

**SOLUTION OF THE  
MT. DAVIDSON-  
FRACTURE SYSTEM:  
RELATIVE TO THE  
COMSTOCK-LODE, NEVADA.**

**LEGEND**

OUTLINE OF COMSTOCK LODE  
OUTLINE MTD. DAVIDSON DIORITE  
HYDROTHERMALLY ALTERED ROCK LIMITS  
MINE SHAFTS  
ROADS  
PINNACLE OF HILLS  
DIP OF ROCKS & FAULTS  
POINTS OF MICROSCOPIC DETERMINATION  
QUARTZ-OUTCROP  
QUARTZ-PORPHYRY  
NUMERICALS OF FOUR, ELEV. ABOVE SEA-  
LEVEL, UNLESS OTHERWISE STIPULATED  
DIORITE  
DIABASE  
ANDESITE  
HORN-BLEND  
AUGITE

DIOR.  
DIAB.  
ANDES.  
H.B.  
AUG.

FEATURING THE EXTERIOR LIMITS OF THE MT. DAVIDSON DIORITE MASS, OF WHICH ITS STEEPLY-SLOPING EASTERN LIMITS CONSTITUTE THE ROOT-WALL OF THE FAMOUS LODE, FOR A DISTANCE OF SOME 7300 FEET, EXTE-  
NDING FROM THE CONFIDENCE RAVINE AT GOLD-HILL, TO OPHIR RAVINE NORTH OF VIR-  
GINIA CITY; AND TO SHOW THE EAST-WEST FAU-  
TURE OR FAULTING SYSTEM, INTERSECTING THE COMSTOCK LODE, AND HOW THE ABSORBING OR CONTACT ROCKS TO THE WEST HAVING BEEN LIFTED TO GREATER ELEVATIONS, DUE TO THE WESTWARD THRUST OF THIS DEEP-SEADED INTRUSIVE-UPTHIGH OF DIORITE. (See elev. numericals on map Fig. 1.)

IT IS APPARENT THAT THE EARLIER INVESTIGATORS DEVOTED ALL ATTENTION TO THE HANGING-WALL SIDE OF THE FAMOUS LODE AS THOSE EARLIER REPORTS ARE PRAC-  
TICALLY DEVOID OF ANY DETAILS OF THE WEST-  
ERLY FOOT-WALL SIDE, EXCEPT FOR A SHORT INVESTIGATION IN 1905 BY PROF. J. A. REID, DESCRIBED BELOW FIGS. 2, 4, 5, THIS BEING THE ONLY GEOLOGICAL CONTRIBUTION SINCE 1882.

AND HE STATES: THIS INVESTIGATION WAS LIMITED TO A FEW BRIEF, & HURRIED TRIPS, WHILE ENGAGED ON OTHER WORK, AND THAT HE SPECIALIZED IN WATER-ANALYSIS AND THE STRUCTURE OF MT. DAVIDSON AS REVEALED THROUGH THE BORE OF THE HALE & NO. 1 TUNNEL, PORTAL OF WHICH IS ON SURFACE NEAR THE H.S. SHAFT AT ELEVATION OF 6150. THE TUNNEL PASSED THROUGH & OUT OF THE DIORITE AT A DISTANCE OF 4908 FEET, CUTTING THE WEST-DRAVING FAULT-C. RELEASING A HEAVY FLOW OF HOT-WATER (See map for intersection) OF FAULTS A & B. NO DRILLING WAS DONE ALONG ANY OF THESE FAULTS.

THE REID REPORT ADMITS THAT THE TIME ALLOTTED TO HIS RESEARCH WAS INSUFFICIENT TO SUPPLY FULL DETAILS, AND THAT HE HAD NOT INVESTIGATED THE AREA SOUTH OF BULLION RAVINE, WHICH IS EVIDENCED BY HIS GROUND-PLAN FAILING TO NOTE THE CONFIDENCE RAVINE-FAULT, WHICH IS A PROMINENT MEMBER OF THE SYSTEM, AS IT MARKS THE SOUTH-SURFACE LIMITS OF THE DIORITE, AND ITS INTERSECTION OF THE LODE MARKS THE CENTRAL LOCALITY OF THE GREATEST SURFACE BONANZAS, EVER FOUND ON THE LODE; AND FROM WHICH THE PLATEAU GOLD WAS CAST OFF INTO GOLD-CANYON, THE WORKING OF WHICH BY THE PIONEERS, BEING RESPONSIBLE FOR THE LODE DISCOVERY, BY THE GROSH PROS., AS SEEN IN 1852. (See Reid's Geol. History).

