# Mid-century Modern in Miniature

Developed by Michelle Brown & Ellie Dumigan, 2023

State Library of Queensland | Queensland Government

# Acknowledgement of Country

We acknowledge Aboriginal and Torres Strait Islander peoples and their continuing connection to land and as custodians of stories for millennia. We respectfully acknowledge the land on which we all meet today, and pay our respects to elders past, present and emerging.

# WORKSHOP SUMMARY



Fretwork, breezeblocks, casement windows, VJ walls and hardwood floors; there's a lot to love about Queensland architecture.

Join us as we dive into State Library of Queensland's collections and bring to life the rich histories of the houses around us through digital fabrication techniques such as laser cutting and engraving and create a miniature piece of QLD architecture with our book nook design.

This journey will see you:
- getting inspired by Queensland architecture through the enormous wealth of the collections here at State Library of Queensland.
- learning to create vector files suitable for the laser cutter in free and open-source software (Inkscape).
- completing a laser cutter induction, so you can come back and make more!
- laser cutting your files
- assembling some of your creation

**Session 1**
- Research
- Introduction to Inkscape
- File setup
- Design

**Session 2**
- Laser demo
- Laser induction
- Design
- Cutting

**Session 3**
- Laser cutting
- Choosing colour, prepping and painting
- Furniture and accessories

**Session 4**
- Painting
- Assembly
- All finishings

# SESSION OVERVIEW

TOOLS

- Small brushes
- Palettes and water cups (painting)
- Bags for sorting pieces
- Skewers/ply offcuts (gluing/painting)
- Tweezers
- Masking tape
- Cutting knives
- Computers running Inkscape
- USB sticks
- Laser Cutter
- Inkscape design software

Materials (per participant)

- An A2 sheet 4mm plywood (outer Nook)

- An A4 sheet 0.5mm thick craft card (optional)

- An A4 sheet 1.5 to 2mm ply

- An A5 sheet 0.7mm PETG film or 1.5mm acrylic (windows and door panes)

- Tacky craft glue / UHU or Gorilla glue

- Watercolour paint

- Acrylic paint colours

- Acrylic medium (gloss and matte)
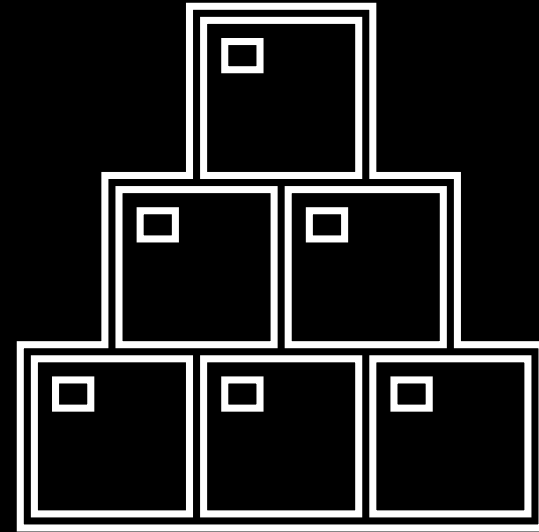
# MATERIALS

# HEALTH & SAFETY



For all workshops at The Edge we like to familiarise participants with:

- Exit points

- Lab Risk Assessments

- Laser safe operating procedure (SOP)

- Any other SOP

# SESSION ONE



## Session Overview

### *Welcome*
- Check in and get set up on a computer
- Why did you sign up? what are you hoping to get out of this series?
- SLQ account logins

### *Overview of workshop*
- Be inspired by State Library's collections and research and reference resources.
- Learn the basics of Inkscape and vector design.
- Start to customise your own base Nook design with windows and doorways

### *End goals of session*
- An idea for the final design of your book nook
- A basic understanding of using Inkscape to edit our template files and design our own items
- Started on the design for your individual nook

# LET'S GET STARTED

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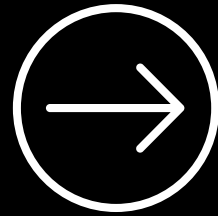
One Search

The State Library catalogue holds a vast collection of photos, drawings, manuscripts, design plans, house plans, building designs and related materials with links to built heritage and architecture in Queensland.

