

PLYWOOD: MATERIAL OF THE MODERN WORLD

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THE JOHN MADEJSKI GARDEN

Ice-skating shelters

Designed 2011, built in London in 2017

Patkau Architects, Vancouver

Bendy-ply, faced with fuma; timber

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GRAND ENTRANCE: OUTSIDE THE PORTER GALLERY

Formula two racing car (Harris-Costin Protos)

1967

Designed by Frank Costin (1920–95)

Manufactured by Ron Harris Racing

Hertfordshire, Britain

Painted, moulded 3-ply birch plywood body with birch plywood bulkheads, metal fittings, rubber wheels, acrylic hood

On loan from the Blain Motorsports Foundation, Visalia, California, USA

Spare body for Harris-Costin Protos

1967

Designed by Frank Costin (1920–95)

Manufactured by Ron Harris Racing

Hertfordshire, Britain

Moulded 3-ply birch plywood with birch plywood bulkheads

On loan from the Blain Motorsports Foundation, Visalia, California, USA

ALL OBJECTS BELOW EXHIBITED IN THE PORTER GALLERY

PROCESS 01: ROTARY VENEER CUTTING

Rotary-cut sheet of birch veneer, with silver birch log

Rotary-cut birch veneer, joined from three 1.5 mm thick sheets

Silver birch log, 24 cm in diameter

SECTION 1: INVENTING PLYWOOD

Patent model for three-piece plywood chair, with paper tags registering the application

1873

Designed and made by Isaac Cole (dates unknown)

New Jersey, USA

Moulded 3-ply plywood, textile and paper

The Museum of Modern Art, New York, Purchase Fund, 1956

Patent model for a chair

1858

Designed and made by John Henry Belter (1804–63)

New York, USA

Varnished rosewood, paper and metal

Smithsonian's National Museum of American History

Full-scale model of an 1858 mould for chair backs

Designed 1858

Model made 2017

Based on a drawing from John Henry Belter's patent for 'Improvement in the Method of Manufacturing Furniture' (issued 23 February 1858, US patent 19,405)

CNC-cut, painted MDF (medium-density fibreboard), rosewood veneer

The material of the original mould is unknown, but may have been cast metal

Made by Donat Fatet, Maker in Residence, Building Crafts College, London

Chair

About 1860

Probably designed and manufactured by John Henry Belter (1804–1863)

New York, USA

Moulded, 7-ply rosewood-faced back (internal veneers probably oak or black walnut) with solid rosewood carving applied around cresting, paper; legs pieced from sections of solid rosewood; oak frame

Given by Samuel Dornsife

V&A: W.2-1971

Chair

After 1872

Manufactured by Gardner & Company

New York or New Jersey, USA

Moulded, 3-ply stained birch plywood seat and back; walnut frame; brass nails

V&A: W.7-1986

Doll's chair

After 1872

Manufactured by Gardner & Company

New York or New Jersey, USA

Moulded, 3-ply birch plywood seat and back; stained beech frame; brass nails

V&A: B.89-2014

'New Family' sewing machine (model 12/12K) with moulded plywood cover

1888

Manufactured by Singer Manufacturing Company

Scotland or USA

Painted cast iron sewing machine; case of moulded 3-ply nyssa-faced plywood with veneered solid gum base and ends

V&A: T.1600-2017

'The Pneumatic Passenger Dispatch Tube in Operation at the Fair of the American Institute, Fourteenth Street, NY'

From *Frank Leslie's Illustrated Newspaper* (26 October 1867)

Model of elevated plywood railway and carriage

Designed by Alfred E. Beach in 1867

Model made in 2017

Model (1:4 scale) based on contemporary drawings and descriptions of the elevated railway erected at the 1867 American Institute Fair in New York

Plywood, rosewood veneer, MDF (medium-density fibreboard), resin, acrylic

Made by Ian Birkhead and Alex Stewart, Bachelor of Arts Modelmaking, Arts University

Bournemouth

Catalogue sheets showing profiles for moulded plywood seats and backs, and parts for railway carriages, perambulators and motorcars

