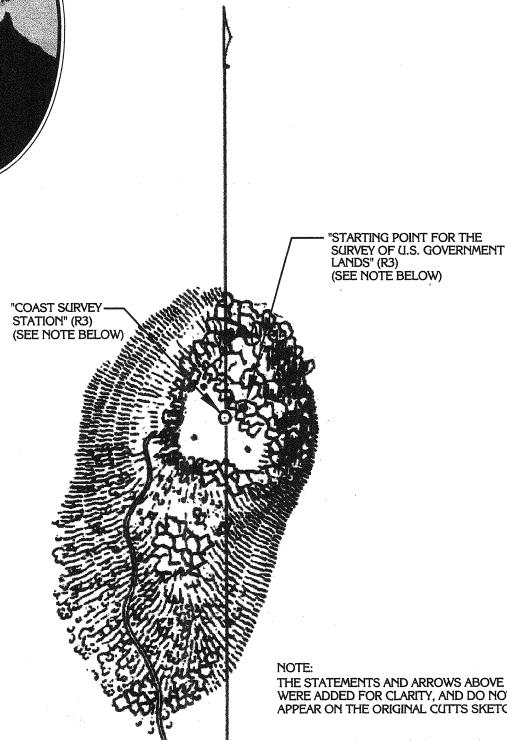




COLONEL LEANDER RANSOM
UNITED STATES DEPUTY SURVEYOR
SEPTEMBER 5, 1800 TO MAY 14, 1874
PICTURE COPIED FROM
THE FANTASTIC CITY - MEMOIRS OF THE SOCIAL
AND ROMANTIC LIFE OF OLD SAN FRANCISCO
BY AMELIA RANSOME NEVILLE



SKETCH COPIED FROM ORIGINAL NOTES OF R. D. CUTTS - 1852

NTS

"THE HIGHEST ROCK ON THE SUMMIT HAS BEEN SELECTED AS THE STARTING POINT FOR THE SURVEY OF THE PUBLIC LANDS OF CALIFORNIA.

IN A S. 20° W. DIRECTION FROM THE ABOVE - MENTIONED ROCK, AND 3 FEET BELOW ITS LEVEL AND 3 FEET DISTANT IS THE COAST SURVEY STATION. THIS IS SECURED BY A HOLE 8 INCHES IN DIAMETER AND 6 INCHES IN DEPTH - DRILLED IN THE SOLID ROCK - AND IN THE CENTRE OF THIS, A SMALLER HOLE 2 INCHES IN DIAMETER & 1 1/2 INCHES IN DEPTH - THE CENTRE OF WHICH BEING THE CENTRE OF STATION.

THREE OTHER & SIMILAR HOLES TO THE LATTER WERE DRILLED IN THE ROCK - EACH 6 FEET FROM THE CENTRE OF STATION - AND BEARING RESPECTIVELY FROM THE CENTRE N 35° W - S. 35° E - AND S. 70° W." THE BLACK CIRCLE REPRESENTS THE ROCK - THE STARTING POINT FOR THE SURVEY OF U.S. GOVERNMENT LANDS. THE THREE SQUARE BLACK SPOTS ARE THE COAST SURVEY MARKS - SHOWING CENTER OF STATION."

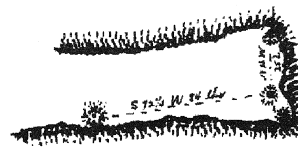
R.D. CUTTS, 1852
(SEE (R3) ON SHEET 1)

Profile of extreme point of
Mountain looking to the
East.

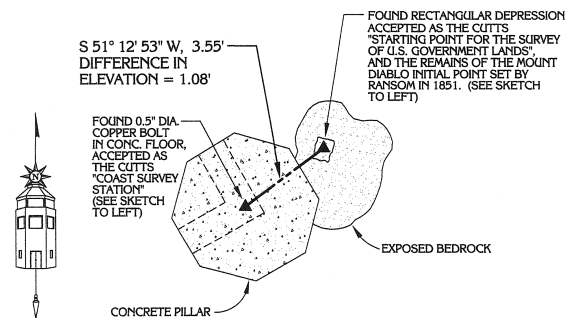


SKETCH COPIED FROM VOLUME 231 - NOTES OF LEANDER RANSOM - 1851

Plan of the position on the top
of the mountain.