Let's look through the catalogue for 'Mid-century modern' to get inspiration!

 LINK

STATE
LIBRARY
COLLECTIONS

# RESEARCH AND DESIGN

## What defines Mid-century Modern?

*'Mid-century modern (MCM) is a design movement in interior, product, graphic design, architecture, and urban development that was popular in the United States and Europe from roughly 1945 to 1969,[1][2] during the United States's post–World War II period. The term was used descriptively as early as the mid-1950s and was defined as a design movement by Cara Greenberg in her 1984 book Mid-Century Modern: Furniture of the 1950s. It is now recognized by scholars and museums worldwide as a significant design movement. The MCM design aesthetic is modern in style and construction, aligned with the Modernist movement of the period. It is typically characterized by clean, simple lines and honest use of materials, and it generally does not include decorative embellishments.' - Wikipedia*

**Queensland Architecture**

**Architectural Styles – House Histories**

**Corley Explorer**

BRISBANE

# MODERN>

MID 20TH CENTURY DESIGN MAGAZINE ISSUE 1 $5.00

Brisbane Modern Mag

Chris Osbourne Photo Collection

Richard Stringer Photo Collection

australian MODERN

Goggomobil and Zeta
Studley Park Modern

Meadmore Furniture
Expo 67 Montreal

Googie Goes Australian
Geoffrey Pie Architect

AUSTRALIAN MID 20TH CENTURY DESIGN

2012 EDITION $16.00
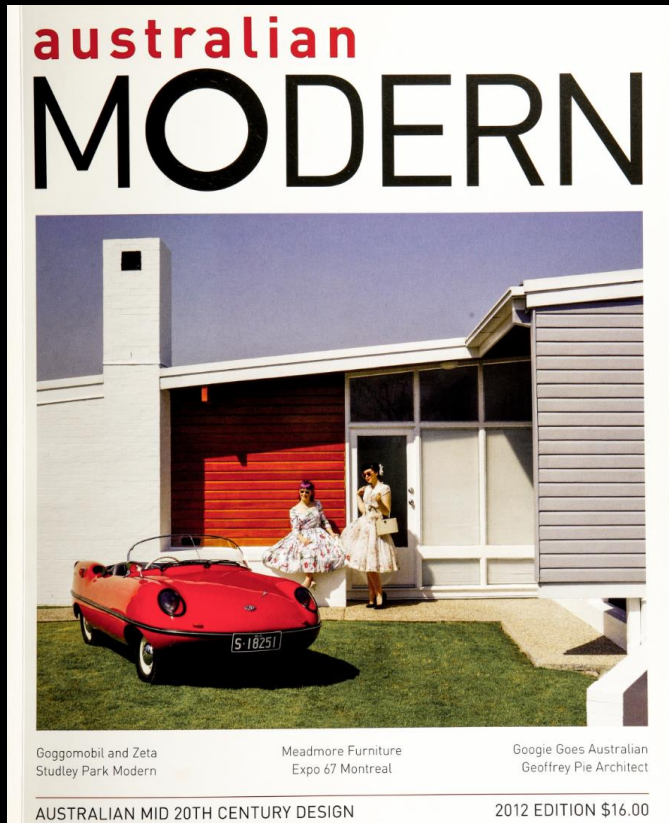
# ARCHITECTURAL FEATURES

The post-World War II baby boom led to a housing boom and new mid-century modern houses popped up locally in suburbs like McDowall, Auchenflower and Graceville. There were also two very impactful architects in Australia during this time: Harry Seidler and Robin Boyd.

Unlike the flat roofs that represent MCM elsewhere, Queensland houses needed to be rainproof. Australia's modern movement strayed from the flat roof with Queensland architects responding with shallow-pitched roofs that mimic the flat-roofed mid-century design style.

