



# **Laser Cut, Hand-Bound Books: Crafting the Grampus' Treasured Tomes**

**SLQ Wiki Fabrication Lab 2026/02/28 17:41**

# Laser Cut, Hand-Bound Books: Crafting the Grampus' Treasured Tomes

~~HERO-SUBTITLE Combining Digital Fabrication with Traditional Handcrafts~~



## Acknowledgement

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.

Target Audience: Adult members of the public (16+)

Cadence: 4 sessions, fortnightly

Capacity: 10 persons per cohort

Context: [Grampus 2021](#)

# About

*The master of the Great and Grand Rumpus is calling for artisans and tech-smiths alike to bind the whisperings of the world of the GRUMPUS into vivacious and venerable volumes to fill his library....*

Throughout this workshop series you will take the stories produced by the world-writing workshops and bind them into a beautiful book to display as part of the Great and Grand Rumpus exhibition in the State Library Gallery later in the year.

To craft these creative chronicles we will be combining the traditional handcraft of book binding with the contemporary skills of digital fabrication. Along the way you will learn how to:

- Design a cover in Inkscape (vector graphics software)
- Cut and etch that design on our laser cutter (including a laser cutter induction)
- Sew up a text block from loose leaves of paper (the stories) using traditional materials and methods
- Turn our laser-cut pieces into a cover and complete our books.

We're also blessed to have a member of the library's Preservations Team co-facilitating this workshop series, and there will be an opportunity to visit their workshop here at the library in a bonus daytime session midway through the workshop series. There you will get a rare glimpse at the place where some of the real magic of the State Library happens, learn how real book binders carry out their works and see their super fancy guillotine as we trim up our books.

There are no special skills required, and bring your creativity, ideas and enthusiasm to each of the 4 fortnightly workshops starting Tuesday the 7th September to bring the book to life! You must be at least 16 years old to participate in this workshop.

As with all our workshops we will also be releasing the workshop structure for free via our wiki (where the outline is being drafted currently) so that if you want to run a similar workshop in your spaces after we have run ours, you have a head start with all our resources!

## Session 1

# Session 1

Design & Inkscape

## Setup

## Tools & Materials

Per participant:

- Sample inkscape file + cut demo from laser for reference
- Template for covers file (outline on base layer, include good image for live trace) on laptops have layer 2 active.
- Laptop +power supply
- Inkscape installed (all on same version)
- Internet connection

## Prep

Set up demo cut on laser cutter

Send email to participants:

Hi!  
My name is Billie, and together with Shane from the Conservation team we will be facilitating The Bookbinding workshops you've signed up for over the next few weeks.  
I'm very excited to meet you!

A couple of notes for the first session:  
We will be doing a lot of work on the computer in a software called Inkscape.  
You're encouraged to bring in your own laptop to work on, just be sure to bring a mouse, and have the software pre-installed, it can be downloaded here: <https://inkscape.org/release/inkscape-1.1/>  
We do have some laptops here too if you would like to borrow one for the session, please bring a usb memory stick to take your file home with you if you will be using our laptops.

As you may have gleaned, these books will become part of the GRUMPUS.  
As our session time is pretty limited, please have a read about the GRUMPUS before you come, on this webpage:  
<https://wiki.slq.qld.gov.au/doku.php?id=engagement:grumpus:start>

Your covers will take inspiration from "The Well" (a collection of art from children) which you can view here if you'd like to start gathering ideas before the workshop:  
<https://wiki.slq.qld.gov.au/doku.php?id=engagement:grumpus:grumpuslandonline:rrldev:thewellhome>

Again, can't wait for these workshops! I'm really excited.  
See you on Tuesday at 6pm at the Edge Fabrication Lab.

Let me know if you have any questions, queries, comments or concerns.  
Thanks!

Galang nguruindhau (g'day in Turrbal)

## Help

## Cutting Template



## Inkscape Help



### Inkscape Help

Inkscape can be tricky to start with but there is loads of info available to you! You can check out our wiki pages, both are full of guides, help and info: [Inkscape wiki page](#) [Vector Graphics wiki page](#) Or check out Inkscape's own resources; [guides](#) [community](#) Remember too, the power of google! Inkscape is very popular software and if you're asking how to do something, chances are someone else has before too.

I've also made some videos specific to the kinds of things we're doing in this session below ↓

## Videos

Video	Transcript
<a href="#">inkscape_addandmoveshapes2.mp4</a>	<p>Adding simple shapes often makes up the foundation of a graphic.</p> <p>To start, click on the rectangle tool on the left hand bar, then click and drag it to make a rectangle on your screen.</p> <p>You can hold down ctrl key and drag at roughly a 45* angle from your start point to force the rectangle to be a square.</p> <p>Similar with the oval tool, you can hold down control to force it to be a circle.</p> <p>You can also make pac-man shapes by changing the start and end degrees of a circle.</p> <p>Holding down control while using the polygon tool []snaps the corner you're drawing out []to an angle increment of 15 degrees, Which allows you to snap things to be vertical or horizontal. You can also change the number of corners of a polygon using this box.</p> <p>Once you have a shape you can move it by clicking the select icon and then clicking and dragging the object, and releasing it when you have it in a spot you like.</p> <p>When moving you can snap corners to other corners by hovering them near each other until this "corner to corner" tooltip appears.</p> <p>We can also resize our object using these arrows.... and we can click on the object again to bring up rotate... and skew tools.</p> <p>To de-select an object click somewhere that's blank on the canvas.</p>




