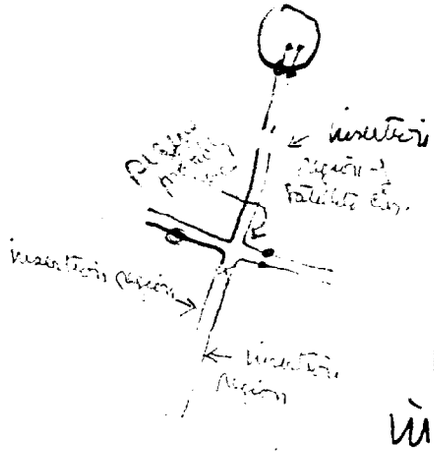
August 8 -

Dear Charlie -

This is just an appendix to my last. I have a correction to make in one case. I wrote you about a case of A B Pl ♀ × pl ♂ which had been x rayed in early embryo and had given rise to a plant which looked A B pl (all other plants in culture were distinctly purple) + therefore indicated that pl had been lost. I also wrote that examinations showed no visible change in the satellite chromosome. When the plant tasseled the anthers were distinctly purple - the plant, therefore, was probably A B^w Pl (probably) or A b Pl. There had been, therefore, no loss of Pl + no change was expected, then, in the satellite chromosome. There are no cases which we have examined, then, that show a "mutation" of one of the known genes that has not shown a visible change in some way - Correction completed!

The pl deficiency involving an interchange between the satellite chr. at the region of pl with another chr. is not going to pull thru, I believe. The plant is nearly 90% sterile. I have been working on it & find one very interesting feature. In the chromosome ~~which does~~ other than the satellite which is involved the insertion regions do not correspond — In one chromosome (do not know whether it is the interchange or the "normal") the insertion region is nearer the cross. In the other it is farther away. The slides are very clear on this point. One of the chrs. may have an inverted section. There is an occasional looping at this region in the chromosome but I can't make out details. I have made the diagram as a close cross, however, this probably doesn't occur & has not been noticed — it should not be expected, either, if there has been some loss at this region.



I believe this non-correspondance of insertion regions will be found in species crosses. It may explain why morphologies vary in nearly related forms where number is constant. Am anxious to see if this is not true.

This is a long correction —

Sincerely,

Barb.