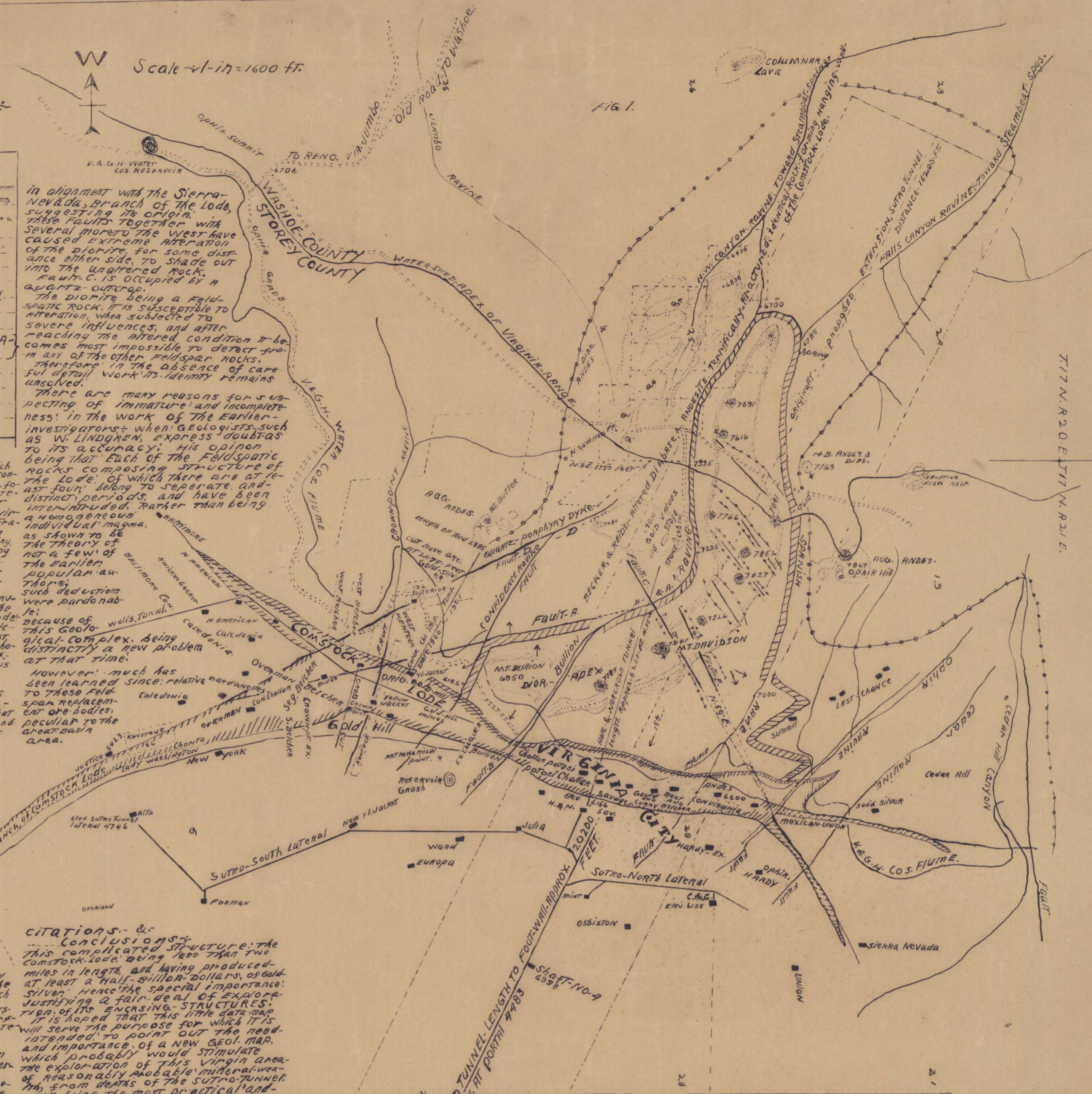
THE PRESENT OLD CAVED STOLES RESemble ONE GREAT GLORY-HOLE FOR A DISTANCE OF MORE THAN 2000 FEET. THIS ALSO BEING THE SITE OF THE WORLD-FAMOUS SANDY BOWERS FRAC-  
TION, DUBBED HIM OF BECOMING THE FIRST MILLIONAIRE MINE-OWNER OF AMER-CA.

