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An Opal Terminology

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An Opal Terminology

J. S. GUNN

This glossary is another publication by the Australian Language Research Centre of the University of Sydney in what is hoped to be a series of pilot studies and follow-up work on the terminologies of certain Australian industries and activities. It has developed from a major investigation of mining terms which was supported by a Nuffield Foundation grant to the Centre. A Sydney University research grant has made possible necessary field work and checking of the manuscript.

A terminology like this cannot be exhaustive and I hope that experienced people will inform me about variations, discrepancies, special or extended senses, words I have missed, and area differences in usage. It is only by such comment that lexicographical work can be improved. At the same time it has been necessary to restrict entries to keep down the size of this paper; as a result the terms included are relevant to opal, but many opal mining words have been omitted, for example all self-explaining compounds freely used on the opal fields (*opal bed, buyer, deposit, fever, ground, etc.*), terms referring to general equipment (*grinder, wheel*), rock forms (*clinker, grey billy, hard blue, mustard, pudding stone, wacke, yellow ground*), occupations (*cutter, dealer, valuer*), and general mining terms (*claim, drive, lead, made ground, mullock, open cut, overburden, pay dirt, pegs, rush, screen, shaft, sink, slurry, strike, stull, tom, vein, wall, windlass, working, etc.*). Other general mining terms have been included where they have particular relevance in the opal industry or if they fill out the opal mining scene (*dry level, duffer, face, field, fossicker, lousing, monkey, parcel, plant, pothole, puddle, run, slide, etc.*). Reluctantly omitted because they are subject to change according to time and place, and are not specially opal terms, are the more legal terms such as *mineral claim* or *tenement area* as defined by a *miner's right* (in N.S.W. an area 100' x 100', in South Australia 150' x 150', in Queensland 300' x 300'), *opal mining lease* (maximum area one-half acre), *mineral prospecting area* (400 feet square for opal), *mineral reward claim* (150' x 150'), *precious stones claim* (100' x 100' in N.S.W.), *search licence* or *exploration licence* (which applies for one year over an area not exceeding five square miles).

The study of opal can be a fascinating but complex process

and I owe a great deal to the ready practical advice given to me by Messrs. Len Cram and Sandy Randle of Lightning Ridge, and Mr. R. Muir of the N.S.W. Mines Department. I must also mention Frank, Bob and all those other miners who appear to have only first names.

This paper would not have developed to its present state without the encouragement of Dr. Archie Kalokerinos of Collarenebri. His published work helped directly with definitions and he has also kindly given me access to the manuscript of his next book. This work has particular value as a description of stages and types of opal, and for classification in a systematic way according to pattern, brilliance, etc. Few of these terms are neologisms; many of them had significant use in the early days of the industry but may have lost this in the generalised oral transmission which has resulted from an influx of "new chums" to the opal fields. I believe that most older, experienced men in the industry would approve of the terms, if they do not already use them, and would applaud any attempt to establish some kind of definitive terminology which simplifies description and makes evaluation a matter of knowledge, not guesswork.

It does seem that all opal fields do not have exactly the same terms or the same currency and sense for existing words. More field work would be necessary to establish such differences, but as a first step I have drawn on the experience of my informants and thus label some terms as "mainly" South Australia, Queensland, White Cliffs, Lightning Ridge, etc., others as *rare* (restricted but not localised), *obs.* (obsolete or tending to become so), or *informal* (in spoken, everyday use). Various senses of one word are listed as (a), (b), etc. and changes in function involve separate headings under 1., 2., etc. The grammatical function is not needed for each entry, this being made quite clear in the description.

My thanks go particularly to Miss Diana Campbell who has prepared many citations, and to Mrs. Karen Jennings who typed and checked the final manuscript.

A

agaty Mainly Qld., usually refers to potch in which the clay colouring gives a banded effect. (*colour is often in layers or bands and is then called "agaty potch"*, Leechman, 1961, 131.)

all-opal (a) Formation rich in opal. (*The opal was in seam-formation, "all-opal", and some which we got was definitely black opal of good quality*, A.M.M., Dec. 1961, 394.)