NTS



RELATIONSHIP OF FOUND MONUMENTS
FROM FIELD SURVEY, JULY 1987

NTS

CONCLUSIONS:

IT CAN BE SEEN BY COMPARING THE SKETCH FROM THE NOTES OF R.D. CUTTS SHOWN ON THIS SHEET, WITH THE SKETCH OF THE RESULTS OF THE FIELD SURVEY ABOVE, THAT THE RELATIONSHIP BETWEEN THE "COAST SURVEY STATION" (SEE SKETCH TO LEFT) AND THE "STARTING POINT FOR THE SURVEY OF U.S. GOVERNMENT LANDS" (SEE SKETCH TO LEFT), IS VERY SIMILAR TO THAT OF THE TWO MONUMENTS TIED DURING THE SURVEY. (SEE SKETCH ABOVE)

THE DIFFERENCE IN BEARING AND DISTANCE MAY BE ATTRIBUTED TO THE FACT THAT CUTTS APPARENTLY ONLY ESTIMATED HIS DIMENSIONS. HAD HE MEASURED THEM EXACTLY, HE WOULD HAVE INCLUDED MINUTES AND SECONDS FOR BEARING, AND TENTHS AND HUNDRETHS OF A FOOT FOR DISTANCE.

THE DIFFERENCE IN ELEVATION MAY BE EXPLAINED BY THE FACT THAT, OVER THE YEARS, SEVERAL COPPER BOLTS HAVE BEEN SET OVER THE TOP OF THE ORIGINAL POINT, THEREBY RAISING THE LEVEL OF THE EXISTING BOLT ABOVE THE POINT SET BY CUTTS IN 1852. ALSO, WHEN THE STONE OBSERVATION TOWER WAS BUILT, AND THE BEDROCK LEFT EXPOSED, IT WOULD HAVE NEEDED TO BE "SMOOTHED" FOR SAFETY REASONS, AND THEREBY LOWERED.

BECAUSE THE MONUMENTS FOUND DURING THE SURVEY (COPPER BOLT AND RECTANGULAR DEPRESSION) CLOSELY MATCH THE DESCRIPTIONS GIVEN BY RANSOM AND CUTTS, AND THE BEARING AND DISTANCE MEASURED, AND DIFFERENCE IN ELEVATION CLOSELY MATCHES THE DESCRIPTION IN THE CUTTS NOTES, I ACCEPT THE DESCRIPTION BY CUTTS IN 1852, AND BELIEVE THAT THE RECTANGULAR DEPRESSION TIED IN DURING THE FIELD SURVEY IS THE REMAINS OF THE MOUNT DIABLO INITIAL POINT SET BY LEANDER RANSOM IN 1851.

RECORD OF SURVEY

RS 2582

TO DETERMINE THE LOCATION
OF
THE MOUNT DIABLO INITIAL POINT
LOCATED ON
THE TOP OF MOUNT DIABLO
CONTRA COSTA COUNTY, CALIFORNIA



Prepared By:
JOHN W. PETTLEY, PLS

JULY 2001

DISCUSSION:

IN 1996, C. ALBERT WHITE PUBLISHED A BOOK ENTITLED "INITIAL POINTS OF THE RECTANGULAR SURVEY SYSTEM" (SEE "OTHER REFERENCES" ON SHEET 1). IN THE SECTION OF HIS BOOK ON THE MOUNT DIABLO INITIAL POINT, WHITE COMES TO THE CONCLUSION THAT DAVIDSON'S 1858 DESCRIPTION IS CORRECT, AND THAT THE INITIAL POINT AND THE COAST SURVEY STATION OCCUPY THE SAME GEOGRAPHIC POSITION. THE FOLLOWING ARE SOME OF WHITE'S REASONS FOR HIS CONCLUSION, FOLLOWED BY COMMENTS (IN ITALICS).

1.) ACCORDING TO WHITE, THE ROCK FORMATION AT THE TOP OF MOUNT DIABLO IS MADE UP OF THE MINERAL JASPER, WHICH IS HARDER THAN STEEL. HE THEREFORE BELIEVES THAT RANSOM COULD NOT HAVE PICKED OR EXCAVATED THE HOLE HE DESCRIBED IN HIS NOTES (6 INCHES SQUARE, AND 9" DEEP). INSTEAD, WHITE BELIEVES THAT HE WOULD HAVE CHIPPED A SMALLER HOLE AT THE BASE OF THE HIGHEST PART OF THE ROCK, AND WEDGED HIS SIGNAL POLE AGAINST THE ROCK FACE.

