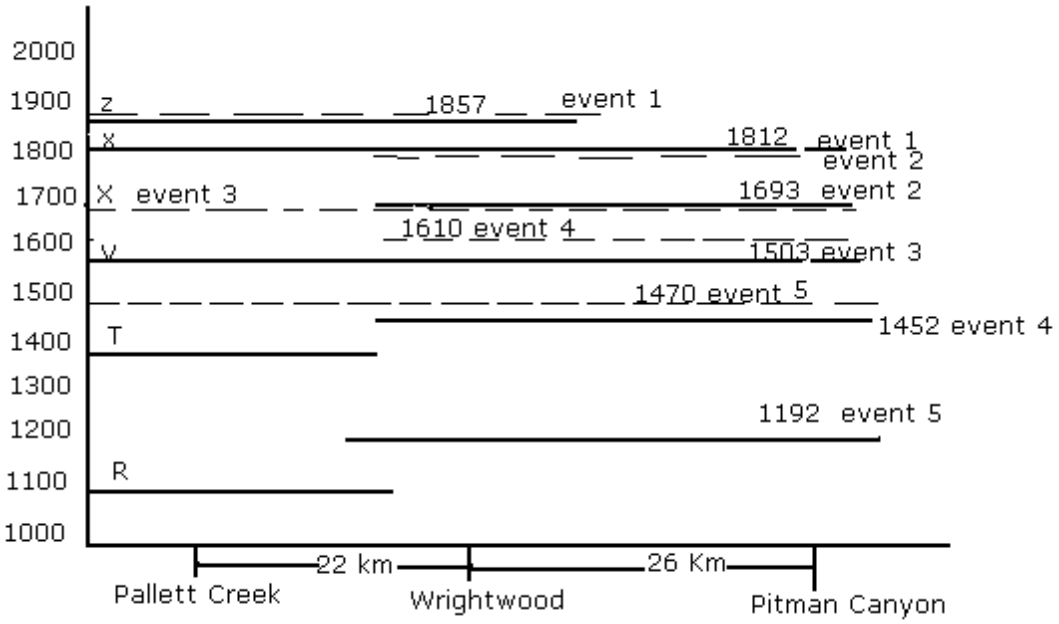

: Fumal et al. explanation for the succesion and correlation of events at Pallett Creek, Wrightwood, and Pitman Canyon.

: Seitz et al.'s (1994) explanation for succesion and correlation of earthquakes at Pallett Creek, Wrightwood and Pitman Canyon.

Table :6 illustration of different interpretations made by Fumal et al., and Seitz et done in Pallett Creek, Wrightwood, and Pitman Canyon.

From the data we just presented, we must consider the possibility that the 1812 San Juan Capistrano earthquake and the A.D. 1690 earthquake documented at Pitman Canyon and Wrightwood did not rupture as far southeast as Plunge Creek. There was certainly no evidence for either earthquake recorded in the trench. However, a consultant's trench excavated in 1991 revealed a zone of massive fault scarp colluvium northeast of the end of trench 7 (Suitt, 1992). It is possible that one or both of these earthquakes ruptured through this site if the width of the rupture lay entirely within this massive zone.

Since we only have one recurrence interval, it would be hard to tell whether the recurrence interval is irregular or not. We also do not know whether or not the ~ 160 years between events A and B is representative of the average interval between events on this segment. The fact that there was no evidence for any earthquakes younger than A.D. 1439- 1648 at Plunge Creek suggests that the interval between event A and the next event may be longer than 350 years.

The two dates we obtained and calculated for events A and B are A.D. 1439-1648 and A.D. 1235-1410 respectively. Events A and B at Plunge Creek may correlate with events V and T at Pallett Creek, if we take the lower end of our date ranges (refer to table 1 and table 7). Event A at Plunge Creek may correlate with either event 4 or 5 at Wrightwood and with either 3 or 4 at Pitman Canyon. Event B may correlate with either event 5 or older events at Wrightwood and with either event 4 or 5 at Pitman Canyon (refer to tables 2, 4, and 5).

Figure 8 shows the relationship between the stratigraphic depth and the calibrated ages obtained and thus illustrates the sedimentation rate. The sedimentation rate is very high (about 5 mm/year), as illustrated by the slopes in figure 8. This makes it more likely that every earthquake was recorded. Apparently, there was a depositional hiatus that allowed the formation of a buried soil at 0.8-m depth. However, the buried soil is close to the surface and well above the stratigraphic level of the earthquake horizons.

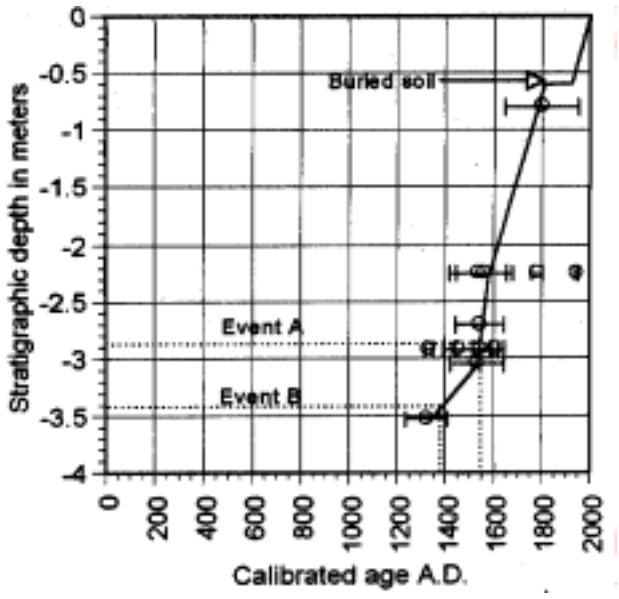

Figure 8. Variation of calibrated radiocarbon dates with stratigraphic depth. Errors
faulting events visible within the trench are labelled along the left side of the di
their stratigraphic depth.

Pallett Creek's events	Pallett Creek's	**Plunge Creek's events**	Plunge Creek's d
Z	1857	NOT RECORDED	
X	1812	Not recorded	
V	1480	Event A	A.D. 1439-1648
T	1346	Event B	A.D. 1235-1410

Table 7: Comparison of Plunge Creek data with Pallett Creek's.

Conclusion:

We found two earthquake events at Plunge Creek in the San Bernar
along the San Andreas Fault. Event A dated A.D. 1439-1648 and event B
after A.D. 1235-1410. The 1812 and the ~ A.D.1700 earthquakes were no
the sediment, thus they may not have ruptured that far southeast. Apa
were consistent with the Pallett Creek area, Wrightwood, and Pitman Canyon. How
error bars on the carbon dates are so large that they allow several p
between events at Plunge Creek and events at these other sites. We ha
trench along the San Andreas to see whether the data will be consiste

that would hopefully solve the problem of missing earthquake horizons and would facilitate correlation with other events and work in the vi

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