(b) Mainly L. Ridge, opal which does not have a natural opaque potch back, for example, *jelly opal*.

alluvial Pertaining to opal existing free on or near the surface, and usually very scarce. It has mixed with soil or gravel after being washed from its original seam. (*This "alluvial" opal is very difficult to find*, Kalokerinos, 1967, 19.)

amber Pertaining to an opal type with moderate to strong amber colour in the potch.

Andamooka matrix Pale matrix which can sometimes be processed to appear like black opal. See under *treat*.

angel-stone (a) Very hard diatomaceous layer of stone above the opal area, sometimes called guardian-angel stone, a term first used at W. Cliffs. (*association of the opal with the lenticular masses of the rock, known to the miners as "angel stone", and the "guardian angel stone"*, Cuttings, Vol. 83, xv.)

(b) Hard clay in the cracks of which veins of opal have formed. (*the term angel stone is more often used for a very hard siliceous clay with veins of bright opal in it*, Leechman, 1961, 124.)

(c) Hard semi-spherical pieces of porcellanite, also called walnut stones, which have developed within the clay shale and hold potch along their joints. (*small pieces of porcellanite . . . locally termed "angel-stones" and "walnut-stones"*, Whiting, 1962, 9.)

(d) In L. Ridge this term refers more to a stone found within the opal level. It is sometimes the sole carrier of valuable opal which exists in band form and as large nobbies.

appraiser *Rare*. One who estimates the quality and value of an opal deposit. (*He usually has a valuator and appraiser in the field who will give him advice*, Eyles, 1964, 140.)

B

bad General term for a gem of low value or having some feature which causes defects. See *bad back*, *bad sandstone*.

bad-back Stone which has insufficient backing for the opal. This could be caused by over-cutting the gem, or by rock and potch cracking and crumbling in the stone, or by a combination of both.

bad-sandstone Sandstone supposedly recognised by experienced miners as having certain physical properties which indicate little or no help to the discovery of opal. Similarly "good sandstone". (miners talk about "good" sandstone and "bad" sandstone, Kalokerinos, 1967, 56.)

balance bucket *Obs.* Container balancing the miner so that he is able to lower or raise himself in the shaft. Now usually replaced by ladders and winches. (*Balance Bucket: Is the method used for a miner unaided to lower and raise himself in shaft*, Lloyd, 1968, 170.)

ballroom *Informal.* Large hollowed-out area underground. Sometimes such a cavity is excavated after breaking through into the opal dirt so that there is some freedom of movement before drives are made.

band 1. Sandstone stratum, containing some opal, above and below which good opal ground tends to lie at its junction with other stone and clay. At L. Ridge it is usually 3"-4" thick and lying within the opal dirt, so all gougers aim to get "right on the band". (*The opal-bearing stratum "band" in which the sandstone opal is found, occurs in the falsely-bedded series of sandstones and clays at the base of the sandstone*, Q.G.S. No. 177, 1902, 10; *This "band" is your principal guide . . . you are working out the ground which should carry opal*, Lone Hand, March, 1910, 494; *"We're right on the band!" the gouger would call up to his mate*, Idriess, 1940, 86.)

band 2. (a) In the expression *band boulder opal*, pertaining to a layer of opal adhering to the bottom of the sandstone in boulder country. Queensland pipe opal sometimes passes through it and a special form of seam opal is occasionally found in it.