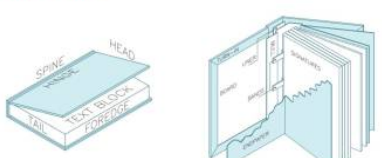
Video	Transcript
<p><a href="#">inkscape_custom_shapes2.mp4</a></p>	<p>Sometimes you want a graphic you can't find, and thankfully Inkscape offers a few ways to make your own.</p> <p>The simplest way is by using multiple primitive shapes to create more complex new ones, which you can do via various options listed under the Path menu</p> <p>You can combine shapes using union</p> <p>You can cut one shape from the another by selecting the one you want to keep, then shift-clicking the one you want to remove and using difference</p> <p>You can keep just the area that two shapes overlap using intersection</p> <p>Or just the bits they don't overlap using exclusion</p> <p>You can also use one shape to cut parts of another shape</p> <p>So you can more or recolour segments of it using division.</p> <p>You can combine these methods to build up some pretty complex forms, but if you want even more flexibility it's time to look at Bezier curves.</p> <p>With this tool you can draw straight lines by left clicking to form your first point, then clicking again to form your first line, and again to form another, connected line.</p> <p>You can also make curves by clicking and dragging a new point, then releasing your mouse when you like the curve.</p> <p>And you can close a shape by clicking the first point once more.</p> <p>You can also edit your shape using the node edit tool.</p> <p>We can now click on these points and move their handles.</p> <p>You'll notice we can now move one handle to be long and one short, which allows us to further refine our shapes.</p> <p>But say we have a curve here but we want a corner.</p> <p>We can change it using this button. I can now drag this handle to make a corner.</p> <p>Similarly we can convert corners to straights again using this option, or to equal straight using this one.</p> <p>If you have a hand drawn picture you can scan that in and import it, then trace over it with a Bezier curve to make your graphic.</p> <p>That can be a good way to get a feel for things when you're just starting out wit Bezier curves.</p>


Video	Transcript
<p><a href="#">inkscape_colourandstyle2.mp4</a></p>	<p>Sometimes you want a graphic you can't find, and thankfully Inkscape offers a few ways to make your own.</p> <p>The simplest way is by using multiple primitive shapes to create more complex new ones, which you can do via various options listed under the Path menu</p> <p>You can combine shapes using union</p> <p>You can cut one shape from the another by selecting the one you want to keep, then shift-clicking the one you want to remove and using difference</p> <p>You can keep just the area that two shapes overlap using intersection</p> <p>Or just the bits they don't overlap using exclusTo change the colour of a selected object we can click on a pre determined colour from this palette at the bottom of the screen</p> <p>but if we want to choose a colour that isn't listed here, we need to open the fill and stroke tool from the object menu.</p> <p>The fill is the main colour of the shape. To change it click on the flat colour icon, and change the colour mode to Wheel. from here we can change the colour by clicking and dragging the little bar on the rainbow ring, and the circle within the triangle.</p> <p>We can also make the colour transparent using this alpha bar.</p> <p>If we want to give our object a gradient, we can do so using the linear gradient icon.</p> <p>We can also edit the gradient by clicking on this icon. From here we can change a colour in our gradient by clicking on the point and changing it using the wheel or a swatch.</p> <p>We can add more colours to our gradient by double clicking anywhere on the gradient line and editing that dot lie we did the beginning and end dots.</p> <p>We can also change the direction of the gradient by clicking and dragging these points at the end of the line</p> <p>When we are happy with our gradient click off our object to set it.</p> <p>We can add boarders to our objects. These are called Strokes. To add one, select your object</p> <p>Then head to the Stroke Paint menu and click the Flat colour icon. You can pick a colour for it here.</p> <p>You can change various aspects of the line in the stroke style menu, like the width... dashes.... and corner type.</p> <p>This allows you to really make objects look and feel your own.</p>




Video	Transcript
<p><a href="#">inkscape_bitmap_trace.mp4</a></p>	<p>Converting pixel-based images to vectors</p> <p>While you can manually trace a bitmap image in inkscape to make a vector file, for complex images it can be very time consuming!</p> <p>This is where Inkscape's "Trace Bitmap" function comes in. It allows you to take a bitmap image and will attempt to convert it to a vector for you through various methods.</p> <p>Brightness cutoff, tries to separate the image into black and white. This method is really good for images that already look a bit like stencils. click update to see a preview. Threshold changes the midpoint, or the point where it splits black and white, fiddle with it to capture the right amount of detail.</p> <p>Colours tries to separate an image into the colours it's composed of. Good images already look like paper cutouts, or logos, with several distinct colours. You can specify the amount of colours it looks for by changing this setting. results may vary as computers interpret colour differences differently to humans, and sometimes it's easier to use brightness cutoff to split your image into parts and add colour after the fact.</p> <p>Centre line new feature, aims to reproduce your drawing with single lines, try it with very simple lines as complex ones are likely to crash.</p> <p>What If/Next: No matter the mode you're using playing with speckles, smooth corners, optimise can help further refine results. These changes won't show in preview, so Click apply to see the results. you may wish to make some changes and try again.</p> <p>You may also wish to edit small parts of your traced image after its made, or if you can't get the results you are after, you can go back to manually tracing images, check the end of the 'custom shapes' video to learn more.</p>


