

City & Guilds UNIT 119

PHOTO ALBUMS AND SLIP CASES  
COURSE NOTES



SHEPHERDS  
CITY & GUILDS CENTRE FOR BOOK ARTS

# OVERVIEW

## LEVEL 1 - CITY & GUILDS AWARD IN CRAFT BOOK BINDING - UNIT 119

Unit 119 is the second and final unit in the Level 1 City & Guilds Award in Craft Bookbinding. These notes also refer to techniques and exercises previously covered in Unit 118.

### RESEARCH

Students applying for a City & Guilds Award in Craft Bookbinding are required to produce visual and written evidence of their research into various types of historical and contemporary photograph albums. To demonstrate their own design skills, using visual references such as sketches, scans, and photographs, students must produce a portfolio of designs showing the use of line, texture, shape and form.

### SAMPLE PHOTOGRAPH ALBUMS

Produce a minimum of two visuals/design ideas.

Use a variety of materials to produce two practice bindings of approximately A5 landscape size, including:

- Card for the pages weighing between 200gsm and 500gsm
- Decorative paper for the endpapers and /or cover using at least two different styles
- Buckram or bookcloth in quarter, half or full bindings
- Linen thread
- The appropriate thickness of book board according to the size of the binding

Use the following techniques, in addition to those acquired in Unit 118:

- sew with folded compensation guards
- attach leaves together with continuous calico or fraynot guards
- use self-ends or sewn on endpapers
- attach ribbon markers and machine-made headbands
- make a case binding and case in

### PRESENTATION BOOK

Develop, design and make a photo album using one of the above techniques with a slip case to hold.

The album must include:

- a minimum of 12 leaves and be approximately A4 landscape size
- have ribbon marker and machine-made headbands attached
- be in a quarter or half cloth cover with paper sides
- be held in a lined and cloth-covered square entry slip-case

### EXTRAS

Produce a brief statement of intent

A working drawing/design with annotation which can be digital if preferred

Record the learning process

Produce a simple timescale and cost sheet for making the presentation book and slipcase

# FIRST EXERCISE

## ALBUM WITH FOLDED COMPENSATION GUARDS

The card for the text-block must be stiff and heavy enough to support the added contents, but not so stiff that the book cannot be opened flat. To compensate for the thickness of the photographs placed inside the album, 'compensation guards' are incorporated into the structure of the text-block. Albums are usually quite large and need to be of a strong construction.

### MATERIALS

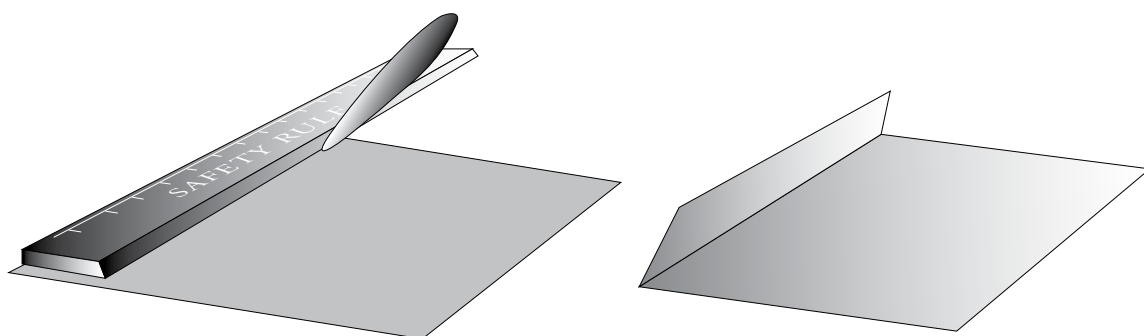
- Thick card of approximately 300gsm – colour as you wish, including black.
- Sewing tape of around 10mm width
- Waxed linen thread – 18/3 gauge
- Archival Kraft 120gsm for lining spine
- Archival Manilla 225gsm for spine of case
- Mull or linen to line the spine
- EVA or Reversible PVA glue
- Scrap boards and scrap paper
- 3000mcn greyboard