You can usually recognise a mid-century modern building by;

- Large windows, bringing the outside in
- Classic shapes
- Muted curves
- Sleek, cool, clean
- Combination of indoor/outdoor spaces
- Steel, concrete, timber (left natural as possible)
- Colour - Many houses built in the 1950s and '60s showcased bright colours

More great feature analysis here and here

Checkout some of these links for more info and inspiration;

[House Histories](#)

[House Detective](#)

[Modernista Australia](#)

[Placemake Architects](#)

[UQ editorial](#)

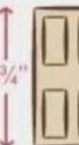[Our Pinterest board](#)



FURTHER LINKS
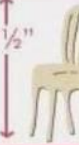
# MINIATURE SCALE

Miniature scale varies, there are several standard sizes and you can buy or create items to suit the different sizing.

Standardized sizes for modern dollhouses include 1:6, 1:12, 1:16, 1:24, and 1:48, while antique houses are often a custom size.

Book nooks exist on any kind of scale, but most are on a scale of 1:24 or close to. Our Queenslander book nooks are close to 1:24, more like 1:23 scale, which means we can find designs or buy items at that scale for our nook.

Image reference link

# BOX TEMPLATES

Many users of the laser cutters use box making programs that are free and available online.

Examples include:
https://www.festi.info/boxes.py/
https://www.makercase.com/#/
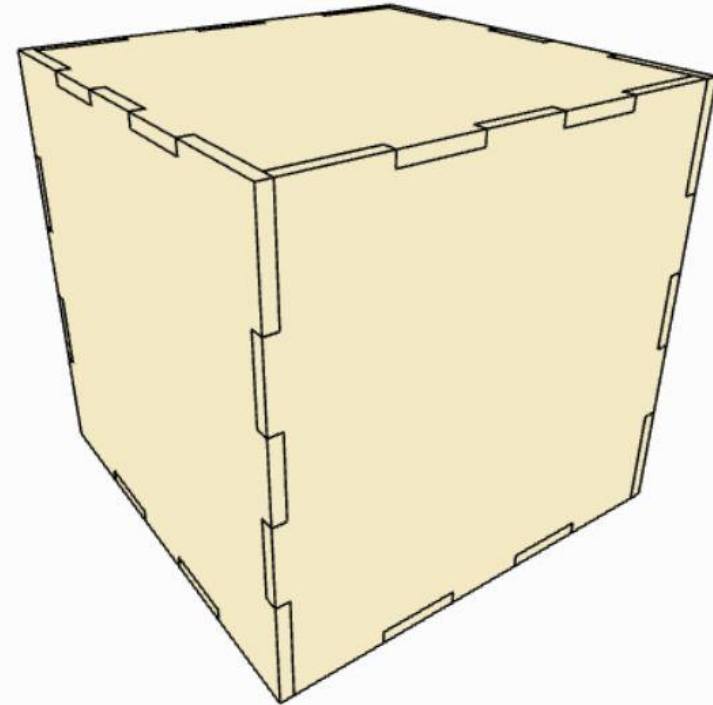
# TRAY LAYOUT TEMPLATE

We will use the tray layout template on Boxes.py and update the dimensions for the base of our design, including the material thickness, finger joints and burn (tightness of joints).
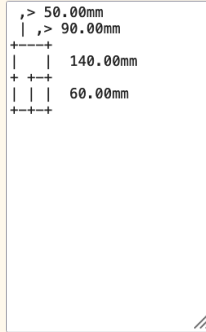
Tray layout template
https://www.festi.info/boxes.py/TrayLayout?language=en

# THE BASICS
# OF VECTOR DESIGN

$\longrightarrow$
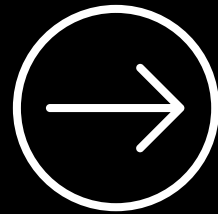
Inkscape 101

# INKSCAPE TIPS
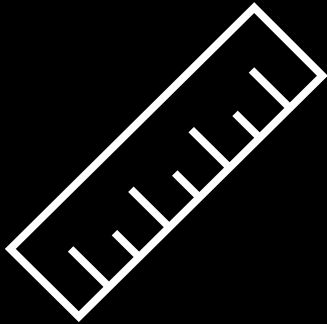
- Most important - check the size of your document and make sure you are working in A2 landscape and millimeters (add a scale mark to your file)

