

And now  
the . . . . .

**QUESTION  
#10**

**THE NATS 101-GC  
TREE-RING  
EXTRAVAGANZA!!**

**Part 1**



Question #10 will get  
you started on:

**Assignment 1-3**  
*(the in-class part)*

**The Bristlecone Pine  
(BCP) Activity**

# TODAY:

- **Skeleton Plotting** your own core by hand, then
- **Pattern-Matching** with the other students in your group to make a Site Composite, then
- **Crossdating** with the Master Skeleton Plot (assigning Calendar dates to your own plot)



Your “paper”  
cores are from  
real  
**BRISTLECONE  
PINE SITES**

*(you’ll learn more  
about them on  
Thursday)*



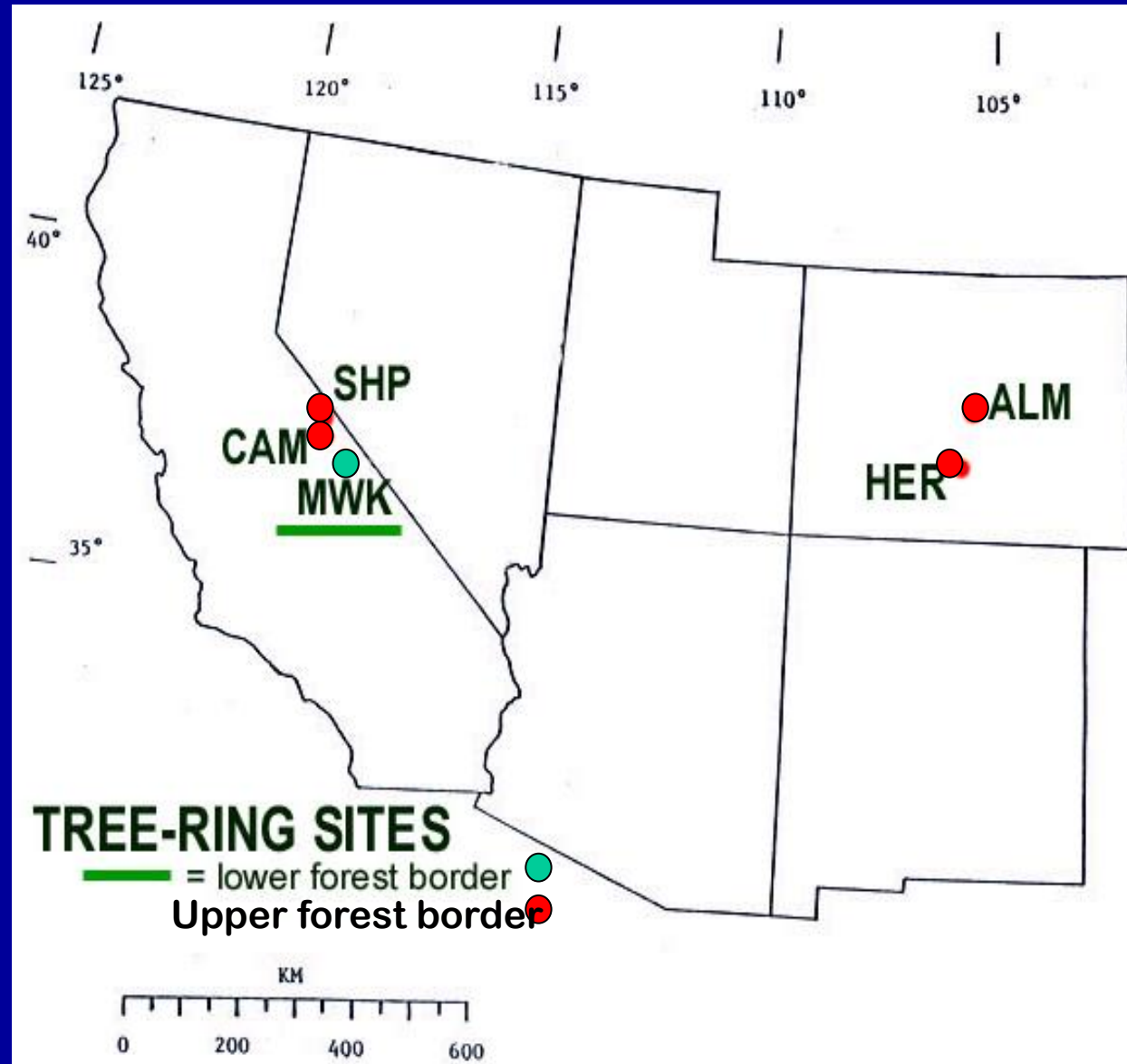
# 5 SITES IN WESTERN U.S.