### EQUIPMENT

- Safety Ruler
- Bonefolder
- Bodkin
- Flat-bladed knife (Shoe knife)
- Trimming knife
- Cutting mat
- Bookbinding needle
- Glue brush

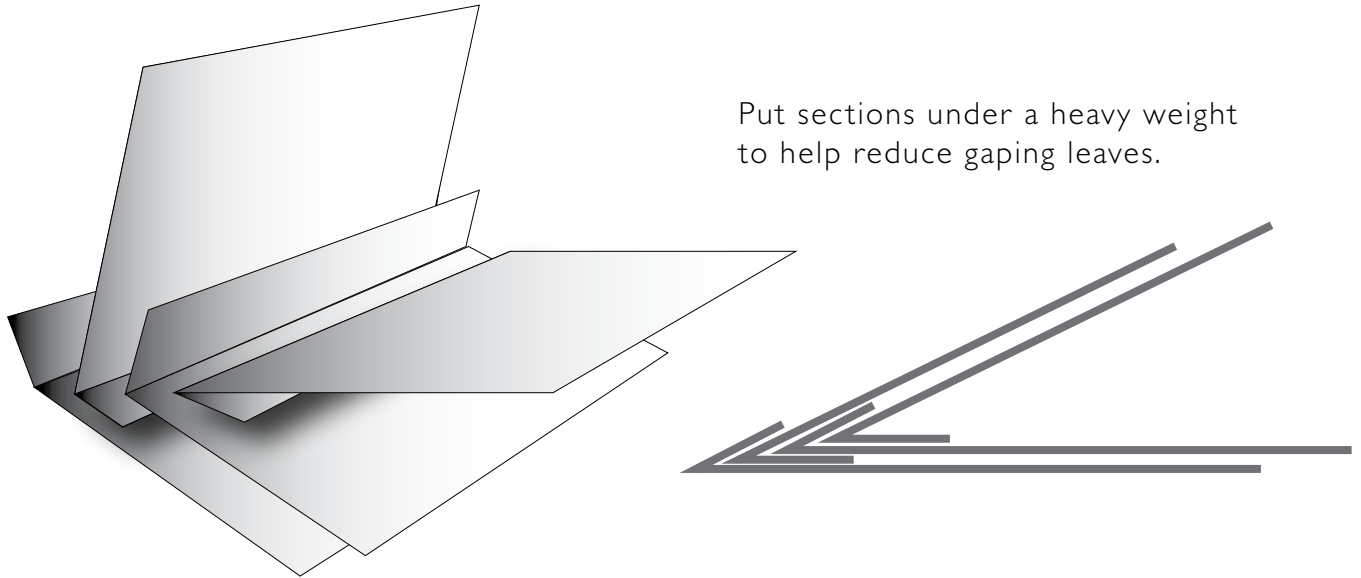
The key to making a successful photograph album or scrapbook, is to include compensation at the sewing stage to allow for the bulk of what will be added or mounted to the pages later. If this is not done, the album will become wedge-shaped because the thickness of the pages and mounted photos will be greater than the thickness of the spine, with the result that the book cannot close properly.

.1. Calculate the size of page you would like your album to have – this may relate to the size of photograph or page that you want to mount onto the pages later - one should allow a margin of at least 25–30mm to frame the photo/s, and add an extra 50mm to the sewing side to allow for the 25mm folded guard. For example, if your finished page size is to be 160 x 230mm landscape, you would cut the single leaves to 160 x 280mm - the folded guards will hide 25mm of the page, and thus one needs to allow for this by cutting an extra 25mm.