IN BOTH VOLUME 201 AND 231 OF HIS NOTES, RANSOM VERY CLEARLY STATES THAT HE CHOSE THE "HIGHEST" POINT ON THE PROMINENCE OF ROCK ON THE TOP OF THE MOUNTAIN. CUTTS IN 1852 SAYS THE SAME THING.

2.) WHITE STATES THAT CUTTS WOULD NOT HAVE HAD DIRECT CONTACT WITH RANSOM, BUT DID KNOW THAT RANSOM HAD SET THE INITIAL POINT ON THE TOP OF MOUNT DIABLO. WHITE ALSO STATES THAT CUTTS DID NOT DESCRIBE A HOLE IN THE "HIGHEST ROCK".

IT IS PURE SPECULATION AS TO WHETHER CUTTS WOULD HAVE HAD ANY CONTACT WITH RANSOM. HOWEVER, IT SEEMS POSSIBLE THAT THEY WOULD HAVE HAD SOME CONTACT AS THEY WERE BOTH IN SAN FRANCISCO NEAR THE SAME TIME PERIOD, AND CUTTS WAS PLANNING TO VISIT MOUNT DIABLO JUST ONE YEAR AFTER RANSOM HAD BEEN THERE.

ALTHOUGH CUTTS DOES NOT DESCRIBE A "HOLE" ON THE HIGHEST ROCK, HE DOES SHOW A DEFINITE POINT FOR THE INITIAL POINT IN HIS SKETCH (SEE THIS SHEET), AND HE GIVES SPECIFIC DIMENSIONS BETWEEN THE TWO POINTS.

3.) WHITE STATES THAT HE BELIEVES THAT RANSOM AND DAVIDSON WOULD HAVE HAD FREQUENT CONTACT BECAUSE BOTH MEN BELONGED TO THE "ACADEMY OF SCIENCES" IN SAN FRANCISCO, AND WOULD THEREFORE HAVE DISCUSSED THE MONUMENTS ON TOP OF MOUNT DIABLO IN DETAIL.

AGAIN, THIS IS SPECULATION ON WHITE'S PART.

4.) FINALLY, WHITE STATES THAT DAVIDSON WAS VERY DETAILED IN HIS DESCRIPTION OF THE COAST SURVEY STATION, BY SAYING THAT "THE STATION IS THE STARTING POINT OF THE STATE LAND SURVEY". WHITE THEREFORE CONCLUDES THAT THE TWO POINTS OCCUPY THE SAME GEOGRAPHIC POSITION.

IN THE INTRODUCTION OF HIS 1858 REPORT, DAVIDSON DOES STATE THAT THE "STATION" IS THE STARTING POINT OF THE STATE LAND SURVEY.

THE GEODETIC GLOSSARY OF THE NATIONAL GEODETIC SURVEY (SEE SHEET 1, "OTHER REFERENCES") DEFINES THE TERM "STATION" AS "THE PHYSICAL LOCATION OR SITE AT WHICH, FROM WHICH, OR TO WHICH OBSERVATIONS HAVE BEEN MADE". I BELIEVE THAT DAVIDSON IS SAYING THAT IN GENERAL TERMS, THE PHYSICAL "SITE" OF THE COAST SURVEY STATION IS THE SAME AS THE INITIAL POINT, NAMELY THAT THEY ARE BOTH LOCATED ON THE TOP OF MOUNT DIABLO.

HOWEVER, LATER ON IN HIS DESCRIPTION, DAVIDSON GETS MORE SPECIFIC AND STATES THAT:

"THE HIGHEST POINT IS NOT THAT CHOSEN BY THE COAST SURVEY, BUT A SPOT SO CLOSE BESIDE THE HIGHEST ROCK (AS DESCRIBED IN ASSISTANT CUTTS ACCOUNT) THAT THE SIGNAL POLE BEARS AGAINST ITS FOOT". I BELIEVE BY THIS STATEMENT THAT DAVIDSON IS ACTUALLY AGREEING WITH AND ACCEPTING THE CUTTS DESCRIPTION OF 1852. THE CUTTS SKETCH TO THE LEFT CLEARLY SHOWS THIS RELATIONSHIP BETWEEN THE TWO POINTS.

I THEREFORE RESPECTFULLY DISAGREE WITH WHITE'S CONCLUSION, AND ACCEPT THE CUTTS DESCRIPTION.

SHEET 3 OF 3 SHEETS