All are  
Bristlecone  
Pine sites

SITE NAME  
(abbrev) CORE ID

Sheep Mt (SHP)	C
Campito Mt (CAM)	D
Methuselah Walk (MWK)	B
Almagre Mt (ALM)	E
Hermit Lake (HER)	A

Map is on  
p 135 in  
Class Notes



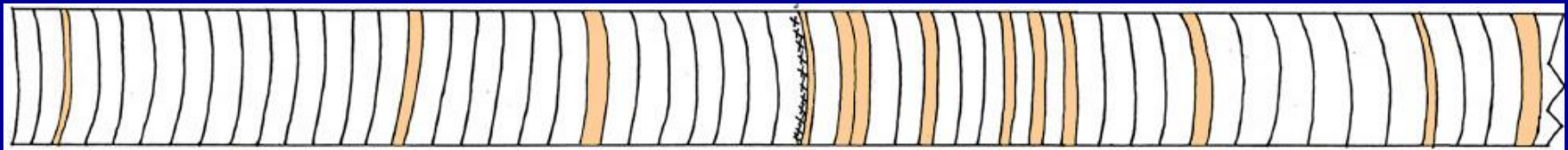
# SKELETON PLOTTING YOUR OWN CORE



Cartoon Cores from Assignment 1-2:



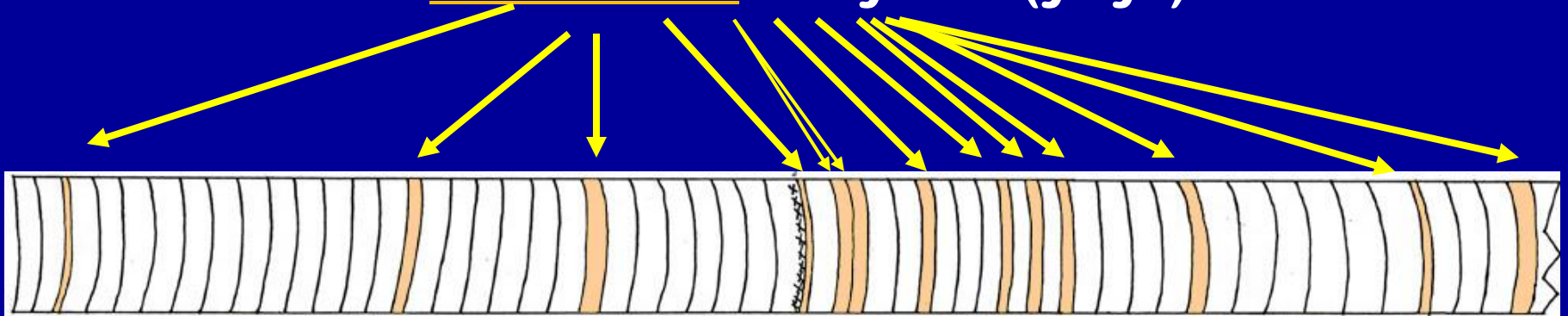
PROJECT'S PAPER CORES:



# PROJECT'S PAPER CORES:

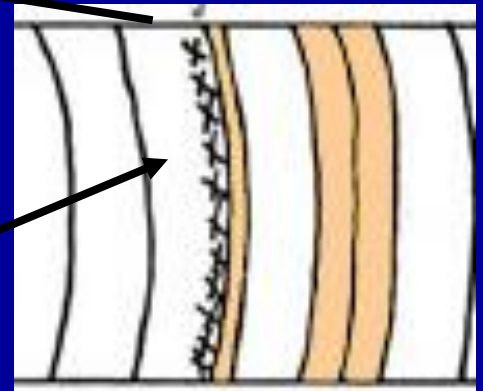
Earlywood & latewood NOT shown

INSTEAD: each narrow ring you should plot is colored in for you (yay!)