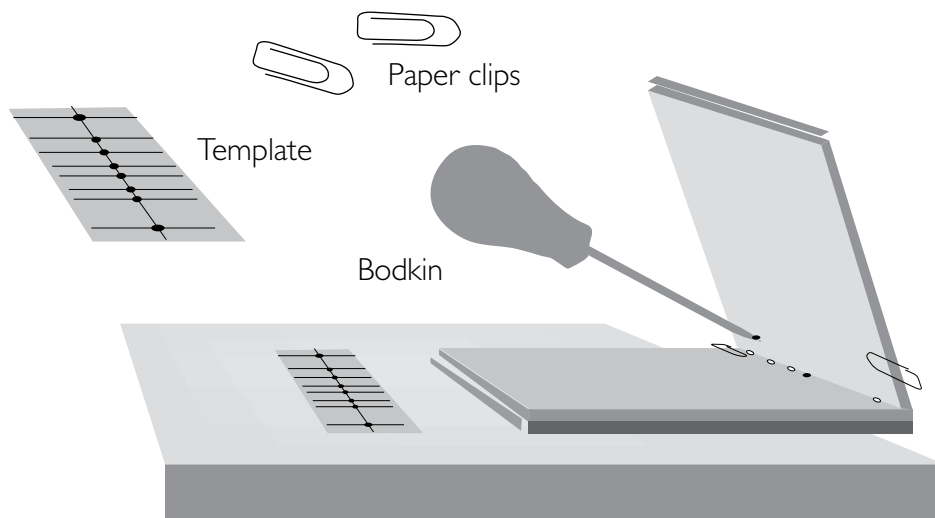
## FIRST EXERCISE

2. Cut the number of leaves you would like to have in your album, plus two extra which will function as endleaves, or self-ends. Ensure the grain direction runs vertically from head to tail on all materials. Using a steel rule which happens to be approximately 25mm (1inch) thick, score lines 25mm in from the left hand sewing edge of each leaf with a pointed bone folder.



3. Fold in along the creases and rub down with the bone folder so that each guard is crisply turned in. Insert one leaf into another as per the diagram below. The thickness of the paper will cause the pages to gape and should be left under a weight to help flatten the sections prior to sewing.

4. Use a paper clip at head and tail to hold the four leaves and guards together. This makes the sewing easier and is a similar process to preparing a single section in Unit 118. Make a template for the sewing holes using a piece of card and mark your kettle stitch and sewing tape holes for three tapes as you would for a multi-section binding. Prick holes using a bodkin from inside the folds to the outside, using the template as a guide.



5. Using masking tape to hold the tape ends in place, start sewing the double leaf sections as you would for a multi-section binding. For added strength, catch up the thread where it crosses the tapes in the section below that which you are working on – this is sometimes called French style sewing.

## FIRST EXERCISE

Bone and knock down each section as you sew, to relieve the swell as best as possible. Make sure each section is aligned exactly with the one below to avoid a staggered edge. If your holes were accurately pricked, this should happen automatically, however, you may wish to keep a weight in the middle of each section as you sew it, to help keep things level.

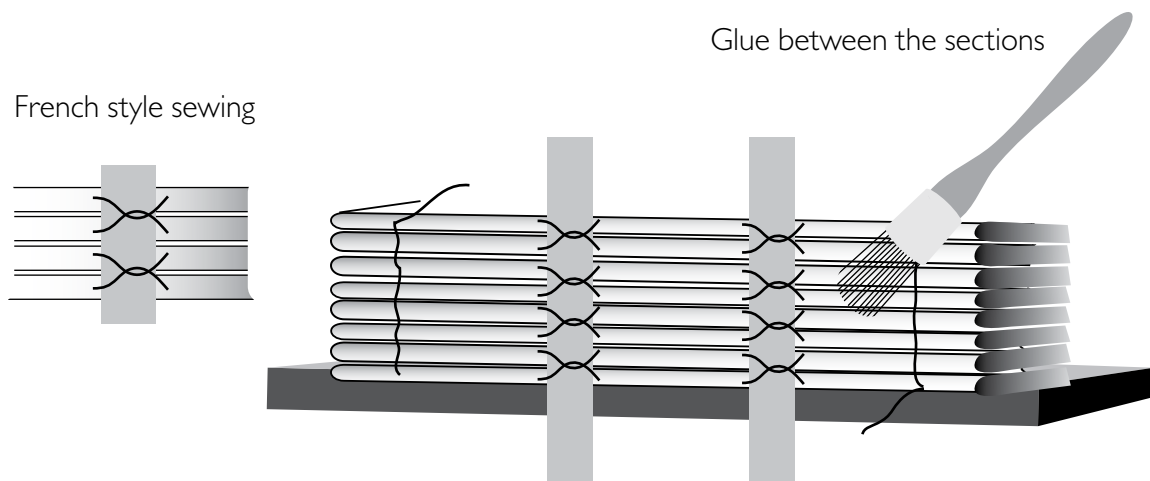
6. Cut two scrap pieces of greyboard which are at least as long as the spine edge and place either side of the sewn folds. Knock the album block nice and flat by gripping the greyboards and slamming fairly firmly onto the table top to create a nice flat spine.