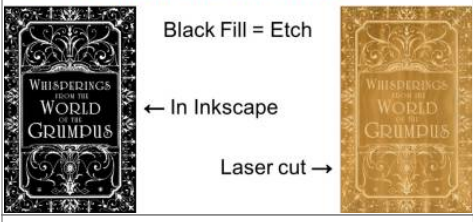


**Slides**

	<p>Before session:                      Email participants:                      Can bring own laptop, install inkscape (link to),                      bring mouse with scroll wheel that can be clicked in!!! (else have laptops here)                      Bring USB to transfer files home                      Divvy up books between participants, give them links                      Finalise webpage including videos of inkscape                      Set up laser with demo cut</p> <p>Materials:                      Per participant:                      Sample inkscape file + cut demo from laser for reference                      Template for covers file (outline on base layer,                      include good image for live trace) on laptops have layer 2 active.                      Laptop +power supply                      Inkscape installed (all on same version)                      Internet connection</p>
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<p><b>Acknowledgement of Country</b></p>	
<p><b>Intros!</b></p>	<p>Billie = Not a bookbinder, just an overly enthusiastic maker, background in theatrical costume making and 3D printing, facilitator here at Fabrication Lab Shane = Conservation Team = real book binder! :D</p>
<p><b>Why did you sign up?</b></p> <p>Why do you want to make a book? What do you hope to get out of these sessions?</p>	
<p><b>GRUMPUS</b></p> <p>What do you know already?</p>	
<p><b>The Great and Grand Rumpus</b></p> <ul style="list-style-type: none"> <li>• Ideas from children put into 'The Well'</li> <li>• Artists, designers, people like you bring to life in interactive exhibition in Library Gallery later in year</li> <li>• These books will be exhibited there</li> <li>• Books will contain printed copies of the art from <a href="#">The Well</a></li> <li>• Our covers will be inspired by the art in The Well</li> </ul>	<p>About Grampus: <a href="https://wiki.slq.qld.gov.au/doku.php?id=engagement:grampus:start">https://wiki.slq.qld.gov.au/doku.php?id=engagement:grampus:start</a></p> <p>The Well: <a href="https://wiki.slq.qld.gov.au/doku.php?id=engagement:grampus:grampuslandonline:rrldev:thewellhome">https://wiki.slq.qld.gov.au/doku.php?id=engagement:grampus:grampuslandonline:rrldev:thewellhome</a></p>
<p><b>Our books</b></p> 	<p>Demo pieces Laser cut plywood cover, painted and metal leafed, traditionally bound rest Headband &amp; ribbon Show inner workings at back page, talk about gluing</p> <p>We're starting on covers today</p>
<p><b>Course Overview</b></p> <ol style="list-style-type: none"> <li>1. Cover Design: Inkscape</li> <li>2. Making the text block: fold, sew, glue             <ul style="list-style-type: none"> <li>• Bonus: Water marbling end papers</li> </ul> </li> <li>3. Laser cutting induction             <ul style="list-style-type: none"> <li>• Bonus: Conservation Tour + Guillotine</li> <li>• Bonus: Cutting, painting, metal leafing covers</li> </ul> </li> <li>4. Putting it all together</li> </ol>	

<p><b>Why laser cut a book cover?</b></p> 	<p>Allows us to make intricate things oncemore, as a lot of the fine work in many handcrafts have been pushed out by mass manufacturing due to time/labour costs involved in hand making something like this. Very customisable, don't need to make a big brass stamp for each book cover, or lots of little ones, manually carve something like this. Also very repeatable! Can expect the same results from the same file. Opens it up to people who haven't got the dexterity or practice, as this is very accurate, and being able to design it first digitally is a lot more forgiving than hand carving something!</p>
<p><b>Laser cutting demo &amp; overview</b></p> <ul style="list-style-type: none"> <li>• Demo</li> <li>• Induction in session 3</li> </ul>	
<p><b>Bitmap vs Vector Graphics</b></p> 	<p>bitmap = pixels (like photo) = bad vector = lines made of maths infinitely zoom in and will always be crisp Because they are just maths, they are very easily read by laser cutter We don't need to know maths! Special software allows us to make it. Inkscape is one such example.</p> <p>Most digital images we use day to day (such as JPEGs, GIFs and PNGs) are called bitmaps, they are made up of thousands of little blocks of colour called pixels. These are great for photos but they don't provide enough information for a lot of digital fabrication technologies (such as CNC routers and laser cutters). They also can't be made larger without the image "pixelising" and looking ugly, so bitmaps are not well suited to various graphic design applications like logos.</p> <p>This is where vector images excel. Vectors are essentially lines made of maths, so you can zoom in and out infinitely without the image blurring, and they are much easier for machine software to interpret. Thankfully, we don't need to program the maths these lines are made of, we have software that will work all that out for us, and they are able to save the images out in various vector formats, some of the most common being SVG and DFX, though PDFs can also contain vectors (but it gets confusing because they can also contain other things like bitmaps!).</p>
<p><b>Inkscape (vector software)</b></p> <ul style="list-style-type: none"> <li>• Free &amp; Open source</li> <li>• Download online for free <a href="https://inkscape.org">inkscape.org</a></li> <li>• Let's get started!</li> </ul>	<p>Because open source, plugins for all kinds of things.</p> <p>Download Inkscape at home here for free: <a href="https://inkscape.org/">https://inkscape.org/</a></p>
<p><b>Open Inkscape</b></p> <ul style="list-style-type: none"> <li>• From taskbar at bottom of screen</li> <li>• Looks like a little snow-capped mountain</li> </ul> 	
<p><b>Open Template</b></p> <ol style="list-style-type: none"> <li>1. File &gt; open</li> <li>2. Navigate to template on desktop</li> <li>3. Click [Open]</li> </ol> 	

