Limestones of Scotland: chemical analyses and petrography – additional images from Geoscenic and Britrocks

GS 1

Coccolite marble. Quarry 92 yards east 31 degrees south of Balephetrish Tiree. Argyll. An elongated mass of marble, 200 ft. by 50 ft., enclosed on three sides by black hornblende-augite-gneiss; fourth side passes under drift.(S31697) [NM 0141 4734]. Pink marble speckled with green clots. The section shows an aggregation of very fine- grained calcite in which numerous lens-shaped relics of larger grains are arranged parallel in shear-schistosity. Rounded crystals of pale green pyroxene, micacized scapolite, a negative alkali-feldspar and large grains of calcite form xenolith-like aggregates. Sphene, apatite and limonitic aggregate are accessory constituents which occur both as isolated grains in the calcite matrix and in association with the pyroxene clusters. Limestone with calcsilicates, micrograined, pseudoporphyroblastic, granoschistose, sheared. GS0001. Britrocks (S31697) [NM 0141 4734].

Britrocks: (S31697) [NM 0141 4734]

Geoscenic: P552546 Mag: 40 Light: PPL

Geoscenic: P552547 Mag: 40 Light: XPL

Geoscenic: P552548 Mag: 40 Light: PPL

Geoscenic: P552549 Mag: 40 Light: XPL

GS 2

Loch Tay Limestone. 750 yards north of Glendaruel House. Argyll. Marmorized limestone with white mica, quartz and albite. Composed of elongated crystals of calcite, granulitized and arranged with their long axes parallel, and showing composite lamellar twinning; grain-size varying from 0.5 - 1.0 mm. The white mica occurs in-flakes up to 0-4 mm long, either distributed among the calcite or concentrated into streaks and bands. Quartz and albite reaching 0.5 mm in size but generally about 0.2 mm across, are abundant. Graphite is associated with muscovite and albite. Iron ore occurs fairly plentifully in aggregates or fine disseminations as pyrite, or oxidized to limonite or leucoxene. Limestone with quartz, albite and muscovite, granoschistose, foliated. GS0002. Britrocks (S35996) [NR 999 877].

Britrocks: (S35996) [NR 999 877]

Geoscenic: P553123 Mag: 40 Light: XPL

Geoscenic: P553122 Mag: 40 Light: PPL

GS 3

Limestone most southerly quarry immediately east of the road, 200 yards south of the school, 3 miles north-west of Kirkton of Glenbucket. Aberdeen. Dove-grey crystalline limestone composed of interlocked, recrystallized calcite crystals up to 1.0mm across and showing complex lamellar twinning. Granulitization occurs along ill-defined narrow bands. Small rounded quartz grains and white mica flakes are scattered through the rock. Pyrite and opaque black dust are accessory. Limestone with quartz and phlogopite, medium-grained, grain-foliated, in part granoschistose. GS0003. Britrocks (S37487) [NJ 336 176].

Britrocks: (S37487) [NJ 336 176]

Geoscenic: P553125 Mag: 40 Light: XPL

Geoscenic: P553124 Mag: 40 Light: PPL

GS 10

Cementstone. Campsie Glen, at the waterfall, just below the junction of Cementstones with the Campsie Volcanic Group; 580 yards north of Ballencleroch House. Stirling. Dull grey rock composed of clear, granular and rhomboid carbonate, of grain 0.01 - 0.02 mm with irregular relics of turbid carbonate of still finer grain. Scattered grains of quartz, occasional yellowish micaceous material, alkali-feldspar and tiny films of white mica are also present. Dolomite, luteous, micrograined, with pelitomorphic lattice. GS0010. Britrocks (S33200) [NS 610 799].

Britrocks: (S33200) [NS 610 799]

Geoscenic: P552414 Mag: " Light: XPL

Geoscenic: P552413 Mag: 16mm Light: PPL

M 2892

Dolomite. A'Choil-sgeir, near Eilean Hoan, Durness. Sutherland. Pale reddish fine-grained dolomite; composed of grains of dolomite, 0.05 to 0.2 mm across, with some ferruginous matter present in stylolitic films. An irregular network of healed fractures pervades the rock. Quartz occurs in thin veins some of which follow lines of fracture. Dolomite, fine-grained, mosaic, fractured. M02892. Britrocks S8131.

Britrocks: (S8131) [NC 441 671]

Geoscenic: P553139 Mag: 40 Light: XPL

Geoscenic: P553138 Mag: 40 Light: PPL

M 2893

Dolomite. Eilean Hoan, 2.5 miles east of Durness. Sutherland. Uniform, grey, moderately fine-grained dolomite; composed of interlocking grains, frequently rhomboid, of turbid dolomite, 0.2 - 0.3 mm across. This uniform mass is traversed by thin, impersistent films of ferruginous clay. Dolomite, medium-grained, mosaic. M02893. Britrocks S8132B.

Britrocks: (S8132) [NC 361 631]B

Geoscenic: P553142 Mag: 40 Light: PPL

M 2895

Dolomite. Quarry 150 yards east of Sango Bay, Durness. Sutherland. Black and pale grey mottled, crystalline dolomite of medium grain ('Leopard Stone'); composed of interlocking grains of dolomite, 0.3 to 0.5 mm across, in which the only impurity is the dark dust, shown by Pollard to be carbon, which is uniformly present in the dark areas and patchily distributed in the grains of the grey areas. Dolomite, medium-grained, mosaic. M 2895. Britrocks (S8129) [NC 412 673].

Britrocks: (S8129) [NC 412 673]

Geoscenic: P553135 Mag: 40 Light: XPL

Geoscenic: P553134 Mag: 40 Light: PPL

M 2921

Dolomitic limestone. Limestone Skerry, Baile na Cille (Balnakeil) Bay. Sutherland. Dark and pale grey, thin bedded limestone. Clean limestone, made of fine calcite dust and thin, small shells, forms irregular fragments and slivers in a darker argillaceous limestone containing few shells. Small dolomite rhombs, up to 0.05 mm across, are common and angular quartz chips, of similar size, are sparse in both varieties; small cubes of pyrite are scarce. Limestone, dolomitic, luteous, micrograined, fossiliferous, homoiolithic. M02921. Britrocks (S8133) [NC 387 663].

Britrocks: (S8133) [NC 387 663]

Geoscenic: P553145 Mag: 40 Light: XPL

Geoscenic: P553144 Mag: 40 Light: PPL

M 2926

Dolomite. Eilean Hoan, 2.5 miles east of Durness. Sutherland. Uniform, grey, moderately fine-grained dolomite; composed of interlocking grains, frequently rhomboid, of turbid dolomite, 0.2 - 0.3 mm across. This uniform mass is traversed by thin, impersistent films of ferruginous clay. Dolomite, medium-grained, mosaic. M02893. Britrocks (S8132B) [NC 361 631].

Britrocks: (S8132B) [NC 361 631]

Geoscenic: P553140 Mag: 40 Light: PPL

Geoscenic: P553141 Mag: 40 Light: XPL

Geoscenic: P553143 Mag: 40 Light: XPL

(SL 237) White Coral or Hurlet Limestone shore, east of harbour. Fife Region. A white limestone composed of Lithostrotion. In thin section seen to be composed of corals filled with clear, granular calcite and interstitially packed with fine debris, including shell and crinoid fragments and spines, which is considerably recrystallized. Rhombs of dolomite, probably an ankeritic variety, occur both within the corals and in the interstitial packing. Limestone, dolomitic, fossiliferous: coral limestone, with pelitomorphic, clastizoic mesostasis. (S35241) [NO 5378 0205]. Middle 3 ft, yellow. A white crystalline dolomite with many cavities. Composed of interfering rhombs of dolomite 0.03 - 0.3 mm across, mostly clear, but turbid in parts which probably represent the fine debris infilling between the corals. Circular outlines marked by a concentration of turbid dust represent coral walls, but no septa are preserved in this way. Dolomite, varigrained, zoophasmic, mosaic. (S35242) [NO 5378 0205]. Lower 6 ft. or more. A white limestone with rough fracture. Composed of the debris of crinoids, thick and thin molluscan shells, ostracods, polyzoa, spines, occasional corals and foraminifera, embedded in a matrix of very fine-grained calcite which is partially recrystallized. Limestone, pelitomorphic to fine-grained, clastizoic, zoophasmic. SL 237. Britrocks (S35242) [NO 5378 0205].

Britrocks: (S35242) [NO 5378 0205]

Geoscenic: P552986 Mag: 40 Light: PPL

SL 1

Loch Tay Limestone. Old quarry 550 yards west of Dalveich Farm, Loch Earn. Perth. (S34426) [NN 609 202]. Dark grey, saccharoidal, crystalline limestone with broadly spaced micaceous laminae. Composed of twinned calcite grains up to 1.5 mm long, subordinate quartz, accessory graphite, iron ore (probably pyrite), colourless and pale brown micas and occasional large plates and small particle-filled grains of albite-oligoclase. Trains of graphite and elongation of calcite grains show some degree of schistosity. Limestone with quartz, albite and micas, heteroblastic, granoschistose.

(S34427) [NN 609 242] Dark grey and white mottled schistose limestone with micaceous partings producing a thinly flaggy fracture. Composed of elongated grains of calcite, up to 3 mm long, sieved with quartz, albite and opaque granules, foliated with granoblastic, clean calcite of about 0.5 mm grain. Quartz and albite are abundant along laminae of white mica. Some pyrite is present, and possibly graphite also. Limestone with quartz, albite and muscovite. SL 1. Britrocks (S34426) [NN 609 202].

Britrocks: (S34426) [NN 609 202]

Geoscenic: P552415 Mag: 40 Light: PPL

Geoscenic: P552416 Mag: 40 Light: XPL

SL 2

Loch Tay Limestone. Old quarry above Craignavie, 2 mile west-south-west of Bridge of Dochart, Killin. Perth. Pale grey, saccharoidal limestones composed of moderately coarsely granular twinned calcite, 0.5-1.0 mm grain, abundant quartz, albite, white and brown mica, graphite and iron ore (pyrite). Limestone with quartz, albite and muscovite, medium-grained, granoblastic. SL 2. Britrocks (S34428) [NN 559 321].

Britrocks: (S34428) [NN 559 321]

Geoscenic: P552418 Mag: 40 Light: XPL

Geoscenic: P552417 Mag: 40 Light: PPL

SL 3

Loch Tay Limestone. East face, Dunbeag, Killin. Perth. Grey crystalline limestone composed of grains of closely twinned calcite, 2 to 0.5 mm gram, subordinate quartz and alkali-feldspars in nests with which graphite is associated. Zoisite is present locally, yellowish mica and a serpentinous mineral are accessory. One large grain, 1 mm across, of alkali-feldspar occurs in the slice and there is some pyrite and a little limonite. Limestone with quartz, albite, muscovite and zoisite, medium-grained, heteroblastic. SL 3. Britrocks (S34429) [NN 569 334].

Britrocks: (S34429) [NN 569 334]

Geoscenic: P552420 Mag: 40 Light: XPL

Geoscenic: P552419 Mag: 40 Light: PPL

SL 4

Blair Atholl Limestone. Quarry north of White Bridge, 3.5 miles south by east of Tummel Bridge Perth. Bluish-grey schistose limestone of fine grain with abundant quartz and mica. Schistosity is marked by the elongation of closely twinned calcite and the attitude of mica flakes, and quartz, alkali-feldspar and white mica are concentrated in lenticles parallel to this direction. The calcite grains reach 3mm in length by 0.8 mm width. The feldspar is turbid and is probably albite. Some pyrite, a little sphene and apatite and possibly graphite are also present. Limestone with quartz, alkali-feldspar and muscovite, coarse-grained, granoschistose, foliated. SL 4. Britrocks (S34430) [NN 776 541](a).

Britrocks: (S34430) [NN 776 541](a)

Geoscenic: P552421 Mag: 40 Light: PPL

Geoscenic: P552422 Mag: 40 Light: XPL

Geoscenic: P552423 Mag: 40 Light: PPL

Geoscenic: P552424 Mag: 40 Light: XPL

Geoscenic: P552425 Mag: 40 Light: PPL

Geoscenic: P552426 Mag: 40 Light: XPL

SL 6

Nullipore sand. Claigan, Dunvegan, Skye. Skye (Inverness). Composed of rolled, minutely cellular nullipore growths and a few lamellibranch fragments. SL 6. Britrocks (S35987) [NG 2245 5445].

Britrocks: (S35987) [NG 2245 5445]

Geoscenic: P553118 Mag: 40 Light: PPL

Geoscenic: P553119 Mag: 40 Light: XPL

SL 7

Vicars Bridge (Castlecary) Limestone. River Devon, 1.75 miles east of Dollar. Fife Region. An even grained dolomite, pale brown in tint but with dark laminae. Composed of interlocking rhomboid grains of dolomite, 0.1 - 0.3 mm across, with some larger, irregular grains. The dolomite is turbid with minute mineral inclusions; shreds of limonite are common and very small grains of quartz are scarce. The dolomite is a ferriferous variety having the ordinary refractive index omega = 1.695. Ferriferous dolomite, medium-grained, zoophasmic, mosaic. SL 7. Britrocks (S34441) [NS 9879 9829](a).

Britrocks: (S34441) [NS 9879 9829](a)

Geoscenic: P552427 Mag: 40 Light: PPL

Geoscenic: P552428 Mag: 40 Light: XPL

Geoscenic: P552429 Mag: 40 Light: PPL

Geoscenic: P552430 Mag: 40 Light: XPL

Geoscenic: P552431 Mag: 40 Light: PPL

Geoscenic: P552432 Mag: 40 Light: XPL

Geoscenic: P552433 Mag: 40 Light: PPL

Geoscenic: P552434 Mag: 40 Light: XPL

Geoscenic: P552435 Mag: 40 Light: PPL

Geoscenic: P552436 Mag: 40 Light: XPL

Geoscenic: P552437 Mag: 40 Light: PPL

Geoscenic: P552438 Mag: 40 Light: XPL

SL 8

Charlestown Main Limestone. Duloch Limestone Mine, Sunnybank, 1 mile north of Inverkeithing. Fife Region. A grey-brown, finely granular dolomite, of grain-size 0.1 mm, in which numerous crinoid columnals remain recognizable as large crystals partly replaced by the fine-grained dolomite. Tests with acid and Lemberg's solution show that the large crystals as well as the small are dolomite. A few ghosts of other organic structure persist. Black and reddish dust frequently outlines these structures and is also concentrated where no organic structure is recognized. Ferriferous dolomite, medium-grained, zoophasmic, mosaic. SL 8. Britrocks (S34442) [NT 1292 8450].

Britrocks: (S34442) [NT 1292 8450]

Geoscenic: P552439 Mag: 40 Light: PPL

Geoscenic: P552440 Mag: 40 Light: XPL

Geoscenic: P552441 Mag: 40 Light: PPL

Geoscenic: P552442 Mag: 40 Light: XPL

Geoscenic: P552443 Mag: 40 Light: PPL

Geoscenic: P552444 Mag: 40 Light: XPL

SL 9

Charlestown Main Limestone. Roscobie Quarry and mine, 3 miles north of Dunfermline. Fife Region. A very dark grey limestone containing numerous large crinoid ossicles. Unsorted complete and fragmentary crinoid ossicles, preserved in coarsely granular calcite, are embedded in a matrix of microgranular calcite and small recrystallized fossil debris. Black, carbonaceous matter is locally abundant interstitially to the calcite matrix. A small amount of dolomite is present in the larger, recrystallized shell fragments. Limestone, dolomitic, varigrained, xoophasmic. SL 9. Britrocks (S34443) [NT 0926 9286](a).

Britrocks: (S34443) [NT 0926 9286](a)

Geoscenic: P552445 Mag: 40 Light: PPL

Geoscenic: P552446 Mag: 40 Light: XPL

Geoscenic: P552447 Mag: 40 Light: PPL

Geoscenic: P552448 Mag: 40 Light: XPL

SL 10

Charlestown Main Limestone, Chapel Quarry, about 2 miles north-west of Kirkcaldy. Fife Region. Pale grey limestone with pink and white patches. (Specimen from near the quarry floor). The rock is partly a limestone composed of organic debris with abundant echinodermal fragments. Throughout this portion grains of datolite and garnet are common. Part of the rock is more shaly, enclosing crinoid remains. This portion is brown and opaque, but near the edge of the slide it shows fibres and a multitude of minute grains and prisms with high extinction angle. 'Pectolite has been observed as the main constituent of two very thin sinuous and impersistent veins in one of which the pectolite is locally replaced by apophyllite.' (Phemister and MacGregor, op. cit.). Limestone with calcsilicates, fine-grained, zoichnic, bedded. SL 10. Britrocks (S34445) [NT 252 939](a).

Britrocks: (S34444) [NT 252 939]

Britrocks: (S34445) [NT 252 939]a

Geoscenic: P552449 Mag: 40 Light: PPL

Geoscenic: P552450 Mag: 40 Light: XPL

Geoscenic: P552451 Mag: 40 Light: PPL

Geoscenic: P552452 Mag: 40 Light: XPL

Geoscenic: P552453 Mag: 40 Light: PPL

Geoscenic: P552454 Mag: 40 Light: XPL

Geoscenic: P552455 Mag: 40 Light: PPL

Geoscenic: P552456 Mag: 40 Light: XPL

Geoscenic: P552457 Mag: 40 Light: PPL

Geoscenic: P552458 Mag: 40 Light: XPL

Geoscenic: P552459 Mag: 40 Light: PPL

Geoscenic: P552460 Mag: 40 Light: XPL

Geoscenic: P552461 Mag: 40 Light: PPL

Geoscenic: P552462 Mag: 40 Light: XPL

Geoscenic: P552463 Mag: 40 Light: PPL

Geoscenic: P552464 Mag: 40 Light: XPL

Geoscenic: P552465 Mag: 40 Light: PPL

Geoscenic: P552466 Mag: 40 Light: XPL

Geoscenic: P552467 Mag: 40 Light: PPL

Geoscenic: P552468 Mag: 40 Light: XPL

Geoscenic: P552469 Mag: 40 Light: PPL

Geoscenic: P552470 Mag: 40 Light: XPL

Geoscenic: P552471 Mag: 40 Light: PPL

Geoscenic: P552472 Mag: 40 Light: XPL

Geoscenic: P552473 Mag: 40 Light: PPL

Geoscenic: P552474 Mag: 40 Light: XPL

Geoscenic: P552475 Mag: 40 Light: PPL

Geoscenic: P552476 Mag: 40 Light: XPL

Geoscenic: P552477 Mag: 40 Light: PPL

Geoscenic: P552478 Mag: 40 Light: XPL

SL 11

Blair Atholl Limestone. Upper Strathgroy Quarry, 1.5 miles east of Blair Atholl. Perth. A dove-grey, medium-grained limestone composed of inter-locking grains of closely twinned calcite, about 1 mm grain- size, containing numerous small grains of quartz, 0.1 mm across, at the junctions of the calcite grains. Phlogopite, zoisite and sphene are accessory. Limestone with quartz and talc-silicates, medium-grained, granoblastic. SL 11. Britrocks (S34497) [NN 891 665].

Britrocks: (S34497) [NN 891 665]

Geoscenic: P552592 Mag: 40 Light: PPL

Geoscenic: P552593 Mag: 40 Light: XPL

SL 12

Blair Atholl Limestone. 480 yards south-south-west of Shierglass, 1 mile south-east of Blair Atholl. Perth. A dove-grey, medium-grained limestone composed of inter-locking grains of closely-twinned calcite of varying size (about 0.25 - 1.0 mm) with a little colourless mica, quartz and scarce turbid alkali-feldspar; accessory pyrite, graphite, limonite, and sphene. Limestone with quartz and muscovite, medium-grained, granoblastic. SL 12. Britrocks (S34498) [NN 880 642].

Britrocks: (S34498) [NN 880 642]

Geoscenic: P552595 Mag: 40 Light: XPL

Geoscenic: P552594 Mag: 40 Light: PPL

SL 13

Grantown Limestone. 450 yards south-east of Coldholme, Dulnain Bridge. Moray. Pale grey and yellowish grey banded, medium-grained crystalline limestone. Composed of granular calcite of varying grain, 0.2 to 3 mm, with bands rich in granular potash-feldspar, albite and de-composed plagioclase, together with numerous rounded and prismatic grains of diopside and tremolite and flakes of brown phlogopite. Apatite and sphene are accessory. Limestone with feldspars, diopside, tremolite and phlogopite, foliated, granoblastic.(S34500) [NJ 000 261]. As above, but plagioclase (oligoclase) is abundant. Diopside forms large ragged prisms. Pale brown phlogopite is an important constituent. Zoisite also is accessory. Limestone with feldspars, diopside, tremolite and phlogopite, foliated, porphyroblastic. SL 13. Britrocks (S34499) [NJ 000 261].

Britrocks: (S34499) [NJ 000 261]

Geoscenic: P552596 Mag: 40 Light: PPL

Geoscenic: P552597 Mag: 40 Light: XPL

SL 14

Kinlochlaggan Limestone. Quarry near Post Office, Kinlochlaggan. Inverness. Greyish white, coarsely crystalline limestone, composed of large (4 mm) irregularly interlocking, often sutured plates of twinned calcite containing small grains of oligoclase, quartz, tremolite and sulphide ore as accessory minerals. Limestone, coarse-grained, with peripheral granulation, diablastic. SL 14. Britrocks (S34501) [NN 55143 89751].

Britrocks: (S34501) [NN 55143 89751]

Geoscenic: P552598 Mag: 40 Light: PPL

Geoscenic: P552599 Mag: 40 Light: XPL

SL 15

Limestone. Quarry N. of Lochan Eilean, 2.75 miles south by east of Aviemore. Inverness. Whitish grey, moderately coarsely crystalline limestone composed of interlocking grains of twinned calcite (1 to 2 mm) with numerous subordinate minerals including quartz, alkali-feldspar, tremolite and small, 0.01 mm, grains of zoisite. Sphene and apatite are accessory. Limestone with some quartz, feldspar and calcsilicates, coarse-grained, granoblastic. SL 15. Britrocks (S34502) [NH 937 082].

Britrocks: (S34502) [NH 937 082]

Geoscenic: P552601 Mag: 40 Light: XPL

Geoscenic: P552600 Mag: 40 Light: PPL

SL 18

Burdiehouse Limestone (base). Mid Lothian. Compact limestone banded in darker and less dark brown shades. Composed of almost structureless finely granular yellow-stained calcite interbanded with layers to which the irregular mingling of clear and yellow stained rock gives a fragmental appearance as in (S34525) [NT 2787 6727]. Ostracod shells are abundant in the coarser seams and collophane clots are present. Wisps of bitumen and carbonaceous fragments occur sparsely throughout the rock. Limestone, bituminous, pelitomorphic, microfossiliferous, bedded, homoiolithic microbreccia. SL 18. Britrocks (S34526) [NT 2787 6727].

Britrocks: (S34526) [NT 2787 6727]

Geoscenic: P552636 Mag: 40 Light: XPL

Geoscenic: P552635 Mag: 40 Light: PPL

SL 19

Gilmerton Limestone, top (quarried). Ferniehill Quarry, Gilmerton. Mid Lothian. A dull grey, compact, fine-grained limestone composed of finely granular calcite, average grain-size about 0.02 - 0.04 mm, with recrystallized patches. There are a few bilabial sections of organisms and many tiny fragments of shell. Angular grains of quartz, granules of iron ore, and interstitial coatings of limonitic clay are present. Limestone, luteous, micrograined, microclastizoichnic. SL 19. Britrocks (S34527) [NT 2957 6920].

Britrocks: (S34527) [NT 2957 6920]

Geoscenic: P552637 Mag: 40 Light: PPL

Geoscenic: P552638 Mag: 40 Light: XPL

Geoscenic: P552640 Mag: 40 Light: XPL

Geoscenic: P552639 Mag: 40 Light: PPL

SL 20

Gilmerton Limestone, bottom part (mined). Ferniehill Quarry, Gilmerton. Mid Lothian. A brownish-grey, compact limestone. Composed partly of very fine-grained calcite as nodules of algal growth, partly of a compactly bedded mass of calcareous organic debris cemented by very fine-grained turbid calcite traversed by limonitic stylolitic films. The fossils present include crinoids, ostracods, polyzoa, shells, spines, and scarce phosphatic plates. Limestone, algal, clastizoic, bedded. SL 20. Britrocks (S34528) [NT 2957 6920].

Britrocks: (S34528) [NT 2957 6920]

Geoscenic: P552641 Mag: 40 Light: PPL

Geoscenic: P552642 Mag: 40 Light: XPL

SL 21

Gilmerton (No. 1) Limestone, upper part. Whitfield Limeworks, 600 yards north-west of Deepsykehead, 1 mile south-east of Carlops. Peebles. A dull dark grey, fine-grained limestone. Composed of small 0.02 mm, grains of calcite, chips of thin shell and small spines, quartz silt up to 0.05 mm grain, granules of iron ore, and streaks and blobs of hydrocarbon cemented by turbid, very fine-grained calcite. Heated in the closed tube the powdered rock emits a small amount of oil. Limestone, luteous, bituminous, micrograined, microclastizoic, bedded. SL 21. Britrocks (S34542) [NT 171 543].

Britrocks: (S34542) [NT 171 543]

Geoscenic: P552671 Mag: 40 Light: PPL

Geoscenic: P552672 Mag: 40 Light: XPL

SL 22

Bilston Burn (No. 3) Limestone. In stream, 800 yards east of Deepsykehead. Peebles. A dull dark grey, brown-mottled dolomite. Composed of granular and semi-recrystallized dolomite, of grain 0.01 - 0.1 mm, in which thin-walled shell fragments are present. Angular quartz grains are abundant; muscovite, biotite, iron ore, brown phosphatic fossil fragments, shreds of carbonaceous matter and grains of pyrite are accessory. A few large crinoid fragments are still calcite and enclose small rhombs of dolomite. Dolomite, calcareous, arenaceous, fine- grained, clastizoic. SL 22. Britrocks (S34543) [NT 182 541].

Britrocks: (S34543) [NT 182 541]

Geoscenic: P552674 Mag: 40 Light: XPL

Geoscenic: P552673 Mag: 40 Light: PPL

SL 23

North Greens (No. 2) Limestone. Bents Quarry, 600 yards north of Macbiehill House. Peebles. Fawn-grey, compact limestone composed of fragments of crinoids, shells and polyzoa in a turbid base partly of granular calcareous debris, partly pelitomorphic calcite. Foraminifera are present and these and polyzoan chambers are occasionally filled with glauconitic mineral aggregate. Pyrite and fossil phosphate are accessory. Thin calcite veins cut the rock. Limestone, fine-grained, clastizoic. SL 23. Britrocks (S34544) [NT 184 519].

Britrocks: (S34544) [NT 184 519]

Geoscenic: P552676 Mag: 40 Light: XPL

Geoscenic: P552675 Mag: 40 Light: PPL

SL 24

Cornstone. Old limekiln at base of cliff, 400 yards north-north-east of Seagreens, East Mathers. Kincardine. Purplish-grey, compact limestone with veins of clear calcite. Composed of granular calcite, the rock has the patchy distribution of fine, medium and coarse grains typical of cornstones, suggesting the original rock as of fine texture, 0.005 mm grain, with coarser material recrystallized or depositing in drying cracks. Relics of the original very fine semi-opaque carbonate-rock show pellet-structure and, rarely, a cellular structure which may indicate algal growths. Limestone, fine-grained, pelleted, micronodular, breccioid. SL 24. Britrocks (S34545) [NO 742 635].

Britrocks: (S34545) [NO 742 635]

Geoscenic: P552677 Mag: 40 Light: PPL

Geoscenic: P552678 Mag: 40 Light: XPL

SL 25

Impure dolomitic limestone, in fault. north-east corner of Craigeven Bay, 660 yards east-north-east of St. Mary's Chapel, about 1 mile north- east of Stonehaven. Kincardine. The rock consists mainly of a base of finely divided siliceous and kaolinitic material amongst which are scattered small clots of dolomitic carbonate with which opaque white material is associated. Veins of ankerite-about 15% (FeCa)CO3 - cut the rock. SL 25. Britrocks (S34546) [NO 8896 8757].

Britrocks: (S34546) [NO 8896 8757]

Geoscenic: P552679 Mag: 40 Light: PPL

Geoscenic: P552680 Mag: 40 Light: XPL

SL 26

Gritty Limestone. Old quarry 200 yards west 30 degrees north of Dubton station. Angus. White pink-speckled saccharoidal gritty limestone composed of granular calcite, grain-size about 0.25 mm, and subordinate but abundant quartz and some potash-feldspar in angular to subangular grains of fairly uniform size (0.15 - 0.4mm). There are a few pebbles of cornstone and pebbly grains of strained quartz, fine sandstone or greywacke and felsite. Chlorite is accessory; tourmaline, anatase, zircon and apatite scarce. Limestone, arenaceous, medium- grained, subpoikilocrystallic. SL 26. Britrocks (S34547) [NO 699 608].

Britrocks: (S34547) [NO 699 608]

Geoscenic: P552682 Mag: 40 Light: XPL

Geoscenic: P552681 Mag: 40 Light: PPL

SL 27

Nodular cornstone. Old quarry 400 yards west-south-west of Huntley Hill, 2.5 miles north-east of Brechin. Angus. Dark grey-brown compact limestone composed of finely divided turbid calcite, recrystallized along dessication cracks to a coarser grain. Angular grains of quartz and subordinate plagioclase, felsite with microporphyritic quartz, chert and feldspathic siltstone are abundant and range from 1 mm downwards in length. Long slivers of muscovite, biotite, oxidized biotite and chlorite are present. Garnet and staurolite are scarce accessories. Limestone, arenaceous, micrograinsd, in part clotted. SL 27. Britrocks (S34548) [NO 622 634].

Britrocks: (S34548) [NO 622 634]

Geoscenic: P552684 Mag: 40 Light: XPL

Geoscenic: P552683 Mag: 40 Light: PPL

SL 28

Kirkby's IIIa Limestone. Shore at Randerston. Fife Region. Banded grey and buff close-grained dolomite with flinty fracture. Composed of finely granular dolomite 0.02 - 0.03 mm grain, the refractive index of which, omega = 1.697 or slightly greater, indicates a content of about 20 per cent (CaFe)CO3. The rock contains numerous thin tests of ostracods many of which are preserve in black material probably pyrite. Granules and tiny cubes of oxidized pyrite are scattered through the rock. Yellow phosphatic fossil fragments are very scarce. Ferriferous dolomite, micrograined, microfossiliferous, taxichnic, bedded. SL 28. Britrocks (S34450) [NO 6113 1133](a).

Britrocks: (S34450a)

Geoscenic: P552494 Mag: 40 Light: PPL

Geoscenic: P552493 Mag: 40 Light: XPL

Geoscenic: P552492 Mag: 40 Light: PPL

Geoscenic: P552495 Mag: 40 Light: XPL

SL 29

Kirkby's III Limestone. Shore at Randerston. Fife Region. A rudely platy, irony, shelly rock of lumachelle type. The shells are replaced by turbid coarsely granular ferriferous dolomite, and are embedded in a matrix of carbonate stained and cemented by limonite. This carbonate is in part very finely granular, in part recrystallized to a mosaic of irregular grain up to 0-1 mm across. Its ordinary refractive index mostly is 1.700 but varies upward, the highest value observed being 1.715, indicating a content of fully 20 per cent of ferrodolomite. Numerous fragments of small shells and scarce quartz and mica are scattered through the fine-grained matrix. Ferriferous dolomite. limonitic, micrograined, zoichnic. SL 29. Britrocks (S34451) [NO 6099 1147].

