

# Wilderness Bridge Construction

Wilderness Skills Institute  
Cradle of Forestry NC  
Pilot Rock Trail

Fred Lashley, Instructor  
May 2016

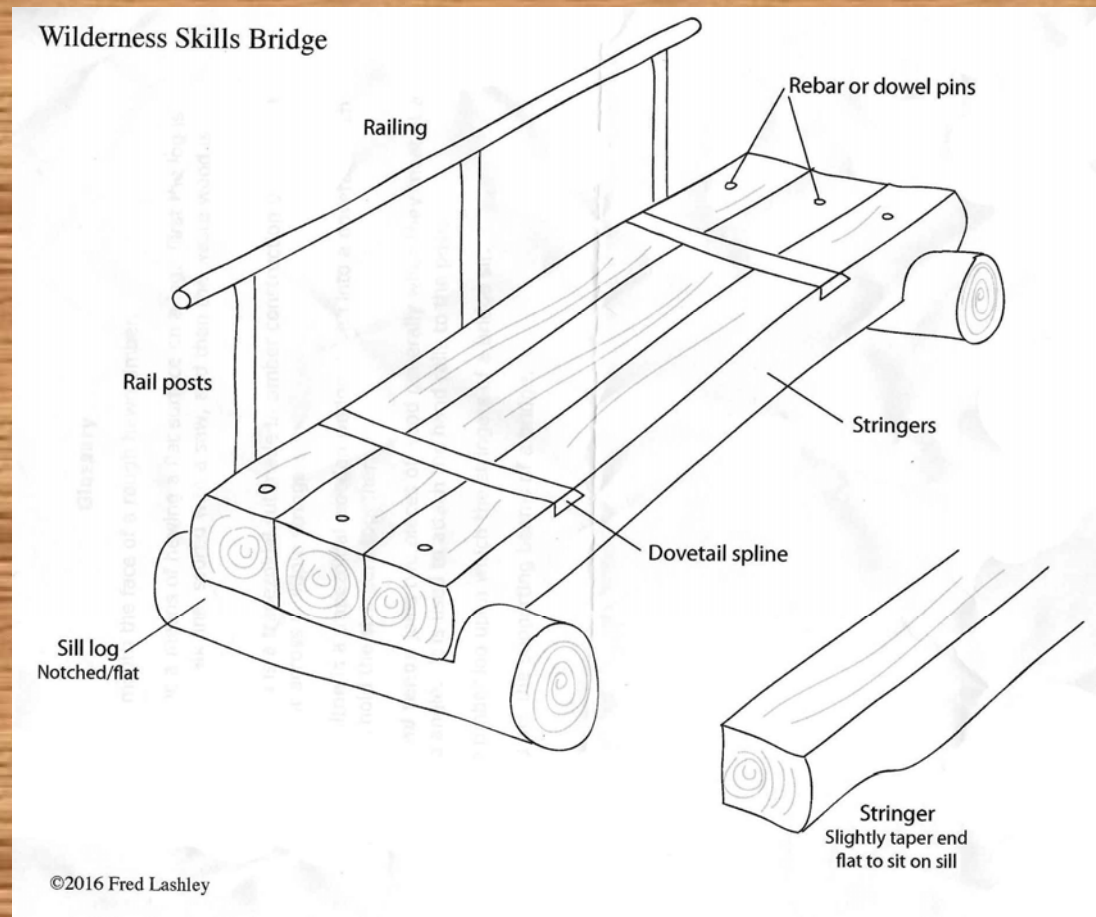


Objective:  
Replace old  
bridge, while  
allowing for  
mountain  
bikes.