**SUMMARY-DESCRIPTION:** By long and careful investigation, and survey, the writer has been able to supply the additional details, supplemental to the Reid Report, as to this important East-West-Easyly faulting system, and to define the surface rock-limits of the Mt. Davidson diorite-batholith, which show its major-axis extending easterly & westerly, across the Virginia-range, instead of North & South, as has been the general accepted theory. The Spanish & Bullion-ravine-faults defining its North-South-scarp-lines, running across the Virginia-range.

As was suggested by prof. Reid, more than twenty-eight years past, a new geological map is needed to show the true features of this much-neglected West-structure. During 1900-1901, the Confidence, Challenge & Imperial Tunnel was run westerly from surface near the Yellow-Jacket shaft, cutting fault D. at 2470 ft., exposing a large body of base-ore. (Contd. on report Storey Co. records)

Faults D & A appear to unite to the S.E. to become responsible in forming the so-called Silver-City-branch of the loade, fault D-terminating westerly into mass alteration.

Fault A breaking from intersection of the bullion-ravine-fault & traversing along S.W. scarpline of the imbullion diorite block, that has been severed from the main mass, by fault B. Faults C & E splitting cleavage-joints of the diorite, in a N-easterly direction, and



**CITATIONS:**  
CONCLUSION OF S.  
THIS COMPLICATED STRUCTURE: THE COMSTOCK-LODE, BEING LESS THAN TWO MILES IN LENGTH, AND HAVING PRODUCED AT LEAST A HALF-BILLION DOLLARS OF GOLD-SILVER. Hence THE SPECIAL IMPORTANCE JUSTIFYING A FAIR-DEAL OF EXPLORATION OF ITS ENGRAVING-STRUCTURES. IT IS HOPEFUL THAT THIS little DATA-MAP WILL SERVE THE PURPOSE FOR WHICH IT IS INTENDED, TO POINT OUT THE NEED AND IMPORTANCE, OF A NEW GEO. MAP, WHICH PROBABLY WOULD STIMULATE THE EXPLORATION OF THIS VIRGINIA AREA OF REASONABLY PROBABLE MINERAL-WEALTH, FROM DEATHS OF THE SUTRO-TUNNEL.

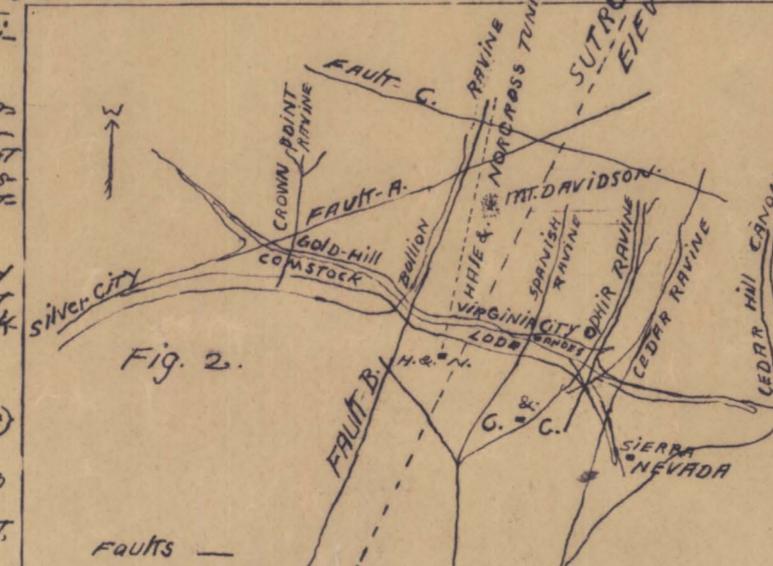
THIS BEING THE MOST PRACTICAL AND ECONOMICAL METHOD TO EXPLORE THESE DEEP-SEADED CONDITIONS. (See chart Fig. 3.)

There are abundance of reasons for suspecting ore-bodies in the west broken-country, as it is evident that this east-western faulting system has had most to do with the notable short length of the main lode.