<p><b>Adding shapes</b></p> <ul style="list-style-type: none"> <li>• Adding rectangles</li> <li>• Adding squares</li> <li>• Ellipses</li> <li>• Circles</li> </ul> 	
<p><b>Navigation</b></p> <p><b>Moving around</b></p> <ul style="list-style-type: none"> <li>• Click in mouse wheel + move mouse</li> </ul> <p><b>Zooming in and out</b></p> <ul style="list-style-type: none"> <li>• Ctrl + scroll wheel</li> </ul>	
<p><b>Selecting things</b></p> <ol style="list-style-type: none"> <li>1. Click black mouse icon on tool bar at left</li> <li>2. Then click on the thing you want to move The little black arrows show you've selected it.</li> <li>3. Click the white space to de-select</li> </ol>	
<p><b>Moving things</b></p>  <ol style="list-style-type: none"> <li>1. Click black mouse icon on tool bar at left</li> <li>2. Then click and drag the thing you want to move.</li> <li>3. Let go when it's in the right place.</li> <li>4. Click the white space to de-select it.</li> </ol>	
<p><b>Rotating Things</b></p>  <ol style="list-style-type: none"> <li>1. Click black mouse icon on tool bar at left</li> <li>2. Click on the thing you want to rotate.</li> <li>3. Wait a second.</li> <li>4. Click again on the thing you want to rotate and the arrows on the outside of the object will change.</li> <li>5. Click and drag one of the corner arrows to rotate the object.</li> </ol>	
<p><b>Adding text</b></p> <ul style="list-style-type: none"> <li>• Text tool</li> <li>• Resizing:             <ul style="list-style-type: none"> <li>• Overall</li> <li>• Text box</li> </ul> </li> </ul>	
<p><b>Custom Shapes: Pen Tool</b></p>  <ul style="list-style-type: none"> <li>• Adding points</li> <li>• Dragging points</li> <li>• Dragging lines</li> <li>• Corners vs smooth</li> <li>• Adding points</li> <li>• Deleting points</li> </ul> <p>Practice makes perfect!</p>	<p>Don't worry if it's a bit uncomfy now! You will get makes the hang of it in no time.</p>

<p><b>Live Trace</b></p> <ul style="list-style-type: none"> <li>• Choosing (or making!) a good image:             <ul style="list-style-type: none"> <li>• “Stencil-like”</li> <li>• No thin lines</li> <li>• High contrast</li> </ul> </li> </ul>	
<p><b>Live Trace</b></p> <ul style="list-style-type: none"> <li>• How to</li> </ul>	 <p>Inserting image Video on wiki</p>
<p><b>Saving</b></p> <ul style="list-style-type: none"> <li>• Inkscape SVG –for editing</li> <li>• PDF – for cutting on laser</li> </ul> <p><b>!!! SAVE TO YOUR USB !!!</b></p>	
<p><b>Laser colours and meanings</b></p> 	
<p><b>Changing Colours</b></p> <ul style="list-style-type: none"> <li>• Fill using palette</li> </ul>	
<p><b>Colours after cutting</b></p> <ul style="list-style-type: none"> <li>• Painting (bonus sesh)</li> <li>• Gold/Silver/Copper leaf</li> <li>• Headband</li> <li>• Ribbon</li> <li>• Bookcloth</li> </ul>	 <p>Can bring your own ribbon (60cm) or acrylic paint if you wish.</p>
<p><b>Creativity</b></p> <p>Creativity is not about coming up with totally new ideas from nothing. It's about mashing knowledge together to form something new</p> <p>More knowledge= more creativity, gather!</p>	

