

in (A) 1-1.7, in (B) 1-2.8, a proof that the Silicates, which were washed out during degradation, contained more silicic acid as the degradation advanced.

Not long ago, Ebleman* made experiments to investigate the changes which the Basalt undergoes from Lintz on the Rhine. — This Basalt was also disjoined by degradation into globulous and concentric masses around a centre mass of black gray color, which had not yet been attacked by water and atmospheriles. The analyses of them gave the following result :

	Fresh.	Disintegrated.
Silica,	45.9	43.2
†Titanic Acid,	1.0	1.2
Clay,	16.2	18.9
Peroxyd of Manganese,	0.3	0.3
Protoxyd of Iron,	13.0	14.6
Magnesia,	6.3	5.6
Lime,	10.3	8.2
Soda,	3.6	1.4
Potash,	1.2	0.5
Water,	2.4	6.7
	100.2	100.6

Or, calculated for 100 parts of clay :

Silica,	283	228
Titanic Acid,	6	6
Clay,	100	100
Protoxyd of Iron,	80	78
Peroxyd of Manganese,		
Magnesia,	39	29
Lime,	63	43
Soda,	22.2	7.4
Potash,	7.4	2.6
Water,	15	35

Hence it follows that during degradation the following quantities were washed out:

	D	Oxygen.
Silica,	55	28.6
Protoxyd of Iron,	2	0.4
Lime,	20	5.7
Magnesia,	10	3.9
Potash,	4.8	0.8
Soda,	14.6	3.7
		14.5

* Ann. des Mines, iv. Ser. T. xii. p. 637.

† Non-essential to vegetation.