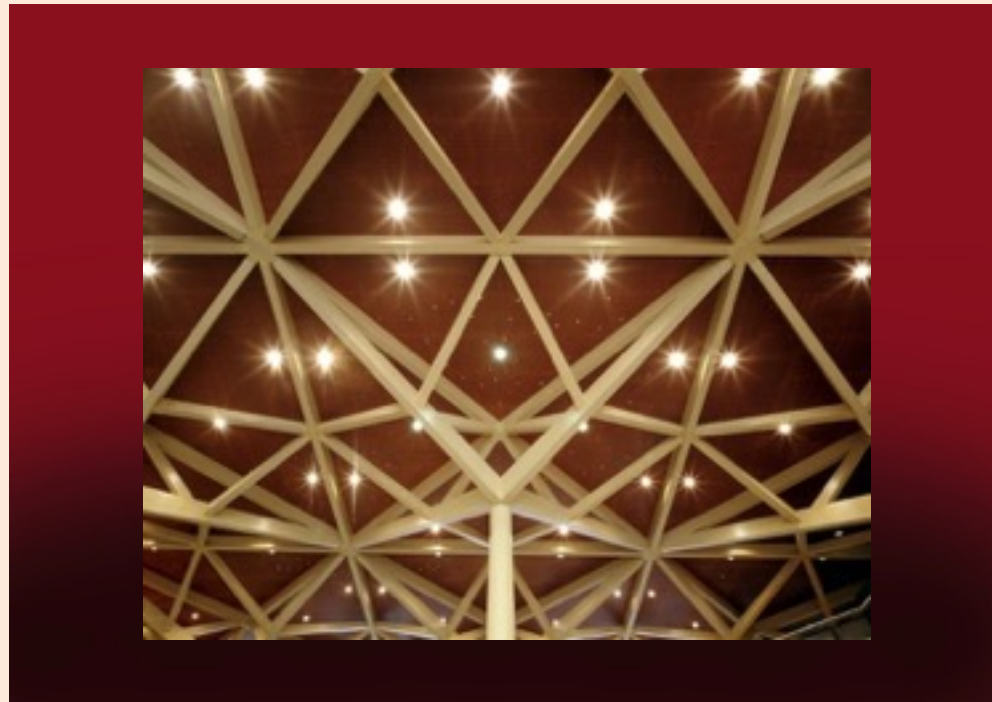
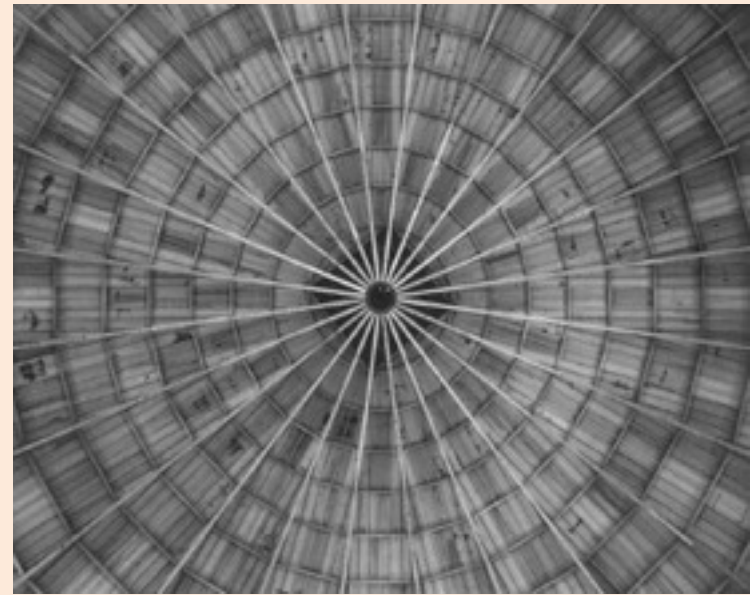


UNIVERSAL TIMBER DESIGN




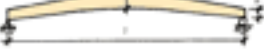

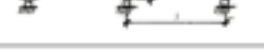
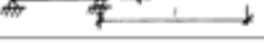