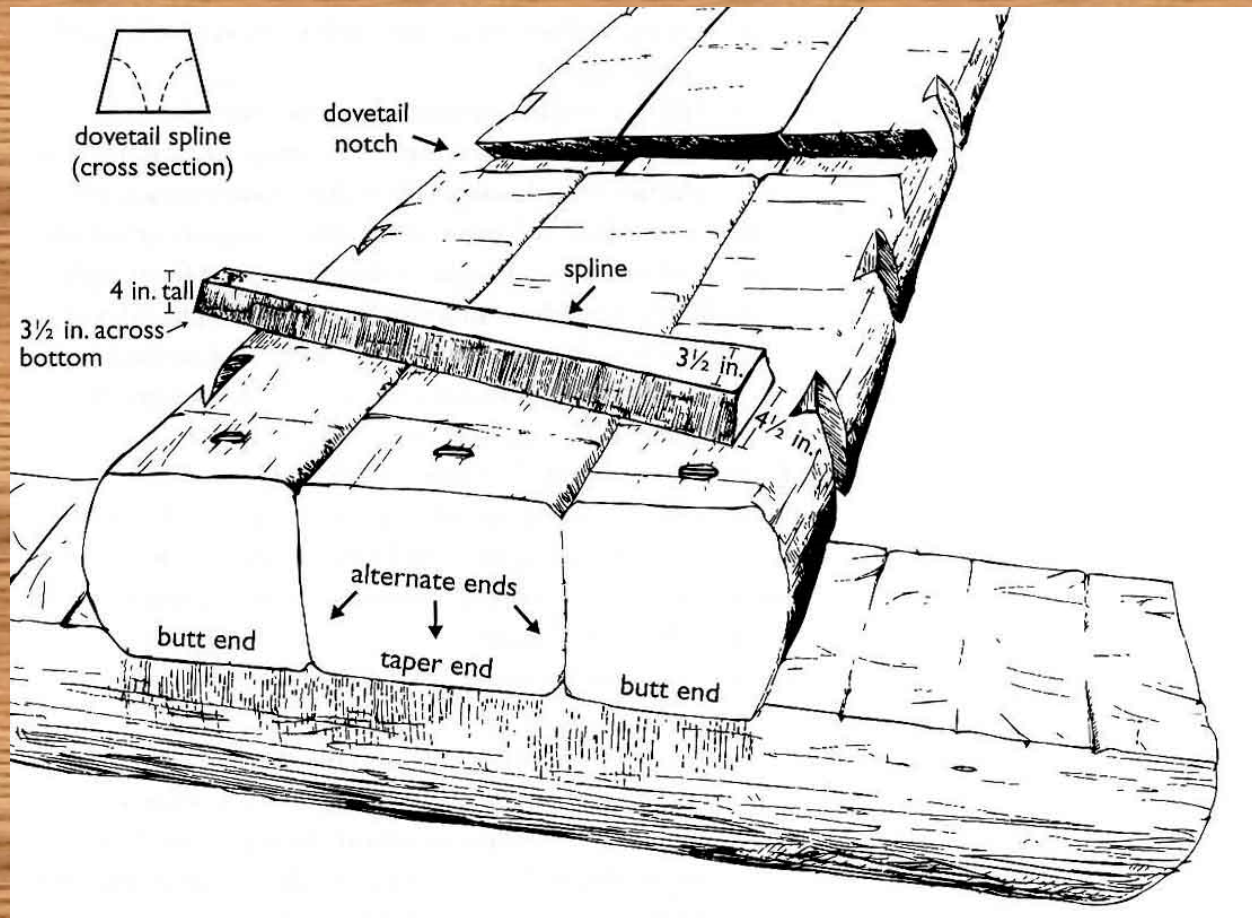




# The work plan



# Bridge detail



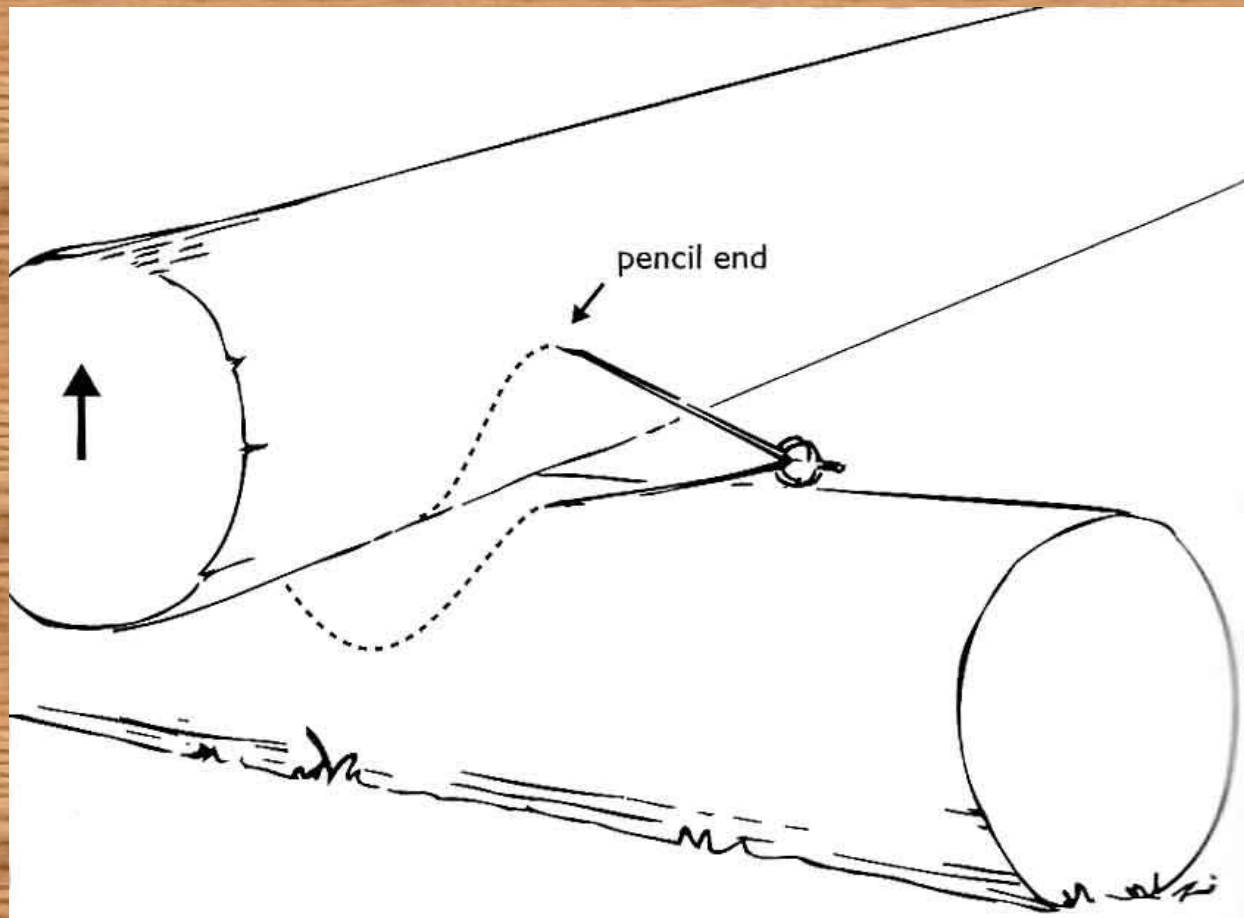


Two sills in place, level line indicates downstream side of stringers





Copy contour shape of the sill onto the stringer



Cutting out the  
sill to hold the  
stringer





The bark is removed from the black locust trunk