- Remember to group and ungroup as needed

- Keeping your 'parts' assigned to different layers can help

- Naming your layers will help keep you organised

# NOOK DESIGN TEMPLATES

We provide you with a pre-cut design for your nook in 2 basic versions, one with pitched roof, one flat. If you feel you have the skills and ambition to alter the base design completely, that's up to you however you may need to come to The Edge outside of the workshop sessions to test cutting after you complete the laser induction. Staff are here to help during Open lab.
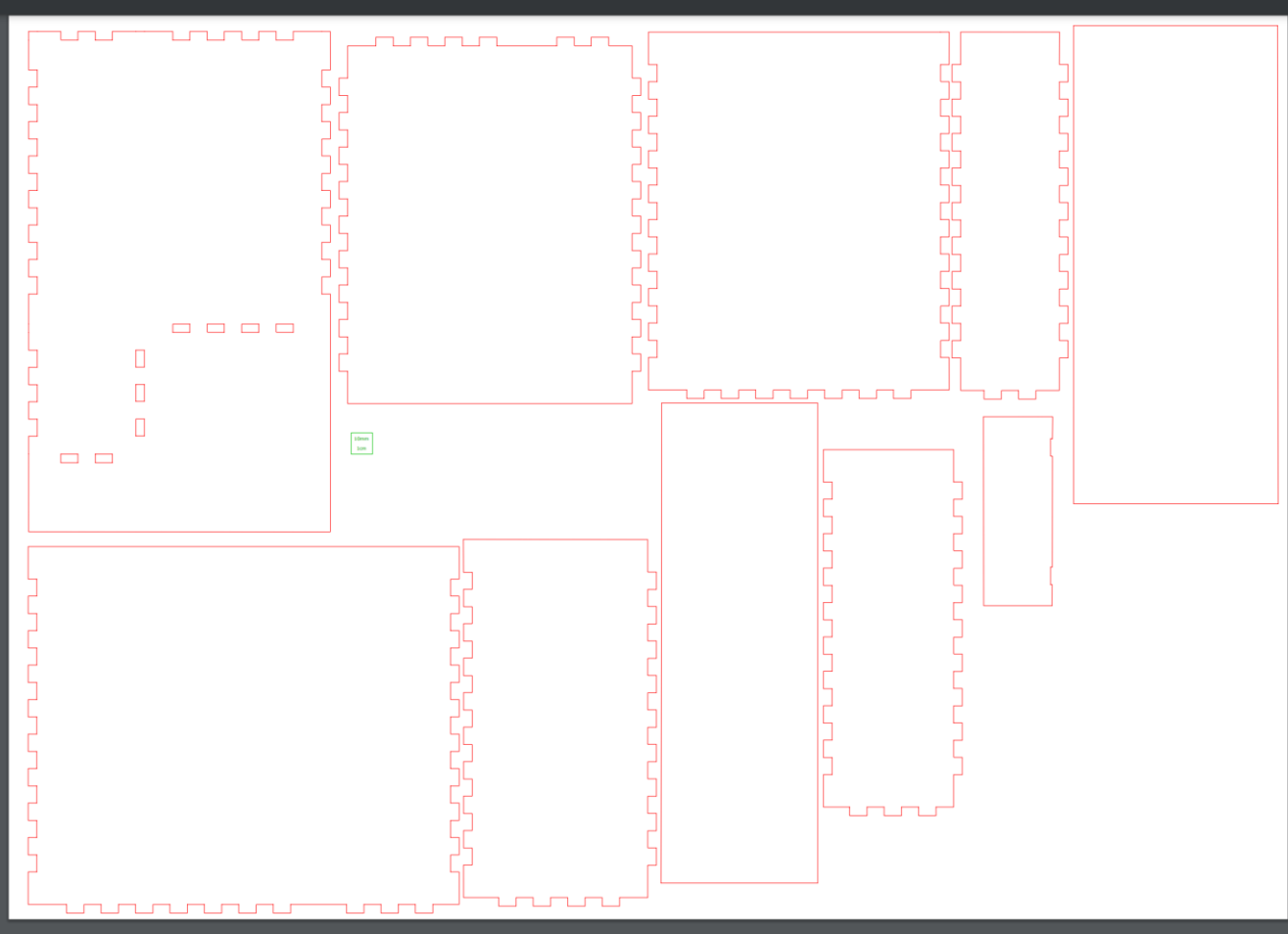
# EDITING OUR BASE TEMPLATE

- You will need to add windows and door to the base template, we can do this with the basic shapes tool in Inkscape. Be aware you will have to move the finger joint slots and pieces for the doorway.

