

UNITED STATES GOVERNMENT

Memorandum

TO : V. C. La Marche, Jr., WRD,
Menlo Park, California

DATE: February 19, 1965

FROM : Robert Schneider, Research Geologist
Arlington, Virginia

SUBJECT: PUBLICATIONS - manuscript entitled, "Slope denudation and sediment
yield in the San Gabriel Mountains, California

Returned herewith under registered cover is the subject manuscript
which we have read with much interest.

There are a number of comments and questions attached to or marked on
the manuscript which should be taken care of before the paper is ready for
publication. When you have revised the paper so as to answer these questions
satisfactorily, we will be happy to consider it for the Annual Review.

It would seem that your argument would be more convincing if you had
included data on the root exposure and age of more trees; data on sediment
accumulation might be useful too. I expect also that you will have to cite
more evidence from your thesis or qualify your statements where necessary.

Robert Schneider

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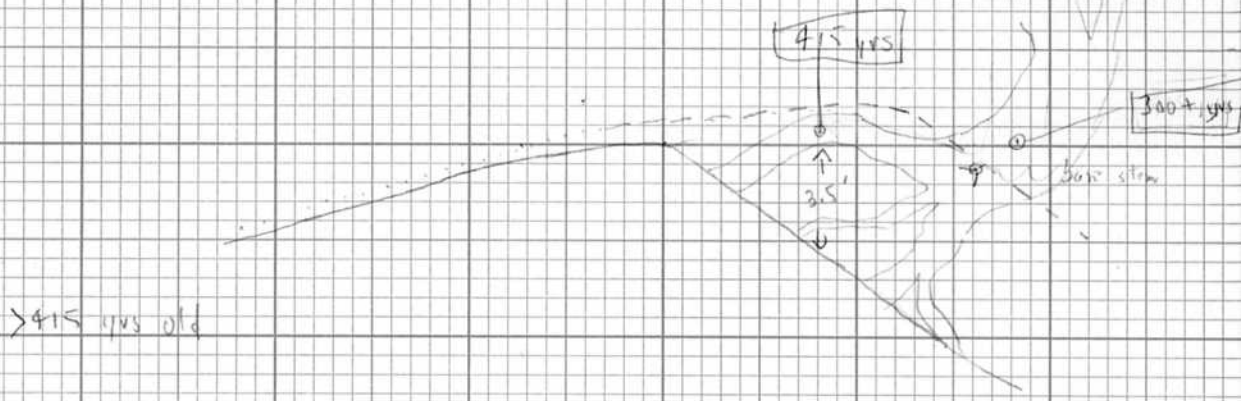
Enclosure

CC: Chief, General Hydrology Branch
Area Research Hydrologist, ACA
Area Research Hydrologist, PCA

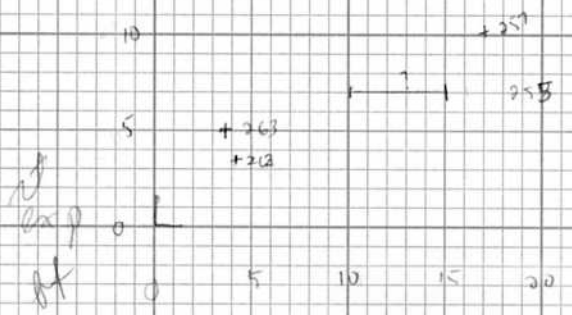
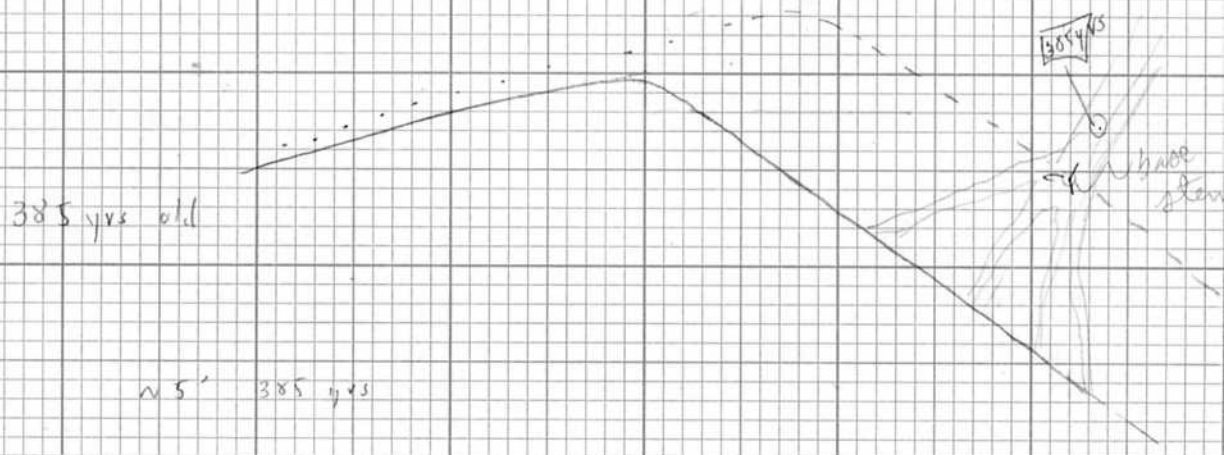