1911

Published by A.M. Luther, Reval, Russia (present-day Tallinn, Estonia),

Printed by Graphische Kunst-Anstalten Alexander Grosset i/Fa. F. Deutsche, Riga, Russia (present-day Latvia)

Text printed in Russian, German, English and French

Lithograph

Pritchard Papers, University of East Anglia

Tea Chests

Various manufacturers, 1950s–70s

Probably assembled in England using imported plywood

3-ply boards, metal fittings

V&A: NCOL.645-2016

Advertisements for plywood seats

1920s

Manufactured by Luterma (previously A.M. Luther)

Made in Estonia

Moulded and perforated 3-ply birch plywood

Translation of text:

'In a few minutes, a chair repaired, embellished, and 15 francs saved, with Luterma'

'A hammer, a few nails, and you save 15 francs by easily repairing your chairs with Luterma'

Collection of J. Kermik

Aurora Australis

1908

Written, illustrated and published by the British Antarctic Expedition (1907–09) crew members

Made in Antarctica

Printed book with binding of Venesta 3-ply birch plywood packing cases, leather and green silk cord

Presented to Rudyard Kipling by Ernest Shackleton in 1914

With kind permission of the Governors of Dulwich College

Explorers digging plywood cases from the ice

1908

Reproduction of a photograph taken during the British Antarctic Expedition (1907–09) from an album of photographs compiled by Arthur Wigram Allen

Courtesy of State Library of New South Wales

Hatbox

Designed about 1897

Manufactured about 1930 by Luterma (previously A.M. Luther), distributed by Venesta

Made in Estonia

Moulded 3-ply birch plywood with metal bandings and replacement leather straps, paper labels

V&A: W.11-2016

Hatbox

About 1930

Manufactured by Samson (later Samsonite)

Made in the USA

Moulded 3-ply birch plywood, with an additional reinforcing layer of 3-ply at top and bottom

V&A: NCOL.524-2015

Suitcase

About 1930

Manufactured by Luterma (previously A.M. Luther), distributed by Venesta

Made in Estonia

Moulded and sheet 3-ply birch plywood with an reinforcing additional layer of 3-ply added around the edge of the lid; leather straps, hinges and handle; paper labels, wax seals

Originally owned by P. Morton Shand (1888–1960), contributor to the *Architectural Review*

Given by the Shand family

V&A: W.12-2016

Handbag

About 1930

Bags of this type were used by both men and women, and sold in various sizes

Manufactured by Luterma (previously A.M. Luther)

Made in Estonia

Moulded 3-ply birch plywood with leather straps

V&A: NCOL.602-2016

Small bag

About 1930

Small bags of this type were sold for various uses, including as lunchboxes and for carrying botanical specimens

Manufactured by Luterma (previously A.M. Luther)

Made in Estonia

Moulded 3-ply birch plywood with leather straps

V&A: NCOL.303-2017

Hatbox

About 1900

Manufactured by A.M. Luther (later Luterma)

Made in Estonia

Moulded 3-ply birch plywood, with an additional reinforcing layer of 3-ply at bottom, leather straps

V&A: NCOL.523-2015

Canoe

Designed 1917

Manufactured about 1930 by the Haskell Boat Company (previously Haskell Manufacturing Company)

Ludington, Michigan, USA

Moulded, 3-ply birch-faced plywood

Private collection

Decorative plywoods used for wall panelling

Plywood panels with decorative face veneers, the face veneers of both British and imported woods. The imported veneers were among those marketed as 'Empire wood' in the 1930s.

Face veneers: acacia, araputanga, oak, blackbean, ash, khaya, Indian laurel, lacewood

Panels made in 2017 in Britain

Plymax door

About 1933

Designed by Wells Coates (1895–1958) and Jack Pritchard (1899–1992)

London, Britain

Flush door of copper-faced Plymax, with glass panel; the handle is a reproduction of the original

Loaned in memory of Jeremy Pritchard and his descendants

Handles, hooks, and hinges

About 1938

Possibly designed by Bruno Paul (1874–1968)