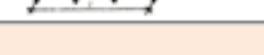










Representante Comercial e Instalador Autorizado

Glulam: Versatility of Design

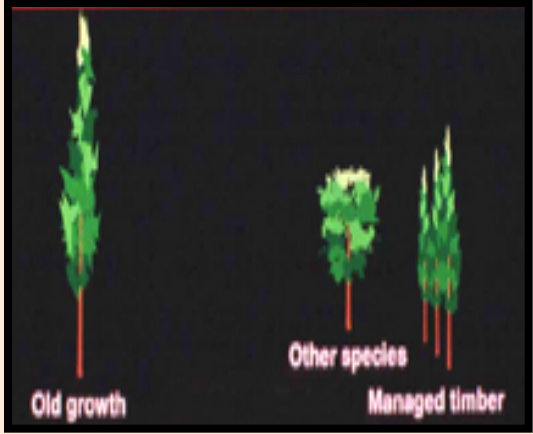


Glulam: Versatility of Design

| SYSTEM SKETCH | NAME | SUITABLE SLOPE | SUITABLE SPAN | DEPTH |
|---|---|----------------|---------------|--|
|  | Straight beam on two supports | • 3° | < 30 | $h = \frac{l}{17}$ |
|  | Straight braced beam on two supports | 3-30° | < 50 | $h = \frac{l}{40}$ $H = \frac{l}{12}$ |
|  | Symmetrical double pitched beam | 3-10° | 10-30 | $h = \frac{l}{30}$ $H = \frac{l}{16}$ |
|  | Symmetrical double pitched beam with curved underside | 3-15° | 10-30 | $h = \frac{l}{30}$ $H = \frac{l}{16}$ |
|  | Straight continuous beam on several supports | • 3° | < 25 | $h = \frac{l}{20}$ |
|  | Haunched continuous beam on several supports | • 3° | < 25 | $h = \frac{l}{24}$ $H = \frac{l}{16}$ |
|  | Cantilevered beam on two supports | < 10° | < 15 | $h = \frac{l}{10}$ |
|  | Straight trussed beam on two supports | • 3° | 30-85 | $h = \frac{l}{10}$ |
|  | Grid | • 3° | 12-25 | $h = \frac{l}{20}$ ($\sigma = 2,4 - 7,2 \text{ m}$) |

| SYSTEM SKETCH | NAME | SUITABLE SLOPE | SUITABLE SPAN | DEPTH |
|---|---|-------------------------------------|------------------------|---|
|  | Three-pin frame with or without a tie | • 14° | 15 - 50 | $h = \frac{l}{30}$ |
|  | Three-pin frame with tie and braced struts | • 14° | 20 - 100 | $h = \frac{l}{40}$ |
|  | Three-pin (two-pin) arch with or without a tie | $\frac{f}{l} = 0,14$ | 20 - 100 | $h = \frac{l}{30}$ |
|  | Three-pin portal frame with finger-jointed haunches | • 14° | 15 - 25 | $h = \frac{5,45}{13}$ |
|  | Knee braced portal frame | • 14° | 10 - 35 | $h = \frac{5,45}{15}$ |
|  | Three-pin portal frame with curved haunches | • 14° | 15 - 50 | $h = \frac{5,45}{15}$ |
|  | Propped half portal frame | • 20° | 10 - 25 | $h = \frac{l}{25}$ |
|  | Hyperbolic paraboloid shell (HP shell) | $\frac{f_1 + f_2}{l_1 + l_2} = 0,2$ | $f_1 - f_2$ 15 - 60 | $h = b = \frac{l}{70}$ (Konstruktiv) |

Sustainable U.S. Softwood Species



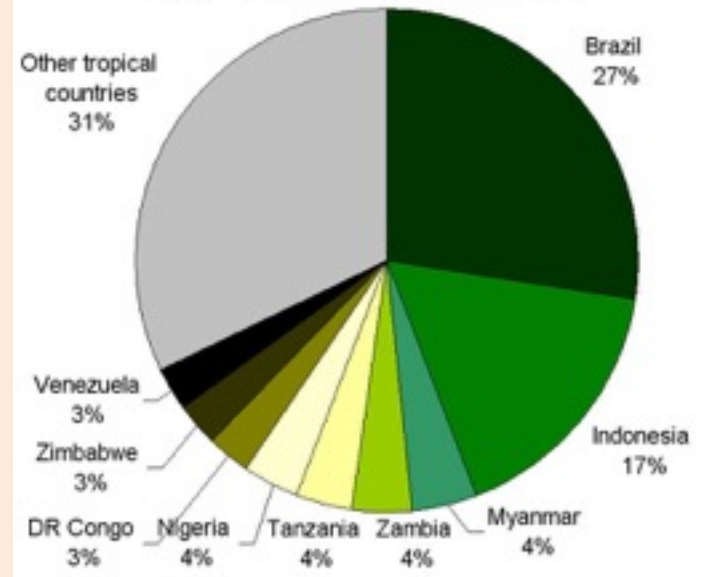
Not All Wood Products Are Green

Illegally-logged forests;

- Non-sustainable tropical and boreal forests.



