greatly uplifted as compared with it, that to the west considerably
less so. Its own hilltops reach concordant levels, and probably
represent the Cretaceous base level, but dropped below its normal
altitude.

**Faults as topographic features**

As has been stated, it is probable that all fault scarps in the
region disappeared by being worn down during the Cretaceous
base-leveling period. Such wearing down customarily brings
different rock masses into juxtaposition on opposite sides of a
fault. Any renewed uplifting of the district then tends to cause
a reappearance of a scarp along the fault line, owing to the more
rapid wearing away of the weaker of the two rocks. The height
that this scarp may attain will have the difference between the
old and the new base levels for its maximum value, and the
proportion of this actually attained will, other things being
equal, depend on the comparative resistances of the two rocks.
If one is very strong and the other very weak, relative promi-
nence may be gained, specially in the near vicinity of drainage
lines. The weaker rock may be on either the downthrow or the
upthrow side, and, according as the first or the second is the
case, the scarp will face in its original, or in the opposite direc-
tion, in the latter case giving rise to the anomaly of the down-
throw side standing at a higher level than the upthrow. In the
cases where there is little or no difference in resistance between
the rocks on the two sides, there will be no tendency to cause
reappearance of a scarp along the fault line.

Furthermore, except in the case of faults which exactly
parallel the strike, the surface rock will vary from time to time
on the same side of the fault, and with these changes, now on
one side and now on the other, the scarp becomes either less or
more pronounced than it was before, as the variation dimin-
ishes or increases the difference in resistance of the rocks. In the
case of dip faults an irregular topography is sure to be produced
along the fault, owing to the more frequent passage from one
sort of rock to another.

In general, the faults of northern New York show a weaker
rock on the downthrow side and hence tend, on uplift, to re-
produce a scarp facing in the direction of the original one.