was buried with that of his mother at Ealing, the tomb which he had prepared in the garden attached to his house at Wimbledon being found unsuitable for the interment. An altar-tomb still stands to his memory in Ealing church­yard. A catalogue of his library was printed in 1813.

The Life of Horne Tooke, by Alexander Stephens, is written in an unattractive style, and was the work of an admirer only admitted to his acquaintance at the close of his days. Its main facts are reproduced with more brightness in an essay by Mr J. E. Thorold Rogers in the second series of his Historical Gleanings. Many of Home Tooke’s wittiest sayings are preserved in the Table Talk of Samuel Rogers and S. T. Coleridge. (W. P. C.)

TOPAZ. It appears that the stone described by ancient writers under the name of τοπάζιος, in allusion to its occurrence on the island of Topazion in the Red Sea, was the mineral which we now know as the chrysolite or Peridote (*q.v.*). The topaz of modern mineralogists was unknown to the ancients. Topaz occurs either crystallized, in association with granitic rocks, or in the form of rolled pebbles in the beds of streams. The crystals are ortho­rhombic prisms, with a perfect cleavage parallel to the base, or transverse to the long axis of the prism. This cleavage is recognized by the lapidary as the “ grain ” of the stone. It is notable that crystals of topaz are com­monly hemimorphic ; in other words, the prisms are ter­minated by dissimilar faces. This hemimorphism is asso­ciated with the property of pyroelectricity (see Miner­alogy, vol. xvi. p. 376). The chemical composition of the topaz has given rise to much discussion, but the mineral is now generally regarded as a silicate of aluminium associ­ated with the fluorides of aluminium and silicon. When strongly heated it suffers considerable loss of weight. Brewster, examining the topaz microscopically, detected numerous fluid cavities, whence he concluded that it had been formed in the wet way. Two of the fluids obtained from these cavities have received the names of *brewster- linite* and *cryptolinite.* Some of the finest topazes are almost colourless, and may be occasionally mistaken for diamonds. The topaz, however, is inferior in hardness ; it lacks “fire”; and it becomes electric when heated—a pro­perty not possessed by the diamond. Colourless topazes are known to French jewellers as *gouttes d'eau,* and in Brazil as *pingas d'agoa—*names which refer to the limpi­dity of the stone—while in England they pass in trade under the curious name of *minas novas.* The beauty of the stone is best developed when in the form of a brilliant. The topaz is cut on a leaden wheel by means of emery, and is polished with tripoli. Coloured topazes are usually either yellow or blue. The pleochroism of the stone is very marked: thus the colour of the sherry-yellow crystals from Brazil is resolved by the dichroiscope into brownish yellow and rose-pink. The colour is unstable, the yellow topaz especially being liable to suffer bleaching by exposure to sunlight. Hence the fine series of crystals of Siberian topaz from the Kochscharow collection, now in the British Museum, is carefully protected from light by means of opaque pasteboard caps. In 1750 a Parisian jeweller named Dumelle discovered that the yellow topaz of Brazil, when exposed to a moderate heat, assumed a rose-pink colour. It is generally believed that all the pink topaz occurring in jewellery owes its tint to artificial treatment. Formerly it was the practice to heat the stone in a sand­bath, but the change of colour is now generally effected by wrapping the stone in German tinder, which is then ignited. This “ burnt topaz ” is sometimes known to jewellers as “ Brazilian ruby.” In like manner the blue topaz occasionally passes under the name of “ Brazilian sapphire,” and the pale green as “ aquamarine ”—a name which is strictly applicable only to the sea-green beryl. The largest known cut topaz is a fine brilliant, weighing 368 carats, and termed the “ Maxwell Stuart topaz.”

