


1 

2  Dungeon Furniture
Construction for
klutzes!!!


•JLubeJack

3  Goals of this
seminar

- Teach a few fundamental woodworking techniques common to all projects
- Know safety factors in furniture construction
- Learn project techniques by following one project — the hanging stock
- Learn to “deconstruct” any dungeon furniture you see and apply these techniques to successfully build your own, custom furniture

4  Where we’re headed


- Decide the goals of furniture project
- Think of the construction physics
- Learn basic construction techniques
- Decide on required tools & optional tools

5  Where we’re
headed–2

- Making a plan/reverse engineering
- Planning projects step–by–step
- Finishing possibilities
- Furniture to consider

6  Goals of furniture

- What do you want to do with it?
- Who will you use it with?
- How durable must it be?
- Stationary, convertible, or portable?

7  Construction
physics

- Think about the stresses involved

- Static versus dynamic stress
- Bracing for stress
- Knowing your material weaknesses
- Build it twice

8 Bad design – No No!

9 Basic construction techniques

- Cutting wood square
- Making strong joints
- Cross-grain versus end grain
- Lap joints
- Joist hangers
- Glues & screws

10 Required tools

- Drill & bits
- Circular saw
- Screwdrivers & bits
- Squares
- Sandpaper

11 Drill & bits

12 Circular Saw

13 Be Square

14 Sandpaper & elbow grease

15 Optional tools

- Sabre saw
- Chisel set
- Clamps
- Hammer
- Planes

16 Power tool #3

17 Hand tools

18 Basic lap joints

19 Making a plan/
reverse Engineering

- The hanging stock
- One X-cross design
- Reverse engineering anything you see...

20 Planning a project
step-wise

- Figure the angles
- Determine the stresses

- Use the right joints
- Plan the steps
- Construct it in your mind
—twice
- Build the motha already!

21 the stock: step-by-step

- Determine neck & wrist hole requirements
- Mark up 33" board, middle split and center lines for neck & wrist holes
- Drill starter bores for holes
- Cut out neck & wrist holes (before half-cut)
- Sand neck & wrist holes
- Cut board in half
- File (if required) then sand half cuts
- Mark, drill holes for hinge & clasp
- Mark, drill pilots, drill main holes
- Attach hardware

22 Hanging stock – tips

- Household protractors
- Pilot hole tricks
- “Pushing” a blade — no-no!
- Pushing a blade — tips
- Marking hardware holes (loooooong screws... oh yah!)


23 Household protractors

24 Measured & ruled

25 Pilot hole tricks

- Use a “spade” bit to get a pilot hole that will fit the required sabre saw blade. 3/8" works fine here, and allows about the narrowest sabre blade that will cut “2-by” stock without breaking.


26 Pilot Hole tricks

27  Pilot Hole tricks


28  Pushing a blade


29  Pushing a blade

30  Pushing a blade

31  Pilot holes, part 2

- You can use heavy-duty hinges & hardware for effect — or decorative. But make sure to use long, sharp-thread screws, 'cause you're going into end-grain.


32  Pilot holes, part 2

33  Pilot holes, part 2

34  Construction

adhesive

- Use adhesive glue for VERY permanent construction projects; this stuff is stronger than the wood itself!
- Make sure you “dry fit” parts first, then align parts perfectly before final placement and clamping.

35  Joist/deck brackets

- When making heavy, permanent furniture, use joist & deck brackets for easy, fast, and strong butt joints. I've used them for 4x8 “fuck” tables, suspension tables, and racks. Remember to brace for “spread”! (The record for that table was 18 people... no problem!)

36  Finishing

- Paint, antique, or stain?
- Prepare surfaces carefully!
- Test the finish on scrap
- Plan order of surface treatment—think drips!
- Upholster surfaces

37 Paint / antique / stain

38 Advanced project: the x-cross

- Determine if cross will be attached to wall or be free-standing (NOT recommended!)
- Consider max & min heights of “targets”
- Will your cross be permanent or must you allow for disassembly now and then?

39 X-cross project steps

- Lay out one side on floor with marked center line
- Lay other side on top of first, measure to make sure sides are symmetrical — then “tack” screw together
- Mark cross-over section where wood will be removed
- Make multiple cuts, .25” apart in removal area, depth = 1/2 board thickness
- Chisel out kerfs
- Repeat on second board
- Join sides of cross together with construction cement and screws

40 Marking out the cross angles

41 X-cross project steps

- Trim top & bottom so they’re parallel to future floor
- Cut out foot holes

- Lean against wall to determine desired cross angle to vertical on 3/4" plywood cut to measure as base)quarter-round edging
- Mark back of cross for mid-height angle support
- Cut & align mid-height bracket
- Mark for upper bracket, measure & cut bracket
- Mount bracket to wall
- Make foot platforms, mount with front bracket attached, then screw 'n glue back bracket
- Finish cross, foot platforms, brackets, plywood platform

42 Trimming top & bottom

- This shows the step to trim the "feet" and "head" so that the surfaces will be parallel to the floor.
- The side art shows possible designs for the shield that will cover up the board laps.

43 The foot platforms

- You need to cut out and prepare the foot platforms
- When you attach to the X-cross, make sure you've only mounted the back support bracket—the front one will be added later to ensure a perfect fit—first to X cross, then to platform, important!

44 Mounting to wall

- When you have the flat “X” made, you’ll screw ‘n glue another 2x4 perpendicular and in the center of each “X” arm. This will provide enormous support. Though this drawing doesn’t show it, you’ll also do the same for the mid-height bracket.
- Note the 45° brackets everywhere for additional support (these eliminate end-grain by the way)

45 X-cross project steps

- Apply second coat of finish
- Lean cross up on bracket on plywood base
- Mark plywood base for mounting
- Put in mid-height brace, mark plywood base for mounting
- Remove cross from wall, mount base & mid-height brace
- Put cross back up against upper bracket, permanently mount
- Design, assemble, upholster X-shield (have bolts coming through, matching holes drilled in cross)
- Mount shield
- Tie someone up and beat ‘em!

46 Deconstructing — Kneelers

47 Stocks & more stocks

48 Vertical Stocks

49 Horses & semihorses

50 A- and X-crosses

51  The Rack

52  You deviant you!

53  Non-Wood options

- Pipe construction
- Pipe & wood
- Steel rod, welded

54  Pipe construction

55  Pipe & wood

56  Pipe & wood

57  Final exam

58  Questions?

Comments!

- I hope you got what you needed out of this presentation!
- If you don't ask questions now, you'll wish you did as soon as you get home!
- You can always e-mail me with your questions at JIubeJack@gmail.com
- Thanks for listening!

59  Like beyond vanilla?


Tell your friends back home!!!

60  Links


-
- Here's a few of the books I recommend; all available on Amazon of course

61 

62 

63  Mini-bibliography

- The Topping Book
Dossie Easton,
Catherine A. Liszt
- The Bottoming Book
Dossie Easton,
Catherine A. Liszt
- Leathersex
Joseph W. Bean
- Leatherman's Handbook
Larry Townsend

64  Mini-bibliography

- The Topping Book
Dossie Easton,
Catherine A. Liszt
- The Bottoming Book
Dossie Easton,
Catherine A. Liszt
- Leathersex
Joseph W. Bean
- Leatherman's Handbook
Larry Townsend