(b) In the expression *band matrix*, a form of Queensland opal matrix which occurs with band boulder opal but mixes with ironstone to form a matrix instead of sheets.

banded Usually pertaining to potch existing in layers of two colours, most frequently white and black. See also *maggie*.

bandstone Hard thin stratum of ferruginous and siliceous material lying below the sandstone roof and above the opal dirt. Opal develops typically in the ground just under this bed. See also *casing, cement band, concrete, hard band, steel band*. (*Bandstone*

. . . Flat bands of a usually harder nature than the adjoining strata . . . found either just above or below the workable seams of opal, Power, 1895, 11; *The "Bandstone" is apparently a very important horizon to the opal miner*, A.B.M.R. Bulletin No. 17, 1950, 25; *At White Cliffs the steel-band is most often referred to as the bandstone*, Idriess, 1967, 68.)

bar Solid piece of opal colour running through potch, a very good specimen being about half an inch thick. (*Some bars of opal were up to one-half inch in thickness*, Whiting, 1962, 9.)

barry Pertaining to bars of potch found along with the bars of the precious opal. (*Sometimes bars of potch alternate with bars of precious opal. This is called 'barry stuff'*, Kalokerinos, 1967, 132.)

beer-bottle *Informal.* Another name for amber-coloured potch.

behind The underside of a sandstone fault, or slide (caused by some geological upheaval), in contrast with the upper side called the front or port (rare) of the slide. (*The other side is referred to as being "behind" the slide*, Kalokerinos, 1967, 60.)

belt the dirt out *Informal.* To dig carelessly, risking damage to opal, and a sign of inexperience. In most areas nowadays this term, or "knocking it out", refers simply to the process of digging. (*gouging for some time without luck and starts to "belt" the dirt out*, A.M.M., 15 Sept. 1953, 89.)

big *Informal.* Pertaining to a rich strike of opal, not necessarily in large stones. (*"big opal" had been found at Grawin and Angledool*, Waller, 1969, 128.)

big toe *Informal.* More frequently *long toe*, a drive in which a digger goes as far as he can without removing any mullock, and only worrying about dirt with signs of opal.

biscuit Also called *biscuit band, biscuit stone*, a soft, shallow, crumbly, brownish stone lying above the sandstone and sometimes above the opal level. It could contain valuable opal. (*The opal rock always lies immediately under the sandstone, separated sometimes by a soft brownish "biscuit"*, A.M.M., 15 Sept. 1953, 87; *Biscuit band: A brittle and crumbly band of biscuit coloured stone. In some places below the gravel. From a few inches to 2 feet in thickness*, Lloyd, 1968, 173; *also known as "biscuit stone", and this expresses well the peculiar and wellknown feel of indurated diatomaceous earths*, Cuttings, Vol. 83, xv.)

black (a) Pertaining to any opal that is dark in colour, no

matter how the dark colour originates, that is, it may be black, dark blue, or dark amber. The black opal found at L. Ridge exists in two basic types; some are black in their own right, others with transparent faces have a black back. Australian black opal is found in round nobby stones, and has several distinctive names (see under *opal*) according to group type and pattern. (*black opal: gem opal of the darker varieties, whether green, blue, or gray*, Eyles glossary, 1964, 217; *The black opal is absolutely a novelty . . . found in round nobby stones thrown off verticals*, Lloyd, 1968, 230.)

(b) Pertaining to potch in which black opal is found and which is water-stained by colloidal iron pyrites in the same way. This chemical explanation for the black colour is not accepted by many experts. (*Potch may be clear or opaque . . . It is black potch that is responsible for the term black opal*, A.M.M., 15 Sept. 1953, 89; *'Black potch', like black opal, probably results from staining of the water by iron pyrites*, Leechman, 1961, 131.)

block (a) *Obs.* Area being mined, corresponding roughly with a "digging" in gold mining. In L. Ridge "claim" is universal. (*Block II was at one time one of the most productive of the opal blocks*, B.W.P., 29 Oct. 1898, 13.)