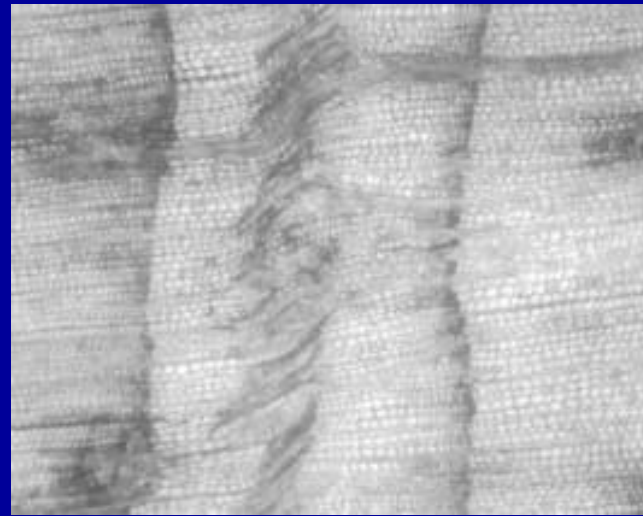
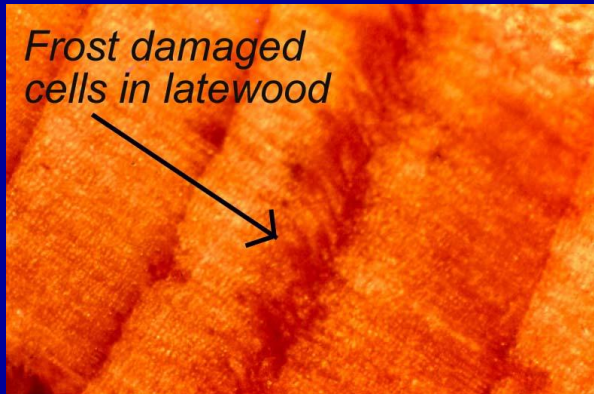
REMEMBER: be sure to draw your longest lines for the most narrow rings!

Frost ring = marked by xxxxx



# WHAT ARE FROST RINGS?

Permanent wood damage in cells, due to freezing & expansion of intercellular water, can be useful for pattern matching & crossdating!



Produced by a severe freeze occurring **DURING** the tree's growing season



# SETTING UP YOUR SKELETON PLOT GRAPH PAPER:

Important: USE A PENCIL not a pen!

Core ID #  
Your NAME

**LABEL** intervals of 10



Starting Flag for Ring 0 (first ring)

Ending Flag for LAST *complete* (not jagged) RING in core -- **plot arrow when finished**, not all cores have 60 rings