Manufactured by the Deutsche Werkstätten

Hellerau, Germany

Moulded plywood

Deutsche Werkstätten Hellerau AG

Car, cut-away to show construction

Designed 1937

Cut-away F7 model manufactured by DKW in 1938 for display at a German auto show

Made in Germany

Body of steel and plywood

Collection of the Deutsches Museum, Munich

On permanent display at the Sächsisches Industriemuseum, Chemnitz

PROCESS 02: MOULDING

Two-part mould with moulded seat

Made by Isokon Plus

London, Britain

Mould, made in 1986: vertically-stacked plywood sheets with metal studding, aluminium lining, solid wood handles and metal ratchets

Seat: 7-ply moulded birch plywood

Courtesy of Isokon Plus

Short Chair

1936

Designed by Marcel Breuer (1902–81)

Manufactured by the Isokon Furniture Company

London, Britain

Moulded 5-ply birch plywood seat/back; 10-ply laminated birch frame, with 7-ply birch plywood struts, faced with zebrano veneer

Given by Mr and Mrs Dennis Young

V&A: CIRC.80-1975

Design for a reclining chair

1936

Marcel Breuer (1902–81)

London, Britain

Pen and ink on oil cloth

V&A: CIRC.231-1975

Pages from Isokon's Long Chair catalogue

About 1936

Designed by László Moholy-Nagy (1895–1946)

Printed by Lund Humphries

London, Britain

Letterpress

Chris and Lone McCourt, Isokon Plus

SECTION 2: STRONG, LIGHT AND FAST

Armchair

Designed 1932

Designed by Alvar Aalto (1898–1976)

Manufactured about 1935 by Huonekalu-ja Rakennustyötehdas Oy

Turku, Finland

Painted, moulded 7-ply birch plywood seat and 4-ply laminated birch frame with solid birch struts (the paint is not original to the chair)

V&A: W.41-1987

Design for an armchair

1932

Alvar Aalto (1898–1976)

Helsinki, Finland

India ink and graphite on tracing paper

Alvar Aalto Museum

Drawings for two chairs

1933

Alvar Aalto (1898–1976)

Helsinki, Finland

Graphite on tracing paper

Alvar Aalto Museum

Armchair

Designed 1934

Designed by Gerald Summers (1899–1967)

Manufactured before 1939 by Makers of Simple Furniture

London, Britain

Moulded 13-ply birch plywood

V&A: W.26-1978

Stool

1930–35

Designer unknown

Manufactured by Luterma (previously A.M. Luther)

Tallinn, Estonia

Moulded 3-ply birch plywood with iron foot plates and screw

V&A: W.34-1992

Prototype dining table

1936

Designed by Marcel Breuer (1902–81)

Made by the Isokon Furniture Company (never manufactured)

London, Britain

Top: 5-ply moulded birch plywood

Legs: each made from 3 moulded pieces of 7-ply birch plywood

Bequeathed by John Russell Brown in memory of Gilbert and Margaret Cousland

V&A: W.12-2015

Worker outside the Deperdussin factory, holding a *monocoque* fuselage above his head

About 1912

Paris, France

Photograph reproduced by permission of the Musée de l'Air et de l'Espace – Le Bourget

Deperdussin *monocoque* in flight

About 1912

Paris, France

Photograph reproduced by permission of the Musée de l'Air et de l'Espace – Le Bourget

Model of the Lockheed Vega

About 1930

Lockheed Vega designed in 1927 (Burbank, California) by Jack Northrop (1895–1981) and Allan Loughead (1889–1969)

Model (1:12 scale) made by the Stanavo Oil Corporation in about 1930, USA

Wood, paint, adhesive, ferrous alloys, brass, aluminium, acetate (not original)

On loan from the Smithsonian National Air and Space Museum, Washington, DC

Model of a de Havilland Mosquito

Aeroplane designed 1939–42

Model made about 1980

Mosquito aeroplane designed by Geoffrey de Havilland (1882–1965) and manufactured in Britain

Model (1:5 scale) made in Britain by the de Havilland Aircraft Museum

Painted plywood, balsa wood, rubber and plastic

Courtesy of the de Havilland Aircraft Museum, London Colney

Fuselage of a de Havilland Mosquito

1943–45

Designed by Geoffrey de Havilland (1882–1965)