(b) *Rare.* Section in the opal-bearing area selected to be dug out systematically, leaving adequate natural pillars.

block out To divide an area of opal dirt into blocks for systematic removal.

blocky Pertaining to dark-coloured, crumbly iron-stained type of opal dirt which comes away in large blocks. (*Blocky ground: Darkish looking opal dirt of a dried-mud type*, Lloyd, 1969, 173.)

blow Fault in sandstone which (as at L. Ridge) may refer to the surface of the ground, but it usually indicates a chimney-like vertical vent or crack in the sandstone by which steam and silica once "blew" to the surface and filled the space with possible opal-bearing material. See also *vertical*. (*the precious gem is indicated by a blow like gold reefing, and by following the seams or layers down deeper*, Cuttings, Vol. 90, 16 Jan. 1909, 166; *blows are the vents through which the steam mixed with silica came to the surface. They extend up from the opal levels below the sandstone crust*, Murphy, 1948, 143; *vertical seams represent cracks or faults in the sandstone which have been filled with opaline material. These are known to miners as "verticals" or "blows"*. Mineral, June 1958, 21.)

bluebottle *Informal.* Transparent blue potch found mainly in association with Queensland boulder opal.

bodgie *Informal.* Mainly S. Aust., the name given to the level closest to the surface. Under this is the squibby, then the main, then the bottom level. At L. Ridge there is the "top" level, thence second, etc., until the bottom level is reached. (*There may be one or several levels separated by three feet or more. From the bottom up these are known as—bottom, main, squibby and bodgie*, Kalokerinos, 1967, 55.)

bone Mainly S. Aust., usually in the expression *bone opal*, a quartz-type of rock with colours of opal and perhaps infusion of some opal, but not genuine opal matrix. See also *quartzite*. (*sometimes it (quartzite opal) is referred to as "bone opal" or "opal matrix", but it should not be confused with the true "opal matrix"*, A.A.M., Sept. 1959, 76.)

bony Mainly S. Aust., pertaining to a white powdery potch so named because it is said to represent the bony remains of marine creatures. Like thin opal and potch generally it is only referred to as a trace. (*Bony potch is . . . supposed to represent the bony remains of marine creatures*, Kalokerinos, 1967, 62.)

botch *Obs.* Valueless opal; the word is possibly a variant of "potch" or vice versa. (*Botch—Worthless Opal*, Power, 1895, 14.)

bottom 1. (a) Opal stratum being worked under a horizontal belt of hard stone. (*excavation is continued until a seam of opal is cut through or 'bottom' . . . is reached*, Chambers, Vol. 5, 1898-1908, 494; *opal existed under a horizontal belt of ironstone which was termed "bottom"*, R. M. MacDonald, 1928, 47; *they dug deeper towards this fateful bottom*, Idriess, 1940, 86.)

(b) Lowest of several levels. (*There may be one or several levels . . . known as—bottom, main, squibby and bodgie*, Kalokerinos, 1967, 55.)

bottom 2. To reach the first level of opal dirt at the bottom of the shaft after drilling down through the sandstone and hard band. At this point a hole known as the loading chamber is dug out to the depth of the opal dirt so that tunnelling horizontally can begin. (*the hole was bottomed, and what luck! they lobbed on a few quids' worth in the shaft! Opal Miner*, 9 May, 1903, 6; *On "bottoming" a hole is carefully dug out to the depth of the opal dirt*, Walkabout, 1 March, 1945, 14; *their strike or good luck, if they had bottomed on opal*, Eyles, 1964, 83.)

boulder (a) Mainly Qld., and generally in the expression *boulder bed*, a layer containing possible opal-bearing sandstone boulders, usually near the bottom of the overlying sandstone but which vary in type according to the nature of the "mother" sandstone. Those with high Kalonic content are usually good for opal and thin cracks contain the best opal. (*The shaft is taken down to a characteristic boulder bed, in which the opal is found*, S.A.D.M. Mining Review, No. 62, 1935, 55; *precious opal is obtained principally from a narrow boulder bed*, Eyles, 1964, 107-108.)