VU 262

SEE PLAN CROSS-PROFILE



VU 263



LBP - MT BADEN-POWELL

From report written by CW Ferguson & K. A. Wright
Jan 3, 1963 to Jawi, who had cured
some LBP on Baden-Powell

Data for 8 living trees
by numbers (count only):

#1	395	(no bark)
2	836	
3	1051	
4	227	
5	450 - 484	
6	-	
7	350	
8	457	

Data from Snags (dead trees)

#1	734
#2	568
#3	209
	126
snag	294

There is a fair "no-way" correlation of
#2 (CB) with the ponderosa pine
chronology from San Bernardino Mtns
of Schulman (1956).

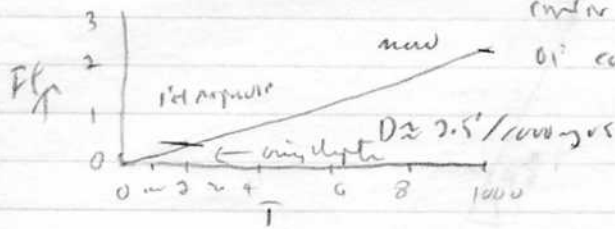
A number of newspaper clipping exist (CWF)
Sim Jawi - Angeles N.F. Supervisor, now dead
originally cured these trees ^{at least} as early as Aug, 1962.
A "forester" named Leo Beniman assisted
Jawi.

The earliest work was to obtain 1-11 man crew for
a 50" dia tree, sent to the TRL & given a
cure date of 1025 A.D. Later, he removed the
30" cores & took two samples reported on by W.S.

DATING - BADEN - POWELL SPECS

BP-1 A

Root core - Buttress core - x data return at 1972, 99-95
 Center present at about 1000 AD - inner 50-100 yrs
 very difficult. 950 yrs in 8" core.
 center is not about 2.5" a bar given at point
 of core. Root apparently lit exposed 100-200 years after ☺



BP-1 B

Stem core - 29" of about 36" total radial growth
 Ring count 962 - 1968. Fairly complacent, several possible
 micro or locally missing rings not unaccounted. No app.
 false rings.

	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
growth, inches	1.7	2.3	2.4	2.7	2.9	2.6	2.0	2.1	1.8	

assume inner 12" acc. growth rate 2.0" / 100 yrs
 ≈ 600 yrs ; age ≈ 1600 yrs.

assume 12" at acc growth rate of 3" / 100 years

≈ 400

LBP BP-3

stem core w/ 600 rings (approx) to pit.

2.5" 1400 - 1500 AD

3.5" 1500 - 1969 AD

Initial growth rate about 5"/100 years
(vc 1380 - vc 1390)

1.4 to 2.1 ft/1000 yrs BPI

0.5' (?) BPI / 600 yrs = ~~1.8' / 1000 yrs~~
+ 0.5' basal = 1.7' / 1000 yrs (K)

} Bachelor

0.5"
1380 - 1390

2.5"
1400 - 1500

3.5"
1501 - 1969

10 yrs

100 yrs

463 yrs

5"/100 yrs

2.5"/100 yrs

.75"/100 yrs

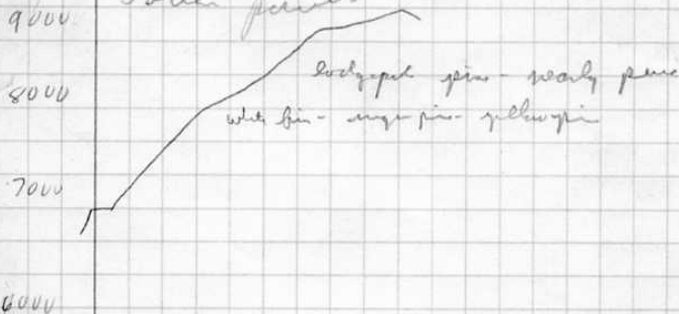
MT. BADEN - POWELL - 7/30 1965

Saturday July 17, 1965

Mt. Baden Powell
San Gabriel Mtns, Calif.
Lvs L.A. 11:00 AM
Arr Camp - Lamp Springs - 5:00 PM

Sunday July 18, 1965
see Crystal Lake 7 1/2' quadrangle

Vegetational Zonation - Ventr. Con
Baden Powell



old LBP on ridge, west side of trail at alt. 8600 - 8800 ft. New west.