- You might also want to add some engraving features to your pieces, such as wood paneling, brick or stonework. You can trace and create a pattern or use photos and the Path tools to help you place these on the walls you want textured.

- Join the two roof pieces if you would like one flat piece.

- Update your door with cut out panels and just remember to cut it on the thinner wood material and use the 'glass' to make a layered door.
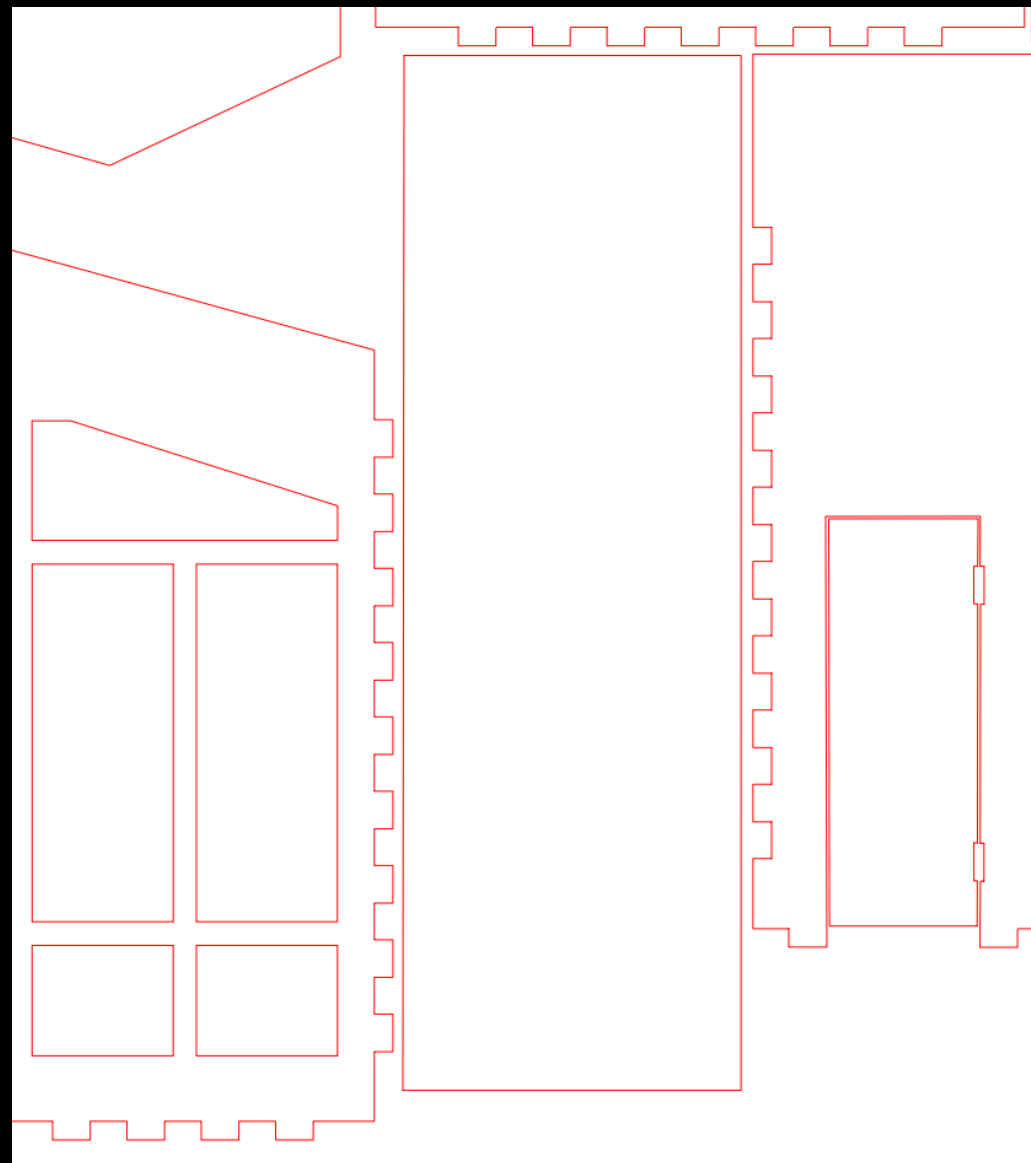
# CREATING VECTORS