Share of tropical deforestation, 2000-2005
mongabay.com, using FAO data



Glulam for Housing, California



Glulam for Housing

(Robert Harvey Oshatz, Architect)



Glulam for Housing

(Robert Harvey Oshatz, Architect)



Glulam for Housing

(Robert Harvey Oshatz, Architect)



Glulam for Housing

(Robert Harvey Oshatz, Architect)



Glulam for Housing

(Robert Harvey Oshatz, Architect)



Glulam for Housing



Glulam for Religious Structures

**Sustaining Human
Spirit Through
Innovative Design**



Glulam for Religious Structures

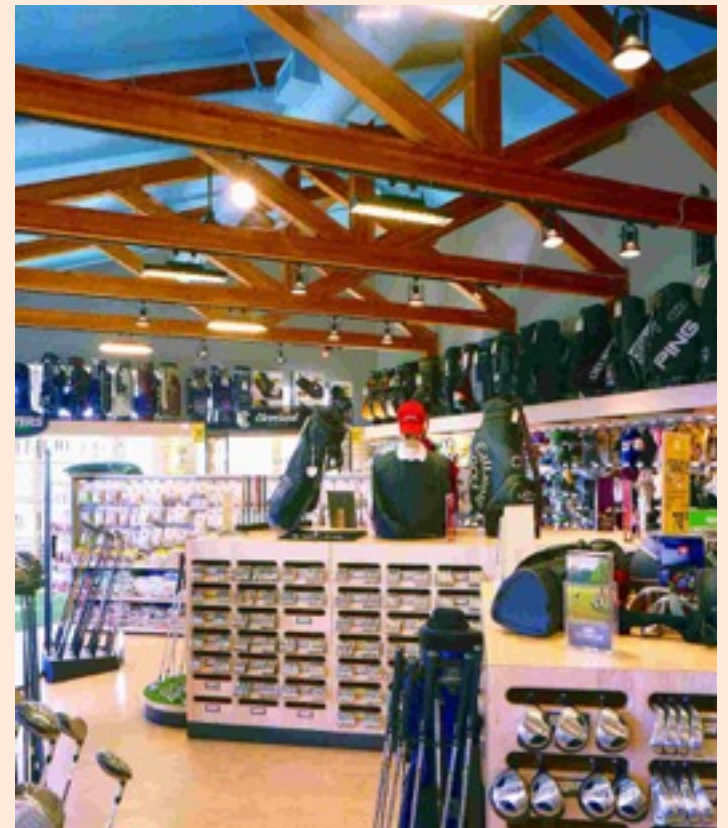


Glulam for Municipal Buildings





Glulam for Golf Clubhouse Buildings and Facilities



Glulam for Golf Clubhouse Lounges, Driving Ranges and Course Bridges



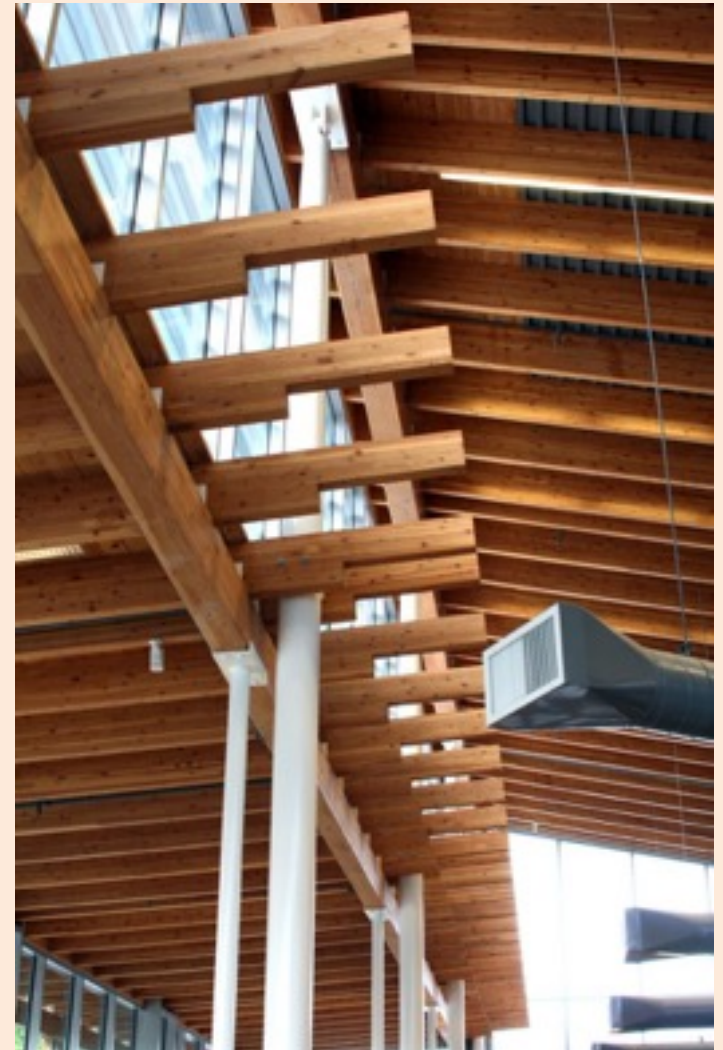
Glulam for Conference Centers, Restaurants, etc.