Britrocks: (S34451) [NO 6099 1147]

Geoscenic: P552496 Mag: 40 Light: PPL

Geoscenic: P552498 Mag: 40 Light: PPL

Geoscenic: P552499 Mag: 40 Light: XPL

Geoscenic: P552497 Mag: 40 Light: XPL

SL 30

Kirkby's V Limestone. Shore at Randerston. Fife Region. Brownish-buff massive rock which in some bands is almost wholly composed of shells. In thin section the shells are seen to be cemented by a matrix of fine granular clear carbonate in which are set numerous granules of oxidized siderite (0.01 - 0.02 mm), angular quartz grains (0.1-0.5 mm) and a few yellow phosphatic fossil fragments. A few small cavities are filled with kaolin. The carbonate replacing the shells is an ankerite the refractive index of which is variable being generally between 1.690 and 1.700 but as high as 1.705, and the fine-grained carbonate of the matrix is similar. Ferriferous dolomite, arenaceous, sideritic, micrograined, zoichnic. SL 30. Britrocks (S34452) [NO 6125 1131].

Britrocks: (S34452) [NO 6125 1131]

Geoscenic: P552500 Mag: 40 Light: PPL

Geoscenic: P552501 Mag: 40 Light: XPL

Geoscenic: P552502 Mag: 40 Light: PPL

Geoscenic: P552503 Mag: 40 Light: XPL

SL 31

Kirkby's VII Limestone. Shore at Randerston. Fife Region. Buff-grey, finely saccharoidal dolomite with cavities containing tiny crystals of ankerite, refractive index omega = 1.715. In thin section the rock is seen to be completely recrystallized to a mosaic of irregular grains of carbonate, 0.1 - 0.2 mm across, which are partly turbid, partly clear. Ghosts of shells and of finely granular matrix are outlined and depicted by dust patterns and variations in grain persisting through the recrystallized carbonate, which is a ferriferous dolomite with refractive index varying slightly about 1.690. Perfect rhombs of carbonate in the fine-grained dolomite are probably ankerite similar to the crystals of the cavities. Ferriferous dolomite, fine-grained, zoophasmic. SL 31. Britrocks (S34453) [NO 6133 1128].

Britrocks: (S34453) [NO 6133 1128]

Geoscenic: P552504 Mag: 40 Light: PPL

Geoscenic: P552505 Mag: 40 Light: XPL

Geoscenic: P552506 Mag: 40 Light: PPL

Geoscenic: P552507 Mag: 40 Light: XPL

SL 32

Dolomitic limestone. Muiredge, 2 miles north of Anstruther. Fife Region. Flaggy earthy brown dolomite with streaks of calcite. Composed of a great number of small shells, preserved in turbid ferriferous dolomite, all lying parallel to the bedding and cemented by irregularly oil-stained fine-grained carbonate which is largely a ferriferous dolomite, with varying content of ferrodolomite but never pure dolomite. Scarce granules of sideritic carbonate of high refractive index are distributed through the fine-grained carbonate; finely divided clay material occurs in shell casts, and some phosphatic fragments and grains of pyrite are present. Heavy yellow oil is evolved from the powdered rock on heating in a closed tube. Ferriferous dolomite, bituminous, micrograined, microzoichnic, bedded. SL 32. Britrocks (S34454) [NO 5641 0707].

Britrocks: (S34454) [NO 5641 0707]

Geoscenic: P552508 Mag: 40 Light: PPL

Geoscenic: P552509 Mag: 40 Light: XPL

Geoscenic: P552510 Mag: 40 Light: PPL

Geoscenic: P552511 Mag: 40 Light: XPL

SL 34

Charlestown Station Limestone. Old Quarry, west side of Balneil Den, 0.75 mile north-east of Colinsburgh. Fife Region. Massive grey, crystalline dolomite with conspicuous crinoid ossicles. Composed of subhedral rhombs of dolomite, 0.1 to 0.5 mm grain, and larger irregularly bounded crystals representing crinoid remains which though only slightly recrystallized to small rhombs are entirely dolomite. The refractive index, omega = l.695 generally but occasionally rather

higher, indicates that the dolomite is ankerite with a content of up to 10 per cent of ferrous carbonate. Limonitic matter fills interstices and in places coats the dolomite crystals. Grains of oxidized pyrite are present. Ferriferous dolomite, medium-grained, zoophasmic, uneven mosaic. SL 34. Britrocks (S34456) [NO 4848 0427](a).

Britrocks: (S34456) [NO 4848 0427]a

Geoscenic: P552512 Mag: 40 Light: PPL

Geoscenic: P552513 Mag: 40 Light: XPL

Geoscenic: P552514 Mag: 40 Light: PPL

Geoscenic: P552515 Mag: 40 Light: XPL

SL 36

Castlecary Limestone. Thornsford Bridge, Hatton, 1.5 miles north of Lundin Links station. Fife Region. A buff-grey dolomite with many cavities. Crinoid columnals and shell fragments are numerous in a matrix of dolomite of 0.2 mm grain. The columnals are in general preserved as single crystals of dolomite but marginally recrystallized with the matrix. The dolomite is slightly ferriferous with omega approx. 1.688. Bituminous matter is abundant along thin seams; pyrite also is present as strings along some bedding divisions and quartz is sporadic. Dolomite, bituminous, varigrained, zoichnic, taxichnic. SL 36. Britrocks (S34457) [NO 4008 0437](a).

Britrocks: (S34457) [NO 4008 0437]a

Geoscenic: P552516 Mag: 40 Light: PPL

Geoscenic: P552517 Mag: 40 Light: XPL

Geoscenic: P552518 Mag: 40 Light: PPL

Geoscenic: P552519 Mag: 40 Light: XPL

SL 37

Charlestown Station Limestone. Teassies Limeworks, 3 miles north of Lundin Links station. Fife Region. A grey crystalline dolomite with crinoid ossicles. Consisting of grains and rhombs of ankeritic dolomite of 0.05 - 0.3 mm grain-size. The refractive index, omega = 1.695, indicates about 20 per cent of the ferrodolomitic component. Large grains of carbonate representing crinoid ossicles have shapeless boundaries owing to irregular replacement by smaller rhombs of dolomite but are nevertheless themselves converted to dolomite. Opaque pellicles, in part at least of pyrite, are frequent on the surface of the recrystallized carbonate grains. Ferriferous dolomite, medium-grained, zoophasmic, uneven mosaic. SL 37. Britrocks (S34458) [NO 4054 0773](a).

Britrocks: (S34458) [NO 4054 0773]a

Geoscenic: P552520 Mag: 40 Light: PPL

Geoscenic: P552521 Mag: 40 Light: XPL

Geoscenic: P552522 Mag: 40 Light: PPL

Geoscenic: P552523 Mag: 40 Light: XPL

SL 40

Dolomite. Cameron Burn, near Lathockar. Fife Region. Ochre-weathering, uniformly fine-grained saccharoidal dolomite. Composed of equigranular dolomite of grain 0.1 - 0.2 mm among which are sparsely scattered grains of quartz of similar size, small nests of kaolin, and granules of oxidized pyrite. Dolomite, fine-grained, mosaic. SL 40. Britrocks (S34461) [NO 4914 1140].

Britrocks: (S34461) [NO 4914 1140]

Geoscenic: P552524 Mag: 40 Light: PPL

Geoscenic: P552525 Mag: 40 Light: XPL

Geoscenic: P552526 Mag: 40 Light: PPL

Geoscenic: P552527 Mag: 40 Light: XPL

SL 41

Limestone, basal 15 ft. Middleton Limeworks, Middleton. Mid Lothian. Compact, grey limestone composed of finely granular calcite, 0.01 - 0.1 mm grain-size, enclosing debris of small shells, foraminifera, vermiform algae encrusting crinoid and shell fragments, small bodies giving horned hemispherical sections, occasional larger fragments of crinoid and shell and thin-walled bodies, apparently ostracods. Limestone, micrograined, microfossiliferous, clastizoic. (S34530) [NT 356 583]. Compact, darker grey limestone containing larger and less recrystallized organic remains than (S34529) [NT 356 583]. Fragments of crinoids, large shells, foraminifera, tubular bodies, small shells and some septate small bodies are numerous; polyzoa are present. The matrix is of granular calcite, averaging 0.5 mm grain, cemented by finely divided calcite and bituminous matter, and contains occasional faecal pellets. Limestone, fine-grained, microfossiliferous, clastizoic. SL 41. Britrocks (S34529) [NT 356 583].

Britrocks: (S34529) [NT 356 583]

Geoscenic: P552644 Mag: 40 Light: XPL

Geoscenic: P552643 Mag: 40 Light: PPL

SL 41 Limestone, basal 15 ft. Middleton Limeworks, Middleton. Mid Lothian. Compact, grey limestone composed of finely granular calcite, 0.01 - 0.1 mm grain-size, enclosing debris of small shells, foraminifera, vermiform algae encrusting crinoid and shell fragments, small bodies giving horned hemispherical sections, occasional larger fragments of crinoid and shell and thin-walled bodies, apparently ostracods. Limestone, micrograined, microfossiliferous, clastizoic.(S34530) [NT 356 583]. Compact, darker grey limestone containing larger and less recrystallized organic remains than(S34529) [NT 356 583]. Fragments of crinoids, large shells, foraminifera, tubular bodies, small shells and some septate small bodies are numerous; polyzoa are present. The matrix is of granular calcite, averaging 0.5 mm grain, cemented by finely divided calcite and bituminous matter, and contains occasional faecal pellets. Limestone, fine-grained, microfossiliferous, clastizoic. SL 41. Britrocks (S34530) [NT 356 583].

Britrocks: (S34530) [NT 356 583]

Geoscenic: P552645 Mag: 40 Light: PPL

Geoscenic: P552646 Mag: 40 Light: XPL

SL 42

North Greens (No. 2) Limestone, upper 30 feet of bed. Middleton Quarry, 1100 yards south-west of Middleton. Mid Lothian. A fine uniform grained, fawn-grey limestone, composed of recrystallized grains of calcite (0.05 mm grain-size) cemented by limonitic clay which is locally abundant and impregnated with black matter. Isolated fragments of polyzoa,

thin-walled valves and foraminifera are preserved. Limestone, fine-grained, microfossiliferous, clastizoichnic. SL 42. Britrocks (S34531) [NT 353 575].

Britrocks: (S34531) [NT 353 575]

Geoscenic: P552648 Mag: 40 Light: XPL

Geoscenic: P552647 Mag: 40 Light: PPL

SL 43

Bilston Burn (No. 3) Limestone, main quarried band. Quarry, Esperston Limeworks, 660 yards north-east of Esperston. Mid Lothian. Dark grey, fine-grained limestone containing fragments of small shells and polyzoa (outlined by pyrite) and foraminifera. The matrix is of granular calcite, 0.01 to 0.03 mm grain, and the more complete shells are filled with coarser calcite. Limestone, micrograined, microfossiliferous, clastizoichnic. SL 43. Britrocks (S34532) [NT 345 573].

Britrocks: (S34532) [NT 345 573]

Geoscenic: P552650 Mag: 40 Light: XPL

Geoscenic: P552649 Mag: 40 Light: PPL

SL 44

Bilston Burn (No. 3) Limestone, 3 feet dolomitic band at top. Quarry, Esperston Limeworks, 660 yards north-east of Esperston. Mid Lothian. Dark grey, fine-grained, granular dolomite, of 0.05 mm grain-size, containing remains of small shells and crinoids. Treatment with Lemberg's solution and by the silver nitrate-potassium chromate reaction show no calcite. There is much opaque carbonaceous matter, and perhaps pyrite also, apparently concentrated at the location of former microfossils. The dolomite is ankeritic with omega = 1.690. Ferriferous dolomite, fine-grained, zoophasmic, uneven mosaic. SL 44. Britrocks (S34533) [NT 345 573](a).

Britrocks: (S34533) [NT 345 573]a

Geoscenic: P552651 Mag: 40 Light: PPL

Geoscenic: P552652 Mag: 40 Light: XPL

Geoscenic: P552653 Mag: 40 Light: PPL

Geoscenic: P552654 Mag: 40 Light: XPL

SL 45

Bilston Burn (No. 3) Limestone (?), deep seated, weathered limestone. Quarry, Esperston Limeworks, 660 yards north-east of Esperston. Mid Lothian. Pale buff, very fine-grained limestone with brown bituminous films. Composed of finely granular calcite (0.01 mm grain) enclosing numerous shell fragments which are often flat or flattened along the bedding. Clay is sometimes recognizable in small aggregates as kaolin. Quartz is rarely distinguishable as small grains, 0.01 mm, but many feebly birefringent aggregates may be more finely divided quartz. Shreds of bituminous and limonitic matter are common and limonite replaces scattered rhombs of siderite. Limestone, argillaceous, micrograined, fossiliferous, clastizoic, bedded. SL 45. Britrocks (S34534) [NT 345 573].

Britrocks: (S34534) [NT 345 573]

Geoscenic: P552656 Mag: 40 Light: XPL

p>Geoscenic: P552655 Mag: 40 Light: PPL

SL 46

Gilmerton (No. 1) Limestone. Common Hill Quarry, 670 yards south-west of Middleton Mid Lothian. A grey and brownish, compact, fine-grained limestone with calcite-filled fractures. Composed of tiny calcareous fossils including foraminifera, spines, fragments of thin shells and pellets, accessory grains of quartz and granules of pyrite in a fine-grained turbid matrix of calcite, 0.01 grain, recrystallized extensively to clear calcite of grain 0.02 to 0.04 mm. In this base larger fragments of crinoid and shell and large spines are numerous. Limestone, pelitomorphic to micrograined, microfossiliferous, clastizoic, zoophasmic. SL 46. Britrocks (S34535) [NT 3578 5765].

Britrocks: (S34535) [NT 3578 5765]

Geoscenic: P552658 Mag: 40 Light: XPL

p>Geoscenic: P552657 Mag: 40 Light: PPL

SL 47

Charlestown Station Limestone. Old Quarries, Backfield of Ladeddie. Fife Region. A pale grey, compact limestone, slightly dolomitic, composed of fragmentary crinoid remains with abundant polyzoan relics and some granular carbonate and kaolin in the interstices. Dr. C. J. Stubblefield has recognized the polyzoa as Trepostomatous forms including the genus Tabulipora. The rock effervesces freely with cold dilute HCl and treatment in Lemberg's solution shows that the granular carbonate of the base is mostly calcite, but some is probably dolomite. A little pyrite is present. Limestone, dolomitic, fossiliferous: encrinite. SL 47. Britrocks (S34462) [NO 439 135].

Britrocks: (S34462) [NO 439 135]

Geoscenic: P552528 Mag: 40 Light: PPL

Geoscenic: P552529 Mag: 40 Light: XPL

Geoscenic: P552530 Mag: 40 Light: PPL

Geoscenic: P552531 Mag: 40 Light: XPL

SL 48

Charlestown Main Limestone, basal part. Cults and Pitlessie Limeworks, 4 miles south-south-west of Cupar. Fife Region. A dark grey, compact limestone composed of fragments of crinoids, shells and polyzoa and of foraminifera, in a fine granular calcite base. The polyzoa are often outlined in opaque matter sometimes recognizable as pyrites, and local concentrations of black, possibly carbonaceous, matter are numerous. Bitumen is present in small quantity as tiny wisps and clots. Limestone, varigrained, microfossiliferous, in part xoophasmic, clastizoichnit, bedded. SL 48. Britrocks (S34463) [NO 344 086](a).

Britrocks: (S34463) [NO 344 086](a)

Geoscenic: P552532 Mag: 40 Light: PPL

Geoscenic: P552533 Mag: 40 Light: XPL

Geoscenic: P552534 Mag: 40 Light: PPL

Geoscenic: P552535 Mag: 40 Light: XPL

SL 49

Charlestown Main Limestone, main seam workings. Cults and Pitlessie Limeworks. Fife Region. Brownish-grey, compact, finely granular limestone composed largely of the debris of shells, polyzoa and foraminifera in a base of small grains of calcite. Treatment in Lemberg's solution shows that the carbonate is dominantly calcite, but some turbid foraminifera and shell fragments do not stain or stain only slightly. Brown interstitial films and scraps of bitumen are abundant and grains of pyrite sparse. Limestone, fine-grained, microfossiliferous, clastizoic. SL 49. Britrocks (S34464) [NO 344 080](a).

Britrocks: (S34464) [NO 344 080](a)

Geoscenic: P552536 Mag: 40 Light: PPL

Geoscenic: P552537 Mag: 40 Light: XPL

Geoscenic: P552538 Mag: 40 Light: PPL

Geoscenic: P552539 Mag: 40 Light: XPL

SL 50

Thin Limestone above the Hurlet' (Charlestown Main?). Old West Quarry, Forthar Old Limeworks, 1 mile east-south-east of Freuchie. Fife Region. A dark calcareous dolomite with Lithostrotion. The corals, completely recrystallized but occasionally showing traces of septa in the form of trains of mineral particles, are set in a matrix of granular carbonate, coloured brownish by carbonaceous matter, and clear shell fragments. A little pyrite is present. The dolomite is ferriferous, the ordinary refractive index varying about 1.697. Immersion in logwood stain failed to reveal calcite, and staining by the silver nitrate-potassium chromate method as modified by H.E. Wilson produced a general pinkish stain with numerous minute points of concentration. Since the chemical analysis indicates the presence of excess calcite over the proportions required for ferriferous dolomite, the failure of the staining method to reveal discrete crystals of calcite suggests that the excess carbonate is present in solid solution in the dolomite. Ferriferous dolomite, fine-grained, zoichnic, taxichnic. SL 50. Britrocks (S34465) [NO 2952 0584].

Britrocks: (S34465) [NO 2952 0584]

Geoscenic: P552540 Mag: 40 Light: PPL

Geoscenic: P552541 Mag: 40 Light: XPL

Geoscenic: P552542 Mag: 40 Light: PPL

Geoscenic: P552543 Mag: 40 Light: XPL

Geoscenic: P552544 Mag: 40 Light: PPL

Geoscenic: P552545 Mag: 40 Light: XPL

SL 51

Petershill Limestone, near top. Quarry 1000 yards north 5 degrees east of north-east end of Petershill Reservoir, near Bathgate. West Lothian. A brown, coarse-grained limestone composed mainly of whole and fragmentary crinoid ossicles with granular calcareous debris and rhombs of dolomite, scarce shell debris and a few ooliths in the interstices. There is a little pyrite and some phosphatic material. Bituminous matter is disseminated in the interstitial carbonate, Limestone, crinoidal: encrinite. SL 51. Britrocks (S34446) [NS 9874 7078](a).

Britrocks: (S34446) [NS 9874 7078](a)

Geoscenic: P552479 Mag: 40 Light: PPL

Geoscenic: P552480 Mag: 40 Light: XPL

Geoscenic: P552481 Mag: 40 Light: PPL

Geoscenic: P552482 Mag: 40 Light: XPL

SL 52

Petershill Limestone, 10 feet from top. Quarry 1000 yards north 5 degrees east of north-east end of Petershill Reservoir, near Bathgate. West Lothian. Brownish-grey, compact limestone composed of calcareous debris including fragments of small shells and crinoids and numerous tests of foraminifera. A little bituminous matter is present. The matrix is of finely divided calcite in process of recrystallization. Limestone, micrograined, microfossiliferous, clastizoic. SL 52. Britrocks (S34447) [NS 9874 7078], (S34447) [NS 9874 7078]A.

Britrocks: (S34447) [NS 9874 7078]A

Geoscenic: P553148 Mag: 40 Light: PPL

Geoscenic: P553149 Mag: 40 Light: XPL

Britrocks: (S34447) [NS 9874 7078]

Geoscenic: P552483 Mag: 40 Light: PPL

Geoscenic: P552484 Mag: 40 Light: XPL

Geoscenic: P552485 Mag: 40 Light: PPL

SL 53

Petershill Limestone, lower part. Quarry 1000 yards north 5 degrees east of north-east end of Petershill Reservoir, near Bathgate. West Lothian. A dark grey, coarse-grained limestone composed of crinoid and shell debris, the latter partly incorporated in the recrystallized base of granular calcite. Limestone, crinoidal: encrinite. SL 53. Britrocks (S34448) [NS 9874 7078](a).

Britrocks: (S34448) [NS 9874 7078](a)

Geoscenic: P552486 Mag: 40 Light: PPL

Geoscenic: P552487 Mag: 40 Light: XPL

Geoscenic: P552488 Mag: 40 Light: PPL

Geoscenic: P552489 Mag: 40 Light: XPL

SL 54

Burdiehouse Limestone. Harbum Limestone Mine, 1 mile south of Harburnhead. Mid Lothian. Compact earthy-brown, fine-grained limestone. Composed of minutely granular calcite, grain in general less than 0.002 mm, permeated by films of yellow bituminous matter. Complete and fragmentary ostracod shells, enclosing clear coarsely granular calcite are numerous. Grains of pyrite granules, occasional streaks of bitumen and traces of fossil phosphate are present. Some fine quartz grit occurs in certain laminae along with small aggregates of a radiating mineral which, in view of the chemical

analysis, may be celestite. The rock powder on heating in the closed tube emits, a little oily vapour. Limestone, bituminous, pelitomorphic, microfossiliferous, bedded, homoiolithic. SL 54. Britrocks (S34449) [NT 0348 5973].

Britrocks: (S34449) [NT 0348 5973]

Geoscenic: P552490 Mag: 40 Light: PPL

Geoscenic: P552491 Mag: 40 Light: XPL

SL 55

North Greens (No. 2) Limestone, basal mined band. Quarry on left bank of Tyne Water, 200 yards north of Currie Lee Limeworks, 3 miles east of Gorebridge. Mid Lothian. Compact, fawn-grey limestone composed of finely triturated debris of calcareous organisms with numerous fragments of small shells and many foraminifera and scarcer spines, Calcisphaera, polyzoan and algal fragments, and small faecal pellets, in a recrystallized base of finely granular calcite. Limestone, micrograined, microfossiliferous, clastizoichnic. SL 55. Britrocks (S34536) [NT 3799 6236].

Britrocks: (S34536) [NT 3799 6236]

Geoscenic: P552659 Mag: 40 Light: PPL

Geoscenic: P552660 Mag: 40 Light: XPL

SL 56

North Greens (No. 2) Limestone. Quarry 400 yards north 5 degrees east of D'Arcy Farm, 2.25 miles south-east of Dalkeith. Mid Lothian. Platy, dark grey, calcareous shale. The section shows a brown-stained, isotropic, argillaceous base in which are set very numerous fragments of calcareous organisms, including echinoderms and shells, prisms of calcite showing rectangular and occasional hexagonal sections, and small bodies giving circular sections. A few small grains of quartz are present and specks of carbonaceous and bituminous matter are abundant. Calcareous shale, clastizoic.(S34538) [NT 3602 6498]. The section shows a more intimate mixture of argillaceous and fine calcareous material enclosing many small crinoid columnals and some shell fragments. Calcareous shale, clastizoic. SL 56. Britrocks (S34538) [NT 3602 6498].

Britrocks: (S34538) [NT 3602 6498]

Geoscenic: P552664 Mag: 40 Light: XPL

Geoscenic: P552663 Mag: 40 Light: PPL

Britrocks: (S34537) [NT 3602 6498]

Geoscenic: P552661 Mag: 40 Light: PPL

Geoscenic: P552662 Mag: 40 Light: XPL

SL 57

North Greens (No. 2) Limestone, top half of upper band. Quarry 160 yards north-west of Northfield, Cousland Lime Workings, 2.5 miles east- north-east of Dalkeith. Mid Lothian. A grey and brownish, earthy limestone. The section shows almost equal proportions of brown argillaceous and calcareous material, among which thin rectangular sections (possibly pieces of thin-walled shells) are prominent. Remains of crinoids, polyzoa, shells and spines can be recognized but for the most part the calcareous material is small platy debris. Angular grains of quartz and shreds of muscovite and bleached biotite are common throughout the rock. Calcareous shale, clastizoic. SL 57. Britrocks (S34539) [NT 3761 6865].

Britrocks: (S34539) [NT 3761 6865]

Geoscenic: P552665 Mag: 40 Light: PPL

Geoscenic: P552666 Mag: 40 Light: XPL

SL 58

North Greens (No. 2) Limestone, bottom half of upper band. Quarry 160 yards north-west of Northfield, Cousland Lime Workings, 2.5 miles east-north-east of Dalkeith. Mid Lothian. A dull grey, very fine-grained limestone composed of fine debris and fragments of calcareous organisms with a considerable amount of brownish argillaceous matter. A few small crinoidal and foraminiferal remains are scattered through the rock. Small angular quartz grains are present and specks of carbonaceous and bituminous matter are evenly disseminated. Limestone, luteous, micrograined, microclastizoic. SL 58. Britrocks (S34540) [NT 3761 6865].

Britrocks: (S34540) [NT 3761 6865]

Geoscenic: P552667 Mag: 40 Light: PPL

Geoscenic: P552668 Mag: 40 Light: XPL

SL 59

North Greens (No. 2) Limestone, lower massive half. Quarry 160 yards north-west of Northfield, Cousland Lime Workings, 2.5 miles east- north-east of Dalkeith. Mid Lothian. Bedded limestone composed largely of fragments of calcareous organisms with cementing fine calcareous debris and some argillaceous and bituminous matter. Crinoids, foraminifera, shells and polyzoan fragments are numerous and lie with their flatter surfaces along the bedding. Limestone, pelitomorphic, clastizoic, bedded. SL 59. Britrocks (S34541) [NT 3761 6865].

Britrocks: (S34541) [NT 3761 6865]

Geoscenic: P552670 Mag: 40 Light: XPL

Geoscenic: P552669 Mag: 40 Light: PPL

SL 60

Limestone. Quarry, Jerusalem Limeworks, 2 miles south of Gladsmuir East Lothian. A dull brownish-grey argillaceous limestone composed of finely divided calcite debris and small organic fragments with probably some argillaceous admixture; occasional tiny pockets of kaolin and grains of quartz are seen. Specks of carbonaceous matter and grains of pyrite are sparsely distributed. Limestone, argillaceous, pelitomorphic, microclastizoic. SL 60. Britrocks (S34549) [NT 4719 6716].

Britrocks: (S34549) [NT 4719 6716]

Geoscenic: P552685 Mag: 40 Light: PPL

Geoscenic: P552686 Mag: 40 Light: XPL

SL 62

Skateraw Middle (?) Limestone. Saltoun Limeworks, quarry south of road, 0.75 mile north-west of Saltoun. East Lothian. A buff-grey limestone showing crinoid ossicles. Composed of the debris of calcareous organisms, including crinoids and

shells with subordinate foraminifera and spines in a matrix of calcite of grain 0.02 - 0.1 mm. The shapes of the remains are becoming indefinite through general recrystallization, and are better preserved in an irregular, dark patch which is probably a faecal pellet. Limestone, fine-grained, microfossiliferous, clastizoic. SL 62. Britrocks (S34551) [NT 4702 6766].

Britrocks: (S34551) [NT 4702 6766]

Geoscenic: P552687 Mag: 40 Light: PPL

Geoscenic: P552688 Mag: 40 Light: XPL

SL 63

Long Craig Upper Limestone (probably). Quarry, Kiln Plantation, Blance Bridge, 0.75 mile east of East Saltoun. East Lothian. A pinkish-grey, compact limestone. Composed of debris of crinoids, shells, polyzoan zoaria and scarce spines and foraminifera in a matrix of calcite of grain 0.005 mm. Chalcedonic aggregates, limonitic replacements of siderite or ankerite and grains of quartz are sparsely distributed in the rock. Limestone, micrograined, clastizoic. SL 63. Britrocks (S34552) [NT 4857 6797].

Britrocks: (S34552) [NT 4857 6797]

Geoscenic: P552694 Mag: 40 Light: XPL

Geoscenic: P552693 Mag: 40 Light: PPL

SL 64

Long Craig Upper Limestone (massive band in). Shore 100 yards E. of Garlic Rock, 1mile W. of Aberlady. East Lothian. A grey and buff dolomite of varying grain. Dolomitized relics of crinoids, polyzoa and shells are indicated by concentration of mineral dust and granules of pyrite. In the grey part of the rock ferruginous films are abundant. The buff part is coarser in grain and there are pellicles of brown limonite on the grains of dolomite; these have refractive index omega about 1.690 indicative of a moderate content of iron carbonate. Aggregates of chalcedony occur sparsely within the crinoid pseudomorphs. Ferriferous dolomite, zoophasmic, uneven mosaic, taxichnic. SL 64. Britrocks (S34553) [NT 4497 8029].

Britrocks: (S34553) [NT 4497 8029]

Geoscenic: P552696 Mag: 40 Light: XPL

Geoscenic: P552695 Mag: 40 Light: PPL

SL 65

Long Craig Upper Limestone (probably). Quarry at Harelaw Limeworks, Longniddry station. East Lothian. A compact, brownish-grey limestone composed of well-assorted fragments of crinoids, shells, polyzoa, spines and a few foraminifera and Calcisphaera in a fine matrix of calcite, 0.005 - 0.02 mm grain. Silica is present as chalcedonic filling in scarce, small limy pebbles. Pyritic replacement or infilling of polyzoan and foraminiferal tests is common. Limestone, pelitomorphic to micrograined, microfossiliferous, clastizoic. SL 65. Britrocks (S34554) [NT 4490 7625].

Britrocks: (S34554) [NT 4490 7625]

Geoscenic: P552697 Mag: 40 Light: PPL

Geoscenic: P552698 Mag: 40 Light: XPL

SL 66

Metamorphic Limestone. Quarry at Ladyleys, east of Old Meldrum. Aberdeen. Dark grey banded rock, effervescing with HCl only in some bands. In thin section a banded granulite (hornfels) containing biotite, pyroxene, epidote, calcite, calcic plagioclase, oligoclase and albite, with subordinate muscovite, colourless hornblende and accessory pyrite and sphene, in varying proportions in different bands. Calcareous calcsilicate-biotite-feldspar-granulite, foliated.(S34506) [NJ 8295 2925]. Grey limestone of impure type, composed of calcite of varying grain, 0.05 to 1 mm, partly granulitized, with subordinate pyroxene, hornblende, epidote, accessory pyrite, sphene and biotite, scattered grains of plagioclase and small nests of quartz. Limestone with calcsilicates and quartz, grain- foliated, granoschistose. SL 66. Britrocks (S34505) [NJ 8295 2925].

Britrocks: (S34505) [NJ 8295 2925]

Geoscenic: P552602 Mag: 40 Light: PPL

Geoscenic: P552603 Mag: 40 Light: XPL

SL 67

Limestone, Portsoy Group. Limehillock Quarry, 1.25 miles north-east of Grange Station. Banff. Dove-grey crystalline limestone, composed of equidimensional, 0.5 to 1 mm, grains of calcite, which are closely twinned. Quartz and muscovite are minor minerals, and pyrite and black granules accessory. Limestone with quartz and muscovite, heteroblastic. SL 67. Britrocks (S34507) [NJ 5150 5181].