(b) Mainly Qld., pertaining to opal sometimes occurring in thin veins through, or as facing on, hard grey or brown ironstone boulders, which may be very small or up to thirty feet long and a foot thick. The opal can occur between the layers of rocky material which is built up something like an onion, or in pipes, nuts, or kernels, depending largely on the type of boulder structure in the area. (*Boulder opal is not opalized right through like matrix*, Murphy, 1948, 141; *boulder opal: colourful opal permeating and sometimes coating a silicified limonite*, Eyles, 1964, 217, glossary.)

brick-pipe Mainly Qld., cylindrically shaped section up to about five feet in length, filled with siliceous matter in which common opal is found. (*"brick pipes" . . . filled with a hard siliceous, clayey material, . . . Common opal ramifies through them in all directions*, Q.G.S., No. 177, 1902, 30.)

brilliance A general feature of gems, determined in opal by the intensity of light emerging, the presence of patch colour and its type and proportion, and the amount of "miliness" in the opal.

broad-flash Type of pattern in which a quick flash of colour appears and disappears across part or all of a stone as it is moved.

broken Pertaining to a level consisting of a mixture of opal dirt and sandstone with no firm sandstone roof. (*Broken level: Is where there is no definite roof. The opal dirt is jumbled up with sand stone*, Lloyd, 1968, 173.)

bucket-dumper Carrier on a motor-driven rig which hauls dirt up the shaft and dumps it for screening or puddling to sort out the opal. At L. Ridge the dirt is usually dumped directly on a truck for carrying to the puddling tank in loads up to several tons. See also *dumper*.

bug-hole Holes usually caused by air, but also used loosely to refer to sand holes, which interfere with the complete formation of opal. See also *sanded, sand shot*. (*Bug-holes: Air or sand holes in opalised stone*, Lloyd, 1968, 172.)

burned Mainly S. Aust., and usually in the expression *burned opal*, the porous part of the matrix which has some colour and looks like opal. (*Matrix . . . occasionally has a little colour in it like opal and most miners regard it as 'burned' opal*, Kalokerinos, 1967, 62.)

burnt Pertaining to part of the biscuit in which the original mud has probably been affected by solar heat and thus harder and different from that protected by sand or other material.

C

cachalong *Obs.* Bluish-white type of opal which looks like porcelain. (*opaque, porcelain-like, bluish-white variety which goes by the Tartar name of 'Cachalong'*, Skertchley, 1908, 17.)

candlebox *Obs.* Pertaining to poor opal not really good enough for sale as quality gems. It was stored in candleboxes. (*I used to buy candle box stuff for £1 a box*, Opal Miner, 25 July, 1903, 3; *candlebox opal: Low-quality opal not good enough to be sold*, Leechman, 1961, 225.)

candleholder *Obs.* An instrument in which a candle was carried and which was sometimes used to remove opals. See also *spider*. (*removed from the matrix by means of some sharp tool, usually the "spider" or candleholder*, Whiting, 1962, 11.)

casing Another name for *bandstone*, and mainly used in Qld. (*a thin perfectly defined stratum, varying from a film to 1 or 2 inches in thickness . . . which is generally called the "casing"*, Q.G.S., No. 177, 1902, 10.)

cement *Rare.* Also called *cement band*, another term, mainly Qld., for *bandstone*. (*the underlying rock called "cement" by the miners*, Q.G.S., No. 177, 1902, 20.)

chaff Pattern type with the appearance of straw sprinkled on the opal surface, each unit with lineal striations.

chamber Abbreviation of *loading chamber*, an area about five feet deep at the bottom of a shaft and a few feet wider than the shaft so that miners can shelter when buckets of stone are being hauled up. (*Chamber: Is a working area at the bottom of the shaft . . . It gives protection to anyone below*, Lloyd, 1968, 170.)

chamber out To clear a good working area before beginning to drive.

Chinaman's-hat, Chinese-hat *Informal.* Flat nobby, usually with

a peak in the centre of the top surface and a concave under surface. See also *teat*.