South east face of ridge north of Baden Powell has no trees, except at top - vegetation in Intn. Mtns. (C. Sclerophyllous)

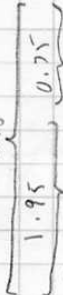
View NW face Baden Powell in old LBP. Mtns - background. 2.1' 2.5' 3.7' (cont. to ground surface)

- ✓ C-8-11
- ✓ C-8-12
- View N. slope Mt. Hawkins
- View LBP @ about 8600' alt. Baden Powell; view west
- ① Many large, old LBP on NW-facing slope of Baden Powell.
- Some lodgepole pine also. N-facing slope - in tract is nearly pure lodgepole.

LBP - MT Baden Powell

Large, massive single stem LBP, 2 1/2' diam. buttressed by rot. 2.7 ft. total diameter growth, fairly symmetrical around bark - covered circumferance. Very, but trees about 15 feet.

A. Core of second wood to about head. 1.95 long, bark in



BW - spine west 11 centners

Spine in NW corner very much 30° fall in angular hollow - spines collect. 5' diam - dia. fairly even in water of road side

Photo 5-8-11

W53

Monday
July 19, 1965

Mts. Baden-Pavell

8

VL 25X LBP on steep ridgelet
about 900' west of trail - 300'
east of LBP - LPP forest boundary.

Single stem - 2.8' dia - is rotten within
0.3' of bark. Roots are sound.

✓ core A 7-PA

✓ B 3 root cores on sidehill, partly

battered root. Center of root
0.5 radially from top of root (eye)
Top of root +0.2, -1.5 feet above
ground surface.

maximum depth of regrowth on
downslope side are 1.0 to 1.5
feet.

Very probably old but
completely rotten LBP in
VL 25X on Baden Pavell

BW - View east

Near total climatic control
at 1 ft over 1000 sq ft. area
during life of tree.

Height tree 33°

(d) Measurements of foliar points in one
points

N 21 W	71 NE	N 45 W	83 NE
N 55 W	63 NE	N 48 W	35 S
N 50 W	56 NE	N 75 W	43 S
N 50 E	90		
N 45 W	75 NE		
Planes (foliar)			
N 75 W	35 SE		
N 70 W	57 S		
N 95 W	52 S		

view
1-2-8

✓ C 29" core from dead trunk in
mound pile

✓ D Dead in 1/2 in

Port exposure - 1.25' to center
side, base of stem beyond
about 3 ft

View in profile - VL 259

1/2 in (1/2) view up slope (SE) of VL 259

8 very short fresh in core on
plane to root, 2.0' total radius
growth

low on steep climatic control
root - 2.0' to 0.2' of width with
center of root 2.1' ft above
ground surface

* unrecorded
VL 259 LBP on steep
slope side of ridgelet on
Baden-Pavell. Prunella cutting
Doubt about tree, 1 dead,
other rotten heart.

(Baden-Powell $\frac{1}{4}$)

VL 257 "Walden tree"
 named for M.H. Waldron
 (USFS sign). View East

VL 257 etc.

Flora: N40W 27 SW
 Chloro. sec. - bio green - purple
 from point N30W 60 NE

VL 261

LBP 20' below, 150' NE
 Great Baden Powell
 prominent west-trending
 butte root.
 Single stem 1.6' radius
 1/2 bark.

Line E - Bark in on south root
 on base of stem. Root full bark
 + 1.8' dia at this point
 with center. Root is butte
 feature out

A Bark - on stem to root
 B Butters root, dead out to

VL 260 Jeffrey pine, ^{older}
 of two with root of VL 257
 part of rocky out. assoc. w/
 mountain mahogany on relatively
 dry east slope of ridge +
 nearly south slope.



3 stem cores A, B, C at
 various levels.

Tree shows about 1' explicit
 root exposure.

C? local - tree?

Jeffrey pine at 9200'!
 found at 9350 on summit of Baden
 Powell

TUESDAY, JULY 20, 1965
 MT. BADEN-POWELL
 SAN GABRIEL MTS., CALIF.