<p><b>Inspiration</b></p> <ul style="list-style-type: none"> <li>• Primarily: The Well</li> <li>• Also: Old book covers/ illustrations via pinterest, Archive.org, PublicDomainReview.org, googling, etc</li> </ul> <p>It's about the concept, not a literal interpretation</p>	<p>The Well:  <a href="https://wiki.slq.qld.gov.au/doku.php?id=engagement:grumpus:grumpuslandonline:rrldev:thewellhome">https://wiki.slq.qld.gov.au/doku.php?id=engagement:grumpus:grumpuslandonline:rrldev:thewellhome</a></p> <p>The aim isn't to reproduce the children's art in laser form, but to make something inspired by it.</p>
<p><b>Copyright</b></p> <ul style="list-style-type: none"> <li>• Art from well all ok,</li> <li>• Your own drawings all ok (inspired by The Well)</li> <li>• Good sources of free images on wiki like archive.org (just check licences)</li> <li>• Fonts: check the licenses</li> </ul>	<p><a href="https://archive.org/details/StencilCatalogsCutStencilsForTheUseOfPracticalMen/page/n51/mode/2up?view=theater">https://archive.org/details/StencilCatalogsCutStencilsForTheUseOfPracticalMen/page/n51/mode/2up?view=theater</a>  <a href="https://archive.org/details/ExcelsiorFrescoStencils/page/n43/mode/2up">https://archive.org/details/ExcelsiorFrescoStencils/page/n43/mode/2up</a>  <a href="https://archive.org/details/250stencildesign00kpra/page/30/mode/2up">https://archive.org/details/250stencildesign00kpra/page/30/mode/2up</a>  <a href="https://www.pinterest.com.au/billieruben8695/book-covers/">https://www.pinterest.com.au/billieruben8695/book-covers/</a>  <a href="https://publicdomainreview.org/">https://publicdomainreview.org/</a></p>
<p><b>Coming up</b></p> <ol style="list-style-type: none"> <li>1. Cover Design: Inkscape</li> <li>2. Making the text block: fold, sew, glue (21<sup>st</sup> Sept) <ul style="list-style-type: none"> <li>• Bonus: Water marbling end papers (23<sup>rd</sup> Sept drop in 2-8pm)</li> </ul> </li> <li>3. Laser cutting induction <ul style="list-style-type: none"> <li>• Bonus: Conservation Tour + Guillotine (TBC)</li> <li>• Bonus: Cutting, painting, metal leafing covers (book in open lab 12-6pm wed, 6-8pm thurs, 12-6 sat)</li> </ul> </li> <li>4. Putting it all together!</li> </ol>	<p>Next fortnight we will be sewing and gluing our text together!</p>
<p><b>Homework</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Read a bit about the <a href="#">GRUMPUS</a></li> <li><input type="checkbox"/> Gather inspiration from <a href="#">The Well</a></li> <li><input type="checkbox"/> Draft cover for next session in a fortnight on template! Email Inkscape (SVG) files to me to me by Monday 20<sup>th</sup> Sep <a href="mailto:billie.ruben@slq.qld.gov.au">billie.ruben@slq.qld.gov.au</a></li> </ul>	<p>Template above</p> <p>Download Inkscape at home here for free: <a href="https://inkscape.org/">https://inkscape.org/</a>  If you don't have a computer at home you can come in and work on it here during open lab times</p> <p>GRUMPUS:  <a href="https://wiki.slq.qld.gov.au/doku.php?id=engagement:grumpus:start">https://wiki.slq.qld.gov.au/doku.php?id=engagement:grumpus:start</a></p> <p>THE WELL:  <a href="https://wiki.slq.qld.gov.au/doku.php?id=engagement:grumpus:grumpuslandonline:rrldev:thewellhome">https://wiki.slq.qld.gov.au/doku.php?id=engagement:grumpus:grumpuslandonline:rrldev:thewellhome</a></p> <p>Draft cover for next session in a fortnight on template!  Email Inkscape (SVG) files to me to me by Monday 20th Sep <a href="mailto:billie.ruben@slq.qld.gov.au">billie.ruben@slq.qld.gov.au</a></p>
<p><b>Help</b></p> <ul style="list-style-type: none"> <li>• Wiki page for <a href="#">this course</a> loads of notes, links and Inkscape videos!!</li> <li>• Wiki page for <a href="#">Inkscape</a></li> <li>• Open Lab Help: Wed 12-6pm, Thurs 12-8pm, Sat 12-6pm</li> <li>• Google</li> </ul>	<p>Wiki page for this course:  <a href="https://wiki.slq.qld.gov.au/doku.php?id=workshops:prototypes:laser_cut_books&amp;s[]=bookbinding">https://wiki.slq.qld.gov.au/doku.php?id=workshops:prototypes:laser_cut_books&amp;s[]=bookbinding</a></p> <p>Wiki page for Inkscape:  <a href="https://wiki.slq.qld.gov.au/doku.php?id=facilities:fablab:software:inkscape">https://wiki.slq.qld.gov.au/doku.php?id=facilities:fablab:software:inkscape</a></p>

## Session 2

# Session 2

Sewing Our Text Blocks



## Setup

### Tools & Materials

#### Prep

Before session:

Email participants after first session with homework

- Have the books printed (5 sheets per signature, grain line running along short edge,
- Have end papers printed
- Finalise sewing video
- Gather materials:
- Bone folder each
- Brayer each
- Awl each

[awl\\_3d\\_printable.zip](#)

- Punching template each
- Printed pages each
- Scissors each
- Sewing needle each (blunt thin good, can sand down tip)
- Waxed linen or polyester thread each (enough to weave back and forward between all signatures)
- Single ply cardboard each (for under punching)
- Tapes each

## Help

### Slides

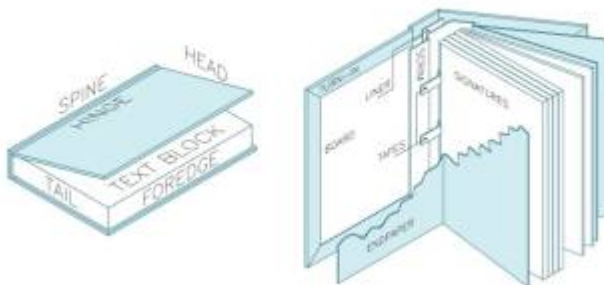


## Grampus: What has come before

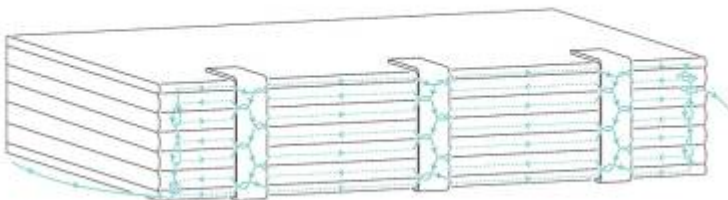
- The story thus far

## Drafts Review

## Overview book construction



## Sewing our text block



## Fold signatures

- The amount of sheets per signature is VERY IMPORTANT: 5 else the pages will be out of order.

