TREE RINGS AND DROUGHT IN NORTHERN PAKISTAN

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REAL DENDROCHRONOLOGISTS DO NOT COUNT RINGS.
THE PRINCIPLE OF CROSS-DATING
THE PRINCIPLE OF AGGREGATE TREE GROWTH
THE PRINCIPLE OF REPLICATION
THE PRINCIPLE OF LIMITING FACTORS
THE PRINCIPLE OF ECOLOGICAL AMPLITUDE
THE PRINCIPLE OF SITE SELECTION
THE PRINCIPLE OF CROSS-DATING

Matching patterns in tree-ring widths or other ring characteristics (such as ring density) among several trees allow the identification of the exact year in which each ring was formed.
NOVEMBER 19
HIGH-RESOLUTION RADIACARBON
1607  1670  1740  1770  1915
1736  2     4     6     7     7
1768  1816
1743  1729
1671  1600  1650  1700  1750  1800  1850


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SKELETON
PLOTTING
The Process of Dating Specimens

The Skeleton Plot

One of the major difficulties besetting any study is the reduction of all data to a form which can easily be used for analysis. Samples occupy a large amount of space, and are a nuisance to check each time information is needed. Specimens, even after proper surfacing, are difficult to compare directly one with another. Ideally, we reduce the information derived from study of these samples to paper in such a way that one specimen can easily be compared with another and so that data from several specimens can be combined to produce a suitable composite piece of information.
• Work backwards (from bark to pith)
• Focus on narrow rings as markers (not wide)
• Use the entire range (0-10) of the vertical scale
• Compare rings to their neighboring rings (within the same decade)
• Be selective and only record the most obvious marker rings
CONSTRUCT SKELETON PLOTS FOR (AT LEAST) YOUR TWO CORES.

THEN CROSS-MATCH YOUR RESULTS AGAINST YOUR NEIGHBORS.
Please staple together your final skeleton plots, include your name (large print, please), and hand them to me at the end of today’s class.
Tree-Ring Dating Notation & Measurement Guide Sheet

- = decade
.: = mid century
.: = century

1810 1850 1900

1640 1650 10 Rings 1700

- Missing ring, #3 in this case.
  - Denoted with diagonally opposing dots.
  - Measure as “0.000 mm”

- Micro or “locally absent” ring, #8 in this case.
  - Denoted with parallel dots.
  - Measure tiny ring.

- “Double,” “False Ring,” or “False Latewood Band”
  - Technically, a “Latewood Density Fluctuation.”
  - Denoted with a diagonal slash across the false ring.

prepared by David Stahle & Daniel Griffin.
NEXT CLASS