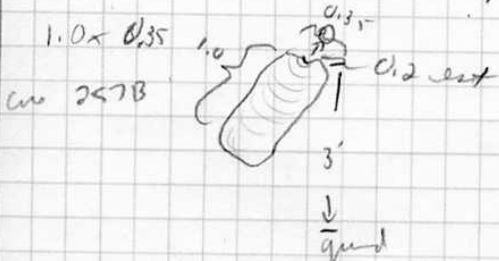
VL 255 - 231 VL 255 view West
 VL 232 Mt. San Antonio view East
 VL 233 VL 255 view West
 VL 234 VL 255 view West
 Sun

Baden Powell
 VL 255 & VL 257 - reg
 Baden pines on rocky - west

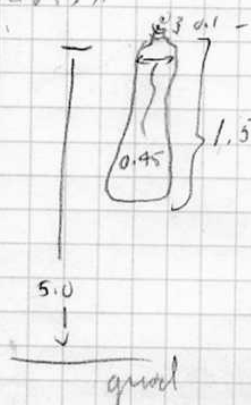
July 20, 1965
Walden Tree, VL 257

Butcher Root Dimensions

Root on north side, core July 1965



Root on north side close to stem
Core 257A



July 20, 1965
Balden Pond

VL 262

Mult. stem LBP 10' east of ridge crest. Deeply exposed roots. Located about 800' north of VL 257. Rock fragment - roots 5' above 7th level exp. site about 25'.
Photo C-35, ~~36~~ View NE fl
1-29 BW - (red soil) ridge-crest

✓ A Core on stem where stem 1.8 dia below junction subsided stems. Rather heart

✓ B Core on opp side stem

✓ C Core on coat - butternut



Center of coat 3.5' above rock surface

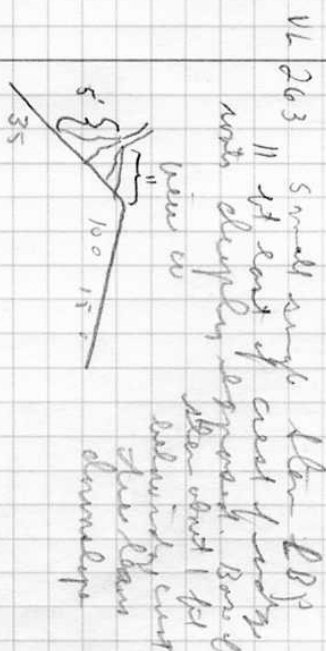
Core taken about 3' from coat of stem

✓ D } same location as C
✓ E }

July 20, 1965

Photo C-35 clearing VL 262
C-37 ?

Photo C-38 View VL 263 from below view north. Don's hand on base of pole



✓ Core 4 - PA? Core on stem. Many the fine narrow fractures yellow and part of core

B PA stem core

Sharp boundary between old LBP front to east & young - even layer LBP stand to west.

Full born
 L 254 Single stem LPP above 250
 above trail on north face
 Bodan Panel 1.1' radial growth

Widespread damage not exposure. Max depth exposure 1.1'

BW - VL 259 view east
 Pan - picture

VL 255 - LBP crest only north
 Baden - Powell.

5-8-17
 * Photo BU - view north

Photo C-15 Pan standing on root at about eye level of ground level

- ✓ A - Core in from recently dead south side of main (east) stem. Lacks 0.6' of pith. Several radial increments, but core is complete 1.6' long.
- ✓ B - Core in on west side 9' below core A - good core but missing 1.8' long. Gaps between 1/2 ft and a foot of the pith.
- ✓ C - 2.3' core on west side in B
- ✓ D - Bark - 0.9' long, may x date with other cores.
- ✓ E - PA out on dead buttress root on south side of tree, 0.1' to pit 3.1' center of root (inferred) to ground surface.

VL 257 (Baden - Powell 2)
 Twin - old LBP under section
 not exposure. Pan also appears to provide just west of nearby crest

SE - C 16 View from SE
 SE - C-17 View from east side
 SW - " " " "

← Core A
 Buttress root 24' long
 WE - One taken about 6' from base of stem. Core lacks 0.3' just from center of root (some pith) center of root 4.8' below above ground surface.

← Core B
 2-1/2' Buttress root 2.9'
 Core above ground surface
 Core inside 1/2 ft (?) diameter
 end of core 2 feet above
 next to core BP 2

← Core C
 Core in on north side stem
 Full 2.5" core radial to outside
 Pith

← Core D
 4 - 6 inches, 0.3' to pith