## Folding process

- Fold in half, match edges, press down with hand at centre of edge to secure.
- Sweep bone folder from your hand to the fold then up and down the fold to crease it.

**Keep signatures  
in page order!**

## Punching Holes

- Awl made from 3D printer and tapestry needle
- Punching template from laser cutter

## Punching Holes

- Work over something with some give, thin cardboard good
- Hook template at top of signature
- Aim for centre of crease

**Keep signatures  
in page order!**

## Sewing

- Video of this on wiki to refer to at home!

## 1<sup>st</sup> signature

- Always pull in the direction you're sewing (parallel to spine) to prevent tearing
- Ensure you are catching all pages in the signature

### 1<sup>st</sup> Signature

- Place first page down on edge of desk
- Enter first hole from outside of signature, and weave needle back and forth through the holes until you get to the far end.



### 1<sup>st</sup> Signature

- Poke tapes under loops of thread on outside
- Firm up thread



### 2<sup>nd</sup> Signature

- Place second signature on top of first, matching page numbers



### 2<sup>nd</sup> Signature

- Enter the first hole directly above where your needle came out of last.
- Bring your needle out through the 2<sup>nd</sup> hole (next to the first tape)



## 2<sup>nd</sup> Signature

- Loop your needle under that first loop over the tape
- This adds a twist between the signatures, helping to keep them together.



## 2<sup>nd</sup> Signature

- Poke your needle back into the signature at the other side of the tape
- And back out at the next tape.



## 2<sup>nd</sup> Signature

- Repeat the twisting as on the previous tape.



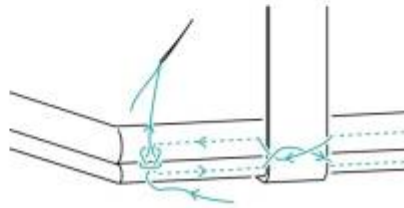
## 2<sup>nd</sup> Signature

- Do this for all the tapes and bring your thread out at the other end of the signature



## 2<sup>nd</sup> Signature

- Tie a square knot between the loose tail (from where you started sewing the first signature) and your working/needle thread



## 3<sup>rd</sup> Signature

- Place your third signature on top (match page numbers)
- Enter the first hole on the third signature and come out before the first tape



## 3<sup>rd</sup> Signature

- Slip your needle under the second stitch on the tape (not the first too)
- Continue in this manner until you reach the end.



## 3<sup>rd</sup> Signature

- To secure your third signature to the bundle, slip your needle between the 1<sup>st</sup> & 2<sup>nd</sup> signatures



### 3<sup>rd</sup> Signature

- Pull your thread most of the way through, leaving a loop.
- Then pass your needle through the loop formed.



### 4<sup>th</sup> (and rest of) signatures

- Place your signature on top
- Sew the signature as per the previous, picking up the twists from the previous signature as you pass the tapes.
- At the end repeat the looping but now between the 2<sup>nd</sup> & 3<sup>rd</sup> signatures (always the two previous ones)

**Keep signatures  
in page order!**

### At the very end

- To knot the thread at the end, pass the needle between the two prior signatures, and then through the loop formed
- Repeat this process again (forming two knots)
- Leave a long tail, to glue down later



## Homework

- Finish sewing, bring next session!
- Final cover art to me by this weekend!!
- Marbling session this Thursday from 2-7:30pm!

## Help

- Sewing video and diagram on wiki \*\*\* link
- Open Lab times

## Coming up

- ~~1. Cover Design: Inkscape~~
2. Making the text block: fold, sew(21<sup>st</sup> Sept)
  - Bonus: Water marbling end papers (23<sup>rd</sup> Sept drop in 2-8pm)
3. Laser cutting induction, gluing text blocks
  - Bonus: Conservation Tour + Guillotine (TBC)
  - Bonus: Cutting, painting, metal leafing covers (book in open lab 12-6pm wed, 6-8pm thurs, 12-6 sat)
4. Putting it all together!

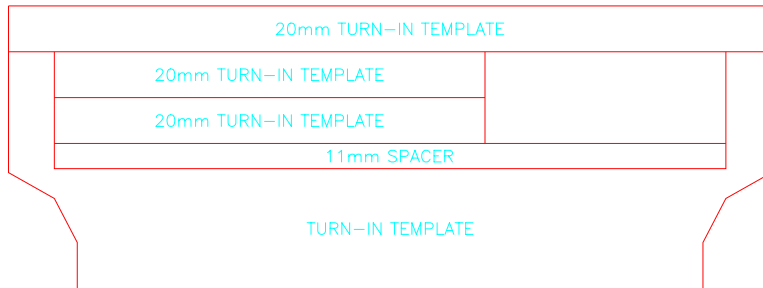
## Session 3

# Session 3

Laser Induction

## Setup

As per laser induction, except folk will cut the templates for next week:



## Tools & Materials


Manilla folders

## Prep

Before session:

- charge ipads
- set up cut files on lasers
- gather manilla folders

## Slides



**CRAFTING THE GRUMPUS' TREASURED TOMES**

Session 3

---

**Grumpus: What has come before**

- The story thus far

---

**today**

- Gluing & pressing text block
- Laser induction: online & practical
- Gluing mull

---

**Protect Pages**

- Wrap wax paper vertically around book near spine, and tuck into pages to secure, then add tape.
- This will protect the pages a bit from glue, and give us somewhere to tape our mull/tapes onto.