The topaz is occasionally found in Britain, but usually in small crystals unfit for jewellery. It occurs in granite at St Michael’s Mount in Cornwall, in Lundy Island, and in Arran, but the finest British specimens are obtained from the Highlands of Scotland. Ben-a-bourd, one of the Cairngorm group, yields good blue crystals. Topaz occurs in colourless and blue crystals in the granite of the Mourne Mountains in Ireland; and microscopic crystals are not uncommon in certain other granites. The famous topaz-rock of the Schneckenstein, in Saxony, yields pale yellow crystals of great beauty as mineralogical specimens, but not suited for cutting. The yellow Saxon topaz does not seem to change colour on exposure to heat. Some of the finest topaz comes from near Odon Tchelon, in Siberia ; while the well-known deep-yellow crystals of Brazil occur near Villa Rica (Ouro Preto). Fine topaz, pale blue and colourless, is found, as rolled crystals, in Tasmania and on Flinders Island in Bass’s Strait. It also occurs in the tin-drifts of New South Wales ; and beautifully-formed limpid crystals, of small size, accompany stream-tin at Durango, in Mexico. Fine topaz fit for jewellery has recently been worked at the Platte Mountain, near Pike’s Peak, Colorado. One stone, weighing 125 carats, has been described as being “ as fine a gem as America has produced of any kind” (Kunz, 1885). Topaz also occurs in cavities in rhyolite at Nathrop and Chalk Mountain, Colorado, and in trachyte near Sevier Lake, Utah. It is likewise found in Arizona, in New Mexico, and at Stoneham, Maine.

Oriental topaz is the name sometimes given to yellow corundum, a mineral which is readily distinguished from ordinary topaz by its superior hardness and density. The yellow and smoky varieties of quartz, or cairngorm, are often known in trade as Scotch topaz, but these are inferior to true topaz in hardness and in density. The chief differences between the three may be thus expressed:—

|  |  |  |  |
| --- | --- | --- | --- |
|  | Scotch Topaz. | True Topaz. | Oriental Topaz. |
| Hardness | 7 | 8 | 9 |
| Specific gravity | 2∙6 | 3∙5 | 4 |
| Crystallization | Hexagonal. | Orthorhombic. | Hexagonal. |

TOPEKA, a city of the United States, the county seat of Shawnee county and the capital of the State of Kansas, is situated (39° 3' N. lat. and 95° 39' W. long.) for the most part upon the south bank of the Kansas or Kaw river, upon a level prairie bench considerably elevated above the river. A small portion, known locally as North Topeka, lies upon the north side of the river. Besides the State capitol, which is an imposing building in the midst of an extensive park, the city contains the State insane asylum and the reform school. The Atchison, Topeka, and Santa Fé Railroad Company has its offices and work­shops here, and the city is also intersected by a branch of the Union Pacific line. In 1860 Topeka had only 759 inhabitants ; in 1870 the number had risen to 5790. In 1880 the population was 15,452 (8140 males and 7312 females) ; and in 1886 the number is returned at 25,005, making Topeka the second largest city in the State. The assessed valuation in 1886 was $6,547,079, and the debt of the corporation only $422,900.

TORCELLO, a small island 6 miles north-east of Venice, now almost deserted, but once a place of much importance. Torcello was one of the parent islands from which Venice was colonized, and possessed a cathedral church long before St Mark’s was founded. In the 11th century Torcello had already begun rapidly to decline. The existing cathedral of S. Maria is a building of the highest ecclesiological importance, unique in Europe as a perfect example of the arrangement of the choir in the 6th or 7th century, when the original cathedral was built, and, though most of the upper structure was rebuilt by Bishop Orseolo@@1 about 1008, the plan of the church and the fittings of the choir still exist as they were originally designed. The church consists of a nave, with ten bays of arches on marble monoliths, and three aisles each terminated by an apse. Round the walls of the central apse are six tiers of seats for the officiating clergy, and, in the centre, raised above the others, a marble throne for the bishop, approached by a flight of steps (see vol.

@@@1 Son of the Venetian doge Pietro Orseolo I.