Now why is it that the Carboniferous and Old Red Sandstone rocks have been specially preserved in the great valley, and almost entirely removed from the upland region of the Lammermuir hills? The reason is this:—

When strata have been thrown into a series of anticlinal and synclinal curves, it has frequently happened that those parts of the disturbed strata that were thrown downwards, so as to form deep basin-shaped hollows, were by this means saved, for long periods of time, from the effects of denudation, while the upper parts of the neighbouring anticlinal curvatures, being exposed to all the wasting influences of the air, rain, rivers, and the sea, were denuded away.

In other words, some widely extended portions of the strata lay so deep that no wasting influence had access to them, and they have escaped denudation, and the basin—as geologists term it—remains. *This is the reason why so many coal-fields lie in basins.* It is not, as used to be supposed, that the Carboniferous beds were deposited in basins, but that by disturbance part of the strata were thrown into that form, and saved from the effects of denudation. *Such basins are, therefore, equally common to all kinds of formations*; though, because they rarely contain substances of economic value, they have not met with the same attention that Coal-basins have received.

In the case now under review it happens that the Old Red Sandstone and Carboniferous rocks lie in the hollow, and, though much worn away and fragmentary, they have been to a great extent preserved; while the continuation of part of the same formations that lay high in an anticlinal form, and originally spread over the Lammermuir hills (3′), has been almost all removed