Britrocks: (S34507) [NJ 5150 5181]

Geoscenic: P552604 Mag: 40 Light: PPL

Geoscenic: P552605 Mag: 40 Light: XPL

SL 68

Limestone, Sandend Group. Blackhillock Quarry, 1.5 miles south by east of Keith. Banff. Mottled grey and white crystalline limestone, composed of large grains of calcite, 1 to 2 mm across, curvedly twinned. Quartz is accessory, and muscovite and opaque dust are scarce. Limestone with quartz, coarse-grained, granoblastic, strained. SL 68. Britrocks (S34508) [NJ 439 482].

Britrocks: (S34508) [NJ 439 482]

Geoscenic: P552606 Mag: 40 Light: PPL

Geoscenic: P552607 Mag: 40 Light: XPL

SL 69

Boyne Limestone. Boyne Bay Quarry, 1.5 miles east of Portsoy. Banff. Grey-white crystalline limestone with dark laminae. Composed of granular twinned calcite, average grain 1mm, with scarce accessory quartz and muscovite. Limestone, granoblastic. SL 69. Britrocks (S34509) [NJ 6140 6610].

Britrocks: (S34509) [NJ 6140 6610]

Geoscenic: P552608 Mag: 40 Light: PPL

Geoscenic: P552609 Mag: 40 Light: XPL

SL 70

Limestone, Sandend Group. Parkmore Quarry, 0.75 mile north-east of Dufftown Banff. Pale grey crystalline limestone, with veins of coarse white, curvedly twinned calcite. Composed of sutured and locally granulitized grains of calcite with close curved twinning, 0.5-2 mm grain, traversed by lines of granulation. Quartz, muscovite and opaque, black, white and yellow granules are accessory. Limestone with quartz, coarse-grained, granoblastic, strained. SL 70. Britrocks (S34510) [NJ 3325 4078].

Britrocks: (S34510) [NJ 3325 4078]

Geoscenic: P552610 Mag: 40 Light: PPL

Geoscenic: P552611 Mag: 40 Light: XPL

SL 71

Limestone, Sandend Group. Blackhillock Quarry, 0.75 mile south of Coachford and about 5 miles north-west of Huntly. Aberdeen. Grey crystalline limestone with dark micaceous partings. Composed of twinned granular calcite in interdigitating grains of varying size, 0.1 to 2 mm, the larger being elongated along the schistosity. Quartz, muscovite and chlorite are subordinate, and opacite including pyrite, leucoxene and perhaps graphite, accessory. The quartz is distributed as individual grains and as lenticles, the other constituents usually in contorted films swelling in places to small nests. Limestone with quartz, muscovite and chlorite, medium-grained, grano-schistose, foliated. SL 71. Britrocks (S34511) [NJ 4591 4482].

Britrocks: (S34511) [NJ 4591 4482]

Geoscenic: P552613 Mag: 40 Light: XPL

Geoscenic: P552612 Mag: 40 Light: PPL

SL 72

Limestone, Sandend Group. Hillockhead Quarry, 2.5 miles west by south of Keith. Banff. Dove-grey, medium-grained crystalline limestone composed of interlocking grains of closely twinned calcite, 0.5 to 2 mm grain, with numerous small quartz grains at the junctions of the calcite grains. Locally large grains of quartz are elongated along the foliation. Muscovite is a subordinate mineral. Sphene, apatite and graphite are accessory; zoistic epidote is present in some laminae. Limestone with quartz, muscovite and zoisite, coarse-grained, granoblastic, foliated. SL 72. Britrocks (S34512) [NJ 3915 4989].

Britrocks: (S34512) [NJ 3915 4989]

Geoscenic: P552614 Mag: 40 Light: PPL

Geoscenic: P552615 Mag: 40 Light: PPL

Geoscenic: P552616 Mag: 40 Light: XPL

Geoscenic: P552617 Mag: 40 Light: PPL

Geoscenic: P552618 Mag: 40 Light: XPL

SL 73

Limestone, Sandend Group. Drummuir Quarry, 1.25 miles north-north-east of Drummuir Station. Banff. Pale grey crystalline limestone, with thin veins of calcite. It is composed of curvedly twinned calcite of grain 0.5 to 3 mm, which is recrystallized in small clear grains along narrow fracture zones. Quartz is accessory. Limestone, coarse-grained,

granoblastic, strained. SL 73. Britrocks (S34513) [NJ 3895 4625].

Britrocks: (S34513) [NJ 3895 4625]

Geoscenic: P552620 Mag: 40 Light: XPL

Geoscenic: P552619 Mag: 40 Light: PPL

SL 74

Limestone, Sandend Group. Craibstone Quarry, 1.5 miles S. of Kirkton of Deskford. Banff. Mottled grey and white limestone with wavy, dark laminae. It is composed of brecciated sheared limestone, recemented by vein calcite, in which quartz is present in small quantity and muscovite accessory. Graphite is present in the dark laminae. Limestone with some quartz, sheared. SL 74. Britrocks (S34514) [NJ 4965 5915].

Britrocks: (S34514) [NJ 4965 5915]

Geoscenic: P552622 Mag: 40 Light: XPL

Geoscenic: P552621 Mag: 40 Light: PPL

SL 75

Limestone, Sandend Group. Quarry, Rinaitin, Glen Rinnes. Banff. Banded pale and dark grey, crystalline limestone with micaceous films. Composed of elongated grains of calcite, up to 3 mm in length, showing a close, curved twinning and traversed by fracture veins in which both calcite and dolomite are present. Quartz is accessory as small grains enclosed in calcite. In the darker bands the calcite grains are enveloped by black graphitic and pyritous dust. Micas, partly chloritized, are present but scarce. Limestone, dolomitic, with some quartz, granoschistose, sheared. SL 75. Britrocks (S34515) [NJ 263 328].

Britrocks: (S34515) [NJ 263 328]

Geoscenic: P552624 Mag: 40 Light: XPL

Geoscenic: P552623 Mag: 40 Light: PPL

SL 76

Limestone, Sandend Group. Craig Chailceach (Craighaulkie) Quarry 1 mile west-north-west of Tomintoul. Banff. Grey medium-grained crystalline limestone composed of interlocking grains of calcite, about 1.5 mm across, with abundant accessory quartz in small grains, 0.05 mm diameter. Muscovite, pyrite, black opaque granules and sphene are accessory. Limestone with quartz, medium-grained, heteroblastic. SL 76. Britrocks (S34516) [NJ 153 193].

Britrocks: (S34516) [NJ 153 193]

Geoscenic: P552626 Mag: 40 Light: XPL

Geoscenic: P552625 Mag: 40 Light: PPL

SL 77

Deeside Limestone. Deecastle Quarry, 0.25 mile north-east of Deecastle, 5.5 miles west of Aboyne. Aberdeen. A banded, contact-altered talc-silicate rock composed of wollastonite, diopside, oligoclase, zoisite, epidote, prehnite and sphene. Wollastonite-rock. SL 77. Britrocks (S34517) [NO 4402 9692].

Britrocks: (S34517) [NO 4402 9692]

Geoscenic: P552627 Mag: 40 Light: PPL

Geoscenic: P552628 Mag: 40 Light: XPL

SL 78

Deeside Limestone. Mains of Midstrath Quarry, 4.5 miles east-south-east of Aboyne. Aberdeen. Crystalline limestone composed of calcite, average grain 1.5 mm, with a subordinate, but considerable, content of calcic scapolite, diopside, orthoclase, albite and accessory tremolite, sphene, apatite and partly oxidized pyrite. Limestone with scapolite, diopside and feldspars, coarse-grained, granoblastic. SL 78. Britrocks (S34518) [NO 5890 9520].

Britrocks: (S34518) [NO 5890 9520]

Geoscenic: P552630 Mag: 40 Light: XPL

Geoscenic: P552629 Mag: 40 Light: PPL

SL 79

Deeside Limestone. Gallowhill Wood Quarry. Aberdeen. Crystalline limestone composed of calcite, 0.5 to 1 mm grain, with subordinate scapolite (mizzonite) diopside and orthoclase; accessory sphene, tremolite and iron ore. Limestone with scapolite, diopside and feldspars, medium- grained, granoblastic. SL 79. Britrocks (S34519) [NO 5757 9607].

Britrocks: (S34519) [NO 5757 9607]

Geoscenic: P552632 Mag: 40 Light: XPL

Geoscenic: P552631 Mag: 40 Light: PPL

SL 80

Deeside Limestone. Woodhead Quarry, 300 yd. south of Woodhead Farm, 1.5 miles east-south-east of Banchory. Kincardine. Grey crystalline limestone, 1 to 1.5 mm grain, composed of calcite with abundant but subordinate albite, andesine, hornblende, zoisite, and accessory quartz, biotite, sphene, chlorite, pyrite and apatite. Limestone with zoisite and feldspars, medium-grained, granoblastic. SL 80. Britrocks (S34520) [NO 7165 9418].

Britrocks: (S34520) [NO 7165 9418]

Geoscenic: P552634 Mag: 40 Light: XPL

Geoscenic: P552633 Mag: 40 Light: PPL

SL 81

North Greens (No. 2) Limestone. Upper Side Quarry, 100 yards south-south-west of Fountainside, 2.5 miles south-west of Temple Mid Lothian. Compact, dark grey limestone. Partly recrystallized fragments of thin shells, scarce foraminifera, scarce small shells filled with clear granular calcite, numerous pyrite-impregnated straight and curved fragments and very scarce polyzoan fragments are embedded in a base of very fine-grained, granular calcite and probably clay. The grain of The base increases in places to 0.03 mm size. The rock is traversed by very thin impersistent calcite-filled fractures. A few small crystals of a yellow, highly refractive, isotropic mineral taken to be sphalerite occur in a shell and a spine. Limestone, luteous, pelitomorphic, clastizoichnic. SL 81. Britrocks (S34555) [NT 2931 5589].

Britrocks: (S34555) [NT 2931 5589]

Geoscenic: P552699 Mag: 40 Light: PPL

Geoscenic: P552700 Mag: 40 Light: XPL

SL 82

Corrie Limestone. Corrie Harbour, Arran. Bute. Reddish-lilac, rather earthy limestone with large Productus. Composed of granular calcite, about 0.1 mm grain, and numerous shell fragments many of which are completely recrystallized and their presence shown only by a pseudomorphous residue of original impurities. Polyzoan fragments and spines are also present. Limonitic clay is common as intergranular pellicles and granules; quartz grains are scarce. Limestone, argillaceous, fine-grained, zoophasmic. SL 82. Britrocks (S34496) [NS 024 434].

Britrocks: (S34496) [NS 024 434]

Geoscenic: P552590 Mag: 40 Light: PPL

Geoscenic: P552591 Mag: 40 Light: XPL

SL 83

Long Craig Upper Limestone. Oxwell Mains Limeworks, 2.5 miles south-east of Dunbar. East Lothian. Brownish-grey compact limestone. Fragmentary shells and polyzoa and foraminifera, ostracods and spines are embedded in a base recrystallized to granular calcite of grain 0.05 - 0.3 mm. The base is turbid with specks of opaque and brown materials much of which is residual from the tests and shells of fossils which have been obliterated by the recrystallization of the base. Pellicles of limonitic clay coat the recrystallized calcite grains. Limestone, fine-grained, microfossiliferous, zoichnic, granular. SL 83. Britrocks (S34556) [NT 707 759].

Britrocks: (S34556) [NT 707 759]

Geoscenic: P552701 Mag: 40 Light: PPL

Geoscenic: P552702 Mag: 40 Light: XPL

SL 84

Skateraw Middle Limestone. Shore at Skateraw. East Lothian. Pale brownish-grey limestone, showing scattered cleavage faces of calcite and dull dark greenish specks. The rock is composed of the debris of shells, spines, occasional Calcisphaera, foraminifera, algae and scarce crinoidal remains in a very fine-grained base of calcite granules, 0.002 - 0.01 mm. Locally the base is recrystallized. The walls of many of the fossil fragments are impregnated with pyrite. Bituminous matter occurs sparsely in foraminifera chambers and in small clots. Limestone, pelitomorphic to fine-grained, microfossiliferous, clastizoic. SL 84. Britrocks (S34557) [NT 7466 7540].

Britrocks: (S34557) [NT 7466 7540]

Geoscenic: P552703 Mag: 40 Light: XPL

Geoscenic: P552704 Mag: 40 Light: PPL

Geoscenic: P552705 Mag: 40 Light: PPL

Geoscenic: P552706 Mag: 40 Light: XPL

SL 85

Ballachulish Limestone. Old Quarry, Creag Aoil, Torlundy. Inverness. Recrystallized limestone composed of interlocking grains (0.4 - 3mm) of closely twinned calcite, abundant accessory quartz forming small 0.1mm grains enclosed in calcite, and accessory biotite and muscovite. Limestone with some quartz, coarse-grained, granoblastic, slightly sheared. SL 85. Britrocks (S34480) [NN 1800 7763].

Britrocks: (S34480) [NN 1800 7763]

Geoscenic: P552551 Mag: 40 Light: XPL

Geoscenic: P552550 Mag: 40 Light: PPL

SL 86

Appin Limestone. Marble quarry, Gleann an Fhiodh, Ballachulish. Argyll. Fine-grained quartz-albite-granulite, with abundant calcite, accessory dolomite, rutile, apatite and muscovite. The portion from which the rock section has been made is much poorer in lime than is shown by chemical analysis from the bulk of the rock. Calcareous quartz-albite-granulite. SL 86. Britrocks (S34481) [NN 0837 5720].

Britrocks: (S34481) [NN 0837 5720]

Geoscenic: P552552 Mag: 40 Light: PPL

Geoscenic: P552553 Mag: 40 Light: XPL

SL 87

Appin Limestone. Crag south of road bend, east of Duror station. Argyll. Fine grain, 0.05 to 0.1 mm, containing subordinate quartz and albite-oligoclase, which are abundant in streaks, and accessory muscovite and pyrite. Dolomite with quartz, feldspar and muscovite, varigrained, foliated and grain-foliated. SL 87. Britrocks (S34482) [NM 9832 5421].

Britrocks: (S34482) [NM 9832 5421]

Geoscenic: P552554 Mag: 40 Light: PPL

Geoscenic: P552555 Mag: 40 Light: XPL

SL 88

Lismore Limestone. Quarry just north of Port Ramsay. Argyll. A dark grey, rudely flaggy limestone with a set of rectangular narrow calcite veins normal to the flag. Composed essentially of elongated grains of calcite darkened with dust, possibly graphitic, and containing subordinate alkali- feldspar and quartz. The calcite is of varying grain-size reaching 0.5 mm in length and is elongated parallel to the flagginess. A subordinate proportion of the calcite shows biaxiality. Apatite and tourmaline are accessory. Pyrite is common in euhedral crystals reaching 2 mm across. Limestone, fine-grained, granoschistose. SL 88. Britrocks (S34483) [NM 8844 4558].

Britrocks: (S34483) [NM 8844 4558]

Geoscenic: P552556 Mag: 40 Light: PPL

Geoscenic: P552557 Mag: 40 Light: XPL

Geoscenic: P552558 Mag: 40 Light: PPL

Geoscenic: P552559 Mag: 40 Light: XPL

Geoscenic: P552560 Mag: 40 Light: PPL

Geoscenic: P552561 Mag: 40 Light: XPL

SL 89

Lower Lias limestone, lower solid portion. Loch Aline Quarry at mouth of Allt na Samhnachain, east side of Loch Aline. Argyll. A dull, compact, blue-grey limestone composed of unsorted echinodermal and shell fragments in a matrix of fine-grained calcite, 0.005 mm across, containing numerous angular quartz grains and shreds of carbonaceous matter, some pyrite, and scarce fossil phosphate and muscovite, glauconite and biotite. Limestone, luteous, micrograined, clastixoic. SL 89. Britrocks (S34484) [NM 6928 4597].

Britrocks: (S34484) [NM 6928 4597]

Geoscenic: P552562 Mag: 40 Light: PPL

Geoscenic: P552563 Mag: 40 Light: XPL

SL 90

Lower Lias limestone, upper fossiliferous portion. Loch Aline Quarry at mouth of Allt na Samhnachain, east side of Loch Aline. Lower Lias limestone, Skye (Inverness). A pale grey, compact limestone composed of fine-grained calcite, 0.005 mm across, in which numerous angular quartz grains, up to 0.1 mm across, and small shells and shell fragments are set. Long thin pieces of phosphatic shell, carbonaceous shreds, and granules of pyrite, often oxidized, are common. Limestone, luteous, pelitomorphic, clastizoic. SL 90. Britrocks (S34485) [NM 6928 4597].

Britrocks: (S34485) [NM 6928 4597]

Geoscenic: P552565 Mag: 40 Light: XPL

Geoscenic: P552564 Mag: 40 Light: PPL

SL 91

Cementstone in Ballagan Beds (bulk sample). Murroch Glen, 0.25 mile east-north-east of Murroch. Dumbarton. Earthy grey, compact rock composed of fine-grained dolomite of grain size less than 0.02 mm, through which are scattered elastic grains of quartz up to 0.1 mm across, accessory yellow biotite and interstitial isotropic clay. Dolomite, luteous, micrograined, uniform granular. (SL 91). Britrocks (S34486) [NS 4083 7782].

Britrocks: (S34486) [NS 4083 7782]

Geoscenic: P552567 Mag: 40 Light: XPL

Geoscenic: P552566 Mag: 40 Light: PPL

SL 92

Calmy Limestone. Quarry at Benston Limeworks, 3 miles north-west of New Cumnock. Ayr. Dull greenish-grey, very compact limestone. Composed of an intimate mixture of minutely granular calcite and recrystallized granular calcite (0.02 - 0.03 mm grain-size). Interstitial material, turbid brown in transmitted light but dirty white in reflected light, is abundant and is perhaps clay; the chemical analysis indicates that much of it must be silica of clay grade. Small crinoid columnals

and shell fragments are sporadic and there are a few small grains of quartz. The rock is traversed by thin calcite-filled cracks. Limestone, luteous, micrograined, microclastizoichnic. SL 92. Britrocks (S34558) [NS 5820 1600].

Britrocks: (S34558) [NS 5820 1600]

Geoscenic: P552707 Mag: 40 Light: PPL

Geoscenic: P552708 Mag: 40 Light: XPL

Geoscenic: P552709 Mag: 40 Light: XPL

SL 93

Hawthorn Limestone. Quarry at Glenmuir Limeworks, 0.5 mile north-east of High Glenmuir, 4 miles east of Cumnock. Ayr. Reddish-grey compact limestone. Composed of small debris of shells, crinoid columnals, spines, foraminifera and polyzoan fragments set in a matrix of very fine-grained calcite which is considerably recrystallized to larger grain of 0.02 - 0.03 mm. In this matrix small angular grains of quartz, shreds of white and bleached micas and traces of kaolinite are accessory. Small groups, 0.2 mm across, of small crystals of siderite with oxidized borders are scattered throughout the rock. Limestone, luteous, sideritic, fine-grained, microfossiliferous, clastizoic. SL 93. Britrocks (S34559) [NS 630 211].

Britrocks: (S34559) [NS 630 211]

Geoscenic: P552710 Mag: 40 Light: PPL

Geoscenic: P552711 Mag: 40 Light: XPL

SL 94

Cornstone. Craigdullyeart Limeworks, 3 miles east-north-east of New Cumnock. Ayr. Dull cream-coloured rock which is much fractured. It is composed of a mixture of very fine-grained turbid carbonate and re-crystallized granular carbonate of grain-size varying from 0.03 - 0.3 mm. Rarely short tubules in the fine, turbid component suggest that it is partly algal in origin. In recrystallization clay material is concentrated sometimes round the periphery of relict pieces of fine-grained carbonate, sometimes interstitially between the recrystallized grains. Angular quartz and subordinate alkali-feldspar grains, up to 0.5 mm long, occur abundantly in patches; clay is present as impersistent irregular films; flakes of chlorite and grains of chert are accessory. Limestone, irregularly gritty and clayey, fine-grained, algal, clotted in part, breccioid. SL 94. Britrocks (S34560) [NS 663 153](a).

Britrocks: (S34560) [NS 663 153](a)

Geoscenic: P552713 Mag: 40 Light: XPL

Geoscenic: P552712 Mag: 40 Light: PPL

SL 95

Index Limestone. 300 yards south of High Polquhirter, 1 mile south-east of New Cumnock. Ayr. Dull, brownish-grey, fine-grained dolomite. Composed of granular dolomite, about 0.1 mm grain which is turbid with amorphous dust and speckled with opaque brown material, perhaps limonite. The dolomite is ankeritic with omega = 1.690. The section shows a number of fragmentary fossils which have been recrystallized and filled in with coarse carbonate. Staining by the silver nitrate-potassium chromate method shows that this carbonate as well as coarse material in cracks is dolomite, calcite being present only as specks distributed abundantly in and throughout the dolomite of the matrix. A small quantity of bitumen is present, mainly along stylolitic films, and also a little pyrite. Dolomite, varigrained, xoophasmic. SL 95. Britrocks (S34561) [NS 633 125].

Britrocks: (S34561) [NS 633 125]

Geoscenic: P552714 Mag: 40 Light: PPL

Geoscenic: P552715 Mag: 40 Light: XPL

Geoscenic: P552716 Mag: 40 Light: PPL

Geoscenic: P552717 Mag: 40 Light: XPL

Geoscenic: P552718 Mag: 40 Light: PPL

Geoscenic: P552719 Mag: 40 Light: XPL

SL 96

Binney's Spirorbis Limestone. Right bank of River Ayr, 330 yards south of Ballochmyle House, near Catrine. Ayr. Pale, flesh-coloured, compact limestone. Fine-grained limestone, composed of a semi-opaque aggregate of calcite granules 0.005 mm grain-size, with small areas of coarsely crystalline calcite and thin impersistent calcite-filled fractures. Rarely the calcite-filled areas have the thin corrugated or the smooth walls of Spirorbis or ostracods respectively. Limestone, pelitomorphic, subfossiliferous. SL 96. Britrocks (S34562) [NS 521 262].

Britrocks: (S34562) [NS 521 262]

Geoscenic: P552720 Mag: 40 Light: PPL

Geoscenic: P552721 Mag: 40 Light: XPL

SL 97

Charlestown Main Limestone (probably). Easter Glasslie, 2.5 miles north of Leslie. Fife Region. Grey, brownish weathering dolomite, composed of irregular, interlocking grains of turbid dolomite, 0.5 - 0.2 mm, with accessory pyrite and disseminated fine carbonaceous particles. Dolomite, varigrained, zoophasmic, diacrystallic. SL 97. Britrocks (S34489) [NO 2371 0524](a).

Britrocks: (S34489) [NO 2371 0524](a)

Geoscenic: P552568 Mag: 40 Light: PPL

Geoscenic: P552569 Mag: 40 Light: XPL

Geoscenic: P552570 Mag: 40 Light: PPL

Geoscenic: P552571 Mag: 40 Light: XPL

Geoscenic: P552572 Mag: 40 Light: PPL

Geoscenic: P552573 Mag: 40 Light: XPL

SL 98

Charlestown Main Limestone. East Lomond Quarry, at base of East Lomond Hill, about 1.25 miles south-west of Falkland. Fife Region. Dark, grey, saccharoidal limestone composed of inequigranular calcite, 0.05 - 0.5 mm, with much opaque, argillaceous material, including oxidized pyrite and carbonaceous matter, distributed through the rock.

Limestone, argillaceous, medium-grained, xoophasmic, granular. SL 98. Britrocks (S34490) [NO 2383 0584].

Britrocks: (S34490) [NO 2383 0584]

Geoscenic: P552575 Mag: 40 Light: XPL

Geoscenic: P552574 Mag: 40 Light: PPL

SL 99

Charlestown Station Limestone. Longcraigs Quarry, West Lomond Hill. Fife Region. Masive grey, fine-grained dolomite. Composed of granular turbid ankeritic dolomite, about omega 1.695, grain 0.1 - 0.2 mm, in which are set large circular nests of clear granular dolomite representing crinoid columnals. Pyrite is abundant. Ferriferous dolomite, pyritic, fine-grained, zoophasmic. SL 99. Britrocks (S34491) [NO 2044 0729].

Britrocks: (S34491) [NO 2044 0729]

Geoscenic: P552583 Mag: 40 Light: XPL

Geoscenic: P552582 Mag: 40 Light: PPL

SL 100

Charleston Green Limestone (probably). Wilkie's Quarry, West Lomond Hill. Fife Region. A blue-grey limestone, composed of granular calcite, in grains 0.02-0.05 mm across, among which the shapes of fragments of shell and crinoid are poorly preserved. Brown specks visible in hand specimen are composed of dolomite with disseminated limonitic matter. Limestone, dolomitic, fine-grained, zoophasmic. SL 100. Britrocks (S34492) [NO 2007 0677].

Britrocks: (S34492) [NO 2007 0677]

Geoscenic: P552584 Mag: 40 Light: PPL

Geoscenic: P552585 Mag: 40 Light: XPL

SL 101

Charlestown Station Limestone (probably). north-east Quarry, Bishop Hill, Lomond Hills. Fife Region. Grey and buff, medium-grained dolomite with many cavities. Composed of coarsely granular dolomite, 1-2 mm across, with fine-grained interstitial dolomite 0.1 to 0.2 mm grain. Calcite is distributed in accessory amount as is shown by steady diffuse effervescence with cold dilute HCl, but the section takes no stain in Lemberg's solution. Refractive index, omega = 1.680 approx. shows that the dolomite is not an ankeritic variety. Dolomite, varigrained, mosaic. SL 101. Britrocks (S34493) [NO 1929 0515].

Britrocks: (S34493) [NO 1929 0515]

Geoscenic: P552586 Mag: 40 Light: PPL

Geoscenic: P552587 Mag: 40 Light: XPL

SL 102

Charlestown Main Limestone. Clatteringwell Quarry, Bishop Hill, about 1 mile north-east of Kinnesswood. Fife Region. Pale brownish, greenish-mottle limestone composed of crinoid and shell fragments in a fine calcareous base in which finely divided chlorite is locally abundant and tiny crystals of pyrite are universally present. The fossil fragments are

greatly recrystallized, but trabecular structure is commonly preserved, even when replacement by calcite-chlorite aggregate has occurred. The residue from solution in cold dilute HCl includes grossular, forsterite, diopside, opaque spinellid, and brookite, rutile and zircon. Limestone with chlorite, pelitomorphic, clastizoic, zoichnic. SL 102. Britrocks (S34494) [NO 1854 0370].

Britrocks: (S34494) [NO 1854 0370]

Geoscenic: P552588 Mag: 40 Light: PPL

Geoscenic: P552589 Mag: 40 Light: XPL

SL 103

Charlestown Green Limestone (probably). White Craigs Quarry, south shoulder of Bishop Hill. Fife Region. A grey and brown, crystalline dolomite with large cavities. Composed of interlocking grains of dolomite, of grain varying from 0.1 to 1.5 mm, between and among which limonitic dust is widely distributed. The sample contains bands of dolomitic chert in which whole and fragmentary crinoid plates, completely dolomitized, are numerous. Dolomite, zoophasmic, uneven mosaic, and dolomitic chert, taxichnic SL 103. Britrocks (S40337) [NO 1864 0302].

Britrocks: (S40337) [NO 1864 0302]

Geoscenic: P553126 Mag: 40 Light: PPL

Geoscenic: P553127 Mag: 40 Light: XPL

SL 104

Cornstone. Vane Quarries, Benarty Hill. Fife Region. Banded greenish and grey limestone. The section appears to show a greenish band only and it is composed of subrounded quartz grains, with a low proportion of alkali-feldspar grains, cemented by calcite. Many quartz grains show regrowth rims which interlock with the calcite cement. Zircon and rutile are accessory. Alkali-feldspar includes microcline, albite and perthite. Calcareous, feldspathic, sandstone. SL 104. Britrocks (S34587) [NT 1645 9850].

Britrocks: (S34587) [NT 1645 9850]

Geoscenic: P552767 Mag: 40 Light: XPL

Geoscenic: P552766 Mag: 40 Light: PPL

SL 105

Cornstone. Cothall Limestone Quarry, 2.25 miles south-west of Forres. Moray. Dull white and pale green limestone. Composed of finely granular calcite of patchily varying grain, recrystallized to coarser clear calcite along ill-defined channels. The granular calcite contains much brownish matter, possibly clayey, disseminated through it and locally sufficiently abundant to form a thin cement. Subangular quartz grains up to 0.5 mm across are scattered through the rock. Limestone, subarenaceous, fine-grained, granular. SL 105. Britrocks (S34584) [NJ 013 559].

Britrocks: (S34584) [NJ 013 559]

Geoscenic: P552761 Mag: 40 Light: XPL

Geoscenic: P552760 Mag: 40 Light: PPL

SL 106

Marble. Old Quarry 250 yards south-west of west end of Loch an Sgor Ghaothair, Glen Urquhart. Inverness. Composed of interlocking large grains of calcite within and between which are scattered grains of quartz, prisms of tremolite and flakes of phlogopite. Quartz is more abundant in some bands and is then accompanied by large grains of zoisite, containing vermicular inclusions of quartz, and by muscovite. apatite, rutile and pyrite are accessory. Sphene, oligoclase, have pleochroic haloes. Sphene grains in phlogopite Limestone with phlogopite and calcsilicates, coarse- grained, granoblastic, foliated. SL 106. Britrocks (S34585) [NH 485 314].

Britrocks: (S34585) [NH 485 314]

Geoscenic: P552763 Mag: 40 Light: XPL

Geoscenic: P552762 Mag: 40 Light: PPL

SL 107

Limestone. Rebeg Quarry. Inverness. Inverness. Large grains of twinned calcite are closely interlocked and tend to be elongated parallel to the foliation. Small quartz grains and muscovite flakes are scattered sparsely through the calcite. In bands there is a considerable concentration of tremolite, patched by crocidolite, and phlogopite which are orientated with their long axes parallel to the plane of foliation. Grains of oxidized iron ore and trains of limonitic material occur; there are many small grains of yellow pyrite, and acute lozenges of sphene are accessory. Limestone with phlogopite and tremolite, coarse-grained, foliated, grano- schistose. SL 107. Britrocks (S34586) [NH 563 422].

Britrocks: (S34586) [NH 563 422]

Geoscenic: P552764 Mag: 40 Light: PPL

Geoscenic: P552765 Mag: 40 Light: XPL

SL 109

Dockra Limestone. Hessilhead Quarry, Lugton. Ayr. Whitish-grey limestone showing shells and spines of Productus and crinoid columnals. In thin section polyzoan zoaria, crinoid columnals, shell fragments and spines form the larger constituents in a base of fine-grained, turbid calcite which is extensively recrystallized to about 0.02-0.05 mm grain-size. A few entire ostracods, foraminiferal and thin-walled shells are present. Scarce stylolitic films with associated pyrite and traces of quartz are present. Limestone, fine-grained, clastizoic. SL 109. Britrocks (S34564) [NS 3770 5325].

Britrocks: (S34564) [NS 3770 5325]

Geoscenic: P552722 Mag: 40 Light: PPL

Geoscenic: P552723 Mag: 40 Light: XPL

Geoscenic: P552824 Mag: 40 Light: PPL

Geoscenic: P552825 Mag: 40 Light: XPL

SL 111

Upper Linn Limestone. Lynn Quarry, Linn Spout, Dalry. Ayr. Grey compact limestone, containing Spirifer. Composed of uniformly grained calcite (0.05 mm grain-size) in which a few fragments of thick shells are embedded. The base has been completely recrystallized and the presence of former microfossils is indicated by some diffuse turbid outlines. There is local opaque white interstitial clay material. Limestone, fine-grained, zoophasmic, granular. SL 111. Britrocks (S34566) [NS 2842 4855](a).