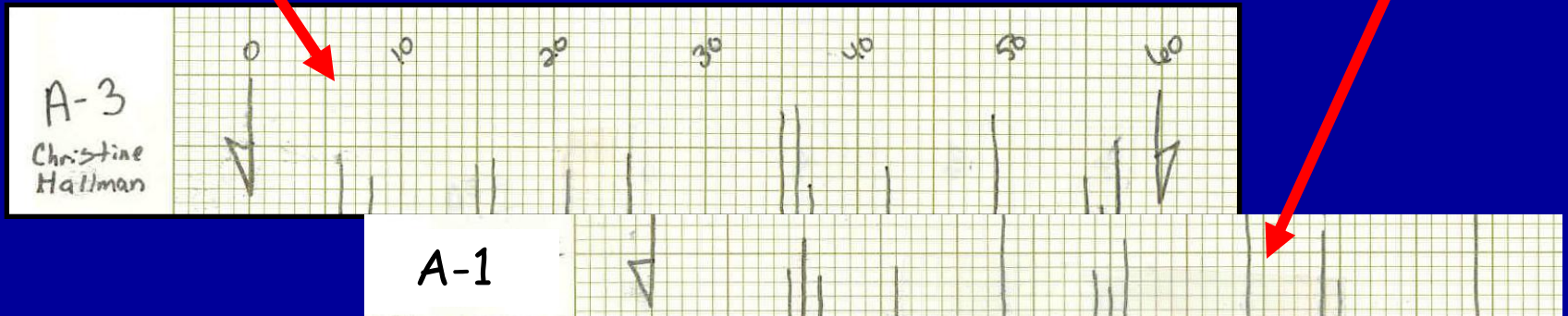
# Pattern Matching



# Pattern Matching

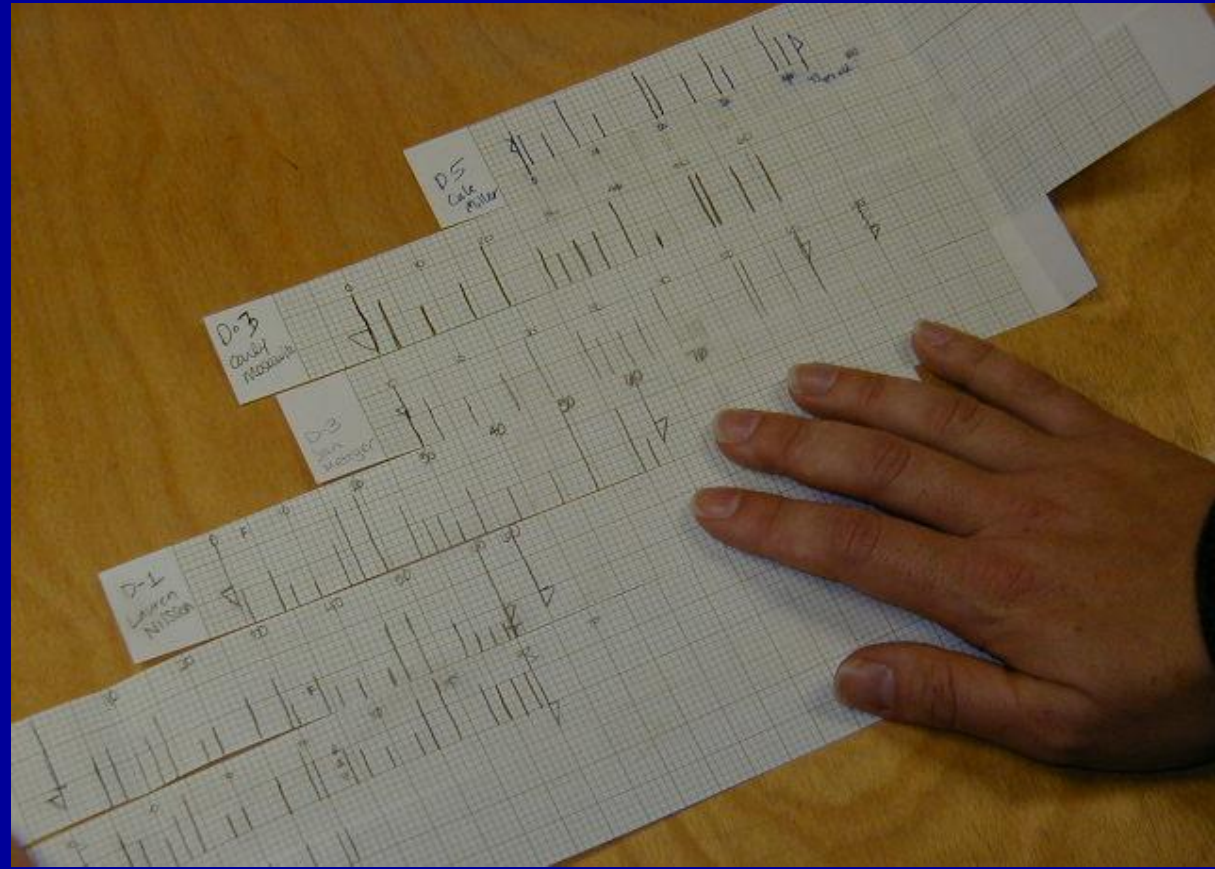
Student A's plot

Student B's plot





# Making a Site Composite



**SITE COMPOSITE = all individual  
plots from your site pattern-  
matched & taped together**