Keeping the spine flat, and the greyboards in place, place the album block with spine facing out on the bench edge, and put a weight on top near the sewn folds to keep it steady. Glue up with a thin layer of glue, avoiding the tapes.

When dry, remove the scrap greyboards, and round the spine with the hammer.

Line up the spine with mull and kraft for a multi section book as described on pages 21 and 22.

Photograph albums should have slightly larger squares than normal books – allow for 5mm (3/16in) squares head and tail and fore-edge and cut boards from 3mm greyboard.



7. Measure for a quarter cloth case binding, with paper sides, and cut materials accordingly, allowing a 6mm joint between spine stiffener and boards. Make up case as before for multi section books. Dry flat between some paper and boards.

8. When the case is dry, place the album block inside it, making sure the squares are equal. Put a waste sheet under the top leaf of the album, and glue down the folded guard, tapes and mull, before glueing out the rest of the pag. Pull over the case firmly and rub down. Turn the book over and check positioning, adjusting if necessary – rub down inside the cover with a bone folder and clean waste paper. Turn the album over again and rub down into the groove of the joint so that the cloth sticks to the end leaf.

Glue out the other side and repeat – because the ends are heavy card, they will not stretch in the same way as paper ends, but go easy when opening the covers so as not to create any movement.

Nip each cover board between two clean pressing boards in a nipping press, supporting the album weight in your other hand whilst doing so. If a nipping press is not available, it is necessary to pack out the album block with enough waste sheets sized to reach from the edge of the compensation.

## SECOND EXERCISE

The second exercise is to make a continuous album with calico or fraynot guards.

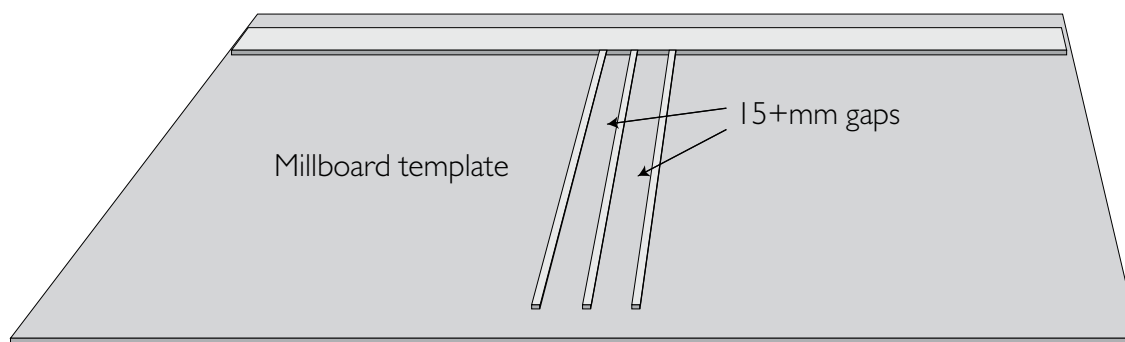
### Materials and Equipment

- ¼ m calico or fraynot (lightweight linen or cotton cloth)
- Heavy card of at least 350gsm, but anything up to mountboard of 1500mcn can be used\*
- Marbled or decorative paper for made endpapers
- 3000mcn greyboard
- 2.3mm millboard
- 1000mcn greyboard or clean newsprint paper for packing album during pressing
- Archival kraft 120gsm, and Manilla 225gsm and mull for spine linings