Made in Britain

Two layers of 3-ply birch plywood, balsa wood, solid spruce, metal fittings; with later plywood patch and painted number

Courtesy of Ralph Steiner

Petrol 'drop' tanks from a de Havilland Mosquito

1943-45

Designed by the de Havilland Aircraft Company

Possibly made by Morris & Co., Glasgow

Moulded 3-ply teak plywood, laminated pine nose and battens, metal screws with wax coating; one lined and painted

Courtesy of the de Havilland Aircraft Museum, London Colney

Moulding one half of the Mosquito fuselage

Once birch veneer has been layered with glue on the concrete mould, steel bands are strapped on to apply pressure

De Havilland factory, St Albans, Hertfordshire, 1943-45

Reproduced by permission of the de Havilland Aircraft Museum, London Colney

Mosquito half-fuselage being lifted off mould

Harris Lebus furniture factory, London, 1943-45

Reproduced by permission of the Lebus Family

Model of an Airspeed Horsa glider

Glider designed 1941-45

Model made about 1980

Horsa glider (AS.51 and AS.58) designed by Airspeed and manufactured in Britain

Model (1:12 scale) made in Britain by the de Havilland Aircraft Museum

Polystyrene, painted canvas, plastic

Courtesy of the de Havilland Aircraft Museum, London Colney

‘Wood flies to war’ poster

1943

Designed for the US Army Bureau of Public Relations (designer unknown)

Printed by the US Government Printing Office

Washington, D.C., USA

Lithograph

V&A: E.375-2017

Hughes Hercules (‘Spruce Goose’) fuselage under construction (exterior and interior)

About 1945

Aeroplane built by the Hughes Aircraft Company

Los Angeles, USA

Reproduced by permission of the Evergreen Aviation and Space Museum, McMinnville, Oregon

Cargo arrangement, showing the ‘Spruce Goose’s’ capacity to carry 350 patients in bunks

About 1942

Culver City, California, USA

Reproduced by permission of the Evergreen Aviation and Space Museum, McMinnville, Oregon

SECTION 3: BUILDING THE MODERN WORLD

Full-scale reconstruction of US Forest Products Laboratory demonstration house

Designed 1936

Built 2017

Based on contemporary drawings, diagrams, descriptions and photographs of the FPL panel construction system

Birch-faced plywood panels, softwood, glue

Materials kindly donated by James Latham

Diagram showing panel construction for the Forest Products Laboratory all-wood house system

1935

System developed by the US Forest Products Laboratory

Madison, Wisconsin, USA

Reproduced by permission of the USDA Forest Service, Forest Products Laboratory

Two-storey demonstration house being constructed at the Madison Home Show

1936

Designed and built by the US Forest Products Laboratory

Madison, Wisconsin, USA

Photographs reproduced by permission of the USDA Forest Service, Forest Products Laboratory

Storyboards documenting factory prefabrication of wartime housing

About 1944

Made by Bertrand Goldberg (1913–97)

Factory at Richmond, Virginia, USA

Gelatin silver photographs, pen and ink, graphite and gouache on illustration board or tracing paper

Lent by the Estate of Bertrand Goldberg

Cut-away perspective showing the construction of the Unicel prefabricated freight car

1952

Designed by Bertrand Goldberg (1913–97) for the Pressed Steel Car Company

Chicago, USA

Watercolour, pen and ink, over graphite on illustration board

Lent by the Estate of Bertrand Goldberg

Detail drawing showing corner curve connections of the Unicel freight car

1950

Designed by Bertrand Goldberg (1913–97) for the Pressed Steel Car Company

Chicago, USA

Offset lithograph

From *A Study of a Non-Metallic Cellular Laminated Box Car: Unicel* (Chicago, 1950)

Lent by the Estate of Bertrand Goldberg

Defence worker housing at Carquinez Heights, California

1941–42

Designed by William Wurster (1895–1973)

Vallejo, California, USA

Photographs reproduced by permission of the Wurster, Bernardi and Emmons Collection,

Environmental Design Archives, University of California Berkeley and Vallejo Naval and