The trunk end is marked with a level line and location notations



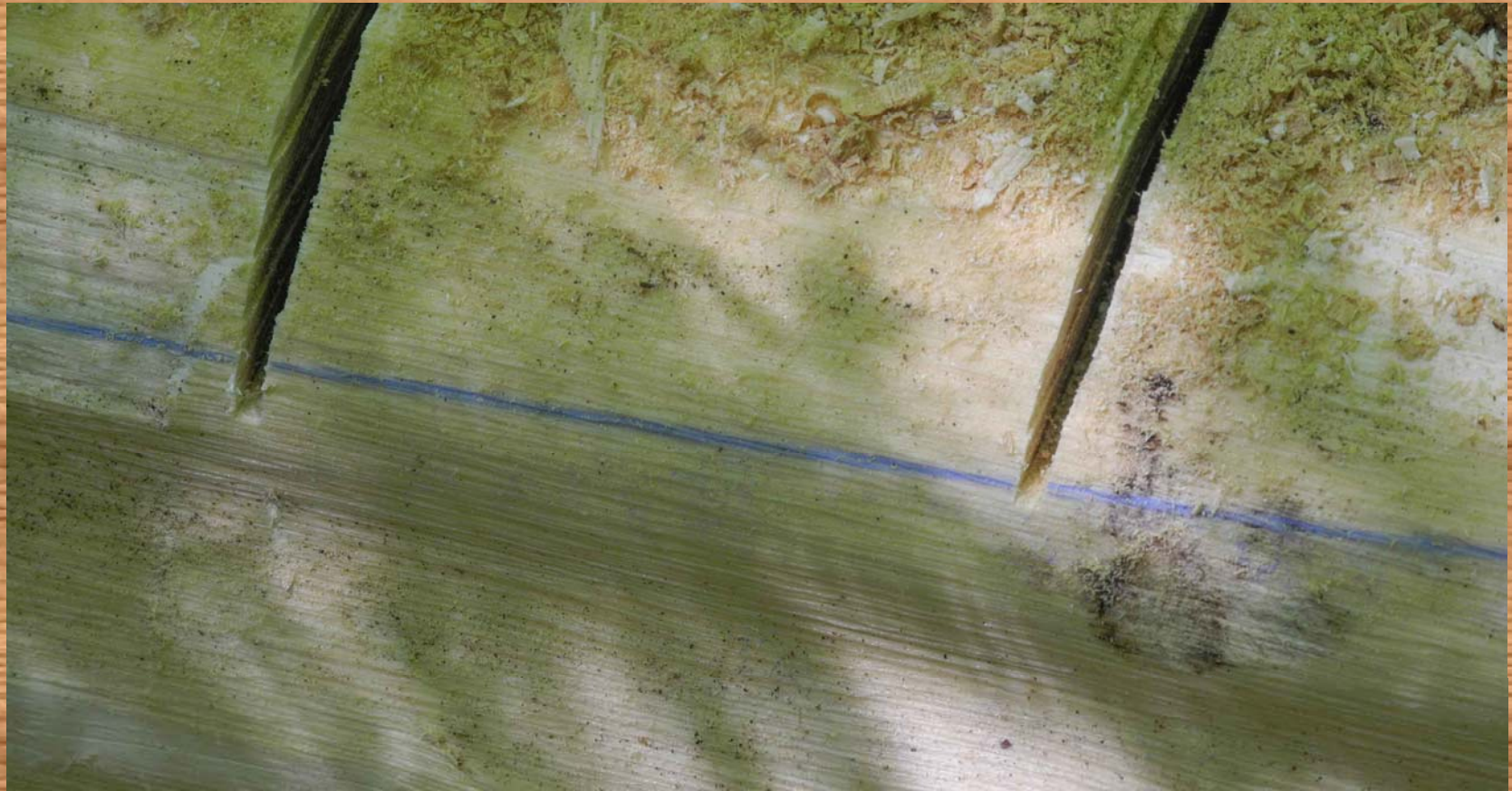


# Chalking a level straight line





Kerf cuts to chalk line insure a flat surface





# Cutting the notches



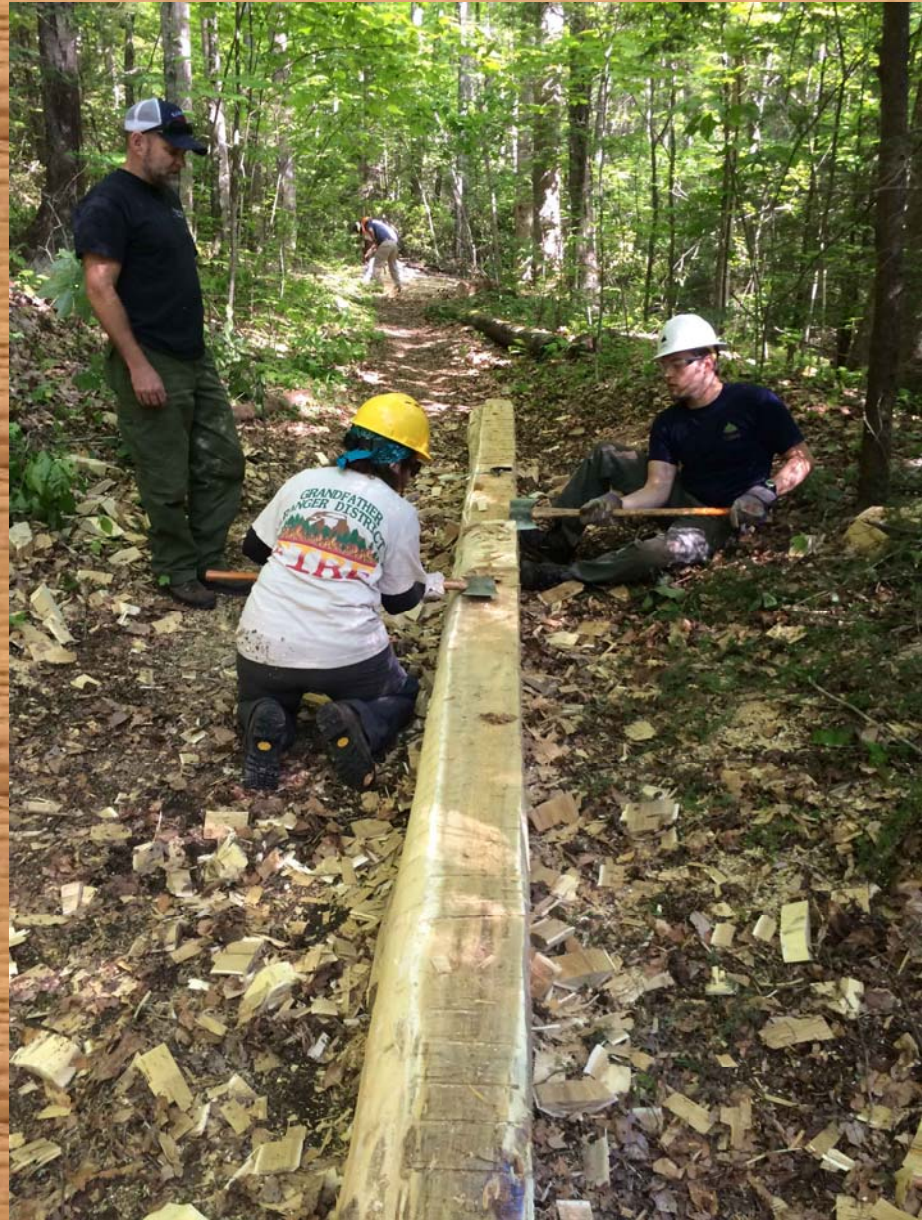


Kerf cuts every several inches facilitate wood removal





