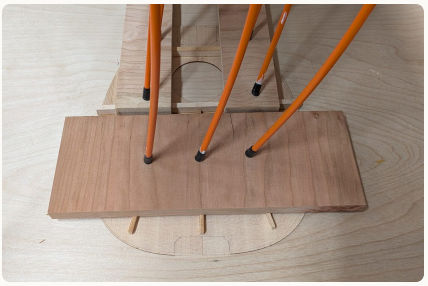
STUDENT HANDOUT · SESSION 3

Soundhole & top bracing

Goal: lay out the acoustic structure accurately, glue the top braces cleanly, and shape them without chasing a prescribed tap tone.

Class: 1.5 hr | Home: about 1 hr | Go-bar deck



Brace glue-up in the go-bar deck.

WORK SEQUENCE

1. **Orient the plates.** Confirm inside/outside faces and redraw centerlines after thicknessing.
2. **Transfer the plan.** Mark soundhole, top braces, bridge plate, and body outline from the full-size drawing.
3. **Cut the soundhole.** Clamp the plate securely and make the instructor-approved cut. The core build has no rosette.
4. **Dry fit every brace.** Check grain, length, glue-face flatness, and the sequence needed in the go-bar deck.
5. **Glue top braces.** The ukulele top is flat. Use light, even go-bar pressure and clean squeeze-out without starving the joint.
6. **Shape after cure.** Taper and scallop only to the demonstrated profile. Leave brace ends about 1/16 in (1.6 mm) high where they enter the rim.

SCIENCE DEMONSTRATION: CHLADNI PATTERNS

Watch sand gather along nodal lines as the plate is driven at different frequencies. Simple low-frequency shapes give way to more complex modes. This is an acoustic-instrument demonstration, **not a plate-tuning requirement**.

If tap tones or mode frequencies are recorded, treat them as observations. There is no published tenor-ukulele target being used as a pass/fail value.

STOP & ASK

Before cutting the soundhole, before applying glue, and before removing significant brace height.

BRACE-SET CHECK

- [ ] Upper transverse brace (UTB)
- [ ] Middle transverse brace (MTB)
- [ ] Three fan braces
- [ ] Two soundhole reinforcements
- [ ] Bridge plate

Use the Session 1 dimension table and full-size plan; do not scale from a screen or printout.

HOMEWORK

- Complete approved brace shaping and hand sanding.
- Do not thin braces beyond the demonstrated profile.
- Protect plates from impact and humidity swings.
- Update brace materials and any observed frequencies.

BUDDY CHECKPOINT

Both students verify every brace location and orientation against the plan before glue touches wood.