## Glue signatures

- Tape back tapes down onto paper
- Lay book so spine running along edge of table
- Glue: saturate tapes and work in between signatures a bit
- Place wood on top and press down. Notice tapes wrinkle.
- Remove wood, pull top tapes taught (can tape down onto wax paper too)
- Place wood back on, and use clamps/desk to apply pressure.

## Pressing text block

- Helps make it neat and firm
- Don't overdo the tightness, else spine will be squished

## Laser induction: online

**Anyone not done a general  
Induction?**

## Laser Induction: Practical

### Laser: How to book

- Anyone want to cut their cover themselves? If so, book in next week, else I will do it by next (final!) session.

### Choose your materials

- marbled papers
- headbands
- bookmark
- book cloth

### Guillotine/tour of conservation

## Homework

!!! SEND ME YOUR COVER DESIGN  
ASAP IF YOU HAVENT YET !!!

## Bonus: Tour of Conservation

- Shane will take tour through State Library's Conservation department
- See the space and equipment
- See how he trims a book on the guillotine

## Bonus: extra making

If you want to:

- Cut your own book in the laser
- Glue on your own scrim/bookmarks etc
- Paint or metal leaf your covers

Come in during open lab! Swing me an email so I can prep. Book the laser if you want to cut.

[billie.ruben@slq.qld.gov.au](mailto:billie.ruben@slq.qld.gov.au)

## Help: Open Lab Times

This Week:

- Wed 6<sup>th</sup> 12-6
- Thur 7<sup>th</sup> 12-8
- Sat 9<sup>th</sup> 12-6  
(Billie not in)

Next Week:

- Wed 13<sup>th</sup> 12-6
- Thur 14<sup>th</sup> 12-8
- Sat 16<sup>th</sup> 12-6  
(Billie in)

## Coming Up

- Photographer next sesh (let me know if you don't want your picture taken)

## Coming Up

### ~~3. Laser cutting induction, gluing text blocks (5<sup>th</sup> Oct)~~

- Bonus: Conservation Tour + Guillotine (date TBC)
- Bonus: Cutting, painting, metal leafing covers (book in open lab 12-6pm wed, 6-8pm thurs, 12-6 sat)
- Shane will trim our text blocks to size
- I will glue on the mull/scrim

### 4. Putting it all together! (19<sup>th</sup> Oct)

## Glue on headband

- Cut 2pcs to width of text block
- Glue to head and tail of spine sticking just out of the text block at each end

## Glue on mull

- Cut it to fit between the two headbands.
- Pre fold it to the right size for your book.
- Tape base onto wax paper to secure
- Add plenty of glue, dab it to saturate mull
- Tape down top onto wax paper
- Smooth with finger
- Rest wood on top (don't clamp)

## Session 4

# Session 4

Putting it all together

## Setup

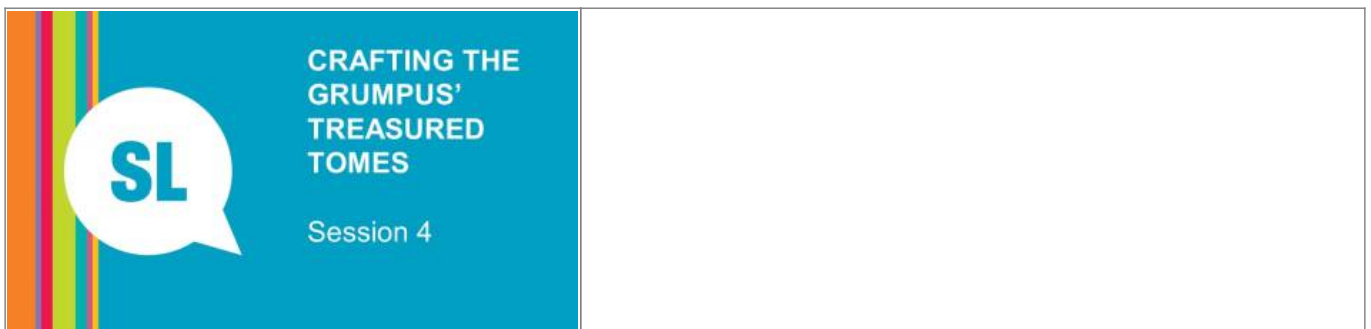
### Tools & Materials

For each participant have:

- Pens
- PVA/EVA Glue (share between pairs)
- Brushes each
- Waste paper
- Knife
- Mat
- Steel ruler
- Wood
- Clamps


### Prep

### Slides





<p><b>Photos with books!</b></p> <ul style="list-style-type: none"> <li>• Photographer in!</li> <li>• Consent forms</li> </ul>	
<p><b>Grampus: What has come before</b></p> <ul style="list-style-type: none"> <li>• The story thus far</li> </ul>	
<p><b>What we have done in the break</b></p> <ul style="list-style-type: none"> <li>• Glued spine</li> <li>• Trimmed edges on guillotine</li> <li>• Glued on mull</li> <li>• Glued headband and bookmark</li> <li>• Glued spine lining (paper)</li> </ul>	<p>Finishing Front Covers                  Painting (Acrylic)                  Gold leafing:                  Brushes                  Size: <a href="https://artmaterialsupplies.com.au/shop/jo-sonja-tannin-sealer-and-gold-size/Leaf">https://artmaterialsupplies.com.au/shop/jo-sonja-tannin-sealer-and-gold-size/Leaf</a></p>
<p><b>Today</b></p> <ul style="list-style-type: none"> <li>• Add end papers</li> <li>• Making our covers</li> <li>• Putting book into cover</li> <li>• Celebrating!!</li> </ul>	
<p><b>Tip on end papers</b></p> <ul style="list-style-type: none"> <li>• Grain line</li> <li>• Fold papers</li> <li>• Glue</li> </ul>	