# Canting the log





Eight people carrying the stringer





Two  
stringers,  
leveled on  
temporary  
sills





# Adding the third stringer





# Removing a high spot





The downstream stringer is marked for post dovetail





The dovetail is cut out and cleared





The post end is prepared to fit the dovetail on the downstream stringer





First mating of post in dovetail





Final adjustments are made





Setting a post  
on the bridge



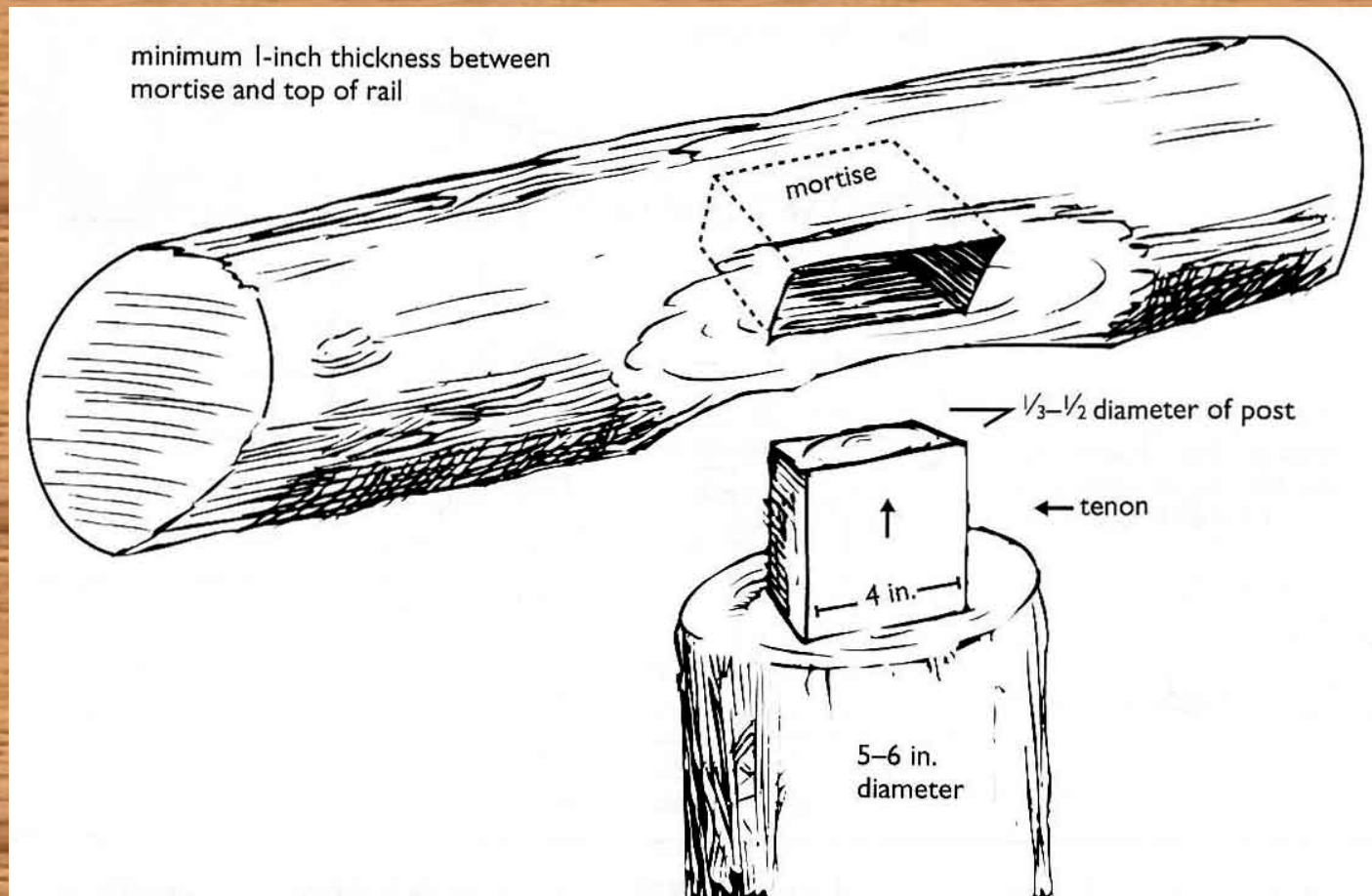


A post pounded  
into final  
position





# Mortise and Tenon





Mortise and tenon joints connect the handrail to the posts





# The bridge building crew





# The bridge





# Credits

- Drawings from *Lightly on the Land The SCA Trail Building and Maintenance Manual* 2<sup>nd</sup> Edition
- Photography: Jay Dement, Kristy Robinson and Fred Lashley
- PowerPoint: Jay Dement
- Bridge Builders: Kristy Robinson, Lauren D'Amato, Jay Dement, Josh Fernandez, Michael "Mickey" Saleido, Debbie Thomas, Wayne Steinmetz, and Tom Weaver
- Instructor: Fred Lashley