1. Calculate the size of page you would like the album to have – bear in mind that the cloth guards will encroach on the page by 5mm and that you will want a good margin of 25-30mm between your photographs or documents and the page edges.
2. Cut the card or board for the pages over-size by + 20mm on the width, and + 10mm on the height. For this exercise we are making up 16 leaves size 140 x 2250mm landscape, but you may wish to make albums with more or less leaves, and in bigger or smaller sizes in your own time.
3. When the leaves are cut to the size you have calculated above, go on to trim 15mm from the short sides, retaining the offcuts – these pieces form your strip guards, which are used to create joints for the pages to fold back on.
4. Cut the fraynot or calico into 20 strips of 55mm width, (this allows a couple extra to requirements just in case) and the same height as the album leaf. (If you have a plough for trimming off the edges, then cut the cloth strips longer on the height, as this will result in neater edges once trimmed).
5. The simplest way of putting the continuous album together, is to create a template for the leaves and guards to fit into that ensures the gaps, or joints, between the leaves and the guards are always the same. It takes a little time to create one, but once made, and if made oversize, it will serve its purpose for all future albums made.

### The Template

1. Create a base board of a reasonably large size – say A3 landscape + extra on the width if possible. Make sure the edges are square. It is best to use millboard for the template as this will increase its longevity, but greyboard can be used if this is not available.
2. Using a straight edge, draw a line across the top of the template base board about 30mm from the edge. Cut a long piece of board about 15 -20mm thick and glue the strip of board above this line, lining it up so that it runs completely parallel to the edge. This is what the leaves will butt up against when making up the album.



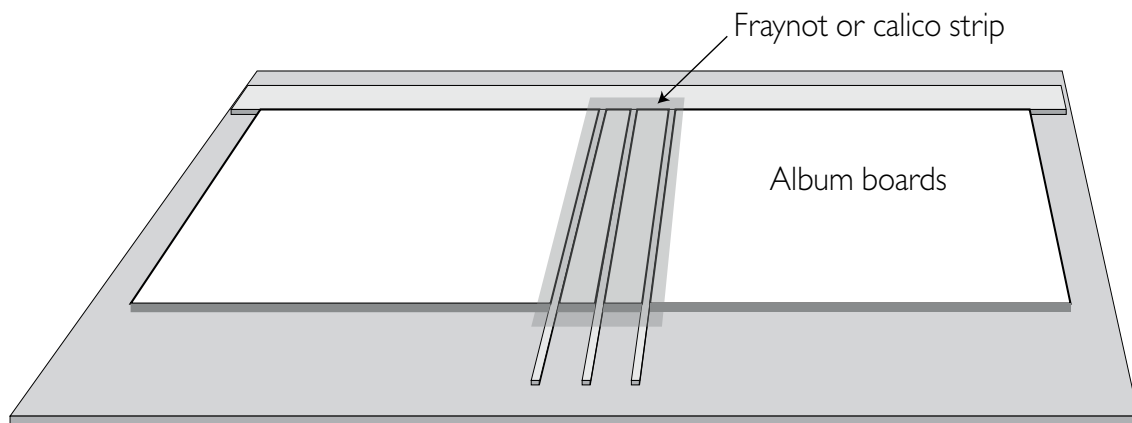
3. Cut 3 shorter pieces of millboard about 4-5 mm wide and 20mm long, and glue the first in the dead centre of the template base board, butting it up against the runner along the top. Make sure it is straight, as thin strips of board can distort.

