contains in 10,000 parts the following proportions of ingredients: silica, 5·097; sodium-carbonate, 1·939; ammonium-carbonate, 0·083; sodium-sulphate, 1·07; potassium-sulphate, 0·475; magnesium-sulphate, 0·042; sodium-chloride, 2·521; sodium-sulphide, 0·088; carbonic acid, 0·557=11·872.[96]

When the water has reached the surface, it deposits the silica as a sinter on the surfaces over which it flows or on which it rests.[97] The deposit, which is not due to mere cooling and evaporation, is curiously aided by the presence of living algæ (postea, p. 809). It naturally takes place fastest along the margins of the pools. Hence the curiously fretted rims by which these sheets of water are surrounded, and the tubular or cylindrical protuberances which rise from the growing domes. Where numerous hot springs have issued along a slope, a succession of basins gives a curiously picturesque terraced aspect to the ground, as at the Mammoth Springs of the Yellowstone Park and at the now destroyed terraces of Rotamahana in New Zealand.

In course of time, the network of underground passages undergoes alteration. Orifices that were once active cease to erupt, and even the water fails to overflow them. Sinter is no longer formed round them, and their surfaces, exposed to the weather, crack into fine shaly rubbish like comminuted oyster-shells. Or the cylinder of sinter grows upward until, by the continued deposit of sinter and the failing force of the geyser, the tube is finally filled up, and then a dry and crumbling white pillar is left to mark the site of the extinct geyser.

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96 Annal. Chem. und Pharm. 1847, p. 49. A series of detailed analyses of the hot springs of the Yellowstone National Park will be found in No. 47 of the Bull. U. S. Geol. Surv. 1888.

97 For an account of the geyserite of the Yellowstone district, see papers by W. H. Weed, Amer. Journ. Sci. xxxvii. (1889), and 9th Ann. Rep. U. S. Geol. Surv. 1890.