Their importance in regard to ores, lies in the fact that they have caused the blocking out of the wall-rocks, with resultant opening to mineral solutions. (Reid J.A. p. 178-179-180. STRUCTURE & GENESIS)

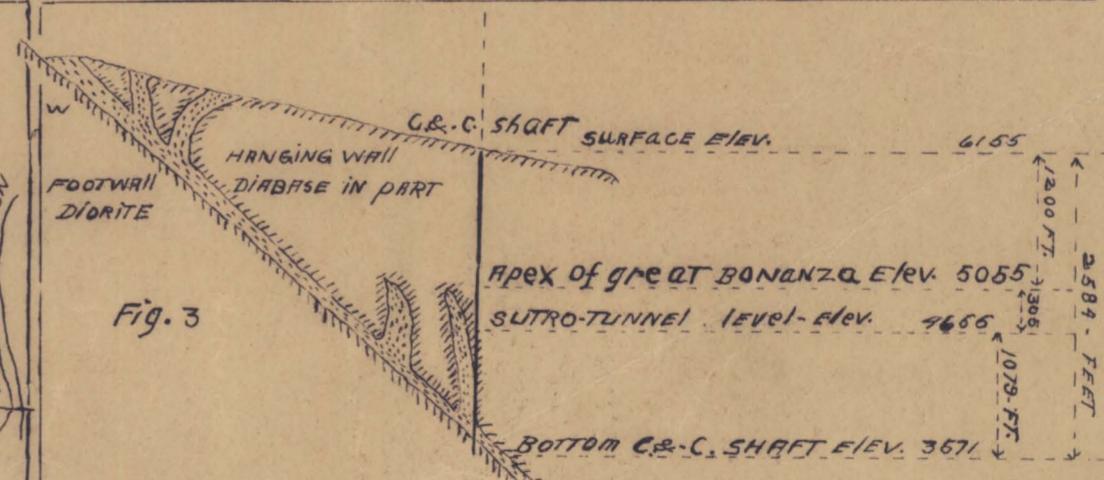
If the above quoted Genesis is correct as applying to the Comstock-lode, and should it be found that all of the ascending-mineral-solutions had completely ignored entering the west structure, through this abundant of natures channels to precipitate ore-bodies under the identical structural conditions represented by the main lode; then there must be admissible mistic phenomena working in opposition to natural causes.

RESPECTFULLY SUBMITTED:  
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**GROUND-PLAN OF THE COMSTOCK-LODE,**  
SHOWING DISPOSITION OF FAULTS. BY  
J.A. REID 1906 Calif. Univ. Pub. Vol. 4, No.  
10, pp. 177-189. THE STRUCTURE AND GENESIS  
OF THE COMSTOCK-LODE.

NOTE: THE U.S. GEO. SURV. BUL. NO. 736-C-  
1928, ADVISES THAT THE ONLY LITER-IMPORT-  
ANT CONTRIBUTION TO THE GEOLOGY OF  
THE COMSTOCK, IS THAT BY J.A. REID. THE  
STRUCTURE & GENESIS, AS ABOVE DESCRIBED.  
THE WRITER HAVING DESIGNATED THE FAULTS  
THEIRON AS: A-B-C FOR BRIEFLNESS OF  
ILLUSTRATION.



CROSS-SECTION THROUGH THE COMSTOCK-LODE, REDUCED FROM THE REID REPORT, AS FULLY DESCRIBED UNDER FIG. 2.

THE PLAN FIG. 3, SHOWS THE PECCULAR OCCURRENCE OF THE VIRGINIA-CITY BONANZAS. THE ORO OCCURS NOT IN THE MAIN FISSURE, BUT IN OPENINGS OR "VEINS" IN THE HANGING WALL, WHICH OCCUPY NEARLY VERTICAL POSITIONS.

THE CHARACTER OF ORO DEPOSITION HERE, BEING SO DIFFERENT THAN THAT OF THE GOLD-HILL SECTION, BOTH AS TO TENURE AND SYSTEM OF FORMING, THAT IT WOULD SUGGEST SEPARATE, DISTINCT ORE-MAKING PERIODS.

NOTE: THE C.C. SHAFT PENETRATING THE GREAT BONANZA, THE APEx OF WHICH WAS APPROXIMATELY 1200 FEET BELOW SURFACE.

THE WRITER HAS REDUCED THIS PLAN TO SCALE, SO TO FUNCTION AS A DEPTH CHART, IN ILLUSTRATION OF IMPORTANCE OF WEST STRUCTURE BEING EXPLORED FROM GREAT DEPTHS.

(GU-1)

1600 ft.

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