Chinese-writing Pattern type showing one or more shapes which look like Chinese symbols.

chip up Another term, now rare, for *snip*. (*You go home and "chip up" . . . You chip this off the edges*, Lone Hand, March 1910, 494.)

chips Broken-off pieces of opal, usually set in a pattern on plastic to make cheap jewellery. (*obtained 100 pounds merely for the chips*, Eyles, 1964, 87.)

chisel-pick Small specially made opal miner's pick with chisel points at both ends of the head. (*a few odds and ends—a pair of pincers each, and chisel picks*, Waller, 1969, 88.)

chum *Informal*. Pertaining to a field or area having many newcomers and so, with little organisation or control, theft is common. (*working on one of the "chum" fields and was worried about ratting and robbery*, Lloyd, 1968, 9.)

class 1. Name given to opal or any other precious stone which is high grade. Usually replaced by *gem* in L. Ridge. (*your money for the bank increases by leaps and bounds: bounds if the opal is "class"*, Idriess, 1967, 52.)

class 2. Mainly S. Aust., to grade the opal into firsts, seconds, and thirds according to quality. L. Ridge opals are individual and not easily placed in classes. (*When the stones, making up the parcel, have been cleaned, an old timer might class them*, Walkabout, 1 Sept., 1957, 35.)

clay Also called *clay shale*, an old term for the material recognised by experienced miners as likely to contain opal, but now generally replaced by *dirt*. (*The shaft is said to be bottomed when the 'clay' is met . . . but in many instances inexperienced miners don't know when they come to the 'clay'*, Newton, 1897, 52.)

clay-boulders Mainly Qld., also called *mud-boulders*, these are found in the opal dirt which lies under the mother sandstone in a boulder area. They have thin cracks which can carry good quality opal.

clean Usually pertaining to a well-formed, hard roof or band over the opal dirt, which, in the opinion of some miners, offers a likelihood of good opal. (*the chances for opal are best if . . . a "clean roof sharply defined", hard and steely when you tunnel into the opal dirt*, Buchanan, 1931, 7.)

clean-skin (a) Originally pertaining to an opal in a nobby which had been missed by a previous miner; thus it is only found in an old mine. The term is similar to *cleanskin* for cattle which have been missed in branding, etc.

(b) By false deduction from the name it is popularly regarded as an opal in pebble form without any sandstone or other coating, having been broken along natural joints. (*Clean Skin Nobby: Free pebble-like opal without coating of dirt or rock*, Lloyd, 1968, 172.)

clear *Rare*. (a) Mainly W. Cliffs and S. Aust., pertaining to opal not of the dark or black type, and occurring mainly in seams of sandstone or shale. (*the opal is a clear opal, not black, and occurs in soft and hard sandstone or shale in level running seams*, Buchanan, 1931, 5-6.)

(b) Pertaining to the lightest of the types of potch, which tends generally to be heavier than opal. (*Clear potch tends to be the lightest*, Kalokerinos, 1967, 132.)

cloud Film sometimes found affecting the brilliance of the opal. (*If that cloud goes right through the colour you can't remove it*, Idriess, 1932, 246.)

clover-leaf Type of pattern usually in a small stone, in which a central unit is surrounded by rings of outer units.

clump *Rare*. Isolated patch of opal dirt, as distinct from a whole layer. (*appears to be no sign of a "clump" of opal dirt*, Idriess, 1967, 125.)

collar (a) That part of the band or hard sandstone roof through which the shaft breaks into the opal dirt. It varies from half an inch to twenty inches in thickness, averaging about four inches. (*At the bottom of sandstone is steel band or collar . . . where sandstone and opal dirt meet*, Lloyd, 1968, 103.)

(b) Timber framework around the top of the shaft. Sometimes for greater strength there is an outer collar and an inner collar separated by packed earth. (*The timber was often rotten . . . Often the collar would have to be repaired*, Waller, 1969, 28; illustration, Waller, 1969, 113.)

colour (a) Pertaining to the *spectrum colours* which play in precious opal, or the several potch colours, the difference being that potch colour is flat, like paint, and does not radiate light as does the colour in precious opal.