## SECOND EXERCISE

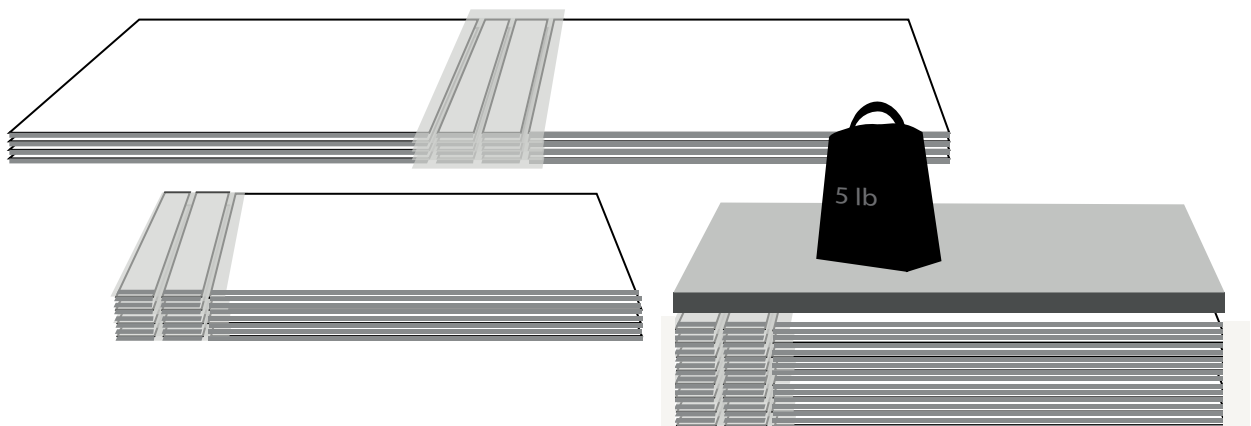
4. Glue the 2 other pieces each side of the central strip, just over 15mm away on either side. You are allowing for the 15mm strip guards you have already cut to fit into these gaps, so don't make them exactly 15mm or you will struggle to extract the made up pages once the linen has been glued to them.
5. Cover the raised pieces with brown tape, rubbing down well into the corners – this will discourage the linen guards from sticking to the template pieces when making up the album.

### Making up the leaves

1. Push two leaves and two guards into the spaces on your template, making sure they butt up against the top strip.
2. Glue out a fraynot or calico strip with Reversible PVA and lay over the guards so that it overlaps the leaves on each side by 5mm.



3. Rub down gently to ensure that the cloth is stuck to the album leaves and guards, but not so that it sticks to the template raised pieces.
4. Lift off the 4 pieces, and on a flat surface rub down the calico gently with a folder – leave for a minute, and then fold over to line up the two leaves accurately and ensure they will dry straight.
5. Make another pair in the same fashion.
6. When all leaves are made into pairs, put two pairs together on a flat surface, and use a calico guard to join them into a four.
7. When you have 4 x 4 leaf sections, join the fours together to create eights, and then the eights together to create the 16 leaf album.
8. You now have the album block made up. Add a calico guard to the front and back, to cover the open joints.
9. Ensure all edges of the bookblock are flush and straight and leave to dry properly under a weight.



## SECOND EXERCISE

### Making up the album

1. Make up endpapers for the album using the method for made endpapers (1 x 4pp decorative or marbled + 1 x 4pp plain). After hanging up to dry for a little, put between boards to dry flat.
2. When the endpapers are dry, tip onto the bookblock front and back – the loose flaps of calico can be glued to the rear of the endpaper to strengthen the joint.
3. Round the spine as you would any multi-section book, and line up with mull and kraft as normal.
4. Make the case from 3000mcn greyboard, cloth and paper as you wish. Remember that photograph albums are quite heavy, so that it is not recommended to make a cover with a paper spine or full paper cover. Bookcloth should be used at least on the spine. When making the case, allow 7- 8mm for the joints depending on the thickness of the covering material.
5. When dry, case the album block into its cover in the usual way. Pack the pages with 1000mcn board (or sheets of clean newsprint) to compensate for the guards, then nip in the press with protective silicone release inside the endpapers. Leave to dry in a light press or under weights.
6. When using heavier board for the album leaves (ie 1500mcn mountboard), you will need to make the gaps between the guards a little wider to allow for the extra thickness, or the pages will not open very easily.