Britrocks: (S34566) [NS 2842 4855](a)

Geoscenic: P552724 Mag: 40 Light: PPL

Geoscenic: P552725 Mag: 40 Light: XPL

Geoscenic: P552726 Mag: 40 Light: PPL

Geoscenic: P552727 Mag: 40 Light: XPL

SL 112

Lower Linn Limestone. Caaf Water, Linn Bridge, Dalry. Ayr. Bluish-grey, compact limestone or limy mudstone. Consists of a base of clear and brown minutely granular calcite in which small, uniformly sized, chips of calcite and, occasionally, small crinoid columnals and shell fragments are set along with small grains of quartz, flakes of muscovite and bleached mica, specks of carbonaceous and bituminous matter and grains of pyrite. Calcareous mudstone. SL 112. Britrocks (S34567) [NS 2869 4863].

Britrocks: (S34567) [NS 2869 4863]

Geoscenic: P552728 Mag: 40 Light: PPL

Geoscenic: P552729 Mag: 40 Light: XPL

SL 113

Blue Tour (Calmy) Limestone. At railway bridge, Garpel Water, Muirkirk. Ayr. Blue-grey, very compact limestone, very fine-grained, with calcite granules about 0.01 - 0.03 mm in size. The smaller granules have a general turbid appearance, while the larger grains are separated by interstitial brownish cement, probably calcareo-argillaceous in composition. Scarce shell and crinoid fragments are recognizable and some diffuse outlines of small fossils can be seen. Limestone, micrograined, microclastizoichnic. SL 113. Britrocks (S34568) [NS 686 258].

Britrocks: (S34568) [NS 686 258]

Geoscenic: P552731 Mag: 40 Light: XPL

Geoscenic: P552730 Mag: 40 Light: PPL

SL 114

Hawthorn Limestone. Crossflat Burn Quarry, Muirkirk. Ayr. Cream-coloured limestone, very fine-grained and composed of a pelitomorphic aggregate of calcite granules, about 0.001 mm diameter, in which very small shell and polyzoan fragments and a considerable number of forarniniferal tests are seen. The rock is traversed by impersistent cracks which have been filled with clear calcite. Limestone, pelitomorphic, microfossiliferous, subclastizoic. SL 114. Britrocks (S34569) [NS 720 276].

Britrocks: (S34569) [NS 720 276]

Geoscenic: P552732 Mag: 40 Light: PPL

Geoscenic: P552733 Mag: 40 Light: XPL

SL 115

Castlecary Limestone, upper leaf. Black Devon at North Shaw Wood, 1.5 miles west of Saline. Fife Region. Pale bluish-grey, dull, compact dolomite. It is composed of dolomitized fragments of large shells in a matrix of dolomite-quartz sandstone. The shells show so sharp a difference in coarseness of dolomite recrystallization, 0.2 mm grain size, from that of the matrix 0.04 mm, that they may represent a period of dolomitization prior to their accumulation as detrital grains in the present sediment. Some of the fragments look like dolomite-rock rather than shells. The matrix is composed of granular dolomite without rhomboid shape, small and angular grains of quartz, many streaks of dark material, probably de composed rock or feldspar, abundant pyrite and some pyritized carbonaceous material. The dolomite is ankeritic with omega varying about 1.700 and reaching 1.712, the higher values being shown by the coarser clear carbonate. Ferriferous dolomite, arenaceous, zoichnic, taxichnic. SL 115. Britrocks (S34588) [NS 9985 9405].

Britrocks: (S34588) [NS 9985 9405]

Geoscenic: P552768 Mag: 40 Light: PPL

Geoscenic: P552769 Mag: 40 Light: XPL

SL 116

Castlecary Limestone, upper leaf. Black Devon at North Shaw Wood, 1.5 miles west of Saline. Fife Region. Darkish grey sandy dolomite. In section the rock is seen to be a sandstone composed of subangular grains of quartz cemented by amorphous material containing small aggregates of pyrite granules. This gives place to dolomite in patches, the dolomite being optically continuous over small areas. Scarce alkali-feldspar grains are present; zircon and tourmaline are accessory. Pyrite is abundant. Dolomitic sandstone, subpoikilocrystallic. SL 116. Britrocks (S34589) [NS 9985 9405].

Britrocks: (S34589) [NS 9985 9405]

Geoscenic: P552771 Mag: 40 Light: XPL

Geoscenic: P552770 Mag: 40 Light: PPL

SL 117

Jenny Pate Limestone. Sandydub old quarry, 1 mile west of Saline. Fife Region. Dull grey, compact dolomite. Small relics of shells, crinoids and foraminifera are scattered rather sparsely in a matrix of turbid granular dolomite of grain 0.01 mm. The forarninifera are preserved as casts the chambers being filled by pyrites while the walls are recrystallized as dolomite indistinguishable from the matrix. The shell and crinoid fragments, though partly replaced by pyrite, retain the original organic fabric and are probably still calcite. Angular grains of quartz, 0.05 mm across, and carbonaceous particles are scarce. The dolomite is ferriferous and its ordinary refractive index while generally between 1.685 and 1.690, may reach 1.695. Ferriferous dolomite, luteous, micrograined, zoophasmic. SL 117. Britrocks (S34590) [NT 0046 9340].

Britrocks: (S34590) [NT 0046 9340]

Geoscenic: P552772 Mag: 40 Light: PPL

Geoscenic: P552773 Mag: 40 Light: XPL

SL 118

Index Limestone. Lochhead Quarry, 1.5 miles north of Dunfermline. Fife Region. Brownish compact dolomite with cavities lined by dolomite rhombs. Composed of finely granular ankeritic dolomite, of grain 0.01 - 0.03 mm, and having the ordinary refractive index ranging about 1.70. Fragments of shells and crinoids are replaced by coarser dolomite. Angular quartz grains 0.1 mm in length are abundant, and shreds of muscovite, grains of pyrite and carbonaceous particles accessory. The section contains a thin convexo-concave lens of deep brown isotropic fossil phosphate. Ferriferous

dolomite, arenaceous, pelitomorphic, xoophasmic. SL 118. Britrocks (S34591) [NT 0803 9044].

Britrocks: (S34591) [NT 0803 9044]

Geoscenic: P552774 Mag: 40 Light: PPL

Geoscenic: P552775 Mag: 40 Light: XPL

SL 119

Jenny Pate Limestone. Foreshore immediately west of Culross. Fife Region. Grey, very fine-grained dolomite with conchoidal fracture. Composed of granular dolomite, of 0.01 mm grain, of a ferriferous variety with the ordinary refractive index variable and reaching fully 1.695, corresponding to about 20 per cent of ferrodolomite. The rock contains a few scattered fossil fragments, some of which are recrystallized while others retain the original organic fabric. Argillaceous matter renders the dolomite turbid; tiny pebbles and grains of quartz and carbonaceous particles are present. Ferriferous dolomite, luteous, micrograined, zoophasmic. SL 119. Britrocks (S34592) [NS 9840 8585].

Britrocks: (S34592) [NS 9840 8585]

Geoscenic: P552776 Mag: 40 Light: PPL

Geoscenic: P552777 Mag: 40 Light: XPL

SL 120

Castlecary Limestone. Caviehall old mine, 1 mile west of Culross. Fife Region. Brownish-grey, coarsely crystalline dolomite. Composed of granular and rhomboid dolomite of varying grain-size, 0.2 - 0.6 mm with ghost relics of organic fragments, some of which are large and equidimensional and probably represent crinoid plates; others are composed of opaque dust so arranged as to indicate the fibrous texture of shells. A typical stylolitic film traverses the rock and grains of dolomite grow across it. The dolomite is ferriferous with omega = 1.690. Ferriferous dolomite, varigrained, zoophasmic, uneven mosaic. SL 120. Britrocks (S34593) [NS 9722 8572].

Britrocks: (S34593) [NS 9722 8572]

Geoscenic: P552779 Mag: 40 Light: XPL

Geoscenic: P552778 Mag: 40 Light: PPL

SL 121

Charlestown Main Limestone. Invertiel Quarry, 1 mile south-south-west of Kirkcaldy. Fife Region. Pale grey compact dolomite with argillaceous films. The thin section shows a mass of fossil fragments, mainly large and small crinoidal remains, spines, shells and thick-walled cellular structures in a finely granular cement of carbonate and opaque clay. A few thick siliceous spines, with carbonate-filled canal, are present. Granules of pyrite and shreds of carbonaceous matter are abundant. Dolomite, argillaceous, clastizoic, bedded. SL 121. Britrocks (S34594) [NT 2710 8981].

Britrocks: (S34594) [NT 2710 8981]

Geoscenic: P552780 Mag: 40 Light: PPL

Geoscenic: P552781 Mag: 40 Light: XPL

SL 122

Broadstone Limestone. Nettlehirst Quarry, 2.25 miles south-south-east of Beith. Ayr. Grey limestone with microfossils and many crinoid plates. Large and small shell fragments, productid spines, polyzoan fragments, crinoid columnals and foraminifera are abundant in a turbid base of calcite granules 0.01mm and less across. This base contains many pieces of calcite recognizable as chips of shell and the whole is derived from a shell mud. The canalicules of brachiopod shells and the chambers of foraminifera are sometimes filled with pyrites. Limestone, pelitomorphic, fossiliferous, clastixoic. SL 122. Britrocks (S34570) [NS 3645 5057].

Britrocks: (S34570) [NS 3645 5057]

Geoscenic: P552735 Mag: 40 Light: XPL

Geoscenic: P552734 Mag: 40 Light: PPL

SL 123

Tayvallich Limestone. Roadside quarry, 1 mile north of Kilchrenan. Argyll. Grey limestone, laminated lighter and darker grey. Composed of calcite, subordinate quartz and micaceous carbonaceous films. The quartz is mostly in large composite grains, or aggregates of smaller grains, associated with granular calcite of about 1.0 mm grain-size. The quartz and this type of calcite, which is brownish and highly cleaved, form ellipsoidal nodules, or less regular lenticular aggregates round which sweep laminae composed of more fine- grained calcite, about 0.1 mm grain size, and streaked with carbonaceous matter. Small grains of quartz occur also in this matrix. Limestone with quartz, coarse to fine-grained, granoschistose and grain-foliated. SL 123. Britrocks (S34571) [NN 0384 2447].

Britrocks: (S34571) [NN 0384 2447]

Geoscenic: P552736 Mag: 40 Light: PPL

Geoscenic: P552737 Mag: 40 Light: XPL

SL 124

Shira Limestone. Turnalt Quarry. Argyll. Dull grey, compact, but irregularly jointed limestone. Composed of granular calcite (0.05-0.1mm grain-size) and subordinate quartz and water-clear alkali-feldspar (0.1 mm grain). The grains have a tendency to be elongated parallel to a plane not recognizable in hand specimen. All minerals are recrystallized, but not to a high degree. Calcite-filled cracks cut steeply across the direction of elongation. Some thin streaks of turbid amorphous materials are present. Limestone with quartz and feldspar, fine-grained, granoschistose. SL 124. Britrocks (S34572) [NM 8436 0856].

Britrocks: (S34572) [NM 8436 0856]

Geoscenic: P552738 Mag: 40 Light: PPL

Geoscenic: P552739 Mag: 40 Light: XPL

SL 125

Tayvallich Limestone. Quarry 270 yards south-east of Baluachraig, 1.25 miles south by west of Kilmartin. Argyll. Dark grey, moderately crystalline limestone, containing numerous pebbles of vitreous quartz, pink feldspar and dark red material. In section, irregular areas of brownish oolite are seen to pass into a mosaic of clearer recrystallized calcite. Grains and aggregates of quartz and rounded crystals of micracline reaching 3 .0 mm in length are numerous. The dark red pebbles appear to be microcline with much haematitic impregnation. The quartz probably originated as pebble grains, but shows considerable recrystallization. This can be observed as rims of regrowth, the old outline being marked by a zone of fine mineral matter, by intercrystallization of the grains among the new calcite and by partial inclusion of broken

ooliths in quartz. The feldspars appear to have been pebbles in the oolitic limestone but are now bordered by a thin zone of recrystallized calcite where contact with oolitic rock would be expected. It may be invaded by calcite tongues and permeation aggregates of limonite and calcite. A little muscovite and albite, probably detrital, are present. Carbonaceous granules are disseminated in parts of the oolitic rock, trains of them being cut off against recrystallized calcite. Carbonaceous matter also occurs in streaks along small and irregular slip traces. Limestone with pebbly quartz and microcline, blastopsephitic, blasto-oolitic. SL 125. Britrocks (S34573) [NR 8336 9685].

Britrocks: (S34573) [NR 8336 9685]

Geoscenic: P552740 Mag: 40 Light: PPL

Geoscenic: P552741 Mag: 40 Light: XPL

SL 126

Tayvallich Limestone. Fincharn Quarry, at south end of Loch Awe. Argyll. Dark grey sparkling limestone, of medium grain, containing small aggregates of white calcite. Composed of granular dusty calcite, 0.4 mm grain, partially recrystallized to clear calcite, forming lenticular aggregates in a finer-grained rock, of mixed dusty and clear calcite grains, 0.1 mm, showing foliation which curves round the lenticles. The foliation is shown by elongation of grains and by alternation of coarser and finer laminae with streaks of carbonaceous matter. Quartz occurs as an essential but subordinate constituent, as large grains partly recrystallized along with calcite, sometimes showing regrowth rims, partly as lenticular aggregates of smaller grains, and to a subordinate extent interstitial in the coarser dusty limestone. Limestone with some quartz, grain-foliated and granoschistose. SL 126. Britrocks (S34574) [NM 8988 0380].

Britrocks: (S34574) [NM 8988 0380]

Geoscenic: P552742 Mag: 40 Light: PPL

Geoscenic: P552743 Mag: 40 Light: XPL

SL 127

Tayvallich Limestone. Quarry east of Eurach, near Ford. Argyll. Dark grey, fine-grained crystalline limestone. The section shows irregular, diffuse relics of very fine-grained black- powdered limestone in a recrystallized base of granular brownish calcite, among which small grains and aggregates of quartz are scattered. The form of the quartz indicates recrystallization. Black dust, graphitic or carbonaceous, and granules are distributed through the recrystallized calcite. One recrystallized oolith was observed and in one place the rock is oophasmic. Limestone with some quartx, varigrained, partly granoblastic, oophasmic. SL 127. Britrocks (S34575) [NM 8523 0085].

Britrocks: (S34575) [NM 8523 0085]

Geoscenic: P552744 Mag: 40 Light: PPL

Geoscenic: P552745 Mag: 40 Light: XPL

SL 128

Loch Tay Limestone. Askomill Quarry, 4 mile east-north-east of Campbeltown. Argyll. Banded coarse and fine-grained limestone. The coarse bands which show curved cleavage surfaces of blackish clacite are in thin section composed of large irregular grains of calcite with patchy and undulose extinction. The finer-grained bands are composed of grains of calcite of irregular size and shape, very numerous clear and dust-impregnated grains of albite, 0.1 mm, and abundant opaque granular material sometimes recognizable as pyrite. Quartz and potash- feldspar are also present. Scattered grains of feldspar and opaque granules occur also in the coarse-grained bands. The black residue from digestion in

concentrated HCl is mainly dust-impregnated albite and shapeless black grains, many of which are pyrite. On prolonged roasting in a crucible the residue becomes pale grey and the discharge of colour indicates that much carbon is present. Limestone with albite, foliated and grain-foliated, heteroblastic. SL 128. Britrocks (S34576) [NR 734 211].

Britrocks: (S34576) [NR 734 211]

Geoscenic: P552747 Mag: 40 Light: XPL

Geoscenic: P552746 Mag: 40 Light: PPL

SL 129

Islay Limestone. Leorin Quarry, 2 and one eighth miles north by west of Port Ellen, Islay. Argyll. Grey fine-grained limestone, laminated and cut by lines of calcite. Composed of schistose granular calcite, 0.05 mm grain, the schistosity being marked by elongation of the calcite grains, by trains of opaque dark mineral matter and by occasional elongated grains of quartz. Laminae of coarser granular calcite, 0.3 mm grain, appear parallel to the schistosity and show ellipsoidal swellings which occasionally contain large turbid grains of calcite with undulose extinction. These coarser laminae pass without change of the type of calcite into cross-cutting veins. Granular quartz occurs in the coarser laminae and idiomorphic quartz in the veins. It seems likely that the coarse laminae were recrystallized at the time of the cross-cutting veins by permeation of the solutions along lines of weakness, perhaps produced by the presence of relict augen of coarser calcite. Limestone, fine-grained, granoschistose, grain-foliated. SL 129. Britrocks (S34577) [NR 354 485].

Britrocks: (S34577) [NR 354 485]

Geoscenic: P552748 Mag: 40 Light: PPL

Geoscenic: P552749 Mag: 40 Light: XPL

SL 130

Islay Limestone. Lower Cragabus Quarry, 2.25 miles west of Port Ellen, Islay Argyll. Fine-grained, grey crystalline limestone. Composed of granular calcite of irregular shape and size ranging from 0.01 to 0.4 mm and often with diffuse boundaries between neighbouring grains. Bedding is roughly marked by slightly greater and less concentration of opaque, black finely divided material which is mainly soluble in strong HCl and therefore must be largely iron oxides or sulphides. The insoluble residue consists mainly of quartz with an impregnation of black dust. Limestone, fine-grained, grain-foliated. SL 130. Britrocks (S34578) [NR 329 452].

Britrocks: (S34578) [NR 329 452]

Geoscenic: P552750 Mag: 40 Light: PPL

Geoscenic: P552751 Mag: 40 Light: XPL

SL 131

Islay Limestone. Islay Estates Quarry, Bridgend, Islay. Argyll. Pale grey, compact crystalline limestone, cut by thin calcite veins. Composed of elongated grains of calcite 0.2 to 0.6 mm, with marked parallel orientation. Thin veins of coarser calcite cut across the schistosity. The vein calcite is intercrystallized with the rock calcite. A little opaque material, mainly pyrite, and some quartz are dusted through the rock. Limestone, fine-grained, granoschistose. SL 131. Britrocks (S34579) [NR 347 632].

Britrocks: (S34579) [NR 347 632]

Geoscenic: P552752 Mag: 40 Light: PPL

Geoscenic: P552753 Mag: 40 Light: XPL

SL 132

Islay Limestone. In angle of main road and Persabus road, 2 mile west-south-west of Port Askaig. Argyll. Grey compact and crystalline banded limestone which seems to have a poor cleavage at a low angle to the banding. Numerous patches and wisps, often contorted but with a general parallel orientation, of dark, very fine-grained limestone in a recrystallized granular base of calcite, illustrate palimpsest structure. The grain of the base is about 0.03 - 0.1 mm and small crystals of albite, about 0.1 mm across, are scattered through it. Small crystals and grains of pyrite appear in both the dark patches and the base. Limestone, fine-grained foliated, palimpest. SL 132. Britrocks (S34580) [NR 420 688].

Britrocks: (S34580) [NR 420 688]

Geoscenic: P552755 Mag: 40 Light: XPL

Geoscenic: P552754 Mag: 40 Light: PPL

SL 133

Tayvallich Limestone. Cairnban Locks, Crinan Canal. Argyll. Moderately coarse, pale grey, crystalline, gritty limestone, abundantly speckled with dark vitreous quartz grains. Composed of granular calcite forming a schistose matrix to numerous quartz and feldspar pebbles. Schistosity is marked by elongation of many calcite grains (up to 0.5 mm in length) and by streaks of dark matter, possibly carbonaceous. The pebbles include quartz, strained quartzite or composite quartz-blebs from granite, microcline, albite, perthite, and micropegmatite from granophyre. The quartz shows marginal granulitization and the margins, where not granulitized, are intercrystallized with the calcite. Much granulitic quartz among the calcite is evidently a crystallization of the same period as the latter. An albite pebble shows marginal regrowth. A little white mica is associated with feldspar. Limestone with quartz and feldspar, blastopsephitic, granoblastic to granoschistose. SL 133. Britrocks (S34581) [NR 8397 9086].

Britrocks: (S34581) [NR 8397 9086]

Geoscenic: P552757 Mag: 40 Light: XPL

Geoscenic: P552756 Mag: 40 Light: PPL

SL 134

Loch Tay Limestone. 400 yards south-west of Glensluan Cottage, 1 mile south of Strachur. Argyll. Grey crystalline sparkling limestone. Composed of elongated twinned and cleaved grains of calcite 1.0 mm and over in length, of lens shape and arranged with the long axes in one plane. Small grains and aggregates of quartz, 0.5 mm across, and flakes of muscovite, sometimes with bent detrital appearance, are numerous and plagioclase feldspar grains are scarce. Opaque grains and granules of pyrite and probably carbon are numerous. Limestone with quartz and muscovite, medium-grained, granoschistose. SL 134. Britrocks (S34582) [NS 0926 9944].

Britrocks: (S34582) [NS 0926 9944]

Geoscenic: P552759 Mag: 40 Light: XPL

Geoscenic: P552758 Mag: 40 Light: PPL

SL 135

Wee Post Limestone. Auchenmade Quarry, 600 yards west of Auchenmade station and 3 miles east by south of Dairy. Ayr. Pale buff-grey limestone with many crinoid plates. Composed of crinoid columnals and ossicles, spines, large shell fragments, small shells, polyzoan skeletons with cells filled with dark carbonaceous dust, and occasional foraminifera. All these are set in a matrix of recrystallized granular carbonate containing many small fragments of shells and polyzoa, and scattered grains of pyrite. Limestone, micrograined, clastizoic, in part zoophasmic. SL 135. Britrocks (S34621) [NS 3380 4855].

Britrocks: (S34621) [NS 3380 4855]

Geoscenic: P552782 Mag: 40 Light: PPL

Geoscenic: P552783 Mag: 40 Light: XPL

Geoscenic: P552784 Mag: 40 Light: PPL

Geoscenic: P552785 Mag: 40 Light: XPL

SL 136

Broadstone Limestone. Auchenmade Quarry. Ayr. Grey argillaceous limestone with Lithostrotion. Composed of large and small fragments of crinoids and of shells, spines, large and small foraminifera, Calcisphaera, and occasional coral and polyzoan pieces in a bedded matrix of finely granular calcite mixed with small fossil relics, limonite shreds and opaque carbonaceous fragments and pyrite grains. Orange and opaque bituminous material forms undulating films and streaks along the bedding. The larger organic fragments are mostly arranged with their long axes parallel to the bedding. Limestone, micrograined, clastizoic, bedded. SL 136. Britrocks (S34622) [NS 3380 4855].

Britrocks: (S34622) [NS 3380 4855]

Geoscenic: P552787 Mag: 40 Light: XPL

Geoscenic: P552786 Mag: 40 Light: PPL

SL 137

Loch Tay Limestone. Quarry, West Craig of Soilzarie, 3 miles east of Kirkmichael. Perth. Pale bluish-grey, crystalline limestone. Composed of interlocking grains of twinned calcite (0.5-2.0 mm) with a small quantity of iron-stained chloritic material, and grains of quartz and albite scattered sparsely through the rock. Black granules, possibly of iron ore, are disseminated uniformly, but in small quantity. Limestone, medium to coarse- grained, granoblastic. SL 137. Britrocks (S34623) [NO 115 598].

Britrocks: (S34623) [NO 115 598]

Geoscenic: P552789 Mag: 40 Light: XPL

Geoscenic: P552788 Mag: 40 Light: PPL

SL 138

Loch Tay Limestone. 1250 yards east by south of Dunie, 1 mile south-east of Kirkmichael. Perth. Pale bluish-grey medium-grained limestone, discoloured along some bands by yellowish oxidized iron ore. Composed of interlocking grains of calcite (0.3-1.0 mm) among which a few quartz and albite grains (probably recrystallized) are distributed. Specks of black material are abundantly disseminated and are aggregated in scattered clots along with limonite and yellowish isotropic chloritic material. Flakes of muscovite and grams and prisms of apatite are accessory. Limestone,

medium-grained, granoblastic. SL 138. Britrocks (S34624) [NO 111 588].

Britrocks: (S34624) [NO 111 588]

Geoscenic: P552790 Mag: 40 Light: PPL

Geoscenic: P552791 Mag: 40 Light: XPL

SL 139

Blair Atholl Limestone. Gleann Beag two-thirds of a mile south-south-west of Devil's Elbow. Perth. Dove-grey limestone of medium grain. Composed of inter-locking grains of twinned calcite (0.5-1.5 mm) arranged with slight elongation parallel to a single plane. Grains of quartz, often containing many black granules, and flakes of muscovite are uniformly but not very abundantly scattered through the rock. A few grains and many small granules of ore are disseminated throughout. Limestone with some quartz and muscovite, medium-grained, granoblastic. SL 139. Britrocks (S34625) [NO 139 756].

Britrocks: (S34625) [NO 139 756]

Geoscenic: P552792 Mag: 40 Light: PPL

Geoscenic: P552793 Mag: 40 Light: XPL

SL 140

Arden (Calmy Limestone, top post). The more southerly of Darnley Quarries, about 1 mile south-east of Nitshill station. Renfrew. Medium-grey, dull compact limestone, composed of a brownish semi-opaque base of carbonate (calcite) and clay material, sometimes patchily concentrated. In this lie scattered small calcareous fragments of fossils, scarce phosphatic fossil fragments and very numerous small rhomboid crystals, 0.02 mm across, of dolomite. A little pyrite and carbonaceous matter are present. The abundant residue after treatment with cold dilute HCl is mainly a mixture of amorphous clay with some kaolinite and muscovite. Limestone, dolomite, luteous, micrograined, subclastizoic. SL 140. Britrocks (S34626) [NS 524 586](a).

Britrocks: (S34626) [NS 524 586](a)

Geoscenic: P552794 Mag: 40 Light: PPL

Geoscenic: P552795 Mag: 40 Light: XPL

Geoscenic: P552796 Mag: 40 Light: PPL

Geoscenic: P552797 Mag: 40 Light: XPL

SL 141

Arden (Calmy) Limestone, middle and bottom posts. Renfrew. Grey compact, uniformly fine-grained limestone with sharp angular fracture. Small shelly and crinoidal fragments are scattered rather sparsely through a very fine-grained turbid base composed of finely divided carbonate and clay and numerous small grains and rhombs of carbonate up to 0.2 mm across. These are possibly dolomite but because of the low proportion of MgO shown by chemical analysis it is possible that they are cleavage fragments of calcite. Calcisphaera and foraminifera are also present. Grains of pyrite and quartz are scarce. Limestone, luteous, micro- grained, subclastizoic. SL 141. Britrocks (S34627) [NS 524 586].

Britrocks: (S34627) [NS 524 586]

Geoscenic: P552798 Mag: 40 Light: XPL

Geoscenic: P552799 Mag: 40 Light: PPL

SL 142

Dolomite. Barjarg Quarry, 440 yards north-east of Barjarg Tower, 1 mile south-west of Closeburn. Dumfries. Bright, rose-coloured crystalline dolomite containing quartz grains, Composed of granular dolomite, 0.2 - 0.4 mm grain- size, powdered with ferric oxide dust and in places cemented by red ferric oxide aggregate. Composite quartz grains and grains of strained quartz up to 0-5 mm in size are scattered in small quantity throughout the rock. Ghosts of fossil fragments are outlined by varying concentration of ferruginous dust. Dolomite, fine-grained, zoophasmic, uneven mosaic. SL 142. Britrocks (S34628) [NX 880 904].

Britrocks: (S34628) [NX 880 904]

Geoscenic: P552800 Mag: 40 Light: PPL

Geoscenic: P552801 Mag: 40 Light: XPL

SL 143

Limestone. Quarry 500 yards north-east of CaIdronlee Farm, l.5 miles east-south-east of Waterbeck. Dumfries. Pinkish, sparkling, compact limestone, composed of fragments of shells and polyzoa, many and various foraminifera, productid spines, Calcisphaera, and ostracods cemented in a fine-grained base of shapeless calcite and recrystallized small organic fragments. A little pyrite and probably some clay are present. Limestone, fine-grained, microfossiliferous, clastizoichnic. SL 143. Britrocks (S34629) [NY 26 76].

Britrocks: (S34629) [NY 26 76]

Geoscenic: P552802 Mag: 40 Light: PPL

Geoscenic: P552803 Mag: 40 Light: XPL

SL 144

Limestone. Quarry 100 yards north of Cauldwellknowe Farm, near Kirtle Bridge station. Dumfries. Pale purplish-grey, compact, sparkling limestone, composed of fragmentary shells, foraminifera, polyzoan skeletons, crinoidal remains, spines and Calcisphaera, in a matrix of line-grained calcite which is largely recrystallized organic debris. Limestone, fine-grained, microfossiliferous, clastizoichnic. SL 144. Britrocks (S34630) [NY 22 73].

Britrocks: (S34630) [NY 22 73]

Geoscenic: P552804 Mag: 40 Light: PPL

Geoscenic: P552805 Mag: 40 Light: XPL

SL 145

Metamorphic limestone. Old quarry 550 yards south-east of Strichen Station. Aberdeen. Grey, compact granulite with thin dull white limestone laminae. Composed of quartz and potash feldspar with alternate laminae rich in pale green tremolite and/or pyroxene. Biotite is abundant in ragged poikiloblastic plates in a few laminae. Sphene is usually an abundant accessory. Calcite is present both in quartz-feldspar laminae and in those rich in hornblende, but is confined to thin bands in the rock. Iron ore in irregular grains and aggregates is an abundant accessory. Calcareous quartz-feldspar granulite with talc-silicates, foliated. SL 145. Britrocks (S34647) [NJ 9520 5455].

Britrocks: (S34647) [NJ 9520 5455]

Geoscenic: P552806 Mag: 40 Light: PPL

Geoscenic: P552807 Mag: 40 Light: XPL

SL 146

Limestone. Old Quarry, one-third mile north of Ardlethen. Aberdeen. Pale grey, fine-grained limestone with some thin calcite veins. Composed of a matrix of granular calcite (0.2 - 0.4 mm grain-size) containing a large number of phlogopite flakes and grains of diopside. The latter has a salite (001) cleavage in addition to the usual prismatic cleavage. The phlogopite flakes tend to be orientated parallel to one direction. Calcite-diopside-phlogopite rock, fine-grained, granoblastic. SL 146. Britrocks (S34648) [NJ 917 318].

Britrocks: (S34648) [NJ 917 318]

Geoscenic: P552808 Mag: 40 Light: PPL

Geoscenic: P552809 Mag: 40 Light: XPL

SL 147

Loch Tay Limestone. Quarry 1300 yards east by south of Ronachan House, West Loch Tarbert. Argyll. Sparkling grey medium-grained limestone. Composed of granular calcite of varying grain up to 2mm, with scattered small quartz and albite grains and muscovite flakes. Some less limey bands are composed of granulitic quartz and albite and irregularly prismatic crystals of clinozoisite cemented by granular calcite. The clinozoisite is charged with black powder (possibly carbon) and encloses also grains of pyrite. Pyrite occurs in large irregular grains, particularly in the quartz-feldspar bands of the rock, but is also present in small grains in the pure carbonate. Limestone with quartz, albite, muscovite and clinozoisite, heteroblastic, foliated. SL 147. Britrocks (S34649) [NR 7553 5499].