<p><b>Layout</b></p> <p>Check you have enough book cloth by laying out the template and cover like so:</p> 	<p>making the case (cover)                  Why use book cloth (impermeable to glue, protects from water/dirt etc)                  Methylcellulose and PVA Mix (PVA glues quick alone)                  Thicknesses/ measurements around edges                  laser cut spacers and trimming guides (with measure and description e/g for edge)                  sharp thin utility knives                  steel rulers                  cutting mat                  need knitting needles 3 per person if doing floppy back bit, 2 else. mounted to boards would be good.                  need presses for each person, or heavy things.                  non-stick stuff polyester film? Waxed paper?                  pressing boards                  felt                  brayers                  More info:                  how to make fabric into bookcloth <a href="https://www.youtube.com/watch?v=ek2-1VjfskY">https://www.youtube.com/watch?v=ek2-1VjfskY</a></p>
<p><b>Glue up cover</b></p> <ul style="list-style-type: none"> <li>• glue big back piece (plain) down first</li> <li>• Use spacer to place spine</li> <li>• Use spacer to place front cover (glue to inside of cover)</li> <li>• Turn-ins head, tail</li> <li>• Turn in foredge</li> </ul>	
<p><b>Cutting end papers to size</b></p> <p>Grain line importance</p> <ul style="list-style-type: none"> <li>• Template?</li> <li>• Cut around</li> <li>• Fold in half</li> </ul>	
<p><b>Glue book into cover</b></p> <ul style="list-style-type: none"> <li>• Use baking paper to protect pages</li> <li>• Glue tapes to scrim on back glue on cover</li> <li>• Place in cover, close cover to ensure still fits. Note, boarder</li> <li>• Glue up top scrim/tapes/cover</li> <li>• press</li> </ul>	
<p><b>Inserting end papers</b></p> <ul style="list-style-type: none"> <li>• Glue all one side, and 3mm over edge</li> <li>• Place atop pages</li> <li>• Close cover</li> </ul>	

<p><b>Lots of ways to make a book</b></p> <ul style="list-style-type: none"><li>• Types</li><li>• Laser edges</li><li>• Laser cut wood blocks for indenting</li><li>• Laser cut stamps</li></ul>	
<p><b>Where to go from here</b></p> <ul style="list-style-type: none"><li>• QLD Bookbinders Guild</li><li>• Youtube channels:<ul style="list-style-type: none"><li>• Deep dives into various construction methods: DAS Bookbinding (Brissy guy!)</li><li>• Fun/ lighthearted: Sea Lemon</li><li>• iBookbinding: Tutorials, guest speakers (also have website)</li></ul></li><li>• Wiki</li><li>• Open Lab &amp; Hack the Evening</li></ul>	
<p><b>Show opening</b></p> <ul style="list-style-type: none"><li>• 12<sup>th</sup> December</li></ul>	
<p><b>What happens after</b></p> <ul style="list-style-type: none"><li>• Keep the works?</li><li>• Donate to schools?</li></ul>	
<p><b>Help</b></p> <ul style="list-style-type: none"><li>• Wiki page</li></ul>	

## Slides, editable

# Proposed non-grampus workshop overview

## Session 1

- Inkscape
- Sewing

(don't finish either of these during the session, take home with them)

## Session 2

- gluing spines & pressing
- Laser induction (practical being cutting bookcloth templates for next week)
- adding mull, headbands and bookmarks

## Session 3

- Painting/gold leafing covers (or dying with ink, as it keeps the texture better. Art spectrum [liquid spectrum](#) work well (NOT THE PIGMENTED KIND).
- Might be able to tee this up with Rachel Spano and also do marbling with paper conservators group? If not doesn't matter, I've purchased some marbled papers for the endpapers.
- Adding endpapers (if not marbled, else next week)

## Session 4 Putting it all together

- creating cover (attaching laser cut pieces to bookcloth)
- 'casing in' (putting text block into cover)

## Billie's Recommendations/ Notes

- Make them a fixed size, e.g. A5 (they can come back to make different ones. Templates will need to be updated accordingly, and paper of the right size gathered or cut.
- I believe I have purchased all required materials, they can be found in the bookbinding tub, or in the tubes with the paper type things (bookcloth and spine lining material is here)
- I returned the press we borrowed from preservations. We might be able to borrow a few, else clamps and plywood works well too.
- I would get preservations/ Shane Bell to trim all the books to size for us after Session 2.
- Might be nice to have some 3mm plywood for the covers. We can do it with 4mm, it's just a bit thicker than usual.

## 2022 delivery-Laser cut covers, hand sewn spines -

## bookbinding

In 2022 Mick & Sarah were tasked with running this workshop series over the course of 3x 4hr sessions a fortnight apart.

see this fork over [here](#)