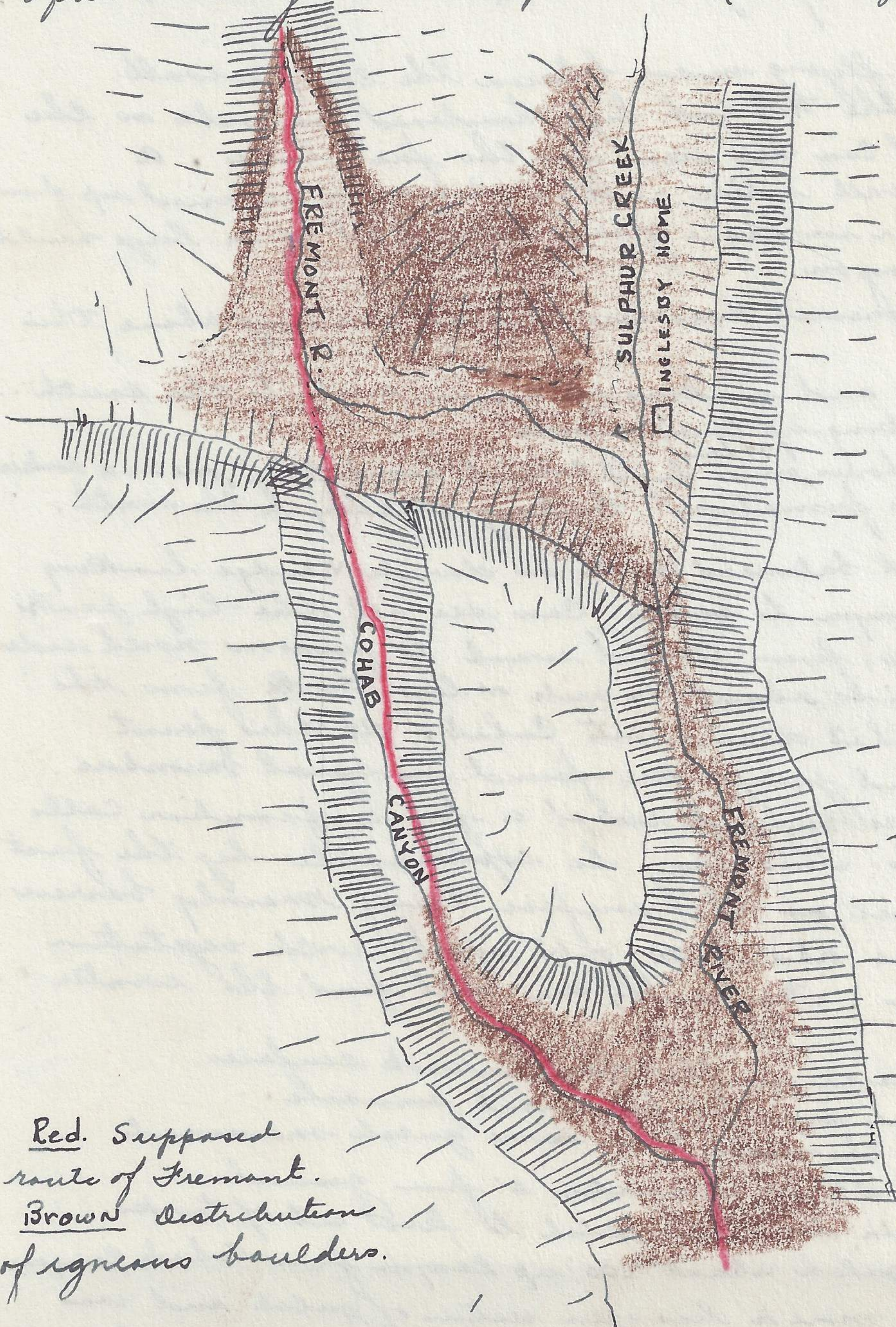


than are evident today. Most erosion, it appears to me is done during a very short period of time when we receive cloudburst rains or storms of cloudburst proportions. Now if a present canyon has a favorable catchment basin yet supports very little water in its creek bed, may have greater erosional possibilities than a canyon supporting a large stream but not ^{having} the proper pattern of catchment basin necessary to support cloudburst floods. This seems to be the case with Sulphur & Fremont Canyons; one supporting nearly all the water but with narrow canyon while the other has very little permanent flow but having the widest canyon and suffers the greatest degree of erosion. It appears to me that Sulphur Creek has sapped the Fremont which now enters the reef proper after making an abrupt turn ^{to the} north from its east west trend.

Another interesting thing is connected with this Cohab Canyon is the distribution of igneous boulders. They are found at the lower end but not at the head of the Canyon. This would indicate that if the Fremont had gone down this canyon at one time it was before the deposit of boulder took place and that the Fremont had been diverted before the invasion of black boulders. The boulders in lower Cohab gained entrance by backing up into mouth of canyon from the present Fremont river at a point in the cut portion of the reef.



Red. Supposed route of Fremont.
Brown Distribution of igneous boulders.