Historical Museum

Design for the interior of a Uni-Seco prefabricated house

1945

George Fejér (1912–96) for Uni-Seco Ltd

London, Britain

Dyeline and coloured chalks with green and black ink on green card

V&A: E.791-1997

Poster advertising Chicago 'Century of Progress' Exhibition 1933–34

1933

Designed by Weimer Pursell (1906–74)

Printed by Neely Printing Company

Chicago, USA

Offset lithograph

V&A: E.374-2017

Hall of Science under construction, with detail of plywood perforations in façade

1932

Hall of Science designed by Paul Cret (1876–1945)

Chicago, USA

Reproduced by permission of Century of Progress Records, 1927–52, University of Illinois at

Chicago Library

San Francisco Golden Gate Exposition

1939–40

Federal Building designed by Timothy Pflueger (1892–1946)

Photographs by: Gabriel Moulin (1872–1945); Charles W. Cushman (1896–1972)

San Francisco, USA

Reproduced with permission from APA-The Engineered Wood Association / © Moulin Studio
and Charles Cushman Collection: Indiana University Archives (PO1892)

Interior perspective of the Finnish Pavilion at the 1939 New York World's Fair

1939

Pavilion designed by Alvar Aalto (1898–1976) and Aino Aalto (1894–1949)

Drawing by Alvar Aalto

Helsinki, Finland

India ink and graphite on tracing paper

Alvar Aalto Museum

Plan of the Finnish Pavilion at the 1939 New York World's Fair

1939

Pavilion designed by Alvar Aalto (1898–1976) and Aino Aalto (1894–1949)

Helsinki, Finland

Graphite and colour pencil on tracing paper

Alvar Aalto Museum

Poster advertising 1939 New York World's Fair

1939

Designed by Albert Staehle (1899–1974)

Printed by Grinnell Lithograph Company

New York, USA

Lithograph

V&A: E.285-2006

Construction of Trylon and Perisphere at the 1939 New York World's Fair

1938–40

Trylon and Perisphere designed by Wallace Harrison (1895-1981) and J. Andre Fouilhoux (1879-1945)

Photographs taken in 1938, 1939 and 1940

New York, USA

Photographs reproduced by permission of New York World's Fair 1939–40 records, Manuscripts and Archives Division, The New York Public Library, Astor, Lenox and Tilden Foundations

SECTION 4: MATERIAL OF THE FUTURE

Leg splint

About 1942

Designed by Charles (1907–78) and Ray Eames (1912–88)

Manufactured by the Evans Products Company, Moulded Plywood Division

Los Angeles, USA

Moulded 5-ply birch plywood

V&A: W.31-2016

The manufacture of the Eames leg splint, from cutting veneers to moulding

Photographs taken at the Evans Products Company, Moulded Plywood Division

© 2017 Eames Office LLC (eamesoffice.com)

DCM (dining chair metal)

Designed 1945

Designed by Charles (1907–78) and Ray Eames (1912–88)

Manufactured about 1947 by the Evans Products Company

Los Angeles, USA

Moulded 7-ply birch plywood seat and back with tubular steel frame and rubber mounts

V&A: W.7-2017

School chair (model X201)

Designed 1948

Designed by James Leonard (dates unknown)

Manufactured by the Educational Supply Association

Stevenage, Britain

Moulded 3-ply beech-faced plywood and cast aluminium

V&A: W.12-2017

Chair

Designed 1949

Designed by Ray Komai (1918–2010)

Manufactured about 1950 by J.G. Furniture Co.

Brooklyn, New York, USA

Moulded 5-ply walnut-faced plywood and tubular steel frame

American Friends of the V&A through the generosity of Mark McDonald

V&A: LOAN:AMERICANFRIENDS.713-2016

Jason chair

Designed 1950–51

Designed by Carl Jacobs (born 1925)

Manufactured by Kandya

Middlesex, Britain

Moulded 5-ply beech plywood seat with solid beech frame

Given by Kandya Ltd

V&A: CIRC.306-1970

Q Stak chair

Designed 1953

Designed by Robin Day (1923–2000)

Manufactured by Hille Ltd

London, Britain

Moulded cherry-faced 7-ply plywood and tubular steel frame

Given by the designer

V&A: W.37-1992

Model 3107 chair

Designed 1955

Designed by Arne Jacobsen (1902–71)

Manufactured by Fritz Hansen, Denmark

This chair supplied to St Catherine's College, Oxford, designed by Arne Jacobsen from 1959

Moulded oak-faced 9-ply plywood and tubular steel frame

Given by Michael and Mariko Whiteway together with Brain Trust Inc.