We're going to use the screenshot of an image of some stonework and use the Inkscape Pen tool to trace and create an editable pattern texture we can use for our walls.

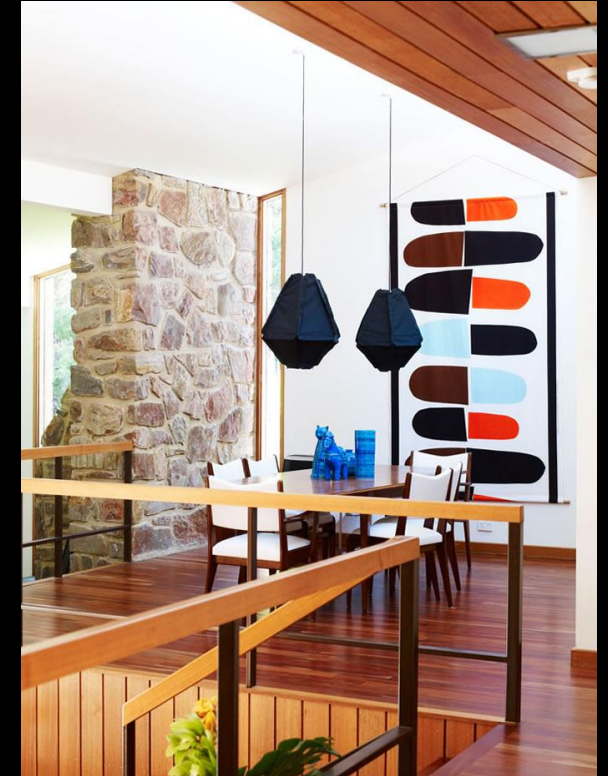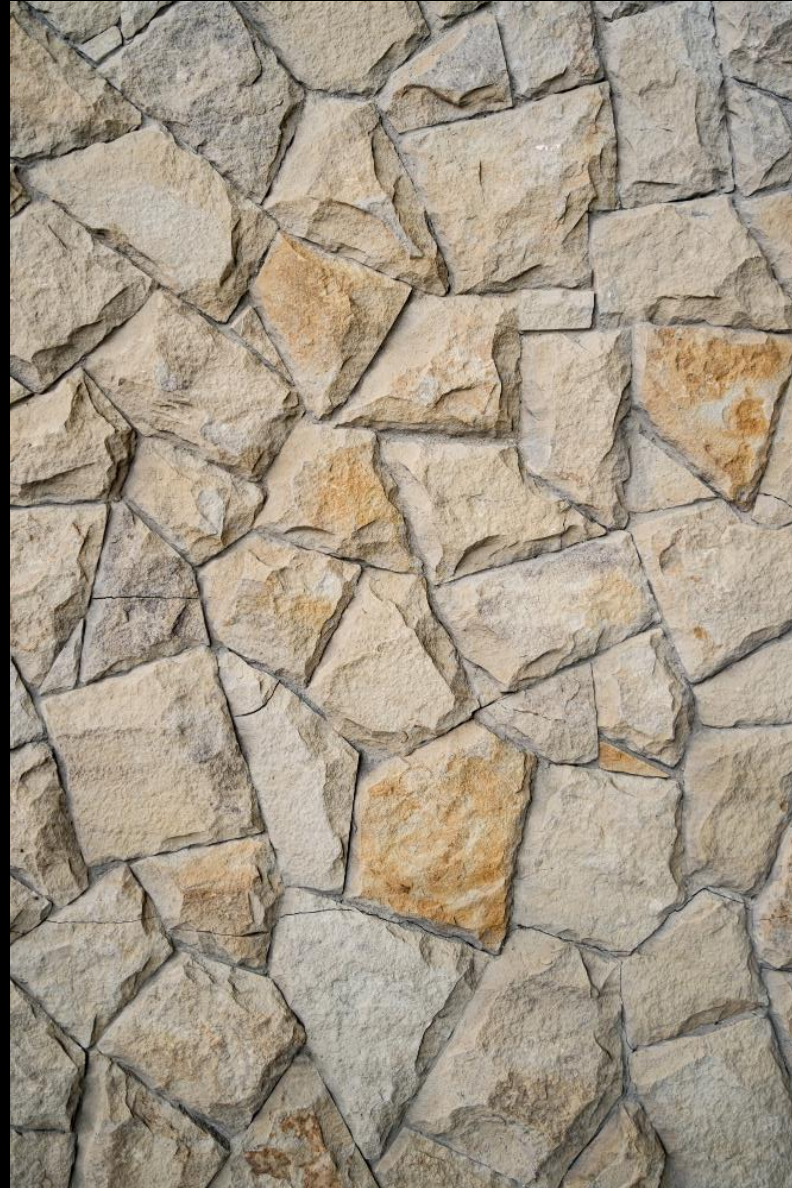We grabbed a stonework texture from Freepix.