(b) Often in plural, good sign of opal in the potch or generally

through the opal dirt. (*If you get colour in the potch, that is also an excellent trace*, Buchanan, 1931, 7; *Colours found in one shaft. No payable opal yet*, Lloyd, 1968, 62.)

colour-floater Mainly S. Aust., a piece of poor opal, usually bleached and worn, which, if plentiful, may indicate the proximity of a vein. (*close to a place where "color floaters" have been obtained, the prospector works over the soil*, S.A.D.M., No. 25, 1916, 42.)

come in Rare. Of opal, to occur in quantity. (*Thus opal may "come in"*, Idriess, 1967, 78.)

come up Of the face of the opal itself, to produce the best face after polishing, etc. As with other idiom the past tense is also "come", e.g. "see how this nobby come up".

common Pertaining to a type of opal, frequently a synonym for potch but not quite the same although they both have no display of colour. Unlike potch, common opal is also found on fields where there is no precious opal, e.g. over a wide area of Victoria and Queensland, as well as N.S.W. and South Australia, in association with porphyry, basalts, and other volcanic or sedimentary rocks. It is usually opaque because of impurities, but finer varieties are translucent and white, yellow, or red in colour, and do not have the fire of other opals. According to its appearance, it is called by many names. See also *hydrophane, liver opal, milk opal, moss* (a), *semi-opal, sinter, schvide, wax opal*. (*Common opal occurs in the Western District of Victoria . . . occurs in porphyry, and in Ordovician strata in contact with porphyry*, V.G.S., Vol. 1, 1902, 85; *finer sorts of 'Common Opal' . . . without any fire or iridescence, is plentiful in many parts of Queensland*, Skertchley, 1908, 17; *Common opal . . . is opaque, by reason of included impurities*, A.M.M., Jan. 1923, 200; *finds of common opal occurring principally as opalised wood*, Waller, 1969, 152.)

concrete Rare. Mainly Qld., another term for *bandstone*. (*Valuable opal has been found in the "concrete"*, A.L.M., July 1968, 18.)

condemned Used as a qualifier of ground, and really a mis-naming of what is more frequently and more accurately called *duffer* ground which is abandoned because of its poor yield. *Condemned* refers more exactly to ground an authority declares unworkable for safety or similar reasons, but this is rare in opal fields. (*Condemned Ground or Duffer Ground: "Give it best" ground. By the look of it you wouldn't expect to find opal in it*, Lloyd, 1968, 173.)

Coocoran Pertaining to a particular sandstone, better known as *shincracker*, a geological formation of fine-grained, whitish sandstone which when exposed on the surface becomes hardened and silicified.

corkscrew Rare. (a) To work round and round the chamber at the bottom of a shaft, seeking a promising lead for a drive. (*corkscrew is when you chew into the ends of the shaft so that each end begins to turn around*, Idriess, 1967, 85.)

(b) To twist the shaft as it is being sunk. Good miners did not do this because of the resulting hazard in lowering or raising material.

craze To form large numbers of straight cracks, usually by shrinkage of silica after exposure to air, light, heat, etc. Such opal is difficult to cut and usually yields little of value. *Crazing* may occur after cutting. (*Shrinkage of the silica gel . . . gives opal a tendency to crack, or "craze"*, A.B.M.R., Report No. 43, 1959, 12; *the opal, although of good colour, had a tendency to craze and did not cut well*, Whiting, 1962, 10.)

crazing Fine cracks on the face of and through opal. (*Crazing is a word that is meant to apply to multiple fine cracks that form a net-like pattern across the face of the opal*, Kalokerinos, 1967, 136.)

creepers, creeps Rare. More usually called cracks or gaps, fine openings which appear in roofs or walls of a tunnel, indicating dangerous ground. (*Creepers: Cracks appearing in roof or walls; and indicating ground moving and unsafe*, Lloyd, 1968, 172.)

crockery Informal. (a) Pertaining to white potch with strong opaque milkeness, hence *crockery potch*.