Britrocks: (S34649) [NR 7553 5499]

Geoscenic: P552810 Mag: 40 Light: PPL

Geoscenic: P552811 Mag: 40 Light: XPL

SL 148

Marl in Ballagan Beds. Murroch Glen, 0.25 mile east-north-east of Murroch. Dumbarton. Grey fissile calcareous shale. Angular grains of quartz (up to 0.5 mm across) are abundant and potash feldspar and flakes of muscovite subordinate in a brown extremely fine-grained matrix which shows some parallel orientation of fine micaceous constituents in an isotropic clay base. Carbonate is present as sporadic idiomorphic crystals in the clay and as thin laminae of minute grains and rhombs. Dolomitic gritty shale. SL 148. Britrocks (S34650) [NS 4071 7780].

Britrocks: (S34650) [NS 4071 7780]

Geoscenic: P552812 Mag: 40 Light: PPL

Geoscenic: P552813 Mag: 40 Light: XPL

SL 149

Patna Limestone. Cairnshalloch Limeworks, 800 yards south-south-west of Patna. Ayr. Compact buff-grey limestone with small crinoid fragments. Composed of a fine-grained base of granular carbonate (0.03 mm average grain-size) containing small, partly recrystallized organic debris. Opaque material occurs as grains of pyrite, pyritic replacement of minute fossils, and black biturninous or carbonaceous specks disseminated through the rock. Brownish calcareous clay is locally common. The organic remains include crinoid plates and many and various foraminifera, polyzoan fragments, brachiopod spines and thin-walled shells. Limestone, fine-grained, microfossiliferous, clastixoic. SL 149. Britrocks (S34651) [NS 408 100].

Britrocks: (S34651) [NS 408 100]

Geoscenic: P552814 Mag: 40 Light: PPL

Geoscenic: P552815 Mag: 40 Light: XPL

Geoscenic: P552816 Mag: 40 Light: PPL

Geoscenic: P552817 Mag: 40 Light: XPL

SL 150

Index Limestone. Keirs Glen, just below Keirs Farm. Ayr. Dull grey argillaceous limestone. Fragments of medium and small shells, a few foraminiferal and crinoidal remains are enclosed in a turbid base composed of shapeless calcite, probably with a clay admixture and numerous small rhombs of ferriferous carbonate. Locally, small aggregates of scaly kaolinite can be distinguished. The small rhombs show by their acute form and their refractive index that the mineral approaches siderite in composition (probably about 80% FeC03). Pyrite, carbonaceous and bituminous matter, and some limonite and quartz are present. Limestone, argillaceous, sideritic, micrograined, microclastixoic. SL 150. Britrocks (S34652) [NS 431 081].

Britrocks: (S34652) [NS 431 081]

Geoscenic: P552818 Mag: 40 Light: PPL

Geoscenic: P552819 Mag: 40 Light: XPL

Geoscenic: P552820 Mag: 40 Light: PPL

Geoscenic: P552821 Mag: 40 Light: XPL

SL 151

Keirs Limestone. Quarry 830 yards south-east of Keirs Farm. Ayr. Dull grey compact limestone, composed of a matrix of fine-grained calcite, of minute grain and probably admixed with clay, in which fragments of shells are abundant and quartz grains are scattered. Small shelly and crinoidal fragments and rare foraminifera are the main larger constituents. Brown opaque streaks, carbonaceous or bituminous, are abundant, and pyrite is present in places. Limestone, luteous, micrograined, microclastixoic, bedded. SL 151. Britrocks (S34653) [NS 435 078].

Britrocks: (S34653) [NS 435 078]

Geoscenic: P552823 Mag: 40 Light: XPL

Geoscenic: P552822 Mag: 40 Light: PPL

SL 153

Stinchar Limestone (lower, dark portion). Tormitchell Quarry, 3 miles north-north-east of Pinmore railway station, Ayr. Ayr. Dark grey compact limestone, composed of finely granular clear calcite mixed with turbid, possibly argillaceous, calcite aggregate of fine grain, through which black carbonaceous specks are scattered loosely. The larger constituents include fragments of shells, small entire shells, round bodies with granular calcite, aggregates of Girvanella and wisps of limonitic clay. Limestone, argillaceous, pelitomorphic to micrograined, zoichnic SL 153. Britrocks (S34655) [NX 23 94].

Britrocks: (S34655) [NX 23 94]

Geoscenic: P552826 Mag: 40 Light: PPL

Geoscenic: P552827 Mag: 40 Light: XPL

SL 154

Stinchar Limestone (upper, grey portion). Tormitchell Quarry, 3 miles north-north-east of Pinmore railway station, Ayr. Ayr. Pale buff, or cream-coloured, compact limestone with semicrystalline lustre. Composed of a matrix of clear calcite, of 0.05 - 0.3 mm grain, containing ooliths and numerous fairly well sorted calcareous pebbles, comprising subrounded fragments and knobby spheroids from 0.3 - 1.5 mm in size, perhaps of algal origin, subangular to rounded pieces of very fine-grained limestone containing ooliths and crinoid fragments but sometimes uniformly structureless, and rare crinoid ossicles. The rock is traversed by many thin calcite-filled cracks which show tensional rupture without lateral displacements. A few quartz grains are present in the matrix and in the semi-opaque limestone. Limestone, fine- grained, oolitic, pseudo-oolitic. SL 154. Britrocks (S34656) [NX 23 94].

Britrocks: (S34656) [NX 23 94]

Geoscenic: P552828 Mag: 40 Light: PPL

Geoscenic: P552829 Mag: 40 Light: XPL

SL 155

Cornstone. Lannielane Limeworks, 5 miles west-south-west of Straiton; band in stream below the main worked limestone. Ayr. Dense whitish limestone with calcite veins and aggregations divided into indistinct nodules. In section it is seen to be a finely granular limestone of even grain averaging 0.03 mm. Veins and less well-defined insertions of coarsely crystalline clear calcite ramify through the fine-grained component. A few quartz and feldspar grains up to 0.2 mm in length are present among the fine calcite. Limestone, fine-grained, crook-veined, breccioid. SL 155. Britrocks (S34657) [NS 313 017].

Britrocks: (S34657) [NS 313 017]

Geoscenic: P552830 Mag: 40 Light: PPL

Geoscenic: P552831 Mag: 40 Light: XPL

SL 156

Cornstone. Larmielane Limeworks; main worked band. Ayr. Dense, pale buff limestone containing impersistent veins or segregations of white calcite. Composed of very fine- grained granular carbonate (0.01 mm or less) which is patchily recrystallized, sometimes to a granular aggregate of 0.02 - 0.04 mm grain-size, sometimes to quite coarse segregations of clear calcite. Small rhombs of dolomite or ankerite occur sporadically in the fine calcite and also line a vein of coarse calcite. These are destroyed by a late infiltration of yellow chert, the latter replacing the dolomite with ejection of limonite. Grains of quartz, up to 0.5 mm, are scattered sparsely through the fine-grained limestone and are coated with and enclose granules of opaque matter, probably limonitic clay. Limestone, in part arenaceous, micrograined, clotted,

breccioid. SL 156. Britrocks (S34658) [NS 313 017](a).

Britrocks: (S34658) [NS 313 017](a)

Geoscenic: P552832 Mag: 40 Light: PPL

Geoscenic: P552833 Mag: 40 : XPL

Geoscenic: P552834 Mag: 40 Light: PPL

Geoscenic: P552835 Mag: 40 Light: XPL

SL 157

Cementstone: 'Upper Cement Bed'. Devonshaw Old Quarry, 2.5 miles east of Dollar. Kinross. Dull greyish-white, compact dolomite banded with less fine-grained, gritty cream-coloured calcareous dolomite. In thin section the compact dolomite is composed of a close aggregate of rhomboid granules, about 0.005 mm across, of dolomite among which calcite is abundant, and through which angular grains of quartz, up to 0.2 mm in size, shreds of colourless mica and fragments of pelitomorphic dolomite are irregularly distributed. The gritty portion is composed of angular grains of quartz, up to 0.5 mm, and numerous pseudo-ooliths of pelitomorphic dolomite which with subordinate microcline and fine-grained silica-rock are cemented by rhomboid dolomite of varying grain and by shapeless calcite. Dolomite, arenaceous and dolomitic sandstone, interbanded, taxichnic. SL 157. Britrocks (S34857) [NT 000 976].

Britrocks: (S34857) [NT 000 976]

Geoscenic: P552878 Mag: 40 Light: PPL

Geoscenic: P552879 Mag: 40 Light: XPL

Geoscenic: P552880 Mag: 40 Light: PPL

Geoscenic: P552881 Mag: 40 Light: XPL

SL 158

Cementstone. Lower Sandy Bed. Devonshaw Old Quarry. Kinross. Compact, mottled grey-brown and cream dolomite. Composed of a base of dolomite in grains and rhombs of 0.02 to 0.1 mm size in which relic patches of very fine-grained pelleted carbonate rock are preserved. In this base irregular patches and single rhombs of coarsely crystallized dolomite about 1 mm across are numerous. Subangular grains of quartz are sporadically abundant in both the coarse and fine dolomite. Ferruginous clay films are common locally and their material has been pressed aside by the large dolomite crystals during their growth. Dolomite, calcareous, arenaceous, fine-grained, porphyrocrystallic. SL 158. Britrocks (S34858) [NT 000 976].

Britrocks: (S34858) [NT 000 976]

Geoscenic: P552882 Mag: 40 Light: PPL

Geoscenic: P552883 Mag: 40 Light: XPL

SL 159

Murrayshall (Hurlet) Limestone. Murrayshall Limeworks, Cambusbarron, 1.5 miles south-west of Stirling. Stirling. A black, compact, fine-grained limestone showing conchoidal fracture; specks of pyrite and crinoid columnals are sparsely distributed. Composed of a turbid, very fine-grained matrix of calcareous fossil debris, calcite granules, 0.005 mm, and

probably some clay, in which are numerous fragmentary large and small shells, crinoid columnals, foraminifera, spines and polyzoa. Small opaque granules and wisps, fairly abundantly distributed, are largely carbonaceous, but some are of pyrite. Shreds of bleached mica are present. Limestone, argillaceous, pelitomorphic, fossiliferous, clastizoic. SL 159. Britrocks (S34859) [NS 7712 9217].

Britrocks: (S34859) [NS 7712 9217]

Geoscenic: P552884 Mag: 40 Light: PPL

Geoscenic: P552885 Mag: 40 Light: XPL

SL 160

Cornstone. Gargunnock Burn, 0.75 mile south of Gargunnock. Stirling. A flaggy medium-grey compact dolomite, composed of turbid very finely granular dolomite, of grain-size about 0.005 mm, which is recrystallized irregularly along streaks and channels to clear dolomite of 0.03 mm grain-size. Obscure vermiform structure in the finer material suggests algal activity. Scarce secondary quartz is associated with good rhombs of dolomite in small lenticular spaces. Thin flakes of mica and angular grains of quartz are sparsely distributed and there are some relics of micro-fossils. Dolomite, luteous, pelitomorphic, microzoichnic, clotted, bedded. SL 160. Britrocks (S34860) [NS 7067 9330].

Britrocks: (S34860) [NS 7067 9330]

Geoscenic: P552887 Mag: 40 Light: XPL

Geoscenic: P552886 Mag: 40 Light: PPL

SL 161

Limestone in Brora Arenaceous Series, Ardassie Point, Brora. Sutherland. A dull, dark grey compact limestone. Composed of a base of intermingled clear, finely granular calcite and pelitomorphic calcite in which are set angular grains of quartz, irregular granular groups of pyrite, splinters of coaly matter, accessory muscovite, biotite and siliceous pebbles, and a few 'galls' of calcareous grit. Echinodermal and shell fragments are present and small spherical bodies (see note below) are very numerous. Limestone, arenaceous, fine- grained, clastizoic. Note. The spherical bodies range in diameter from 0.05 to 0.12 mm. Many present smooth, continuous surfaces to the matrix and some appear to possess a thin peripheral shell. Many however present no definite boundary to the matrix and the carbonate sectors of which they are composed project to different amounts into the matrix. The radial or sectional arrangement of the carbonate within them is characteristic but examples built of a single carbonate crystal can be found, and spheres of the same range of size but composed entirely of chalcedonic silica are also present. The nature of these bodies is uncertain. SL 161. Britrocks (S34848) [NC 915 041](a).

Britrocks: (S34848) [NC 915 041](a)

Geoscenic: P552842 Mag: 40 Light: PPL

Geoscenic: P552843 Mag: 40 Light: XPL

Geoscenic: P552844 Mag: 40 Light: PPL

Geoscenic: P552845 Mag: 40 Light: XPL

Geoscenic: P552846 Mag: 40 Light: PPL

Geoscenic: P552847 Mag: 40 Light: XPL

Geoscenic: P552848 Mag: 40 Light: PPL

Geoscenic: P552849 Mag: 40 Light: XPL

SL 162

Limestone in 'Boulder Beds' south-west of the 'Fallen Stack', Portgower. Sutherland. A pale grey limestone containing numerous shells. In thin section large and small echinodermal and shell fragments and poorly assorted sand grains are cemented by calcite. Over most of the section quartz and cementing calcite are in approximately equal proportion. The calcite is partly fine-grained and turbid but more generally coarsely recrystallized and often poikilitic. The sand grains are angular and rarely reach 1 mm in size. They are mostly of quartz which is often strained but include microcline and crushed quartz-rock, scarce chert and collophane. Limestone, arenaceous, fossiliferous, poikilocrystallic. SL 162. Britrocks (S34849) [ND 004 127].

Britrocks: (S34849) [ND 004 127]

Geoscenic: P552850 Mag: 40 Light: PPL

Geoscenic: P552851 Mag: 40 Light: XPL

SL 163

Flange limestone. Stream 4 mile east-south-east of Halkirk station. Caithness. Black limestone flag with thin lamination in shades of grey. In thin section alternating bands are seen to consist of: (1) coarser bands containing rhombs of dolomite up to 0 - 1 mm across, angular quartz grains, usually in subordinate proportion but sometimes abundant, plagioclase and scarce muscovite flakes, in a matrix of shapeless calcite obscured by disseminated bitumen or bituminous clay; (2) thin bands and lenticles of finely granular carbonate containing rhombs of dolomite, but little quartz or bituminous matter; (3) films of reddish-brown almost opaque bituminous clay. In places these films almost coalesce to form thin bands of gritty, calcareous bituminous shale. Limestone, dolomitic, luteous, bituminous, varigrained, laminar. SL 163. Britrocks (S34850) [ND 13917 58274].

Britrocks: (S34850) [ND 13917 58274]

Geoscenic: P552852 Mag: 40 Light: PPL

Geoscenic: P552853 Mag: 40 Light: XPL

SL 164

Shell sand. Just above highwater mark, 0.25 mile east of John o' Groats Hotel. Caithness. Composed of shell fragments, from 1 to 5 mm across, with a small amount of rock grains. The slide is of the residue after dissolving out the carbonate. The material remaining is mainly argillaceous, feldspathic and micaceous sandstone and gritty mudstone, with subordinate quartz and a little quartzite and microcline, and scarce igneous and metamorphic rocks. SL 164. Britrocks (S35990) [ND 385 735].

Britrocks: (S35990) [ND 385 735]

Geoscenic: P553121 Mag: 40 Light: XPL

Geoscenic: P553120 Mag: 40 Light: PPL

SL 167

Limestone. Robbery Head, south of Lybster. Caithness. Dark fine-grained dolomitic limestone, thinly laminated in shades of grey. In thin section the rock has a micronodular appearance, smooth and corrugated lenticles of clear granular carbonate being swathed in a darker matrix lined with corrugated films of bituminous matter. The clear carbonate is predominantly dolomite with which some quartz is associated while the darker matrix consists of anhedral calcite, dolomite rhombs, bituminous clay and elastic quartz. The grain-size of dolomite and quartz may be 0.1mm but is usually less. Small flakes of muscovite and biotite are present, mostly in the argillaceous laminae. Limestone, dolomitic, luteous, bituminous, varigrained, micronodular. SL 167. Britrocks (S34851) [ND 222 333].

Britrocks: (S34851) [ND 222 333]

Geoscenic: P552855 Mag: 40 Light: XPL

SL 169

Limestone. Shinness Quarry, the Airde, near Lairg. Sutherland. Anhedral grains of calcite up to 5.0 mm in width are seen to interlock with one another, with diopside which forms thick prisms imperfectly developed up to 6 mm in length. Tremolite is often present as small blades in the diopside and locally forms large prisms with replacing relations to the associated diopside. Limestone with diopside and tremolite, coarse-grained, porphyroblastic.(S34853) [NC 47156 14307]. White crystalline limestone. Composed of a mosaic of interlocking grains of calcite up to 6.0 mm across. Tremolite and phlogopite are present in only accessory proportions and rarely reach more than 1.0 mm in length. They lie along the interfaces of calcite grains and are only rarely enclosed in calcite. Apatite and sphene are accessory. Limestone with phlogopite, coarse-grained, foliated. SL 169. Britrocks (S34852) [NC 47156 14307].

Britrocks: (S34852) [NC 47156 14307]

Geoscenic: P552856 Mag: 40 Light: PPL

Geoscenic: P552857 Mag: 40 Light: XPL

SL 170

Cornstone. Middlefield Quarry, l.5 miles north-west of Muirkirk. Ayr. A brownish-grey limestone mottled in light and darker shades and of stony appearance. Composed of turbid fine- grained carbonate which is recrystallized along a diffuse network of channels to anhedral carbonate of grain-size 0.03 - 0.1 mm. This coarser clear carbonate (calcite) occupies extensive areas free from the turbid type. The latter contains numerous pellet structures which are sometimes uniformly almost opaque, sometimes composed of an opaque rind on a clear granular centre. Elsewhere the pellet structure is absent or forms only part of a more complex structural aggregate. Rarely irregular concentric structure suggests algal origin. It seems as if the carbonate had been originally deposited as a mud, in which perhaps worms worked faecal pellets, and that this had been brecciated and recrystallized. Streaks of opaque limonite are present. Limestone, fine to micrograined, clotted, micronodular. SL 170. Britrocks (S34854) [NS 6945 3006].

Britrocks: (S34854) [NS 6945 3006]

Geoscenic: P552858 Mag: 40 Light: PPL

Geoscenic: P552859 Mag: 40 Light: XPL

SL 171

Burdiehouse (Grange) Limestone. Newbigging Mine, 1 mile west of Burntisland. Fife Region. Dull cream-grey, compact limestone showing numerous ostracods. Composed of a matrix of finely divided carbonate, 0.001 - 0.005 mm grain-size in which are set numerous ostracod shells and some fragments of thicker molluscan shells. The ostracod bivalves when complete are filled with more coarsely granular carbonate up to 0.2 mm grain. Limestone, pelitomorphic,

microfossiliferous: microcoquinoid. SL 171. Britrocks (S34855) [NT 2155 8637].

Britrocks: (S34855) [NT 2155 8637]

Geoscenic: P552861 Mag: 40 Light: XPL

Geoscenic: P552860 Mag: 40 Light: PPL

SL 172

Dolomite vein in Burdiehouse or Grange Limestone. Newbigging Mine. Fife Region. Brown dolomite with lustrous crystalline surfaces, composed of an aggregate of anhedral ankerite of uniform grain 0.1 - 0.2 mm size, and of a uniform pale brown tint. Sporadic, small oval areas of clear carbonate including calcite represent ostracods. The ankerite in the section and in powder appears to be homogeneous, omega = 1.707 corresponding to about 12 per cent FeO. These figures agree well with the chemical analysis considering that free calcite is present. The rock has a small proportion of empty pore spaces. Small aggregates of pyrite granules are present. Ferriferous dolomite, fine-grained, uneven mosaic. SL 172. Britrocks (S34856) [NT 2155 8637](b).

Britrocks: (S34856) [NT 2155 8637](b)

Geoscenic: P552862 Mag: 40 Light: PPL

Geoscenic: P552863 Mag: 40 Light: XPL

Geoscenic: P552864 Mag: 40 Light: PPL

Geoscenic: P552865 Mag: 40 Light: XPL

Geoscenic: P552866 Mag: 40 Light: PPL

Geoscenic: P552867 Mag: 40 Light: XPL

Geoscenic: P552868 Mag: 40 Light: PPL

Geoscenic: P552869 Mag: 40 Light: XPL

Geoscenic: P552870 Mag: 40 Light: PPL

Geoscenic: P552871 Mag: 40 Light: XPL

Geoscenic: P552872 Mag: 40 Light: PPL

Geoscenic: P552873 Mag: 40 Light: XPL

Geoscenic: P552874 Mag: 40 Light: PPL

Geoscenic: P552875 Mag: 40 Light: XPL

Geoscenic: P552876 Mag: 40 Light: PPL

Geoscenic: P552877 Mag: 40 Light: XPL

SL 173

Burdiehouse Limestone. Hopetoun Wood Quarry, Abercorn. West Lothian. Almost black aphanitic rock, resembling bituminous mudstone. Composed of a very fine calcite aggregate coloured brownish and yellowish by finely disseminated bituminous matter. In the larger pieces and long streaks the latter is mainly a homogeneous yellow isotropic material but is sometimes orange and almost opaque. Opaque material includes carbonaceous matter and pyrite. These constituents produce a parallel banding in the rock. There are occasional calcareous fragments of shells, and only a very few grains of quartz are recognizable. The rock powder, heated in a closed tube, evolves a heavy yellow oil and a more volatile colourless fraction. Limestone, bituminous, luteous, pelitomorphic, subclastizoic, bedded. SL 173. Britrocks (S35986) [NT 0827 7806].

Britrocks: (S35986) [NT 0827 7806]

Geoscenic: P553117 Mag: 40 Light: XPL

Geoscenic: P553116 Mag: 40 Light: PPL

SL 174

Main Limestone. Bankend Limeworks, .5 mile south-west of Bankend. Lanark. A dark buff-grey limestone showing numerous productid shells and spines in hand specimen. The thin section shows large shells which are mostly arranged flatly to the bedding, numerous spines and a few foraminifera and polyzoan fragments, in a matrix of fine granular calcite of about 0.03 mm average grain-size, scantily cemented by turbid brown argillo-calcareous matter. Limestone, argillaceous, fossiliferous, clastizoic, bedded. SL 174. Britrocks (S34905) [NS 8014 3302].

Britrocks: (S34905) [NS 8014 3302]

Geoscenic: P552896 Mag: 40 Light: PPL

Geoscenic: P552897 Mag: 40 Light: XPL

SL 175

Dolomite. Stream 5/6th mile south of Keoldale, about 75 yards upstream from road. Sutherland. The analyses were made on composite samples of which the four specimens described below are representative, but the proportions of the various types may have differed in the samples supplied for Anal. M 23799 and Anal. GS 1203 respectively.(S34842) [NC 384 649]. A fine-grained, uniform dolomite of grain size about 0.1 mm. Local patches of coarser grain with occasional limonitic fillings along the cleavages occur. Stylolitic films of limonitic clay are present but scarce and there are traces of quartz. Dolomite, fine-grained, mosaic.(S34843) [NC 384 649]. Bedded dolomite, with alternating laminae of 0.01 to 0.05 mm grain containing numerous streaky impregnations of limonite and occasional laminae of chert and ferruginous material. Small angular grains of quartz are numerous and the rock probably contains some clay. Dolomite, luteous, pelitomorphic to micrograined, taxichnic, thin-bedded.(S34844) [NC 384 649]. Fine-grained, sandy dolomite with some bands of slightly coarser material; composed of grains of dolomite, about 0.03 mm average grain, with subordinate quartz and alkali-feldspar in angular grains up to 0.1 mm long, and some muscovite in small thin flakes. The rock is cut by thin veins of coarser dolomite. Dolomite, luteous to arenaceous, fine-grained, taxichnic, mosaic.(S34845) [NC 384 649]. Dolomite of grain varying between 0.03 and 0.3 mm. There is a local cement of limonite which is only enough to form coatings to the dolomite grains. Limonite is present also along lines of fracture. The variation in grain-size is abrupt so that the rock has a brecciated or nodular appearance in hand specimen, but enclosure of limonitic dust trains in the large dolomite grains suggests that recrystallization to coarse dolomite is later than the fracturing of the rock. Chert occurs in sporadic vacuoles. Dolomite, varigrained, breccioid, mosaic. SL 175. Britrocks (S34842) [NC 384 649].

Britrocks: (S34842) [NC 384 649]

Geoscenic: P552838 Mag: 40 Light: PPL

Geoscenic: P552839 Mag: 40 Light: XPL

SL 176

Dolomite. Field about 350 yards south-south-west of Sarsgrum, about 50 yards east of the road. Sutherland. The analyses were made on composite samples, the most prominent components of which are represented by the specimens described below; but the proportions of the various types may have differed somewhat in the samples supplied for Anal. M23800 and Anal. GS 1202, respectively.(S34838) [NC 372 626]. Crystalline dolomite of grain-size varying from 0.2-0.6 mm and of a slightly brown colour in transmitted light. The grains are interlocking and mostly of irregular shape but a proportion of them show rhomboid outlines. Ferruginous clay locally forms impersistent, intergranular films. Dolomite, medium-grained, mosaic.(S34839) [NC 372 626]. A line granular dolomite showing non-uniform distribution of grain-size. The slide includes parts with grain of about 0-1 mm, irregularly and transitionally mixed with coarser grained dolomite of about 0.4 mm grain-size. Ferruginous material is present in very small quantity as short films and intergranular pellicles. Dolomite, varigrained, breccioid, mosaic.(S34840) [NC 372 626]. Dolomite of grain-size about 0.3 mm traversed by a diffuse network of coarser grained dolomite (0.6 - 1.5mm). All of it has a brownish tint. A little chert is present in thin veins which seem to replace the dolomite, pices of which are left optically continuous on the opposite side of veins. Some granular quartz and ferruginous matter are also present. Dolomite Medium grained, breccioid, mosaic. (S34841) [NC 372 626] . Dolomite of uniform grain size, 0.5 - 1.0mm. The grains are equidimensional and anhedral, no rhomboid outlines having been observed. Limonite is present in small quantity as granules and intergranular films. Dolomite, medium-grained, mosaic. SL 176. Britrocks (S34838) [NC 372 626].

Britrocks: (S34838) [NC 372 626]

Geoscenic: P552837 Mag: 40 Light: XPL

Geoscenic: P552836 Mag: 40 Light: PPL

SL 177

Dolomite. Hillside, 780 yards north 18 degrees east of Eireboll House and 330 yards west of Free Church. Sutherland. Composite samples.(S34846) [NC 436 572]. Very fine-grained dolomite of grain-size ranging down from 0.05 mm. The rock contains accessory grains of quartz and flakes of muscovite and is traversed by thin impersistent streaks of chert. Dolomite, micrograined, granular. SL 177. Britrocks (S34846) [NC 436 572].

Britrocks: (S34846) [NC 436 572]

Geoscenic: P552841 Mag: 40 Light: XPL

Geoscenic: P552840 Mag: 40 Light: PPL

SL 178

Limestone at base of the volcanic rocks. Quarry, 1100 yards west 10 degrees south of Howmuir Farm, about a mile east of East Linton. East Lothian. A dark flesh-coloured limestone composed of pisolitic and irregular masses and pellets of turbid fine-grained calcite cemented by clear calcite of grain 0.05 to 0.03 mm. The pisolitic masses, 0.2 tc 4.0 mm across, are in part algal and show concentric or confocal growth structures in the centre of which chalcedonic replacement is common. Many of the smaller pisolites or pellets are structureless and may be faecal pellets or rolled fragments. Grains of radiating chalcedony occurring in the recrystallized matrix appear at times to be elastic. Ferruginous films are common around or within channels of recrystallization. Limestone, algal, clotted, micronodular, homoiolithic, mesh-crystallized. SL 178. Britrocks (S34899) [NT 6019 7669].

Britrocks: (S34899) [NT 6019 7669]

Geoscenic: P552889 Mag: 40 Light: XPL

Geoscenic: P552888 Mag: 40 Light: PPL

SL 179

Dolomite. Left bank of Whittinghame Water, 0.25 mile west-north-west of Ruchlaw Mains. East Lothian. A red colour-laminated rock, seen in thin section to be composed of a fine-grained aggregate of anhedral dolomite, the grains of which are 0.1 - 0.01 mm across and are dusted with and separated by red limonite. The colour lamination corresponds to a greater or less concentration of limonite. Small rhombs of dolomite of larger size occur in sporadic cavities. Chert is abundant as irregular layers and as a pervasive infiltration; it is clearly a replacement deposit and not an infilling to fractures or cavities. Dolomite, cherty, ferruginous, pelitomorphic to fine-grained, banded, taxichnic. SL 179. Britrocks (S34900) [NT 6127 7451].

Britrocks: (S34900) [NT 6127 7451]

Geoscenic: P552891 Mag: 40 Light: XPL

Geoscenic: P552890 Mag: 40 Light: PPL

SL 180

Cornstone. Quarry 400 yards W. by N. of Selms, 1.25 miles south of East Calder. Mid Lothian. A nodular rock composed of larger buff nodules which effervesce freely in cold dilute HCl and greenish non-effervescent nodules, in a fine breccia-like base containing much recrystallized or infiltrated calcite. The slide appears to include only the greenish nodules and these are composed of silty micaceous argillite or mudstone, marginally replaced by prisms of calcite growing in from the infilling calcite. The latter is composed of coarse grains which show growth zones and in places two periods of growth separated by a period of silica deposition. Some of the vein-like infillings contain also a central deposit of chalcedonic quartz. Mudstone, calcite-veined. SL 180. Britrocks (S34901) [NT 0842 6608].

Britrocks: (S34901) [NT 0842 6608]

Geoscenic: P552893 Mag: 40 Light: XPL

Geoscenic: P552892 Mag: 40 Light: PPL

SL 181

Cementstone. Linhouse Water, 120 yards north-west of the upper (south) railway viaduct, 2 miles south of Mid Calder. Mid Lothian. A dull compact grey rock, composed mainly of grains of carbonate, 0.005 - 0.01 mm across, which by refractive index tests is shown to be ferriferous dolomite. Slightly larger grains up to 0.02 mm much altered to limonite probably represent siderite. In thin seams rich in quartz and muscovite the carbonates are less finely grained and oxidized siderite up to 0.05 mm can be distinguished among clear finely granular carbonate. Fresh biotite is present but scarce in these seams and alkali-feldspar, muscovite and chlorite also are present. Contemporaneous brecciation of the fine- grained dolomite into the arenaceous seams suggest that the dolomite is an original precipitation or a lime-mud contemporaneously dolomitized. Ferriferous dolomite, micrograined, with arenaceous laminae, taxichnic. SL 181. Britrocks (S34902) [NT 0758 6486].

Britrocks: (S34902) [NT 0758 6486]

Geoscenic: P552894 Mag: 40 Light: PPL

Geoscenic: P552895 Mag: 40 Light: XPL

SL 182

Gilmerton (No. 1) Limestone, basal 8 feet (worked). Day level 200 yards south-east of Whim Farm. Peebles. A pale grey, massive limestone consisting of a base of calcite, 0.05 mm and smaller grain, in which are scattered abundantly fragments of shell and polyzoa and numerous crinoid columnals, foraminifera and spines. Pyrite- impregnated zones, sometimes superimposed on large bryozoan fragments suggest algal structures. Limestone, micrograined, clastizoic. SL 182. Britrocks (S40470) [NT 216 531].