# PHOTO TEXTURES

We're going to use the same screenshot image, but this time show you how to use set Clip option to fit it to a shape. We've also created more contrast in out photo for better engraving.

# FREE VECTORS

Here's a list of links to some places you can find free laser cut vector files, SVGs, DXF, AI or PDFs are most used in the lab.

Be aware of what material size the files was potentially designed for as you may have to make changes for what you want to cut with.
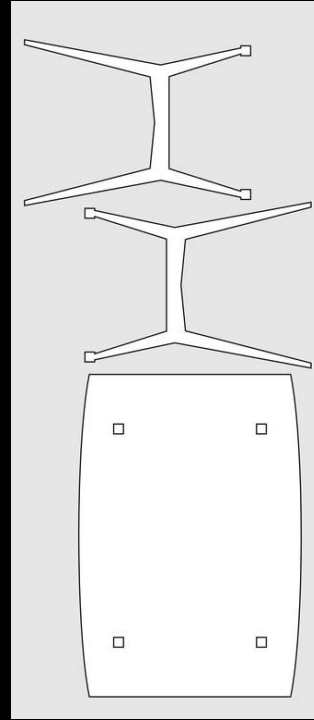
3Axis

Vectors Art

Vectors File

Thingiverse

And maybe a few 3D prints to get the organic shapes;

Cults3D

Tinkercad

# HOMEWORK

Download Inkscape and practice! Take your files home or grab them from the wiki and have a play around.

Next session we'll undertake a laser induction and you can test cut any of the files you create.