V&A: W.6-2017

P31 chair

Designed 1957

Designed by Osvaldo Borsani (1911–85)

Manufactured in the early 1960s by Tecno SpA

Milan, Italy

Moulded rosewood-faced 7-ply plywood and tubular steel frame, rubber mounts, brass fittings

Brass fitting on chair back an early 1960s addition to the initial design

Given by Archivio Osvaldo Borsani

V&A: W.9-2017

SE 42 chair

Designed 1949

Designed by Egon Eiermann (1904–70)

Manufactured by Wilde + Spieth

Esslingen, Germany

Moulded 7-ply beech plywood seat and back with 11-ply beech plywood frame, rubber mounts, metal fittings

V&A: W.8-2017

Chair

About 1955

Designed for Kenzō Tange's (1913–2005) Sumi Memorial Hall, Ichinomiya, Japan

Manufactured by Tendo Mokko

Tendo, Japan

Moulded 11-ply birch plywood, metal screws, aluminium feet, seat cushion

V&A: W.25-2016

Butterfly stool

Designed 1954

Designed by Sori Yanagi (1915–2011)

Manufactured late 1950s by Tendo Mokko

Tendo, Japan

Moulded rosewood-faced 5-ply plywood with brass cross-bar and metal fittings

V&A: W.5–2017

Chair

1963

Designed by Grete Jalk (1920–2006)

Manufactured by Poul Jeppesen

Store Heddinge, Denmark

Teak-faced 9-ply moulded plywood with steel bolts

V&A: W.26–2016

Crest Rider ‘belly board’

About 1934

Made for Ronald Funnell by West Cornwall Woodwork

Penzance, Britain

Moulded 3-ply plywood with printed graphic

By kind permission of the Museum of British Surfing

‘Toothpick’ surfboard

1940–45

Maker unknown, based on a design by Tom Blake (1902–94)

Made in Australia, brought to Mylor, Cornwall by Gordon Rollaston

Timber framework (possibly mahogany) with plywood cladding, steel handle. Replacement plywood to top of board

Alex Williams Endless Summer Collection

Surfboard

About 1965

Made by an unknown amateur

Made in Britain

Plywood cladding and fin, solid wood framework, copper nails

By kind permission of the Museum of British Surfing

Mirror dinghy kit, partially assembled

Designed in 1962 by Barry Bucknell (1912-2013) and Jack Holt (1912-95) for the *Daily Mirror*

Manufactured in 2016 by Trident UK

Tyne and Wear, Britain

Gaboon plywood, softwood

Kindly donated by TridentUK.com

Mirror dinghy, fully assembled with sail

Designed in 1962 by Barry Bucknell (1912-2013) and Jack Holt (1912-95) for the *Daily Mirror*

Kit manufactured by Bell Woodworking in 1972

Manufactured in Leicester, Britain

Painted Okoumé marine plywood, softwood, canvas sails, metal fittings, replacement rope

Mirror dinghy advertising material and building instructions

About 1963

Made in Britain

Lithograph

Courtesy of the UK Mirror Class Association

Roller Derby skateboard

1959–60

Manufactured by Roller Derby

La Mirada, California, USA

Painted 5-ply plywood; steel trucks and wheels

V&A: B.9-2017

Warwick Junior Flyer skateboard

About 1969

Manufactured by Mettoy

Solihull, Britain

9-ply plywood with printed graphic, steel trucks, rubber wheels

V&A: B.10-2017

Homemade plywood skateboard

About 1975

Maker unknown

Trucks re-used from a Pro Class skateboard, with Free Roller wheels

9-ply plywood, steel trucks and polyurethane wheels

USA (possibly New York)