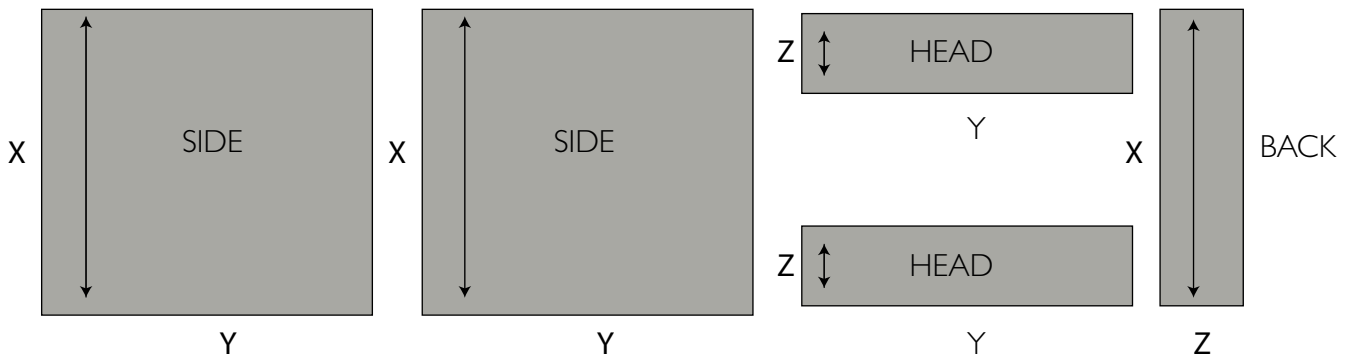
# THIRD EXERCISE

The third exercise is to make a cloth covered slipcase for a photograph album.

Materials needed:

- 3mm greyboard
- Decorative/plain paper for lining
- Bookcloth
- PVA

1. The first task is to take some accurate measurements from the book to be housed in the slipcase. The measurements needed are height, width and depth.
2. Height is measured from the head of the book to the tail. Take a measurement from the spine and another from the fore-edge. If there is any difference, use the larger measurement. Width is measured from the spine to the fore-edge. This can be tricky by eye if the book is rounded. A good trick is to stand a square wooden board, or a sturdy set square against the spine. Line up the ruler with the end abutting the board or set square and take your measurement. Depth is measured by lying the book flat and placing a wooden board on top. Stand the ruler up on the work surface and take a measurement from the bottom of the board at the spine edge and fore-edge. Use the largest measurement. If you are making a slip case for an album which is wedge-shaped, you only need the measurement from the spine which is thicker than the fore-edge.
3. The slipcase is made up of five pieces: 2 sides, a head piece, a tail piece, and a back board. To ensure the slipcase is a good fit, it is important to take into account the extra material that we will add to the boards (i.e. lining paper and bookcloth).
4. These are the pieces needed to make a slipcase, and their grain direction:



5. This is the formula used to get the correct measurements for the above pieces:

- $X = \text{Height of book} + 2 \text{ board thicknesses} + 2\text{mm capacity}$
- $Y = \text{Width of book} + 1 \text{ board thickness}$
- $Z = \text{Depth of book} + 1\text{mm}$