# SESSION TWO



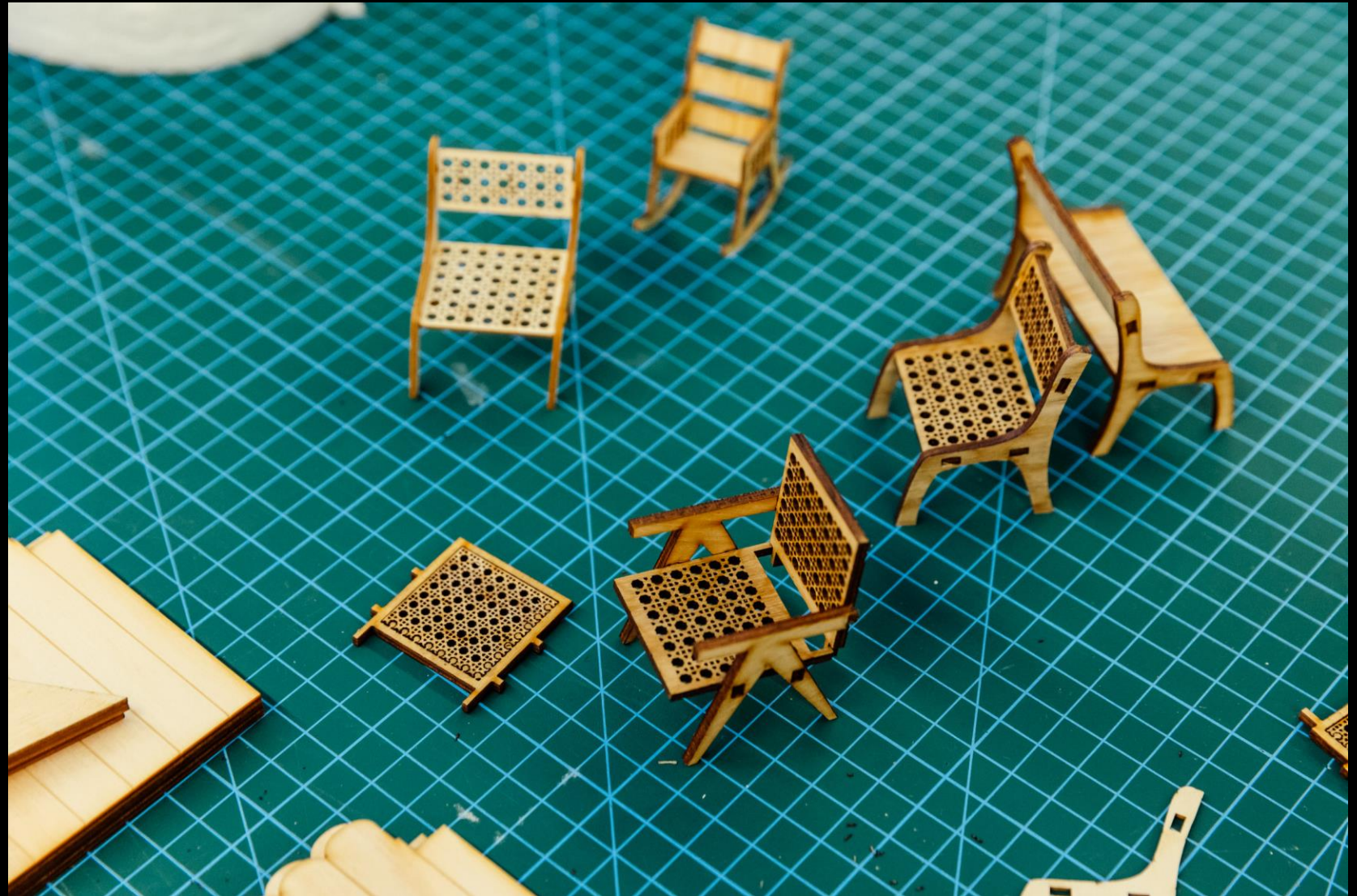## Session Overview

### *Welcome*

- Discuss where participants are at in terms of any design work and support required
- Provide participants with any precut pieces
- Laser cutter induction - 1.5 hour
- Research and design time - prep files, or work on refine any designs for cutting and laser as required after induction completed
- Referencing and choosing paint colours

### *End goals of session*

- Completed a laser induction with the ability to book and use the lasers at The Edge
- Laser cut your own prepared file
- Started to think about colour and painting your pieces

# FURNISHINGS

Take a look at some of the design files we've already created for inspo and of course the Pinterest board!

# SESSION THREE



## Session Overview

*Welcome*

*Overview of workshop*
- Laser cutting
- Prepping and painting

*End goals of session*
- Have all your components cut
- Colours decided and painting underway, designed some furniture and accessories

# SESSION FOUR



## Session Overview

### *Welcome*

### *Overview of workshop*
- Painting
- Assembly
- All finishings

### *End goals of session*
- Your Queenslander book nook finished!
- Some furniture and accessories assembled for the nook
- 3D printer induction if time permits

# THANKS FOR ATTENDING

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Please complete our survey that will be sent out via Eventbrite.

Tag us on socials @statelibraryqld

Contact us on appliedcreativity@slq.qld.gov.au

slq.qld.gov.au