Britrocks: (S40470) [NT 216 531]

Geoscenic: P553129 Mag: 40 Light: XPL

Geoscenic: P553128 Mag: 40 Light: PPL

SL 183

Gilmerton (No. 1) Limestone, top 3 feet of lower part. Whitfield Limeworks. Peebles. Grey to dark grey compact limestone composed of round and angular grains of calcite, 0.02 - 0.05 mm across, with a cement of pelitomorphic calcite and clay. Fragments of shell are common, small crinoid columnals scattered, and pieces of phosphate scarce. Small angular quartz grains, granules of pyrite and drops of bitumen are present. Limestone, luteous, fine-grained, clastizoichnic. SL 183. Britrocks (S40472) [NT 172 542].

Britrocks: (S40472) [NT 172 542]

Geoscenic: P553130 Mag: 40 Light: PPL

Geoscenic: P553131 Mag: 40 Light: XPL

Britrocks: (S40473) [NT 172 542]

Geoscenic: P553133 Mag: 40 Light: XPL

Geoscenic: P553132 Mag: 40 Light: PPL

SL 184

Limestone. south side of Bay of Fladdabister. Shetland Isles. Composed essentially of anhedral grains of calcite showing close glide twinning. The grains, which are about 1.0 mm long, interlock, or are cemented by finely granular calcite which is due to trituration by shearing; similar fine calcite cuts through the larger calcite grains and also forms thin parallel seams. Quartz in grains 0.1-0.2 mm across, and small flakes of muscovite are abundant accessories. A little finely divided opaque mineral is present, the larger grains being recognizable as oxidized iron-ore, probably pyrite. Apatite and tourmaline are accessory. Limestone with some quartz and muscovite, medium-grained, sheared, granoschistose. SL 184. Britrocks (S34947) [HU 437 324].

Britrocks: (S34947) [HU 437 324]

Geoscenic: P552899 Mag: 40 Light: XPL

Geoscenic: P552898 Mag: 40 Light: PPL

SL 185

Tingwall Limestone. Quarter mile north of Scalloway. Shetland Isles. Consists essentially of intricately sutured grains of calcite, about 0.5 mm across, together with about 25 per cent of quartz in grains which are usually distributed singly

among the calcite but also form small aggregates with or without associated muscovite. Muscovite occurs also in irregular or streaky aggregates, with some of which red biotite and alkali-feldspar are associated. A little dolomite is present in rhombs about 2 mm across. Pyrite, rutile and opaque mineral dust are common accessories; tourmaline is scarce. Limestone, dolomitic, with quartz, muscovite, biotite and pyrite, medium-grained, foliated, heteroblastic. SL 185. Britrocks (S34948) [HU 403 402].

Britrocks: (S34948) [HU 403 402]

Geoscenic: P552900 Mag: 40 Light: PPL

Geoscenic: P552901 Mag: 40 Light: XPL

SL 186

Tingwall Limestone. Quarry, east side of road 1 mile north-north-east of Scalloway. Shetland Isles. Shows a lamination in shades of grey and(S34950) [HU 410 411] is thinly flaggy. The rock is composed of anhedral interlocking grains of twinned calcite, with thin laminae of muscovite, or muscovite-graphite-schist. These laminae have been cut into schlieren by the flowage of calcite and show internal schistosity differing in direction from the parallel arrangement of the schlieren. Quartz is sparsely distributed among the calcite and graphite is disseminated on the grain surfaces in the calcite bands. Pyrite is accessory; apatite scarce.(S34950) [HU 410 411] Limestone with graphite, quartz and pyrite, fine- grained, sheared. SL 186. Britrocks (S34949) [HU 410 411], (S34950) [HU 410 411].

Britrocks: (S34949) [HU 410 411]

Geoscenic: P552903 Mag: 40 Light: XPL

Geoscenic: P552902 Mag: 40 Light: PPL

Britrocks: (S34950) [HU 410 411]

Geoscenic: P552905 Mag: 40 Light: XPL

Geoscenic: P552904 Mag: 40 Light: PPL

SL 187

Tingwall Limestone. Girlsta Quarry, near shore of Wadbister Voe. Shetland Isles. The rock is composed of interlocking grains of calcite 0.5 mm across, which show glide twinning and a little peripheral granulation. Quartz is abundant, about 5-10 per cent by volume, in small grains, and occurs also as larger grains in quartz-clinochlore aggregates. Muscovite is in places a subordinate mineral and elsewhere is only accessory. Pyrite is accessory. Limestone with quartz, chlorite and muscovite, medium-grained, granoblastic, foliated. SL 187. Britrocks (S34951) [HU 429 509].

Britrocks: (S34951) [HU 429 509]

Geoscenic: P552907 Mag: 40 Light: XPL

Geoscenic: P552906 Mag: 40 Light: PPL

SL 188

Whiteness Limestone. West of Whiteness Quarry, west side of Loch of Strom. Shetland Isles. Composed of interlocking grains of calcite, 0.2 to fully 1 mm across, with subordinate quartz which tends to occur in more or less parallel, widely spaced streaks ' and clots of grains individually 0.2-0.5 mm across. A little pyrite, rutile and opaque mineral dust are present and muscovite is in places an abundant accessory. Limestone with quartz, medium-grained, granoblastic. SL

188. Britrocks (S34952) [HU 393 476].

Britrocks: (S34952) [HU 393 476]

Geoscenic: P552909 Mag: 40 Light: XPL

Geoscenic: P552908 Mag: 40 Light: PPL

SL 189

Weisdale Limestone. Quarry on west side of road half a mile south of Flemington. Shetland Isles. Composed of equidimensional grains of calcite, 0.5 mm across, with quartz occurring in interstitial aggregates of small grains, 0.1-0.2 mm across, and forming about 30 per cent by volume of the rock. Pyrite and muscovite are abundant. Zircon, rutile, tourmaline and apatite are accessory. Limestone with quartz, muscovite and pyrite, medium-grained, heteroblastic. SL 189. Britrocks (S34953) [HU 392 538].

Britrocks: (S34953) [HU 392 538]

Geoscenic: P552910 Mag: 40 Light: PPL

Geoscenic: P552911 Mag: 40 Light: XPL

SL 190

Weisdale Limestone.Sursetter, 1.5 miles north of Voe. Shetland Isles. Composed of coarsely sutured grains of calcite, about 1 mm long, which tend to be elongated in a direction of rather poor schistosity defined by a general parallel orientation of muscovite. The latter is a subordinate essential constituent forming flakes approaching, and rarely exceeding, 1 mm in length. A minor quantity of oligoclase and quartz is present, generally in association with muscovite. Prismatic zoisite, tremolite and a fibrous aggregate which develops into micaceous flakes, are minor essential constituents. Zoisite and muscovite form symplectitic intergrowths with quartz. Colourless tourmaline in small hexagonal prisms, leucoxene, pyrite and pyrrhotite are abundant; apatite, sphene and zircon are scarce accessories. Limestone with zoisite and muscovite, medium -grained, granoschistose, porphyroblastic, foliated. SL 190. Britrocks (S34954) [HU 411 655](e).

Britrocks: (S34954) [HU 411 655](e)

Geoscenic: P552912 Mag: 40 Light: PPL

Geoscenic: P552913 Mag: 40 Light: XPL

Geoscenic: P552914 Mag: 40 Light: PPL

Geoscenic: P552915 Mag: 40 Light: XPL

Geoscenic: P552916 Mag: 40 Light: PPL

Geoscenic: P552917 Mag: 40 Light: XPL

Geoscenic: P552918 Mag: 40 Light: PPL

Geoscenic: P552919 Mag: 40 Light: XPL

SL 191

Limestone. 300 yards south of Loch of Burraland, Sullom, 4 miles north of Brae, North Maven Shetland Isles. Composed of strained calcite in grains 0.5-1.5 mm across, traversed by narrow shear zones in which calcite is triturated, and along which muscovite and chlorite are abundant. Yellow tourmaline occurs along thin shear-zones in good prisms, which have been fractured by later movement. Oxidized pyrite occurs mainly in or near shear-lines. Limestone with muscovite-chlorite-schist folia, coarse to medium-grained, granoblastic, foliated. SL 191. Britrocks (S34955) [HU 344 744].

Britrocks: (S34955) [HU 344 744]

Geoscenic: P552920 Mag: 40 Light: PPL

Geoscenic: P552921 Mag: 40 Light: XPL

SL 192

Cementstones, Ballagan Beds (bulk sample of 8 bands). Ballagan Burn, 530 yards north of Ballagan House. Stirling. Compact grey rock, composed of a mass of rhomboid dolomite crystals, 0.005 - 0.02 mm across, with very little turbid matter of any kind, argillaceous or calcareous. Angular grains of quartz, 0.1 - 0.5 mm across, are abundantly scattered through the rock along with scarce alkali-feldspar, secondary quartz-rock, chlorite and thin prisms of a mineral, occurring in cracks and in association with quartz, which is probably baryte. The presence of small prisms of gypsum was suspected, but not proved. Dolomite, luteous, micrograined, uniform granular. SL 192. Britrocks (S34968) [NS 5221 8014].

Britrocks: (S34968) [NS 5221 8014]

Geoscenic: P552923 Mag: 40 Light: XPL

Geoscenic: P552922 Mag: 40 Light: PPL

SL 193

Cementstone, Ballagan Beds. Ballagan Burn, 530 yards north of Ballagan House. Stirling. A grey compact rock composed of granular and rhomboid carbonate, of average grain-size 0.005 mm, among which there are tiny patches of brownish argillaceous matter. Angular grains of quartz and flakes of muscovite are sparsely scattered through the rock. Dolomite, luteous, pelitomorphic, clotted, taxichnic. SL 193. Britrocks (S34969) [NS 5221 8014].

Britrocks: (S34969) [NS 5221 8014]

Geoscenic: P552925 Mag: 40 Light: XPL

Geoscenic: P552924 Mag: 40 Light: PPL

SL 194

Cementstone, Ballagan Beds. Ballagan Burn, 530 yards north of Ballagan House. Stirling. Darkish grey very fine-grained rock, rough to the touch. Composed of grains and rhombs of dolomite, of average grain- size 0.005 mm, with some interstitial faintly brown isotropic material of refractive index close to that of canada balsam, possibly halloysite. Abundant angular grains of quartz, grain-size 0.1 - 0.01 mm and sparse muscovite are scattered through the rock. Dolomitic siltstone. SL 194. Britrocks (S34970) [NS 5221 8014].

Britrocks: (S34970) [NS 5221 8014]

Geoscenic: P552926 Mag: 40 Light: PPL

Geoscenic: P552927 Mag: 40 Light: XPL

SL 195

Hard marly bed, Ballagan Beds. Ballagan Burn, 530 yards north of Ballagan House. Stirling. Dull grey compact rock, composed of granular and rhomboid carbonate, 0.005 - 0.02 mm grain-size, and accessory angular quartz and muscovite flakes. There is a small amount of interstitial isotropic material. Dolomite, luteous, micrograined, uniform granular. Note on specimens 34968-69-70-72: Refractive index tests on powdered rock always show dolomite as the carbonate. No index for calcite was obtained in any of the rocks, the only variation being slightly on the ankerite side in some grains of(S34972) [NS 5221 8014]. Since all these rocks effervesce slightly in cold dilute HCl some calcite must be present as a fine dissemination. In powders immersed in oil a thin skin of apparently isotropic material of much lower refractive index is discernible on the dolomite rhombs when these are orientated so that their index is equal to that of the oil. This is the clay cementing material and is only rarely discernible in thin section (34970). When the powdered rock is treated with hot HCl a considerable clay residue is obtained. This does not lend itself to microscopical examination, the only identifiable minerals being quartz chips, and sericite fibres, the main constituent being an aggregate of minute granules in a feebly polarizing base of average refractive index 1.60 - 1.61. SL 195. Britrocks (S34972) [NS 5221 8014].

Britrocks: (S34972) [NS 5221 8014]

Geoscenic: P552928 Mag: 40 Light: PPL

Geoscenic: P552929 Mag: 40 Light: XPL

SL 196

Index (Highfield) Limestone. Mine-mouth, 100 yards south-east of Goldcraig, 14 miles north-east of Kilwinning. Ayr. A grey compact limestone, composed of finely granular calcite (0.01 - 0.02 mm grain-size) with some argillaceous and, in places, sparse bituminous cement. In this ground are scattered foraminifera, small polyzoan fragments, echinoid and shell chips, spines and scarce complete small ostracods. Many of the fragments are partially replaced by finely divided pyrite. Limestone, micrograined, microfossiliferous, clastizoichnic. SL 196. Britrocks (S34973) [NS 3190 4477].

Britrocks: (S34973) [NS 3190 4477]

Geoscenic: P552930 Mag: 40 Light: PPL

Geoscenic: P552931 Mag: 40 Light: XPL

SL 197

Limestone (probably Long Craig Lower). Lennoxlove, 1 mile south of Haddington. East Lothian. Grey compact limestone, composed of small grains (0.02-0.05 mm grain-size) of carbonate, which are always coated, more or less thickly, with turbid argillaceous matter and cemented by more finely divided calcite. Specks up to 0.03 mm in size of opaque material are numerous, and are mainly of black carbonaceous matter but include pyrite. Limestone, argillaceous, fine-grained, granular. SL 197. Britrocks (S35062) [NT 5142 7222].

Britrocks: (S35062) [NT 5142 7222]

Geoscenic: P552933 Mag: 40 Light: XPL

Geoscenic: P552932 Mag: 40 Light: PPL

SL 199

Limestone. Rhodes Quarry, 1 mile east of North Berwick. East Lothian. A coarse grey limestone with calcite-filled fractures. Small aggregates of tarnished pyrite are present. The thin section shows turbid, finely divided calcite, extensively replaced by coarsely granular celestine and to a less extent by clear granular calcite. Where the original rock is preserved it seems to have been a calcite-mudstone containing small pellets. The white veins in the rock are calcite. The celestine is recognized by its similarity to baryte in its optical properties and by imparting a crimson-coloured flame to the bunsen. The rock contains 25 per cent of matter which is insoluble in cold dilute HCl and practically all of this is celestine. There is also some possibly carbonaceous matter and a very little quartz and chalcedony. The celestine fragments have a blue tinge without appreciable change in absorption on rotation in polarized light. Limestone, micrograined, extensively replaced by celestine. The rock from 6 ft. above the base (S 35151) consists of an extremely fine aggregate of calcite dolomitized along irregular channels which are frequently expanded into spaces the centres of which are either empty or filled with kaolin. There are also large cracks which are filled by calcite and celestine. Celestine sometimes is in idiomorphic tables or blades surrounded by calcite, sometimes forms bladed aggregates filling the vein. Less regular bodies of celestine and calcite enclose small pieces of the calcilutite bordered by dolomite and appear to be replacements, though doubtless connected with the veins. The rock from 11 ft. above the base (S 35152) is a turbid calcilutite containing fragments of very fine-grained rock of the same type. The matrix is patchily recrystallized and is permeated by a considerable quantity of celestine which seems to have replaced the recrystallized calcite and now encloses the turbid calcite. (d) As (b); 14 ft. from base. Lab. No. M27110; SrS04, 14.03%. The rock (S 35153) consists of a brown pelitomorphic aggregate of carbonate which develops perfect rhombic shapes against the numerous cavities and later fillings. Many of the cavities are filled by coarsely crystalline clear calcite and tables of celestine. The latter is always idiomorphic and presents sharp domal as well as basal faces to the calcite. Where calcite is absent the celestine moulds itself on the carbonate aggregate and develops good faces in the cavities. These coarsely crystalline minerals enclose spots of the brown carbonate aggregate which suggests that they are not only filling cavities but also replacing the pelitomorphic carbonate. SL 199. Britrocks (S35064) [NT 569 849].

Britrocks: (S35064) [NT 569 849]

Geoscenic: P552937 Mag: 40 Light: XPL

Geoscenic: P552936 Mag: 40 Light: PPL

SL 200

Limestone. Thorlieshope Limeworks, 400 yards south of Hob Knowe, 4 miles east of Riccarton Junction. Roxburgh. A grey cavernous limestone of fine grain, the cavities in some cases represent shells dissolved away; small black pellets are numerous in patches. Composed of a large number of large fairly thin-walled shells, which enclose turbid calcite-mudstdne in various stages of recrystallization, in a partially recrystallized and dolomitized matrix. The less recrystallized portions show a clotted structure, contain fragments of thin shells and in places contain rolled or angular fragments of shelly calcite-mudstone, shell fragments coated with precipitated calcite and, more rarely, ooliths, together with fragments of hollow structures, perhaps spines. Refractive index tests show that both dolomite and ankerite are present. Limestone, dolomitic, pelitomorphic, fossiliferous, clotted, pseudo-oolitic. Britrocks (S35065) [NY 592 975].

Britrocks: (S35065) [NY 592 975]

Geoscenic: P552939 Mag: 40 Light: XPL

Geoscenic: P552938 Mag: 40 Light: PPL

SL 201

Limestone. Larriston Limeworks, Larriston Tower, 6 miles north-east of Newcastleton. Roxburgh. Dark grey, compact fine-grained limestone; small round bodies are seen in places. The rock shows in thin section a very fine-grained brownish calcilutite containing fragments of thick and thin shells, ooliths, shell fragments coated with oolitic calcite, tiny grains of quartz, and pebbles of calcilutite similar to the matrix with and without shells and ooliths. In part of the slide the

matrix is almost completely recrystallized to clear calcite. Limestone, luteous, pelitomorphic, fossiliferous, clastizoic, oolitic. SL 201. Britrocks (S35066) [NY 552 937].

Britrocks: (S35066) [NY 552 937]

Geoscenic: P552940 Mag: 40 Light: PPL

Geoscenic: P552941 Mag: 40 Light: XPL

SL 202

Limestone. Juncion of Tweeden Burn and Liddel Water, 1 mile south of Newcastleton. Roxburgh. A dark, brownish-grey, nodular limestone. The thin section shows a mass of algal limestone in which radiating and bifurcating canals of clear fine-grained calcite penetrate a base of semi-opaque, extremely fine-grained calcite. Recrystallization has affected the rock in patches so that the organic structure is in places destroyed. The algal mass is coated and infilled by fine-grained shell limestone containing quartz grit and muscovite flakes. Limestone, micrograined to pelitomorphic, algal. SL 202. Britrocks (S35067) [NY 481 864].

Britrocks: (S35067) [NY 481 864]

Geoscenic: P552943 Mag: 40 Light: XPL

Geoscenic: P552942 Mag: 40 Light: PPL

SL 203

Burdiehouse Limestone. Harburn Limestone Mine, quarter mile south of Harburnhead and 2.5 miles south-east of West Calder. Mid Lothian. A dark buff, fine-grained limestone containing numerous small dark grains, visible by hand lens. Composed of extremely finely divided turbid calcite containing a multitude of yellowish carbonate grains of all shapes up to about 1 mm across, and numerous fossil fragments . The latter include many thin shell fragments and scarce complete small ostracods. There are also some large, irregular-shaped pellets (up to 1 mm across) within which the carbonate occurs as grit in a turbid matrix; these are perhaps faecal pellets. Traces of quartz grit are present. Limestone, pelitomorphic, microfossiliferous, microclastizoic. SL 198. Britrocks (S35063) [NT 0348 5793].

Britrocks: (S35063) [NT 0348 5793]

Geoscenic: P552935 Mag: 40 Light: XPL

Geoscenic: P552934 Mag: 40 Light: PPL

SL 204

Lower Harelawhill Limestone. Quarry 150 yards north-west of Harelawhill, 3 miles north-east of Canonbie. Dumfries. A compact brownish-grey limestone, with scarce small crinoid columnals visible. Composed of a fine-grained turbid matrix of calcite in process of recrystallisation to clear granular calcite. Consisting essentially of finely comminuted molluscan, polyzoan and crinoidal debris. Numerous foraminifera, spines, Calcisphaera and larger crinoidal and shell fragments are present. Yellow bituminous matter is sparsely distributed through the rock. Limestone, micrograined, microfossiliferous, clastizoichnic. SL 204. Britrocks (S35069) [NY 427 789].

Britrocks: (S35069) [NY 427 789]

Geoscenic: P552945 Mag: 40 Light: XPL

Geoscenic: P552944 Mag: 40 Light: PPL

SL 205

Upper Harelawhill Limestone. Quarry 300 yd. west of Harelawhill. Dumfries. A dark grey, fine-grained, compact, structureless limestone. Composed of granular calcite (0.02 - 0.06 mm grain-size) with interstitial limonitic and bituminous clay cement. Fragments of shells and black carbonaceous specks are fairly abundant and there is a little pyritic impregnation of shell fragments. Limestone, fine-grained, microfossiliferous, zoophasmic. SL 205. Britrocks (S35070) [NY 427 789].

Britrocks: (S35070) [NY 427 789]

Geoscenic: P552947 Mag: 40 Light: XPL

Geoscenic: P552946 Mag: 40 Light: PPL

SL 206

Limestone. N. bank of Liddell Water, 1 mile east of Harelaw Hole. Dumfries. A grey compact crinoidal limestone. Composed of finely granular (0.05 mm) clear calcite, calcareous organic debris and some turbid, probably slightly argillaceous, fine calcitic interstitial matter. In this are set numerous foraminifera, fragments of shells, small crinoid columnals and some ostracods and spines. Brown carbonaceous matter impregnates a few obscure fossil remains. Limestone, fine-grained, microfossiliferous, clastizoic, granular. SL 206. Britrocks (S35071) [NY 442 784].

Britrocks: (S35071) [NY 442 784]

Geoscenic: P552948 Mag: 40 Light: PPL

Geoscenic: P552949 Mag: 40 Light: XPL

SL 207

Limestone. Shore cliff close to Bathing Pool, 0.25 mile south of Sharper Head, Berwick-on-Tweed. Berwick. A brownish-cream, compact, fine-grained crinoidal limestone, composed of a turbid mass of granular calcite, 0.01 mm, and small calcareous organic debris through which are scattered foraminifera, larger shell fragments, ostracod valves, crinoidal fragments and scarcer polyzoan and algal fragments. There are numerous spines and Calcisphaera. The rock is traversed by occasional calcite-filled fractures. Microgranular pyrites, limonite and possibly bituminous matter impregnate some of the fossil fragments. Limestone, micrograined, microfossiliferous, clastizoic, stylolitic. SL 207. Britrocks (S35072) [NU 003 532].

Britrocks: (S35072) [NU 003 532]

Geoscenic: P552950 Mag: 40 Light: PPL

Geoscenic: P552951 Mag: 40 Light: XPL

SL 208

Limestone. Old quarry, 100 yards N. of Stobs Quarry, Limekilnedge, 9 miles south of Hawick. Roxburgh. A whitish, nodular, argillaceous limestone. Composed of a mass of granular carbonate of which the grain-size is occasionally 0.03 mm but usually 0.01 mm and often less. This has a turbid appearance and there may be films of clay on the grains, but the apparent turbidity may be caused only by the small grain-size. Through this mass small angular quartz chips (0.2 mm down) are sporadically scattered. Re-crystallization to clear granular calcite (0.1 mm grain) has taken place along impersistent sinuous or irregular channels. Limestone, luteous, micrograined, uniform granular, crook-veined. SL 208. Britrocks (S35073) [NT 538 013].

Britrocks: (S35073) [NT 538 013]

Geoscenic: P552952 Mag: 40 Light: PPL

Geoscenic: P552953 Mag: 40 Light: XPL

SL 210

Charlestown Main Limestone, 22-23 feet from base of quarry face. Chapel Limestone Quarry, about 2 miles north-west of Kirkcaldy. Fife Region. Coarse, bluish dolomite mottled with duller, cream-coloured dolomite. The section shows dolomite in crystals up to 1.0 mm in size, mostly of irregular shape, but often showing rhomboidal angles. Interstitial between the grains is a patchy cement of clay aggregate, faintly yellowish-green in places and possessing a moderate birefringence. A little secondary quartz is present and pyrite occurs in small scattered grains. The dolomite usually shows undulose extinction. Dolomite with clay aggregate, medium-grained, uneven mosaic, strained. SL 210. Britrocks (S35900) [NT 252 939].

Britrocks: (S35900) [NT 252 939]

Geoscenic: P553094 Mag: 40 Light: PPL

Geoscenic: P553095 Mag: 40 Light: XPL

SL 211

Charlestown Main Limestone, 12-22 feet above base of quarry face. Chapel Limestone Quarry, about 2 miles north-west of Kirkcaldy. Fife Region. Grey compact, translucent limestone, with numerous spots of a white fibrous mineral. The rock is composed of granular calcite, of 0.1 - 0.4 mm grain-size, together with larger grains, up to 0.5 mm long, in which the trabecular structure and axial canals of crinoids may be retained. Large plumose aggregates of prismatic and acicular pectolite are numerous. Garnet is uniformly scattered through the rock in small idioblastic crystals up to 0.1 mm diameter, and datolite, in irregular grains, is scarce. Limestone with calcsilicates, varigrained, zoophasmic, diacrystallic, in part granoblastic. SL 211. Britrocks (S35901) [NT 252 939].

Britrocks: (S35901) [NT 252 939]

Geoscenic: P553097 Mag: 40 Light: XPL

Geoscenic: P553096 Mag: 40 Light: PPL

SL 212

Charlestown Main Limestone, 9-12 feet above base of quarry face.Chapel Limestone Quarry, about 2 miles north-west of Kirkcaldy. Fife Region. Compact grey limestone permeated with and containing compact aggregates of greenish-yellow structureless clay and also some microcrystalline greenish-white aggregates. The limestone is composed of granular calcite of 0.1 mm grain-size and over, with occasional relict organic structures of which the most conspicuous are foraminifera, within the chambers of which the calcite is coarsely recrystallized. Spines and occasional crinoid ossicles are also obvious. Masses of an almost opaque, finely divided clay aggregate are abundant in patches. Garnet is locally developed in dodecahedra and in irregular grains or aggregates up to 0.2 mm across and the microcrystalline greenish aggregate seen in hand specimen is largely grossular. No datolite was found. Limestone with calcsilicates, varigrained, zoophasmic, in part granoblastic. SL 212. Britrocks (S35902) [NT 252 939].

Britrocks: (S35902) [NT 252 939]

Geoscenic: P553098 Mag: 40 Light: PPL

Geoscenic: P553099 Mag: 40 Light: XPL

SL 213

Charlestown Main Limestone, 6-9 feet above base of quarry face.Chapel Limestone Quarry, about 2 miles north-west of Kirkcaldy. Fife Region. Dull grey limestone with numerous white spots and scarcer pale green spots, and with a band in which a greenish mineral is more abundant than calcite and is streaked out parallel to the band. The limestone is composed of granular calcite, 0.02 mm - 0.6 mm grain-size, together with numerous large grains representing crinoid ossicles. Relict organic structures are preserved by outlines in clay, and shapeless masses of opaque clay are abundant. Also aggregates of translucent cryptocrystalline, moderately birefringent material are common. No datolite or garnet was seen. The white spots seen in the specimen are not pectolite, but a finely divided flaky aggregate of moderate birefringence, perhaps talc. Limestone with talc, varigrained, zoophasmic. SL 213. Britrocks (S35903) [NT 252 939].

Britrocks: (S35903) [NT 252 939]

Geoscenic: P553101 Mag: 40 Light: XPL

Geoscenic: P553100 Mag: 40 Light: PPL

SL 214

Charlestown Main Limestone, 3-6 feet above base of quarry face.Chapel Limestone Quarry, about 2 miles north-west of Kirkcaldy. Fife Region. Dark grey limestone with grey spots, passing to yellowish-grey overall with black streaks and a pale green mineral filling spaces lined with black material. The dark part is well crystallized to irregular granular calcite of varying size and uniformly permeated by brown dust or stain. This portion still contains crinoid ossicles and outlines of shells in both cases recrystallized, though the former may still be of one piece and retain trabecular structure. The paler coloured limestone is little different, except in smaller grain-size and absence of brown coloration in the calcite. Garnet (grossular) is well distributed throughout the whole rock. Only a small quantity of fine-grained, almost opaque, aggregate is present in the section. Limestone with garnet, varigrained, zoophasmic. SL 214. Britrocks (S35904) [NT 252 939].

Britrocks: (S35904) [NT 252 939]

Geoscenic: P553102 Mag: 40 Light: PPL

Geoscenic: P553103 Mag: 40 Light: XPL

SL 215

Charlestown Main Limestone, from base to 3 feet above base of quarry face.Chapel Limestone Quarry, about 2 miles north-west of Kirkcaldy. Fife Region. Grey limestone with patches of lustreless greenish clay. The rock is composed of slightly recrystallized granular calcite, 0.02 - 0.2 mm, in which crinoid ossicles (not recrystallized), shells and recrystallized ostracods are numerous. There are also several foraminifera whose walls are replaced by garnet. A semi-opaque, white, fibrous aggregate forms a patchy cement and minute garnets occur singly or in aggregates in considerable quantity scattered through the rock. Limestone with garnet, fine-grained, zoichnic. SL 215. Britrocks (S35905) [NT 252 939].

Britrocks: (S35905) [NT 252 939]

Geoscenic: P553104 Mag: 40 Light: PPL

Geoscenic: P553105 Mag: 40 Light: XPL

SL 216

Burdiehouse Limestone, 'Flooring'. Newbigging Mine. Fife Region. A dull fawn-grey limestone, composed of very finely granular calcite recrystallized to grains reaching 0.06 mm across. In this matrix are scattered fragments of shells, mainly ostracod, and of cellular organisms and some quartz grains of 0.2 mm grain-size. Granules of pyrite are scarce, being occasionally concentrated in a shell fragment, and limonitic clay is thinly spread through some portions of the rock. The limestone is traversed by narrow and irregular cracks which are sealed by calcite. Limestone, micrograined to pelitomorphic, microfossiliferous, clotted. SL 216. Britrocks (S35896) [NT 2155 8637].

Britrocks: (S35896) [NT 2155 8637]

Geoscenic: P553086 Mag: 40 Light: PPL

Geoscenic: P553087 Mag: 40 Light: XPL

SL 217

Burdiehouse Limestone, 'Bottom Bed'. Newbigging Mine. Fife Region. A dull fawn-grey limestone, containing scattered smooth-surfaced black bodies which include limestone. The rock is composed of very finely divided calcite, locally slightly and irregularly recrystallized, with sparse, small rhombs of dolomite reaching 0.2 mm size. Scattered through the rock are fairly numerous thin shells and shell fragments densely permeated by pyrite: many are of ostracods, either whole or broken and collapsed, and often filled with clear coarsely granular calcite. Quartz grains are small and few. Irregular, short veins of limonitic matter and cracks sealed by calcite are common. Limestone, dolomitic, pelitomorphic, microfossiliferous, microclastizoic. SL 217. Britrocks (S35897) [NT 2155 8637].

Britrocks: (S35897) [NT 2155 8637]

Geoscenic: P553088 Mag: 40 Light: PPL

Geoscenic: P553089 Mag: 40 Light: XPL

SL 218

Burdiehouse Limestone, 'Middle Bed'. Newbigging Mine. Fife Region. Dull fawn-grey limestone containing a few black bodies and laminated locally by indefinite dark brown laminae. The section shows extremely finely divided calcite, slightly and irregularly recrystallized, forming the matrix, and containing many small fragments of thin shells, some of which are impregnated with pyrites, and many tiny crystals and radiating grains of clear carbonate. Granules of partly oxidized pyrite and hydrocarbon streaks are present. Narrow anastomosing fractures filled with calcite are numerous. Limestone, pelitomorphic, microclastizoic, fracture-veined. SL 218. Britrocks (S35898) [NT 2155 8637].