V&A: B.11-2017

Skateboard

Deck designed 1991

Deck manufactured by Powell Peralta with 'Feathers' graphic by Steve Saiz (dates unknown)

Santa Barbara, California, USA

Stained, moulded 7-ply plywood with printed graphic; Gullwing steel and nylon tracks;

Gullwing rubber wheels

V&A: NCOL.287-2017

Skateboard

Deck designed 1989

Deck manufactured by Powell Peralta with 'Feather' graphic by Nicky Guerrero (born 1968)

Santa Barbara, California, USA

Painted, moulded 7-ply plywood with printed graphic; Gullwing steel and nylon tracks; Toxic

Effects rubber wheels

V&A: NCOL.286-2017

Model of a plywood nuclear fallout shelter

About 1962

Designed by the US Department of Defence

Model made by Art Designers Incorporated

Alexandria, VA, USA

Plywood, foamboard, textiles, plastic, styrofoam

V&A: CD.19-2016

Popular Mechanics

April 1946, July 1950, May 1951

Published by the Popular Mechanics Company

Chicago, USA

Colour half tone print

V&A: NCOL.650-2016, NCOL.651.2016, NCOL.100-2017

Popular Science

December 1949

Published by Popular Science Publishing

New York, USA

Colour half tone print

V&A: NCOL.649-2016

Time

2 August 1954

Published by Time Inc.

New York, USA

Colour half tone print

V&A: NCOL.99-2017

Do it yourself

November 1962, November 1967

Published by Link House Publications

Croydon, Britain

Colour half tone print

V&A: NCOL.62 and 63-2017

Practical Householder

June 1957, November 1960

Published by George Newnes Ltd

London, Britain

Colour half tone print

V&A: NCOL.61-2017, NCOL.652-2016

PROCESS 03: CNC CUTTING

Single frame for a WikiHouse

2017

Designed by WikiHouse

CNC-cut 7-ply birch-faced plywood

Materials kindly donated by James Latham

'Wren', the WikiHouse building system

2016

Graphic designed by WikiHouse to show stages of construction, starting with the CNC cutting of parts

SECTION 5: PLYWOOD IN THE DIGITAL AGE

Edie Stool (assembled and unassembled)

2013

Designed by David (born 1986) and Joni Steiner (born 1979) for Opendesk

London, Britain

CNC-cut 21-ply birch plywood

V&A: NCOL.729 & 730-2016

Supply chains for illegally logged timber

2017

Graphic designed by Irish Butcher Studio

Based on reports by Greenpeace, the UK National Measurement Office and Chatham House

Sustainable plywood from coconut trees

2016

1. Samples of rotary-cut coconut veneer

2. Three-ply coconut veneer plywood

3. Laminated veneer lumber (LVL) made from 12 layers of coconut veneer

All cut and manufactured in Fiji as part of a research project funded by ACIAR (Australian Centre for International Agricultural Research) in partnership with the Secretariat of Pacific Communities, University of Tasmania and Queensland Government Department of Agriculture and Fisheries

Loaned by the Queensland Government Department of Agriculture and Fisheries

Cross-laminated timber (CLT) used as a structural building material

Model showing the construction system used at Stadthaus, Murray Grove, London
Stadthaus, Murray Grove designed by Waugh Thistleton Architects in 2009, timber components by KLH

Model made in 2017

Central CLT structure clad in other materials

Courtesy of Waugh Thistleton Architects, with materials kindly donated by KLH and Natural Building Technologies

Architectural jointing system

2016

Model (1:5 scale) of joint from Tamedia office building, Zurich, Switzerland

Tamedia building designed by Shigeru Ban, 2013

Timber components designed by Blumer-Lehmann

Spruce Glulam (the LVL component not shown on the model)

Courtesy of Blumer-Lehmann Timber construction | Engineering

Seats made with standard plywood and Danzer 3D veneer

2017

Seats for the Loop Chair, designed by Claus Breinholt (born 1972)

Manufactured by Infiniti by OPM Group

Castello de Godego, Italy

Vinterio walnut-faced plywood; Vinterio walnut-faced plywood made with Danzer 3D veneer

Kindly donated by Infiniti and Danzer

V&A: NCOL.783:1&2-2016