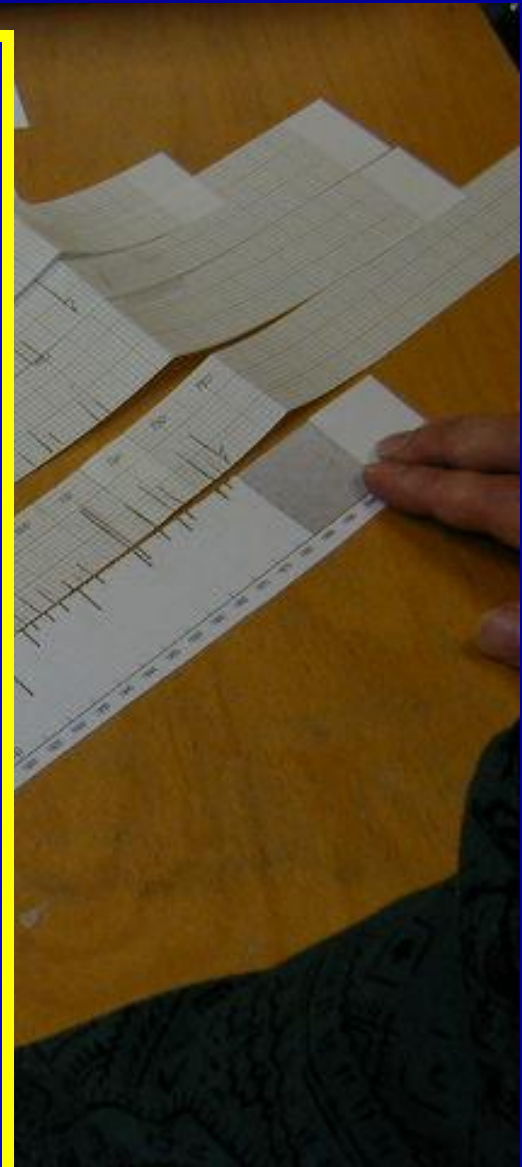


# Crossdating with the Master

Goal: To assign calendar dates to each of the skeleton plots in your group!

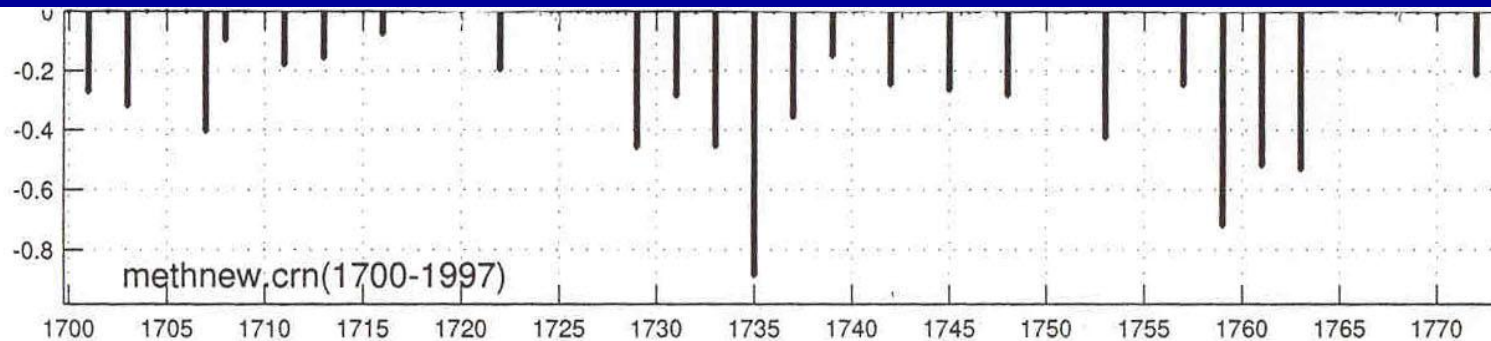
Your 2 pts for your **INDIVIDUAL GRADE** for Question #10 are based on:

- a correct skeleton plot
- correct dates assigned to your skeleton plot

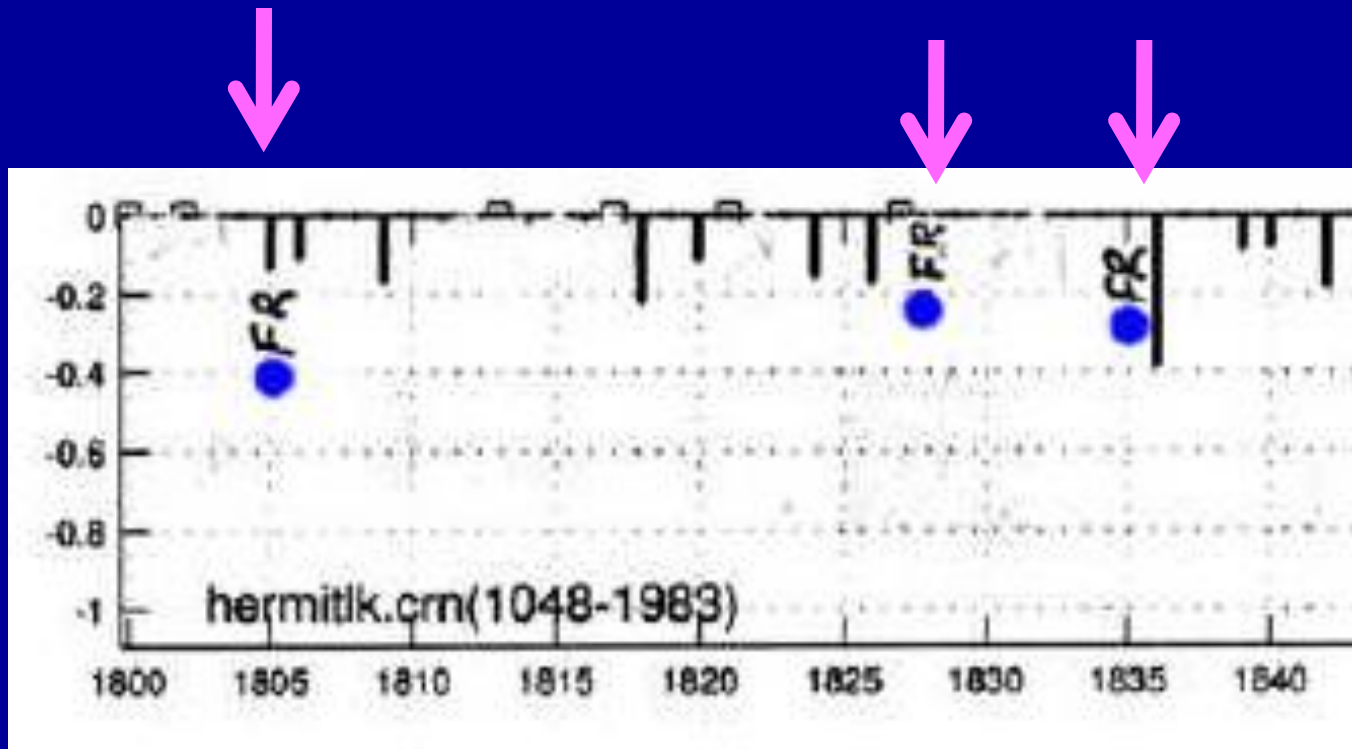


# Site Skeleton Plot Masters (with dates marked & narrowest rings shown by long lines)

Methuselah  
walk



Also on the Skeleton Plot Masters  
you will find  
“FROST RING YEARS” marked!



FR = frost ring year

## TODAY – QUESTION #10:

- (1) Plot the skeleton plot for the core given to you. (Please **DO NOT WRITE ON THE CORE ITSELF**)
- (2) Be sure **your name** & the **CORE ID #** is on your **GRAPH PAPER** when your **PLOT** is done.
- (3) Pattern match with other students – you'll tape together the plots into a **SITE COMPOSITE** when match is made



## TODAY – (cont.)

(4) After the SITE COMPOSITE IS TAPED TOGETHER – Assign starting and ending CALENDAR DATES to each plot in the Composite

(5) When everyone's plot is dated, carefully take apart the composite and LEAVE you CORE & your PLOT in your GROUP FOLDER for Question #10 validation. – (Be sure your name and Core ID is on your PLOT.