Britrocks: (S35898) [NT 2155 8637]

Geoscenic: P553091 Mag: 40 Light: XPL

Geoscenic: P553090 Mag: 40 Light: PPL

SL 219

Burdiehouse Limestone, 'Top Bed'. Newbigging Mine. Fife Region. Dull pale cream-coloured limestone, containing in many places clear quartz grains, black bodies and scattered carbonaceous fragments. The rock is composed of very finely divided calcite slightly recrystallized. Ostracod valves are numerous, and when entire contain coarse-grained clear calcite. Pyrites impregnation is scarce and not intense. Quartz grains occur sporadically in the shelly pockets. Rhombs of pale brown dolomite or ankerite, about 0.05 mm across, are seen in parts of the thin section. Shreds of black, carbonaceous matter are present. Limestone, dolomitic, pelitomorphic, microfossiliferous, fracture-veined. SL 219. Britrocks (S35899) [NT 2155 8637].

Britrocks: (S35899) [NT 2155 8637]

Geoscenic: P553092 Mag: 40 Light: PPL

Geoscenic: P553093 Mag: 40 Light: XPL

SL 220

Dolomite. Quarry on Nottylees Farm, 600 yards south-east of Carham station. Roxburgh. A brownish-cream, fine-grained, compact, structureless dolomite. Composed of granular, occasionally rhomboid dolomite, grain-size 0.03 mm. There is a considerable quantity of opaque white material which usually occurs as clusters averaging 0.01 mm across, embedded centrally in the dolomite grains. As this structure seems unlikely to be original, it suggests that the dolomite, in spite of its small grain, is recrystallized. Argillaceous matter may be present as coatings on the dolomite grains. In places stylolitic films separate the rock into small irregular nodules. Dolomite, micrograined, uniform granular, taxichnic. SL 220. Britrocks (S35074) [NT 795 368].

Britrocks: (S35074) [NT 795 368]

Geoscenic: P552954 Mag: 40 Light: PPL

Geoscenic: P552955 Mag: 40 Light: XPL

SL 221

Dolomite. S. side of railway, 400 yards west of Carham station. Roxburgh. Pale cream, compact, very fine-grained dolomite with small-scale nodular structure. Composed of small, occasionally rhomboid grains (0.02 - 0.04 mm grain-size) of dolomite, probably coated with some argillaceous matter. The nodular structure is not seen in thin section but there is a weak banding of clearer and more turbid dolomite. The rock is cut by calcite-filled fractures which are faulted by narrow fractures also calcite-filled. Quartz grains, up to 0.5 mm long, are sparsely scattered through the rock. Dolomite, micrograined, uniform granular. SL 221. Britrocks (S35075) [NT 790 368].

Britrocks: (S35075) [NT 790 368]

Geoscenic: P552957 Mag: 40 Light: XPL

Geoscenic: P552956 Mag: 40 Light: PPL

SL 222

Main Limestone. 800 yards east-south-east of Thorntonhall station, 3 miles west of East Kilbridge. Lanark. A compact, brownish-grey limestone. Composed of the debris of shells, crinoids, productid spines and polyzoa, together with well-preserved foraminifera of various genera, in a plentiful matrix of calcite which is now crystallized in grains averaging 0.5 mm across, but of quite variable size in different portions of the rock. Bituminous, probably argillaceous matter and carbonaceous particles are widely disseminated interstitially to the calcite. The rock contains layers in which the shell and crinoid fragments are concentrated but foraminifera scarce, and the bituminous clay is gathered into fairly persistent sinuous and branching films. Fomminifera and polyzoa are usually heavily impregnated with opaque dust. Limestone, fine-grained, microfossiliferous, clastizoic, bedded. SL 222. Britrocks (S35080) [NS 5953 5480].

Britrocks: (S35080) [NS 5953 5480]

Geoscenic: P552959 Mag: 40 Light: XPL

Geoscenic: P552958 Mag: 40 Light: PPL

SL 223

Main Limestone. Old Quarry 300 yards north-west of Crosshouse Farm, 1.5 miles south of Hairmyres station. Lanark. A compact, dull brownish-grey limestone showing scattered small crinoid columnals. Composed of large and small debris of shells and crinoids, with many spines, scattered foraminifera and ostracods, scarce polyzoa and phosphatic fossil fragments, in a matrix of pelitomorphic calcite which is recrystallized to granular calcite of grain-size usually about 0.02 mm but varying up to about 0.15 mm in places. The section also contains one fragment of kaolinfilled cavernous limonite and two nodules of semi-opaque marl which may be faecal in origin. There is a considerable dissemination of ferruginous clay in the matrix and this is locally concentrated in thin black stylolitic films. Recrystallization has nearly obliterated many small organisms in the matrix and has affected some of the crinoid columnals. Limestone, pelitomorphic, microfossiliferous, clastizoic. SL 223. Britrocks (S35081) [NS 6066 5190].

Britrocks: (S35081) [NS 6066 5190]

Geoscenic: P552960 Mag: 40 Light: PPL

Geoscenic: P552961 Mag: 40 Light: XPL

SL 224

Charlestown Main Limestone, higher, dolomitic part. North end of West Quarry, Charlestown, 3 miles south-west of Dunfermline. Fife Region. A buff microcrystalline dolomite with many cavities which are surrounded by iron staining. Composed of turbid grains, rhomboid and irregular 0.1 - 0.25 mm across, of dolomite. Diffuse curved outlines of shells and crinoid columnals are preserved as single crystals of dolomite. There are a few small irregular grains of chert and secondary quartz and of composite granular quartz probably of detrital origin. The well preserved crinoid columnals can be seen in the hand specimen. They do not react with cold dilute acid but usually active effervescence can be seen on their borders or in the canal. No calcite can be distinguished in these positions in the section. Occasionally a crinoid columnal is considerably replaced by secondary quartz in which trabecular structure may be retained. Dolomite, varigrained, zoophasmic, holey, uneven mosaic. SL 224. Britrocks (S35082) [NT 0656 8423].

Britrocks: (S35082) [NT 0656 8423]

Geoscenic: P552962 Mag: 40 Light: PPL

Geoscenic: P552963 Mag: 40 Light: XPL

SL 225

Charlestown Main Limestone, worked portion. North end of West Quarry, Charlestown, 3 miles south-west of Dunfermline. Fife Region. A dull, compact brownish-grey limestone. Calcite occurs filling joints. Composed of a matrix of brown clay and calcite mud filled with a calcite sand, flattened fragments of thin shells and fragments of crinoids and of shelly crinoidal limestone which has been soft when incorporated in the deposit. These limestone fragments have probably been derived from layers of clay-free calcareous debris one of which is seen in the section. In the most clayey portion of the section there are stylolitic films of carbonaceous or bituminous matter. Larger fragments of crinoid and coral are scattered in the fine-grained argillaceous limestone. Limestone, argillaceous, pelitomorphic, clastizoic, bedded. SL 225. Britrocks (S35083) [NT 0633 8385].

Britrocks: (S35083) [NT 0633 8385]

Geoscenic: P552965 Mag: 40 Light: XPL

Geoscenic: P552964 Mag: 40 Light: PPL

SL 226

Charlestown Main Limestone, 2-5 feet above dolerite sill. Mine, at north-west end of Roscobie Quarry. Fife Region. A grey limestone with a greenish tinge, with rough fracture and altered aspect. Composed of a mosaic of clear granular calcite of varying grain-size (0.01 - 0.2 mm). In this are scattered numerous relics of crinoid columnals and shells. The shape of the columnals is retained but the plates are recrystallized to granular aggregates. The shape of the shells is very largely lost through recrystallization. There is a considerable quantity of clear interstitial substance amongst the calcite mosaic. This is an aggregate of very small fibres and scales insoluble in cold dilute HCl and appears as a greenish clay when the calcite is dissolved out. When thus separated the colour of the mineral is in general pale greenish, but often yellow and occasionally brown; from its optical properties it seems to be an antigoritic chlorite. Small black grains are scattered in accessory proportions in the rock and larger grains of pyrite are scarce. limestone with chlorite, clastizoic, zoichnic, granular. SL 226. Britrocks (S35084) [NT 091 932].

Britrocks: (S35084) [NT 091 932]

Geoscenic: P552967 Mag: 40 Light: XPL

Geoscenic: P552966 Mag: 40 Light: PPL

SL 227

Calcareous sandstone. Allt na Teangaidh, 500 yards north-east of Balmeanach, Gribun, Mull. Argyll. A dark, fine-grained, rough rock, containing many small aggregates of finely divided pyrite. Composed of angular grains of quartz and subordinate, but abundant albite, in a matrix of brownish calcite which tends to form large irregular grains enveloping several grains of quartz. Orthoclase is an accessory constituent, as are muscovite and scarce phosphatic fossil fragments and grains of garnet, zircon and rutile. Thin-walled shell fragments are common. Pyrite and carbonaceous matter are abundant. The former is mostly in small grains and streaks, but locally forms large lumps enclosing many quartz grains. The carbonaceous matter is black in reflected light, brown in transmitted light and in some larger fragments looks like wood. Dolomite appears in minor amount as rhombs of 0.1 mm size, in the calcite, and may be a very early if not a primary constituent. Limestone, arenaceous, fossiliferous, poikilocrystallic. SL 227. Britrocks (S35085) [NM 4527 3316].

Britrocks: (S35085) [NM 4527 3316]

Geoscenic: P552968 Mag: 40 Light: PPL

Geoscenic: P552969 Mag: 40 Light: XPL

SL 228

Cornstone. Old Quarry 700 yards south-east of Kilchattan pier. Bute. A cream-white rock with grey and green mottlings, composed of fragments of dolomite-mudstone of very fine grain, 0.002 mm, in a matrix of quartz grit cemented by abundant fine-grained dolomite. A few largish flakes of brown biotite, and some grains of microcline and crushed quartz are present, Thin veins of calcite cut the rock. Dolomite breccia, arenaceous, taxichnic. SL 228. Britrocks (S35155) [NS 106 542].

Britrocks: (S35155) [NS 106 542]

Geoscenic: P552970 Mag: 40 Light: PPL

Geoscenic: P552971 Mag: 40 Light: XPL

SL 229

Ballachulish Limestone.Quarry, 300 yards north-north-west of Tom an Aoil, Spean Bridge. Inverness. Composed of a mosaic of equidimensional grains of closely twinned calcite, 0.4 - 1.0 mm across, between which small idioblastic quartz grains, about 0.1 mm across, are scattered. The quartz grains occasionally appear within the calcite grains. Mineral dust and granules of pyrite, rutile and possibly graphite granules are peppered sparsely and uniformly through the rock. Limestone with some quartz, medium-grained, granoblastic. SL 229. Britrocks (S35178) [NN 2492 8244].

Britrocks: (S35178) [NN 2492 8244]

Geoscenic: P552973 Mag: 40 Light: XPL

Geoscenic: P552972 Mag: 40 Light: PPL

SL 230

Ballachulish Limestone. South bank of River Spean, 350 yards above railway bridge, Spean Bridge. Inverness. Composed of granular calcite of average grain 0.7 mm, which is greatly twinned. Small quartz and feldspar grains, up to 0.1 mm across and of irregular but occasionally idioblastic form, are scattered in small quantity between and within the calcite grains. Tiny opaque granules including pyrite are dusted irregularly through the calcite mosaic. Limestone with some quartz, medium-grained, granoblastic. SL 230. Britrocks (S35179) [NN 2418 8157].

Britrocks: (S35179) [NN 2418 8157]

Geoscenic: P552974 Mag: 40 Light: PPL

Geoscenic: P552975 Mag: 40 Light: XPL

SL 231

Charlestown Main Limestone, typical sample from working face. Clatteringwell Quarry. Fife Region. A blue-grey and whitish, fine-grained saccharoidal limestone, composed of granular anhedral calcite, varying irregularly in grain from 0.03 to 05 mm and in places showing regular changes in grain over areas which represent fossil structures. Small garnets, 0.05 - 0.15 mm across are common and there are some groups of small oxidized pyrite cubes. Limestone, with garnet, varigrained, zoophasmic, in part granoblastic. SL 231. Britrocks (S35470) [NO 1854 0370].

Britrocks: (S35470) [NO 1854 0370]

Geoscenic: P553057 Mag: 40 Light: XPL

Geoscenic: P553056 Mag: 40 Light: PPL

SL 232

Charlestown Main Limestone, from lower half of quarry face a short distance above a 200-ft quartz-dolerite sill. Clatteringwell Quarry. Fife Region. A whitish fine-grained and(S35472) [NO 1854 0370] a blue-grey and greenish-grey saccharoidal limestone. In thin section both show numerous pseudomorphs, in granular calcite, of crinoid columnals, trabecular structure being retained and picked out by impregnations of opaque dust around the pores (S 35471). Shell moulds and debris of productid spines, shelly and echinodermal material and possibly foraminifera are present in(S35472) [NO 1854 0370]. In the latter specimen however, colourless garnets also are abundant and there is a large amount of cementing material composed of birefringent, semi-opaque fibrous aggregate from which garnet appears to be in process of development. The garnet is a lime-garnet with a refractive index indicating about 12 per cent of the andradite molecule. The fibrous aggregate is a mixture of minerals difficult to discriminate but including chlorite, muscovite, an antigoritic mineral, and a little diopside. Limestone, with calcsilicates, varigrained, zoophasmic, granular to granoblastic. SL 232. Britrocks (S35472) [NO 1854 0370].

Britrocks: (S35472) [NO 1854 0370]

Geoscenic: P553059 Mag: 40 Light: XPL

Geoscenic: P553058 Mag: 40 Light: PPL

SL 233

Hosie Limestone' (?). St. Monans shore east of harbour. Fife Region. A dull brownish-grey fine-grained dolomite with many small cavities. The section shows numerous dolomitized fossil relics including shell and crinoid fragments, small gastropod shells, round bodies and scarce fragments of ostracods and possibly of polyzoa, in a matrix of fine debris which has been converted to dolomite of grain-size about 0.01 mm. Ferriferous dolomite of grain up to 0.2 mm occurs in irregular small patches. Pyrite impregnates some of the crinoids, gastropods and other shell fragments. Ferriferous dolomite, micrograined, clastizoic, taxichnic SL 233. Britrocks (S35236) [NO 5315 0180].

Britrocks: (S35236) [NO 5315 0180]

Geoscenic: P552977 Mag: 40 Light: XPL

Geoscenic: P552976 Mag: 40 Light: PPL

SL 234

Charlestown Main Limestone (?). St. Monans shore, east of harbour Fife Region. A dull grey dolomite showing crinoid ossicles: these do not effervesce in cold dilute HCl, but a slight overall effervescence in the rock shows the dissemination of calcite. The section shows large crinoid columnals and shell fragments, the structure of which is destroyed by recrystallization, in a ground of dolomite, of grain-size 0.02 - 0.1 mm, coloured brown by disseminated bituminous clay. Stylolitic films separate bands of debris of differing grain-size. There are a few small brown isotropic phosphatic fossil fragments. The crinoid columnals are preserved in dolomite though generally retaining their single crystal structure and enclosing small rhombs of dolomite. The dolomite is ferriferous, the ordinary refractive index being 1.695. Ferriferous dolomite, fine-grained, clastizoichnic, taxichnic. SL 234. Britrocks (S35237) [NO 5367 0203].

Britrocks: (S35237) [NO 5367 0203]

Geoscenic: P552978 Mag: 40 Light: PPL

Geoscenic: P552979 Mag: 40 Light: XPL

SL 235

Limestone, 2 feet 6 in (Charlestown Green?). St. Monans Shore, east of harbour. Fife Region. A grey limestone with rough texture. Composed of rather coarse shell, polyzoan and crinoidal debris in a matrix of finely divided calcite and small debris containing complete foraminifera, ostracods and spines and spotted with brownish probably bituminous matter. Many of the foraminifera and some shell fragments are deeply impregnated with opaque matter, which is pyritic in some cases. The powdered rock gives off heavy oil when heated in the closed tube, and in the thin section bituminous matter is abundantly distributed as short films and small clots. Limestone, bituminous, microfossiliferous, clastizoic. SL 235. Britrocks (S35238) [NO 5372 0204].

Britrocks: (S35238) [NO 5372 0204]

Geoscenic: P552980 Mag: 40 Light: PPL

Geoscenic: P552981 Mag: 40 Light: XPL

SL 236

Pseudobreccia Limestone' (Charlestown Station?). St Monans shore, east of harbour. Fife Region. Dark brownish-grey limestone with conchoidal fracture, speckled with small crinoid columnals and impregnated with pyrite in bulbous growths from which small bud-like aggregates extend. The limestone is composed of very fine debris through which foraminifera and fragments of shells and crinoid are scattered. The matrix is recrystallized in fine-grained calcite (0.02 mm grain-size), and the outlines of the fossils are in part lost. The pyrite appears as a spongy aggregate enclosing some unaltered fossil fragments and enters as an impregnation along with mainly carbonaceous matter, into some foraminifera and shell and polyzoan fragments. A crinoid columnal is seen in process of replacement by pyrite. Examination by reflected light shows organic structure in the opaque pyrite aggregate. The pyritic growths are thus replacement deposits in the limestone. Limestone, pyritic, micrograined, microfossiliferous, clastizoic, partly zoophasmic. SL 236. Britrocks (S35239) [NO 5375 0204].

Britrocks: (S35239) [NO 5375 0204]

Geoscenic: P552982 Mag: 40 Light: PPL

Geoscenic: P552983 Mag: 40 Light: XPL

SL 237

White Coral or Hurlet Limestone shore, east of harbour. Fife Region. A white limestone composed of Lithostrotion. In thin section seen to be composed of corals filled with clear, granular calcite and interstitially packed with fine debris, including shell and crinoid fragments and spines, which is considerably recrystallized. Rhombs of dolomite, probably an ankeritic variety, occur both within the corals and in the interstitial packing. Limestone, dolomitic, fossiliferous: coral limestone, with pelitomorphic, clastizoic mesostasis.(S35241) [NO 5378 0205]. Middle 3 ft, yellow. A white crystalline dolomite with many cavities. Composed of interfering rhombs of dolomite 0.03 - 0.3 mm across, mostly clear, but turbid in parts which probably represent the fine debris infilling between the corals. Circular outlines marked by a concentration of turbid dust represent coral walls, but no septa are preserved in this way. Dolomite, varigrained, zoophasmic, mosaic.(S35242) [NO 5378 0205]. Lower 6 ft. or more. A white limestone with rough fracture. Composed of the debris of crinoids, thick and thin molluscan shells, ostracods, polyzoa, spines, occasional corals and foraminifera, embedded in a matrix of very fine-grained calcite which is partially recrystallized. Limestone, pelitomorphic to fine-grained, clastizoic, zoophasmic. SL 237. Britrocks (S35240) [NO 5378 0205].

Britrocks: (S35240) [NO 5378 0205]

Geoscenic: P552984 Mag: 40 Light: PPL

Geoscenic: P552985 Mag: 40 Light: XPL

SL 237

White Coral or Hurlet Limestone shore, east of harbour. Fife Region. A white limestone composed of Lithostrotion. In thin section seen to be composed of corals filled with clear, granular calcite and interstitially packed with fine debris, including shell and crinoid fragments and spines, which is considerably recrystallized. Rhombs of dolomite, probably an ankeritic variety, occur both within the corals and in the interstitial packing. Limestone, dolomitic, fossiliferous: coral limestone, with pelitomorphic, clastizoic mesostasis.(S35241) [NO 5378 0205]. Middle 3 ft, yellow. A white crystalline dolomite with many cavities. Composed of interfering rhombs of dolomite 0.03 - 0.3 mm across, mostly clear, but turbid in parts which probably represent the fine debris infilling between the corals. Circular outlines marked by a concentration of turbid dust represent coral walls, but no septa are preserved in this way. Dolomite, varigrained, zoophasmic, mosaic.(S35242) [NO 5378 0205]. Lower 6 ft. or more. A white limestone with rough fracture. Composed of the debris of crinoids, thick and thin molluscan shells, ostracods, polyzoa, spines, occasional corals and foraminifera, embedded in a matrix of very

fine-grained calcite which is partially recrystallized. Limestone, pelitomorphic to fine-grained, clastizoic, zoophasmic. SL 237. Britrocks (S35242) [NO 5378 0205].

Britrocks: (S35242) [NO 5378 0205]

Geoscenic: P552987 Mag: 40 Light: XPL

SL 238

Limestone, Sandend Group. Glenisla Quarry, Keith. Banff. Grey foliated crystalline limestone of medium grain. The twinned interlocking calcite grains of which the rock is composed are elongated in the plane of foliation and reach 4 mm in length. Quartz is present as a subordinate mineral and forms grains, often with crystal faces, usually about 0.3 mm but up to 0.5 mm across. The content of quartz is about 5-7 per cent, but is variable. Opaque black and yellow granular matter is also present and is certainly in part pyrite, but perhaps includes graphite. Muscovite and phlogopite are accessory; alkali-feldspar scarce. Limestone with quartz and micas, coarse-grained, granoschistose. SL 238. Britrocks (S35271) [NJ 426 503].

Britrocks: (S35271) [NJ 426 503]

Geoscenic: P553015 Mag: 40 Light: XPL

Geoscenic: P553014 Mag: 40 Light: PPL

SL 239

Limestone, Sandend Group. Richmond Quarry, Dufftown. Banff. Grey crystalline limestone, composed of closely twinned interlocking and often sutured grains of calcite, about 1.5 mm across, and subordinate quartz forming not more than 5 per cent, except in small pockets. The quartz grains reach up to 0.1 mm across. There are a little accessory opaque dust and scarce drops of sphene. Limestone with quartz, coarse-grained, granoblastic. SL 239. Britrocks (S35272) [NJ 3315 3965].

Britrocks: (S35272) [NJ 3315 3965]

Geoscenic: P553016 Mag: 40 Light: PPL

Geoscenic: P553017 Mag: 40 Light: XPL

SL 240

Limestone, Portsoy Group. Broadland Quarry, between Drumdelgie and Broadland, 3.25 miles west-north-west of Huntly. Aberdeen. Dark grey crystalline limestone, composed of calcite of varying grain, ranging from 3.0-0.5 mm across, and elongated in the foliation planes, with rather intricate interlocking between the calcite grains and between calcite and quartz. Quartz is present in subordinate amount (fully 5 per cent by eye estimation), in grains ranging from 0.5 to fully 2.0 mm in length. The large grains are intergrown with calcite. Phlogopite and opaque grains, which include pyrite, are abundant accessories. Limestone with quartz, coarse- to medium-grained, granoschistose and grain-foliated. SL 240. Britrocks (S35273) [NJ 4797 4167].

Britrocks: (S35273) [NJ 4797 4167]

Geoscenic: P553018 Mag: 40 Light: PPL

Geoscenic: P553019 Mag: 40 Light: XPL

SL 241

Limestone. Glenlia Quarry, near Foyers. Inverness. A dull, compact, grey, greenish and pinkish-mottled limestone. Composed essentially of calcite, talc-silicates, mica and feldspar, with accessory sphene. The calcite is in grains up to 0.5 mm across. The talc-silicates include zoisite, epidote, pyroxene, pale green tremolite, the total and relative abundance of which vary from place to place. The feldspar is chiefly potash-feldspar and shows microcline twinning occasionally. Some albite is also present. The mica is a brown phlogopite. Limestone with feldspathic calcsilicate folia, foliated, granoschistose. SL 241. Britrocks (S35274) [NH 504 204].

Britrocks: (S35274) [NH 504 204]

Geoscenic: P553021 Mag: 40 Light: XPL

Geoscenic: P553020 Mag: 40 Light: PPL

SL 242

Lower Lias limestone. West outcrop of limestone in Allt Eas Mhor, Sconser, Skye. Skye (Inverness). A dark grey limestone with a brecciated appearance in parts and veined by calcite. In thin section the rock is seen to be essentially a dark calcite-mudstone of very fine grain, about 0.003 mm, containing fragments of shells of very varying size down to embryo forms. The shells are considerably recrystallized, but the original fibrous structure is indicated by streaks of dust. Patches of coarsely recrystallized clear calcite represent in most cases fragments of large thick shells. Limestone, argillaceous, pelitomorphic, fossiliferous, zoichnic. SL 242. Britrocks (S35342) [NG 512 315].

Britrocks: (S35342) [NG 512 315]

Geoscenic: P553022 Mag: 40 Light: PPL

Geoscenic: P553023 Mag: 40 Light: XPL

SL 243

Great Estuarine limestone, marmorized near contact with granophyre. Allt Eoghainn, 200 yards S. of old main road. Strollamus, Skye. Skye (Inverness). A patchily grey and white altered limestone, the grey part effervescing freely with cold dilute HCl, while the white part is insoluble and shows the fibrous character of wollastonite. In thin section the rock is seen to be composed of sutured grains of calcite and large aggregates of fibrous and prismatic wollastonite. Idiomorphic, birefringent grossular occurs in small crystals set both in the calcite and in the wollastonite. Colourless epidote forming small aggregates is rare. Clots of quartz act as centres for wollastonite growths and are traversed by many needles of wollastonite. Occasionally small prisms of diopside occur on the periphery of these clots. Limestone with calcsilicates, varigrained, granoblastic. SL 243. Britrocks (S35343) [NG 597 263].

Britrocks: (S35343) [NG 597 263]

Geoscenic: P553025 Mag: 40 Light: XPL

SL 243

Great Estuarine limestone, marmorized near contact with granophyre. Allt Eoghainn, 200 yards south of old main road. Strollamus, Skye. Skye (Inverness). A patchily grey and white altered limestone, the grey part effervescing freely with cold dilute HCl, while the white part is insoluble and shows the fibrous character of wollastonite. In thin section the rock is seen to be composed of sutured grains of calcite and large aggregates of fibrous and prismatic wollastonite. Idiomorphic, birefringent grossular occurs in small crystals set both in the calcite and in the wollastonite. Colourless epidote forming small aggregates is rare. Clots of quartz act as centres for wollastonite growths and are traversed by many needles of

wollastonite. Occasionally small prisms of diopside occur on the periphery of these clots. Limestone with calcsilicates, varigrained, granoblastic. SL 243. Britrocks (S35343) [NG 597 263].

Britrocks: (S35343) [NG 597 263]

Geoscenic: P553024 Mag: 40 Light: PPL

SL 244

Limestone. Allt Eoghainn, Strollamus, south of old main road, at north-east end of the outcrop. Skye (Inverness). A dark grey, very fine-grained, compact limestone, composed of a groundmass of finely divided turbid calcite, of grain about 0.05 mm, in which are numerous small grains of clear calcite, usually shapeless and very rarely showing shelly and trabecular structures, and small circular grains representing microfossil parts. Pieces of thick shell are scarce. Stylolitic films are common. Limestone, pelitomorphic, microclastixoic. Britrocks (S35344) [NG 5975 2620].

Britrocks: (S35344) [NG 5975 2620]

Geoscenic: P552988 Mag: 40 Light: PPL

Geoscenic: P552989 Mag: 40 Light: XPL

SL 245

Altered limestone. Old marble quarry, 1.5 miles north-west of Broadford church and 1 mile west of the Sligachan road. Skye (Inverness). A white, grey-mottled, altered limestone of aphanitic aspect. In thin section composed of interlocking grains of calcite, about 0.5 mm across, which enclose or interlock with aggregates of brucite. These aggregates are equidimensional and often show the sharp crystal edges of the mineral they pseudomorph (periclase). Forsterite is also present in small grains altered more or less to serpentine. Some grains of rutile and octahedra of periclase are present. Limestone with brucite, medium-grained, granoblastic. SL 245. Britrocks (S35345) [NG 623 248].

Britrocks: (S35345) [NG 623 248]

Geoscenic: P553026 Mag: 40 Light: PPL

Geoscenic: P553027 Mag: 40 Light: XPL

SL 246

Limestone. Torran, end of side road to Dun Beag. Skye (Inverness). A banded grey and white limestone. Composed essentially of fine, often elongated grains of carbonate, 0.5 - 0.3 mm across, the grey band being finer-grained than the white. There is an accessory proportion of small equidimensional grains of forsterite. Crushed rock dissolved in 1: 1 cold HCl gives a small residue showing also dolomite, diopside, tremolite and muscovite or talc aggregate. Limestone, medium-grained, grain-foliated, granoschistose. SL 246. Britrocks (S35346) [NG 576 203].

Britrocks: (S35346) [NG 576 203]

Geoscenic: P553028 Mag: 40 Light: PPL

Geoscenic: P553029 Mag: 40 Light: XPL

SL 247

Limestone. Torran, Dun Beag. Skye (Inverness). A darkish grey limestone with saccharoidal texture, which shows bedding by alternation of paler and darker grey tints. Composed of a mosaic of grains of carbonate, 0.1 - 0.2 mm across, often elongated in the direction of bedding. Scattered among the carbonate are prismatic sections of a mineral almost wholly replaced by turbid calcite. In one place a relic of the original mineral suggests itself as tremolite. Limestone, medium-grained, grain-foliated. SL 247. Britrocks (S35347) [NG 575 198].

Britrocks: (S35347) [NG 575 198]

Geoscenic: P553030 Mag: 40 Light: PPL

Geoscenic: P553031 Mag: 40 Light: XPL

SL 248

Marble. Marble quarry 800 yards south 40 degrees east of Cill Chriosd (Kilchrist) church. Skye (Inverness). A white translucent saccharoidal marble. Composed of interlocking grains of dolomite which are equidimensional but only rarely rhomboid and are usually about 0.5 mm across. There are a very few grains of forsterite, serpentinized along cracks. Dolomite, medium-grained, granoblastic. SL 248. Britrocks (S35348) [NG 621 201].

Britrocks: (S35348) [NG 621 201]

Geoscenic: P553032 Mag: 40 Light: PPL

Geoscenic: P553033 Mag: 40 Light: XPL

SL 249

Limestone. Roadside 550 - 650 yards south-west of Cill Chriosd (Kilchrist) Church. Skye (Inverness). A grey, fine-grained saccharoidal limestone. In thin section shows patchily varying grain, being mostly of grain-size 0.05 - 0.2 mm, but in places 0.01 mm or less and elsewhere of coarse grain up to 1.0 mm. Associated with the coarser carbonate are small areas of microcrystalline aggregate consisting of clear grains of carbonate and dark finely granular calcsilicates which include pyroxene and tremolite. Curved areas of coarser grain than the groundmass represent shell fragments. Limestone with calcsilicates, varigrained, zoophasmic. SL 249. Britrocks (S35349) [NG 613 203].

Britrocks: (S35349) [NG 613 203]

Geoscenic: P553035 Mag: 40 Light: XPL

Geoscenic: P553034 Mag: 40 Light: PPL

SL 250

Lower Lias limestone. Just north of crossing of the Broadford-Heast road over the Allt a'choire, Skye. Skye (Inverness). A dull grey, compact limestone containing veins of brownish-grey carbonate which are cut by veins of white carbonate. The thin section shows numerous fragments of shell, around 0.2 mm long and of occasionally recognizable echinodermal plates, in a turbid groundmass of finely divided calcite through which angular quartz grains are scattered. Stylolitic films of dark clay are present. Fragments of carbonaceous matter, scarce grains of zircon and a little pyrite are present. Limestone, luteous, micrograined, microclastizoic. SL 250. Britrocks (S35350) [NG 645 210].