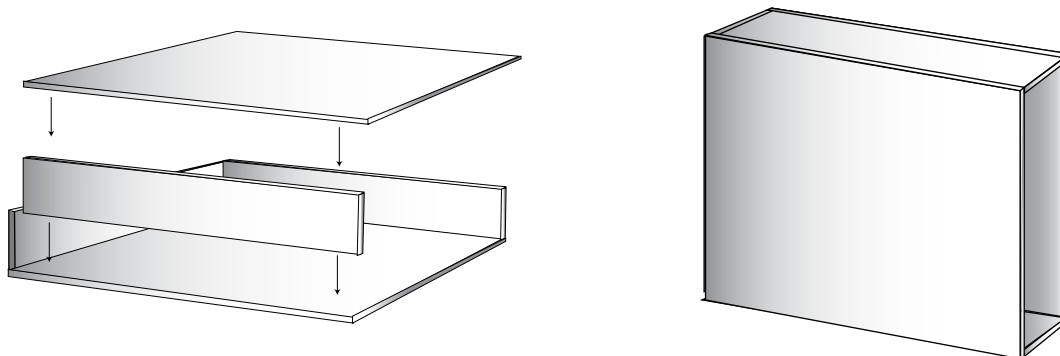
The 2mm capacity in the height allows for the thickness of the materials being turned in, and allows a little bit of space for the air in the slipcase to escape when the book is put in. It also ensures your slipcase is not too tight.

6. Cut 5 pieces of oversize board for the slipcase. Use these as templates to cut 5 pieces of lining paper with the same grain direction. It is easier to cut oversize at this stage to avoid issues while lining the board, e.g. paper shrinkage or misplacement.

7. Line the board with the paper by gluing out the paper with PVA and pitching it onto the board. Pitch the paper as accurately as possible. Rub down by hand and bonefolder to remove any air bubbles. Leave to dry between paper under weight. It is also possible to line a much larger piece of board and cut down afterwards, but handling large sheets of glued paper can be tricky, and takes up a lot of space while drying.

## THIRD EXERCISE

8. When the pieces are dry, cut them down accurately according to the formula above.
9. It's now time to assemble the slipcase. Take one side piece and lay it paper side up with the edge that will be the opening to the right. Take the back board and paint a thin layer of glue along one of the board's long thin edges (make sure the lining is facing inwards and not outwards). Line it up with the head and tail of the side piece and pitch it on top, lining it up exactly with the left edge of the side piece. Hold in place for 30secs or until nearly dry and adhered.



10. Do the same with the head and tail pieces, this time painting glue along the correct long edge and the short edge that will abut the back board. This shows why we remove one board's thickness from the width of the head and tail pieces – compensating for thickness of the back board when it is glued in place.
11. Once the head and tail pieces have been attached, the slipcase will look like a tray. Paint glue along the thin edges all the way around the tray. Take the second side piece and pitch it onto the tray paper side down, lining up all edges accurately. Hold in place for around 30secs.
12. Pack the slipcase with waste board that is slightly smaller than the overall size. Don't pack it too tightly – this is just give structure to the case while it is put under a board and left to dry under weight.
13. Once dry, remove the packing. It is important to sand down any areas where the joins of the boards might be slightly protruding to make sure all joins are flush. Any bumps or grooves will be visible under the cloth once the case is covered.
14. Cut out cloth for covering the slipcase. The head, back board and tail will be covered first with one long strip, and the sides separately. The long strip will be the depth of the case plus a 10mm overhang either side, by the measurement from the opening at the head around the back to the opening at the tail. Add a 10mm turn in at the opening head and tail.
15. Cut out the side pieces. They should be the size of the side piece less a board's thickness on all sides except the opening, where there should be a 10mm turn in.
16. Cover the head, back and tail with the bookcloth by gluing out one side of the slipcase at a time and rubbing each side with a bonefolder to remove air bubbles. It can be helpful to draw a line for the turn ins at the opening. It can also help to draw the 10mm overhang along one long side of the strip and line this up with the edge of the slip case while gluing to ensure it is placed centrally.
17. Cut the cloth at the corners of the slip case at 45 degrees using shears. Don't cut too closely to the corners of the case or there will not be enough material to sufficiently cover the corner.
18. Paste out the overhang one side at a time starting at the back, then the head and tail. Make sure the cloth is pulled tightly around the edges and at the corners so there are no air bubbles. Rub down with a bonefolder.
19. (INSERT: Lots of pics/illustrations and instructions on how to do either a mitred corner or spaghetti corners at the turn in).
20. Glue out the side pieces and pitch in place. Rub down and finish by turning in the cloth at the opening. Rub down with a bonefolder. Leave to dry.