Glulam for Libraries



Glulam for Libraries



Glulam for Office Buildings



Microsoft Campus



Glulam for Indoor Pools



Glulam for Indoor Pools



Glulam for Hotels and Resorts



Glulam for Stores and Retail Shops



Glulam for Schools



Glulam for Schools



Glulam for Bus, Train and Transit Centers



Glulam for Airport Buildings



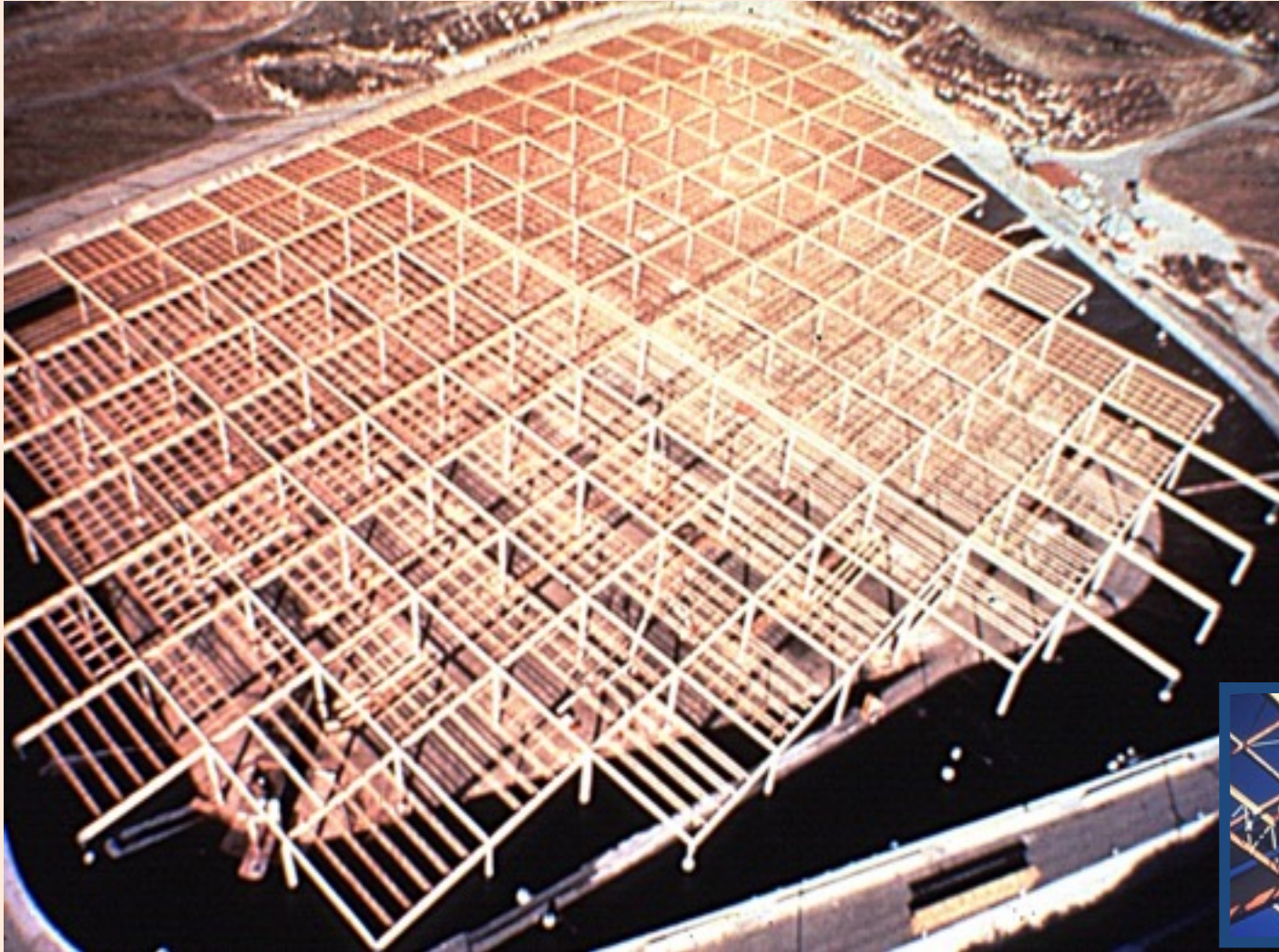
Glulam for Sports Facilities



Glulam for Entertainment Facilities



Glulam for Drinking Water Reservoir Covers



Help Us Take the World of
Glulam to New Heights !