Britrocks: (S35350) [NG 645 210]

Geoscenic: P553036 Mag: 40 Light: PPL

Geoscenic: P553037 Mag: 40 Light: XPL

SL 251

Paludina limestone. Coast section, 800 yards north of school at Elgol, Skye. Skye (Inverness). A dark grey, compact, structureless rock composed of a carbonate-clay groundmass in which the carbonate granules are about 0.002 mm across. In this, small grams of oxidized pyrite, quartz, and carbonaceous shreds are scattered in accessory proportions. Limestone, luteous, pelitomorphic, microclastizoichnic. SL 251. Britrocks (S35351) [NG 516 144].

Britrocks: (S35351) [NG 516 144]

Geoscenic: P553038 Mag: 40 Light: PPL

Geoscenic: P553039 Mag: 40 Light: XPL

SL 252

Dolomite. Between road and shore, just north of bridge, Ord. Skye (Inverness). Grey compact dolomite, composed of interlocking grains or ill-formed rhombs of dolomite, 0.1- 0.2 mm. across. The rock is traversed by very thin cracks which are filled with cherty silica, occasionally quartz, and lined with limonite or limonitic clay. Dolomite, medium-grained, mosaic, fractured. SL 252. Britrocks (S35352) [NG 617 131].

Britrocks: (S35352) [NG 617 131]

Geoscenic: P553040 Mag: 40 Light: PPL

Geoscenic: P553041 Mag: 40 Light: XPL

SL 253

Lower Lias limestone. Old quarry, 1100 yards south-east of Applecross House Ross & Cromarty. A grey, compact oolitic limestone with a buff crust. In thin section the ooliths are found to be 0.5 - 1.5 mm in diameter and frequently have as kernels irregular pieces of shell or echinodermal plate and spine and, less commonly, earlier ooliths with limonitized or pyritized borders. They are embedded in a very fine-grained matrix of calcite containing a few thin-walled microshells and scarce tiny grains of quartz. Subordinate detrital constituents include rolled shell fragments and rolled pebbles of oolite. Limestone, micrograined, oolitic. SL 253. Britrocks (S35353) [NG 727 447].

Britrocks: (S35353) [NG 727 447]

Geoscenic: P553043 Mag: 40 Light: XPL

Geoscenic: P553042 Mag: 40 Light: PPL

SL 254

Calcareous tufa. Roadside 680 yards south of Tornapress Bridge, Kishorn. Ross & Cromarty. A flesh-coloured, porous mass of tufa, composed of a turbid mass of very fine-grained calcium carbonate showing irregularly concentric growths from many centres. The open aggregate formed by these growths is partly filled by a brownish, slightly ferruginous marl containing small organic debris and scarce grains of quartz and feldspar. Tests on the material give the ordinary refractive index for calcite. SL 254. Britrocks (S35354) [NG 836 415].

Britrocks: (S35354) [NG 836 415]

Geoscenic: P553044 Mag: 40 Light: PPL

Geoscenic: P553045 Mag: 40 Light: XPL

Geoscenic: P553046 Mag: 40 Light: PPL

Geoscenic: P553047 Mag: 40 Light: XPL

SL 255

Dolomite. Roadside 680 yards south of Tornapress Bridge, Kishorn. Ross & Cromarty. A pale, flesh-grey, compact dolomite with flinty fracture. It is traversed by thin cracks filled with white dolomite. In thin section the rock is seen to be composed of small grains of dolomite, 0.01-0.05 mm across, with veins and patches of coarser grain, up to 0.3 mm. Quartz grains, 0.05-0.07 mm across, are numerous, but on the whole probably form less than 5 per cent by volume of the rock. There are occasional films of limonitic silt of stylolitic character. Dolomite, Euteous, fine-grained, breccioid. SL 255. Britrocks (S35355) [NG 836 415].

Britrocks: (S35355) [NG 836 415]

Geoscenic: P553048 Mag: 40 Light: PPL

Geoscenic: P553049 Mag: 40 Light: XPL

SL 256

Dolomite. Cliff on shore of Loch Kishorn, 350 yards south-east of Seafield. Ross & Cromarty. A dove-grey, compact, structureless dolomite. Composed of grains of dolomite of uniform size, 0 .01-0.04 mm, among which small grains, 0.01 mm, of quartz are common and occasionally concentrated in short narrow streaks. The grains of the dolomite are a little coarser in narrow, interrupted, vein-like courses. Dolomite, luteous, micrograined, granular. SL 256. Britrocks (S35356) [NG 833 401].

Britrocks: (S35356) [NG 833 401]

Geoscenic: P553050 Mag: 40 Light: PPL

Geoscenic: P553051 Mag: 40 Light: XPL

SL 257

Cornstone. Right bank of Poldownie Burn, 600 yards east-north-east of Glenmuirshaw. Ayr. A pale purplish, compact limestone containing marly red spots and nests of white, more coarsely crystalline, calcite. The rock is composed of finely granular calcite of grain-size 0.02 - 0.05 mm. Short films of clay are present but scarce. The grain of the rock increases over small areas and coarse-grained calcite occurs along indefinite nodose channels. Quartz is sparsely distributed as single and composite grains. Limestone, subarenaceous, fine-grained, granular. SL 257. Britrocks (S35454) [NS 700 201].

Britrocks: (S35454) [NS 700 201]

Geoscenic: P553052 Mag: 40 Light: PPL

Geoscenic: P553053 Mag: 40 Light: XPL

SL 258

Old Quarry, east bank of Allt Folais, 620 yards north of Letterewe House Ross & Cromarty. Massive, white, fine-grained limestone. The slide shows a limestone which has been sheared so that eye-shaped fragments about O.3 mm in size and irregularly lenticular areas of medium-grained carbonate are set in a parallel arrangement in a finely granular matrix

of about 0.02 mm grain. Colourless phlogopite is accessory and lies in the direction of lenticularity of the calcite. The carbonate is partly calcite and partly aragonite, the admixture being patchy and without regular pattern, but the eye-shaped fragments are all of calcite. Limestone with aragonite, varigrained, sheared.(S35263) [NG 952 719]. A pale cream-coloured limestone containing numerous small cavities; effervesces freely with cold dilute HCl. Composed of mixed finely and coarsely granular carbonate which, on test by refractive index methods, is essentially calcite; no aragonite but some dolomite is present. The finer grained material is turbid and of grain-size about 0.02 mm. Phlogopite occurs as irregular flakes in the turbid carbonate and a small amount of quartz is present. Bolomitic limestone, fine-grained, mesh-recrystallized, holey. SL 258. Britrocks (S35262) [NG 952 719]?.

Britrocks: (S3526)

SL 259

Limestone-and dolomite. Old quarry, west bank of Allt Folais, 690 yards north of Letterewe House. Ross & Cromarty. Thinly and irregularly flaggy limestone with a reticulation of thin veins of calcite. The slide shows a rock in which angular grains of calcite about 0.05 to 0.3 mm across are scattered like grains of grit in a very fine matrix of carbonate of grain size 0.01 mm. This is cut by thin veins containing calcite, quartz and barytes. The latter two minerals occur also in small aggregates throughout the rock. Phlogopite is present in flakes up to 0.5 mm long. The residue from solution in 1 : 3 HCl, cold, shows barytes, quartz, phlogopite and dolomite in that order of abundance. A sericitic clay aggregate is also present, Some curious small spheroidal growths of calcite in the rock seem to be of the same age as the formation of phlogopite. Limestone with quartz, barytes, phlogopite and dolomite, fine-grained, pseudo-gritty mortar-structure, sheared.(S35265) [NG 951 720], Whitish micro-nodular dolomite, with phlogopite coating divisional planes; effervesces slightly in cold dilute HCl. The rock is a crushed dolomite with a gritty appearance in thin section owing to the distribution of larger irregular grains of carbonate (up to 1.0 mm across) in a matrix which is of variable but very fine grain. Phlogopite, muscovite and tremolite are abundantly present and the latter occurs as incomplete prisms or relict shreds in fibrous carbonate. Tourmaline (elbaite) is an abundant accessory, forming stout, fractured prisms up to 0.2 mm long. Colourless in thin sections, it shows: O, faint green, E faint pink in separated grains; omega = 1.639. Tests in crush show dolomite as the main constituent, but calcite is abundant. Calcareous dolomite with micas and tremolite; fine-grained, pseudo-gritty mortar-structure, crushed. SL 259. Britrocks (S35264) [NG 951 720].

Britrocks: (S35264) [NG 951 720]

SL259

Limestone-and dolomite. Old quarry, west bank of Allt Folais, 690 yards north of Letterewe House. Ross & Cromarty. Thinly and irregularly flaggy limestone with a reticulation of thin veins of calcite. The slide shows a rock in which angular grains of calcite about 0.05 to 0.3 mm across are scattered like grains of grit in a very fine matrix of carbonate of grain size 0.01 mm. This is cut by thin veins containing calcite, quartz and barytes. The latter two minerals occur also in small aggregates throughout the rock. Phlogopite is present in flakes up to 0.5 mm long. The residue from solution in 1 : 3 HCl, cold, shows barytes, quartz, phlogopite and dolomite in that order of abundance. A sericitic clay aggregate is also present, Some curious small spheroidal growths of calcite in the rock seem to be of the same age as the formation of phlogopite. Limestone with quartz, barytes, phlogopite and dolomite, fine-grained, pseudo-gritty mortar-structure, sheared.(S35265) [NG 951 720], Whitish micro-nodular dolomite, with phlogopite coating divisional planes; effervesces slightly in cold dilute HCl. The rock is a crushed dolomite with a gritty appearance in thin section owing to the distribution of larger irregular grains of carbonate (up to 1.0 mm across) in a matrix which is of variable but very fine grain. Phlogopite, muscovite and tremolite are abundantly present and the latter occurs as incomplete prisms or relict shreds in fibrous carbonate. Tourmaline (elbaite) is an abundant accessory, forming stout, fractured prisms up to 0.2 mm long. Colourless in thin sections, it shows: O, faint green, E faint pink in separated grains; omega = 1.639. Tests in crush show dolomite as the main constituent, but calcite is abundant. Calcareous dolomite with micas and tremolite; fine-grained, pseudo-gritty mortar-structure, crushed. SL 259. Britrocks (S35265) [NG 951 720].

Britrocks: (S35265) [NG 951 720]

Geoscenic: P552998 Mag: 40 Light: PPL

Geoscenic: P552999 Mag: 40 Light: XPL

Geoscenic: P553000 Mag: 40 Light: PPL

Geoscenic: P553001 Mag: 40 Light: XPL

SL 260

Limestone and dolomite.Old quarry, north bank of Allt Coire nan Dearcaig, 50 yards upstream from junction with Allt Airidh a' Char Ross & Cromarty. A pale violet limestone with films of yellow-green phlogopite. Composed of irregular fragments of calcite in a matrix of turbid, very finely granular calcite. Contorted phlogopite, chlorite and spongy tremolite, partly replaced by the carbonate matrix, are abundant. The matrix invades the fragmental calcite along 'corrosion' embayments and cracks. The rock has clearly been crushed and there are some short lengths of shear lines. After shearing there seems to have been brecciation and more uniform pressure under which the fine matrix formed a plastic medium which showed no shear effects. The mean refractive index of the tremolite is beta = 1.620. Apatite and limonite are accessory. Limestone with mica, chlorite and tremolite, medium-grained, pseudo-gritty mortar-structure, crushed. (S35267) [NG 902 770]. White dolomite with greenish-yellow films. The rock scarcely effervesces with cold dilute HCl. In thin section it is seen to be composed of fractured carbonate fragments with close and often bent twinning, up to 1 mm across, in a matrix of granular clear carbonate of grain-size 0.02 to 0.1 mm. Plates of phlogopite, usually about 0.4 mm long, are numerous and are often concentrated along undulating laminae. The larger carbonate fragments are sometimes replaced spongily by granular carbonate, the detached pieces remaining in optical continuity. Colourless tourmaline is an accessory and is sometimes enclosed in phlogopite. Quartz and small aggregates of kaolin are accessory. No refractive index of carbonate other than that of dolomite was noted in the powdered rock. Dolomite with phlogopite, fine-grained, pseudo- gritty mortar-structure, foliated. SL 260. Britrocks (S35266) [NG 902 770].

Britrocks: (S35266) [NG 902 770]

Geoscenic: P553002 Mag: 40 Light: PPL

Geoscenic: P553003 Mag: 40 Light: XPL

SL 260

Limestone and dolomite.Old quarry, north bank of Allt Coire nan Dearcaig, 50 yards upstream from junction with Allt Airidh a' Char Ross & Cromarty. A pale violet limestone with films of yellow-green phlogopite. Composed of irregular fragments of calcite in a matrix of turbid, very finely granular calcite. Contorted phlogopite, chlorite and spongy tremolite, partly replaced by the carbonate matrix, are abundant. The matrix invades the fragmental calcite along 'corrosion' embayments and cracks. The rock has clearly been crushed and there are some short lengths of shear lines. After shearing there seems to have been brecciation and more uniform pressure under which the fine matrix formed a plastic medium which showed no shear effects. The mean refractive index of the tremolite is beta = 1.620. Apatite and limonite are accessory. Limestone with mica, chlorite and tremolite, medium-grained, pseudo-gritty mortar-structure, crushed.(S35267) [NG 902 770]. White dolomite with greenish-yellow films. The rock scarcely effervesces with cold dilute HCl. In thin section it is seen to be composed of fractured carbonate fragments with close and often bent twinning, up to 1 mm across, in a matrix of granular clear carbonate of grain-size 0.02 to 0.1 mm. Plates of phlogopite, usually about 0.4 mm long, are numerous and are often concentrated along undulating laminae. The larger carbonate fragments are sometimes replaced spongily by granular carbonate, the detached pieces remaining in optical continuity. Colourless tourmaline is an accessory and is sometimes enclosed in phlogopite. Quartz and small aggregates of kaolin are accessory. No refractive index of carbonate other than that of dolomite was noted in the powdered rock. Dolomite with phlogopite, fine-grained, pseudo- gritty mortar-structure, foliated. SL 260. Britrocks (S35267) [NG 902 770].

Britrocks: (S35267) [NG 902 770]

Geoscenic: P553004 Mag: 40 Light: XPL

Geoscenic: P553005 Mag: 40 Light: PPL

SL 261

Old quarry 430 yards east 14 degrees south of Sheildaig Lodge, Gairloch. Ross & Cromarty. A white coarsely crystalline dolomite containing scales of pale brown mica. Composed of interlocking grains of carbonate up to 1.5 mm long and usually slightly elongated in the direction of foliation as shown by the mica flakes. These are abundant, colourless, almost uniaxial highly birefringent phlogopite. Quartz is an abundant accessory or subordinate constituent and is arranged in lenticular groups of elongated twinned grains in which all the directions of elongation are parallel to the foliation. Colourless tourmaline is an abundant accessory, in stout prisms with rounded terminations, up to 0.5 mm long. The carbonate is locally slightly granulitized. In powder the refractive index of dolomite only was observed. Dolomite with phlogopite and quartz, medium-grained, foliated. SL 261. Britrocks (S35268) [NG 811 724].

Britrocks: (S35268) [NG 811 724]

Geoscenic: P553006 Mag: 40 Light: PPL

Geoscenic: P553007 Mag: 40 Light: XPL

SL 262

Dolomite. Old quarry 260 yards north-west of outflow from Am Feur Loch. Ross & Cromarty. A pinkish massive dolomite. Composed of equidimensional but irregular fragments of carbonate, greatly cleaved and twinned and irregularly invaded by the matrix, which is of granular carbonate of average 0.05 mm grain diameter. The only other constituents are scarce flakes of phlogopite and streaks of oxidized iron ore with which small scarce aggregates of chlorite are associated. Only dolomite was noted by refractive index tests on the powdered rock. Fine- grained, pseudo-gritty mortar structure. Dolomite, fine-grained, pseudo-gritty mortar structure. SL 262. Britrocks (S35269) [NG 8556 7223].

Britrocks: (S35269) [NG 8556 7223]

Geoscenic: P553008 Mag: 40 Light: PPL

Geoscenic: P553009 Mag: 40 Light: XPL

SL 263

Limestone. 650 yards north 18 degrees east of outflow of Lochan Druim na Fearna. Ross & Cromarty. A crystalline calcareous dolomite, foliated and with greenish laminae; traversed by pinkish ferruginous streaks and cracks. Composed of interlocking grains of twinned and cleaved dolomite slightly elongated in the direction of foliation, with finely granular calcite on the periphery, in irregular spaces within the dolomite grains and in irregular laminae through the rock. Phlogopite, partly chloritized, tremolite and quartz are subordinate minerals and are elongated in the direction of foliation. Colourless tourmaline and apatite are accessory, and a little rutile is present in small aggregates of irregular deep brown grains. Limonitized iron ore is intergrown locally with mica. The refractive index of dolomite only was seen in the crush and all the fragments tested were uniaxial. Calcareous dolomite with phlogopite, quartz and tremolite, medium-grained, foliated and strained. Calcareous dolomite with phlogopite, quartz and tremolite, medium- grained, foliated and strained. SL 263. Britrocks (S35270) [NG 829 710](a).

Britrocks: (S35270) [NG 829 710](a)

Geoscenic: P553010 Mag: 40 Light: PPL

Geoscenic: P553011 Mag: 40 Light: XPL

Geoscenic: P553012 Mag: 40 Light: PPL

Geoscenic: P553013 Mag: 40 Light: XPL

SL 265

Limestone. Quarry 400 yards south of Blackwoodridge Farm. Dumfries. A compact, whitish-buff limestone, composed of the debris of shells and crinoids, many species of foraminifera, ostracod and polyzoan fragments, occasional productid spines and rhombs of oxidized ankerite cemented by scanty finely divided calcite which in places is entirely of algal origin. Limestone, fine-grained, microfossiliferous, clastizoic. SL 265. Britrocks (S35469) [NY 24 75].

Britrocks: (S35469) [NY 24 75]

Geoscenic: P553054 Mag: 40 Light: PPL

Geoscenic: P553055 Mag: 40 Light: XPL

SL 266

Stinchar Limestone. Aldons Limeworks, 1.5 miles south of Pinmore station. Ayr. A dark grey compact limestone showing films of calcite coating irregular joints or fracture surfaces. Microscopically it is a calcilutite (calcite-mudstone) greatly recrystallized to clear granular calcite, 0.02 - 0.01 mm grain size. Numerous aggregations of algal tubes (Girvanella) are present and have in part resisted the recrystallization which has affected the matrix. Ostracods are common and parts of the rock are rich in crinoid columnals and shell fragments. A little quartz (about 3 - 5%) is present and pyrite in similar proportions occurs in small irregular grains and clots. In places clayey material is present in sufficient quantity to give the appearance of a calcite breccia with clay matrix. The rock contains fragments of pelitomorphic limestone and is veined and patched by coarsely crystallized calcite. Limestone, varigrained, zoichnic, clastizoic, homoiolithic. SL 266. Britrocks (S35504) [NX 197 897].

Britrocks: (S35504) [NX 197 897]

Geoscenic: P553061 Mag: 40 Light: XPL

Geoscenic: P553060 Mag: 40 Light: PPL

SL 267

Stinchar Limestone. Kirkdominae Hill, Auchensoul Farm, 2 miles west of Barr. Ayr. A fine-grained compact, dark grey limestone. Microscopically the rock is a calcilutite (calcite-mudstone) recrystallized so far that the matrix is an admixture of turbid brown carbonate and clear fine-grained calcite, but without the destruction of the numerous fossil remains of Girvanella and ostracods. Scarce fragments of crinoid, polyzoan and shell, possibly brachiopod, are present. Pyrite is scattered in small grains and clots through the rock as an accessory constituent, and there are stylolitic wisps of limonitic clay. Limestone, argillaceous, pelitomorphic, microfossiliferous, zoichnic. SL 267. Britrocks (S35505) [NX 251 929].

Britrocks: (S35505) [NX 251 929]

Geoscenic: P553062 Mag: 40 Light: PPL

Geoscenic: P553063 Mag: 40 Light: XPL

SL 271

Marble. Roadside 430 yards east-north-east of Ledbeg. Sutherland. A massive, structureless, compact, white marble, with faint yellow patternless markings. Composed of an aggregate of shapeless interlocking grains of calcite, 0.05 - 0.15 mm in size. These are generally traversed by very close set cleavage and twinning planes. In places the rock shows a mottling due to angularly patchy distribution of clear and turbid calcite. The clear patches are composed of the small grains and the turbid patches seem to be relics of large crystals in which almost submicroscopic striations (due to cleavage or twinning or both) have been produced. The striations are subparallel throughout the patch and are interrupted where new small grains with broader twin lamellae have crystallized. The orientation of the lamellae in such grains is diverse. In places narrow lines of shear are shown by granulation and parallel orientation of calcite grains and by a lining of thin serpentine flakes. Pseudomorphs of olivine in serpentine are sporadic in the rock as individual crystals or clusters. Phlogopite also is present in small flakes and aggregates, the calcite associated with which is coarser in grain than elsewhere in the rock. The rock is a marble triturated by stress. Limestone, serpentinous, varigrained, sheared. SL 271. Britrocks (S35796) [NC 24567 13320].

Britrocks: (S35796) [NC 24567 13320]

Geoscenic: P553064 Mag: 40 Light: PPL

Geoscenic: P553065 Mag: 40 Light: XPL

SL 272

Dolomite with some chert. Amhainn a'Chnocain. Sutherland. A bluish-white compact marble, traversed by thin fracture veins without definite direction. The thin section is composed of equi-dimensional grains of dolomite, 0.05 - 0.1 mm across, but is coarser (0.1 - 0.2 mm size) in patches. Narrow lines of trituration and iron staining traverse the rock and appear to be followed by nodular segregations of cherty silica. Chert also forms irregular masses with which the coarser dolomite is sometimes associated, and the coarser crystallization of the dolomite and the aggregation of this chert both appear to be earlier than the fracturing of the rock. Dolomite with chert, fine-grained, granular. SL 272. Britrocks (S35797) [NC 21843 10376].

Britrocks: (S35797) [NC 21843 10376]

Geoscenic: P553066 Mag: 40 Light: PPL

Geoscenic: P553067 Mag: 40 Light: XPL

SL 273

Dolomite with some chert. Amhainn a'Chnocain. Sutherland. Dolomite. About 770 yd upstream from the bridge. A bluish-white compact marble, traversed by thin fracture veins without definite direction. The thin section is composed of equi-dimensional grains of dolomite, 0.05 - 0.1 mm across, but is coarser (0.1 - 0.2 mm size) in patches. Narrow lines of trituration and iron staining traverse the rock and appear to be followed by nodular segregations of cherty silica. Chert also forms irregular masses with which the coarser dolomite is sometimes associated, and the coarser crystallization of the dolomite and the aggregation of this chert both appear to be earlier than the fracturing of the rock. Dolomite with chert, fine-grained, granular. SL 273. Britrocks (S8283) [NC 432 671].

Britrocks: (S8283) [NC 432 671]

Geoscenic: P553146 Mag: 40 Light: PPL

Geoscenic: P553147 Mag: 40 Light: XPL

SL 274

Dolomite with some chert. Amhainn a'Chnocain. Sutherland. Dolomite. About 800-850 yd upstream from the bridge. A bluish-white compact marble, traversed by thin fracture veins without definite direction. The thin section is composed of equi-dimensional grains of dolomite, 0.05 - 0.1 mm across, but is coarser (0.1 - 0.2 mm size) in patches. Narrow lines of trituration and iron staining traverse the rock and appear to be followed by nodular segregations of cherty silica. Chert also forms irregular masses with which the coarser dolomite is sometimes associated, and the coarser crystallization of the dolomite and the aggregation of this chert both appear to be earlier than the fracturing of the rock. Dolomite with chert, fine-grained, granular. SL 274. Britrocks (S8130) [NC 43 67].

Britrocks: (S8130) [NC 43 67]

Geoscenic: P553137 Mag: 40 Light: XPL

Geoscenic: P553136 Mag: 40 Light: PPL

SL 276

Charlestown Main Limestone, top 7 feet in north-west corner of West Quarry, Charlestown Quarries, 3 miles south-west of Dunfermline. Fife Region. A brownish, compact dolomitized limestone, having a crystalline appearance due to the abundance of crinoid plates. It is composed of fossil debris consisting essentially of crinoidal and polyzoan fragments; subordinate fossil components include shells, spines, foraminifera, siliceous spicules and scarce phosphatic fragments. Parts of the rock are completely dolomitized; in other parts, while the matrix is recrystallized in dolomite and partly replaced by quartz, the larger fossil structures remain wholly or in part of calcite. Limestone, dolomitic, fossiliferous, clastizoic. SL 276. Britrocks (S35799) [NT 0648 8424].

Britrocks: (S35799) [NT 0648 8424]

Geoscenic: P553068 Mag: 40 Light: PPL

Geoscenic: P553070 Mag: 40 Light: PPL

Geoscenic: P553071 Mag: 40 Light: XPL

Geoscenic: P553072 Mag: 40 Light: PPL

Geoscenic: P553073 Mag: 40 Light: XPL

Geoscenic: P553069 Mag: 40 Light: XPL

SL 277

Charlestown Main Limestone, top 1 feet 6 in. Bogie Mains Quarry, 1 mile (p. 54) north-west of Kirkcaldy station. Fife Region. Dark grey rock with white angular specks, showing a faint undulating lamination. In thin section, consists of a matrix of fine-grained silica and obscure opaque material, in which are embedded numerous bodies of round, rectangular or less regular shapes, sometimes showing relics of shell structure. These may be composed entirely of cherty silica, of silica and prochlorite, silica and dolomite, or of all three; or they may be entirely of chlorite or of dolomite. Only in one large dolomite-silica fragment was the trabecular structure of a crinoid recognized. The chlorite is pleochroic from yellow to colourless. The rock appears to be a silicified shale, originally calcareous and rich in fossil debris. The large amount of chlorite suggests that pyroclastic material formed part of the original sediment. The silica available for silicification may also have been of volcanic origin. Dolomitic chert, bedded. SL 277. Britrocks (S35800) [NT 2645 9340].

Britrocks: (S35800) [NT 2645 9340]

Geoscenic: P553074 Mag: 40 Light: PPL

Geoscenic: P553075 Mag: 40 Light: XPL

SL 278

Charlestown Main Limestone, 1 feet 6 in - 8 feet from top. Fife Region. A pale grey limestone with a coarse appearance due to the abundance of large crinoidal remains. Consists of large and small crinoid ossicles cemented by a matrix partly of very finely divided calcite, partly of clear granular carbonate, having the rhomboid shape of dolomite and with subordinate clay mineral. Small and extensive areas of silicification are numerous and black carbonaceous shreds are abundant in association with the clay. Limestone, dolomitic, silicified, crinoidal: encrinite. SL 278. Britrocks (S35801) [NT 2645 9340].

Britrocks: (S35801) [NT 2645 9340]

Geoscenic: P553076 Mag: 40 Light: PPL

Geoscenic: P553077 Mag: 40 Light: XPL

Geoscenic: P553078 Mag: 40 Light: PPL

Geoscenic: P553079 Mag: 40 Light: XPL

SL 279

Charlestown Main Limestone, top 10 feet at east end of quarry face. Gleniston Quarry, 1 mile north of Auchtertool. Fife Region. A compact, fawn-coloured dolomite with crinoid ossicles which effervesce slightly with cold dilute HCl. Composed of interlocking grains of dolomite, 0.1 - 0.2 mm across, amongst which there are single crystal dolomite replacements of crinoid ossicles and coarsely crystalline aggregates after shell casts. There is great variation in the degree of preservation of the original outline of the organic constituents, some ossicles and shell casts being perfect, while others are mere indications. Calcite was not distinguished as such, but must be fairly uniformly present through the rock on the evidence of slight overall effervescence with cold dilute HCl. Dolomite, calcareous, varigrained, zoichnic, uneven mosaic. SL 279. Britrocks (S35802) [NT 2180 9250].

Britrocks: (S35802) [NT 2180 9250]

Geoscenic: P553080 Mag: 40 Light: PPL

Geoscenic: P553081 Mag: 40 Light: XPL

SL 280

Charlestown Main (Seafield Tower) Limestone, lowest 34 ft. Shore south of Seafield Tower, Kirkcaldy. Fife Region. A brown, compact, microcrystalline dolomite showing slight overall effervescence in cold dilute HCl. Crinoid ossicles unaffected by cold dilute HCl are scattered in the rock. In thin section the rock is a dolomite of very variable grain, parts being of 0.1 mm grain-size and cemented by limonitic clay, most being about 0.2 mm grain-size, but large areas show recrystallized dolomite of grain 0.5 - 1.0 mm across. In this rock there is much more disseminated limonite (or limonitic clay) than in(S35802) [NT 2180 9250], and because of original impurities having impregnated the carbonate of the crinoids, the trabecular structure is extensively preserved in spite of the dolomitization, which may have completely destroyed all other evidence, including shape. Dolomite, varigrained, zoophasmic, diacrystallic, homoiolithic. SL 280. Britrocks (S35803) [NT 2794 8853].

Britrocks: (S35803) [NT 2794 8853]

Geoscenic: P553083 Mag: 40 Light: XPL

Geoscenic: P553082 Mag: 40 Light: PPL

SL 281

Mid-Kinniny Limestone (probably) Old Limestone mine, Luscar, Garnock. Fife Region. Dark grey crystalline limestone. In section seen to be a recrystallized limestone of grain-size 0.1 - 0.5 mm. The original structure is almost entirely destroyed, but in places trabecular structure is preserved by the presence of powdery impurities. The argillaceous and carbonaceous impurities of the limestone are not well segregated in spite of extensive recrystallization, and largely remain inside the new grains. A small aggregate of granular apatite was noted, perhaps from its long slender shape replacing a fish spine. A little pyrite is present. Limestone, varigrained, zoophasmic, clastizoic, in part granoblastic. SL 281. Britrocks (S35804) [NT 0503 8982].

Britrocks: (S35804) [NT 0503 8982]

Geoscenic: P553085 Mag: 40 Light: XPL

Geoscenic: P553084 Mag: 40 Light: PPL

SL 282

Limestone. Quarry, 1450 yards south by west of Achvarasdal, Reay. Caithness. A pale buff compact limestone, composed essentially of rather turbid calcite in grains 0.01 - 0.15mm across, with scattered larger grains. Angular quartz, up to 0.15mm grain-size, white mica, in flakes generally 0.1mm long, and potash-feldspar are abundantly distributed in the rock and are concentrated along thin laminae coloured dark by bituminous matter. In a concentration of minerals insoluble in cold dilute HCl, chlorite, hornblende and clay are found as accessory constituents, and it is seen that potash-feldspar has developed crystal faces during regrowth. Limestone, luteous, fine-grained, with sapropelitic laminae. SL 282. Britrocks (S35911) [NC 993 613].

Britrocks: (S35911) [NC 993 613]

Geoscenic: P553107 Mag: 40 Light: XPL

Geoscenic: P553106 Mag: 40 Light: PPL

SL 283

Cornstone. 250 yards north of Toward Taynuill. Argyll. A whitish compact dolomite, saccharoidal on fresh fracture, composed of equidimensional, sometimes rhomboidal, grains of dolomite, 0.05 to 0.4 mm, which is considerably turbidized by mineral dust. Calcite occurs locally in pockets of shapeless grams with undulose extinction, and yellowish aggregates of clay fill cavities up to 0.5 mm in length. Dolomite, calcareous, fine-grained, granular. SL 283. Britrocks (S35912) [NS 134 685].

Britrocks: (S35912) [NS 134 685]

Geoscenic: P553108 Mag: 40 Light: PPL

Geoscenic: P553109 Mag: 40 Light: XPL