# Sec 51 + 52 FACILITATORS & Group #s



Paty Lopez Ramos

1 & 2



Natalie Reak

3 & 4



Sathya  
Honey Victoria

5 & 6



Maria Cionci

7 & 8



"RW" Berry

9 & 10



GTA Jacquie  
Dewar

11 & 12



GTA Rebecca  
Franklin

13 & 14



Steve Song

15 & 16



Emmy Tangeman

17 & 18



Steve Lerman

19 & 20

# Sec 53 + 54 FACILITATORS & Group #s



1 & 2



3 & 4



5 & 6



7 & 8



9 & 10



11 & 12



13 & 14



15 & 16



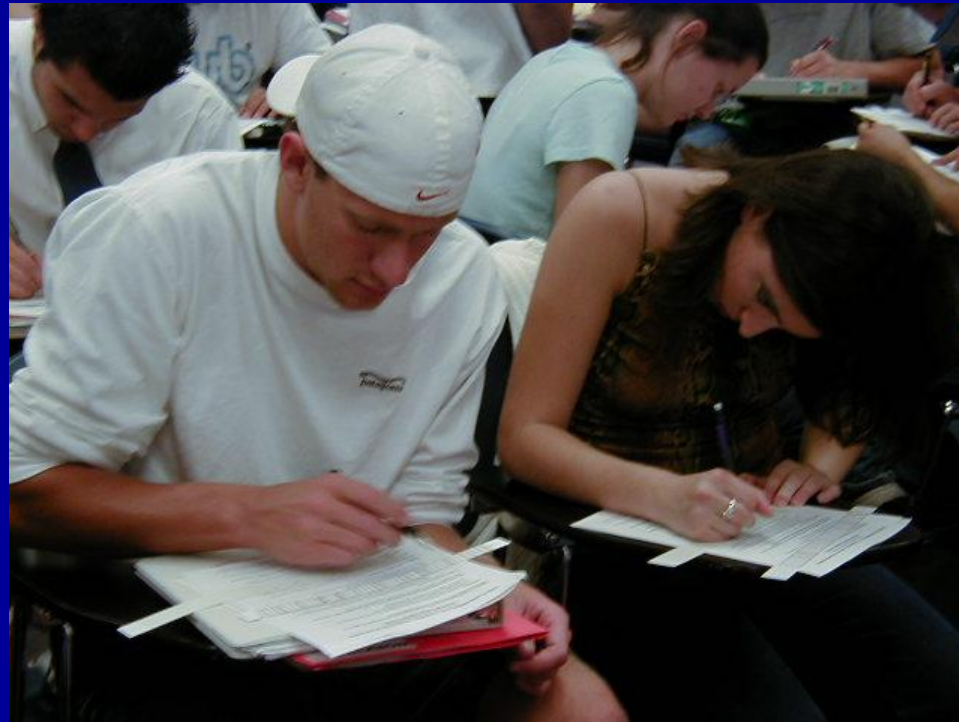
17 & 18



19 & 20

**AFTER YOU ARE DONE WITH YOUR GROUP  
TEST . . . Get your **GROUP FOLDER**  
Then WAIT for your Facilitator to arrive with the  
plotting materials....**

**TO SKELETON PLOT YOUR OWN CORE !!**





# RECAP: HOW TO SET UP YOUR SKELETON PLOT GRAPH PAPER:

**Important: USE A PENCIL not a pen!**

Core ID #  
Your NAME

**LABEL** intervals of 10



Starting Flag for Ring 0 (first ring)

Ending Flag for LAST *complete* (not jagged) RING in core -- **plot arrow when finished**, not all cores have 60 rings

**To be continued on Thursday . . . .**

**PART A: SITE DESCRIPTIONS**

**PART B: COLLECTING DATA &  
ANALYZING YOUR SITE**

**PART C: SITE-TO-SITE COMPARISONS**

**PART D: DEVELOPING &  
TESTING HYPOTHESES**