(b) Usually in the expression *crockery bottom* to describe a nobby with a white potch base which indicates the possibility of crystal opal (light in colour) within.

(c) In the expression *crockery cap* to describe a white potch top on a L. Ridge nobby. See also *Chinaman's-hat*.

crust Informal. Outer coating of sandstone, etc., over possible opal. (*There's a crust in this opal, and there's some nice pie under the crust*, Waller, 1969, 100.)

crystal Opal type, semi-transparent and semi-translucent without milkeness and exhibiting a moderately rich play of colour. It is superior to *jelly*, but inferior to *semi-black* and *crystal-black* that

contain richer colour play. (*opal itself has a white or grey background, some is crystal*, Kalokerinos, 1967, 55.)

crystal-black Opal type which is partly transparent from some angles of view. From other angles a rich royal blue flash appears, making the opal opaque and appearing like "black opal" from those angles.

cuckoo Mainly Qld., a type of sandstone, also called *mottled sandstone*, which is a sandstone or clayey nodule material near the ironstone casing, and which often contains common opal and other inferior stone. See also *speckled hen*. (*a large quantity of clay in lumps or nodules—the so-called mottled or "cuckoo" stone*, Q.G.S., No. 177, 1902, 30.)

D

dead (a) In the expression *dead opal*, another name for worthless potch. (*It may only be potch (valueless "dead" opal)*, R. M. Macdonald, 1928, 84.)

(b) Mainly L. Ridge, pertaining to precious opal without life.

deep-country In contrast with shallow-country, an area in which there might be one or two feet of soil and gravel, then up to fifteen feet of the hardened claystone or shincracker, up to seventy feet of sandstone, then bandstone up to ten inches thick, and under this the first level of three or four feet of clay and opal dirt. Below this there might be successive layers of three to four feet of sandstone and thicker levels of opal dirt.

die *Informal*. Of precious opal colour, to fade quickly as the viewing angle is changed.

dirt *Informal*. Familiar abbreviation of opal dirt, or opal-bearing clay area, geologically the Finch claystone, the layer under the sandstone.

divider Piece of calico, flat timber, or roofing iron placed across the diameter of the shaft to one side and almost the full length of the shaft. A sail fitted to the top would catch any breeze. The whole apparatus was more efficient in the form of a windsel or windsock made of calico. Today one can be "hooked up for air" by linking two shafts with a drive, or compressors may be used to pump air down a shaft. (*Divider: a calico division across narrow centre of shaft . . . To make ventilation by causing a draught*, Lloyd, 1968, 168.)

dog-stones *Informal*. (a) Lumps of sandstone hanging down a

few inches from the roof and regarded as a good sign. (*Dog Stones: Sandstone drips hanging down about 6 inches from the roof. Good indication for opal*, Lloyd, 1969, 172.)

(b) Lumps of hard angel stone in the opal level.

double-bar Pertaining to stone containing two bars or more of opal colour (usually thin), either separated by a layer of potch or lying one on the other. (*If you get a "double-bar" stone . . . give it to the professional cutter*, Idriess, 1932, 246; *"double-bar" stones . . . two bars of colour ran through each stone*, Idriess, 1940, 206-7.)

doublet Manufactured stone with a single band of translucent opal on an artificial back of potch or plastic. Some opal occurs naturally in this form. (*A doublet is only one layer of opal on a piece of potch*, Pix, 13 July, 1963, 20.)

drip Pertaining to pattern, and mainly of potch, distinctive concentric colour changes thought to be formed where different types of opal gel have dripped into partially solidified opal.

driver *Rare*. Skilled miner who digs in a drive, as distinct from a sinker. Today there is never such specialisation except that sinker is used to refer to men with bore-sinking equipment hired at so much per foot of shaft. (*The drivers get the opal not the sinkers*, Lloyd, 1968, 96.)

drive-on-the-blind *Informal*. To tunnel through opal dirt looking for opal but not yet striking it. (*"driving on the blind", hoping to strike a seam of opal*, Idriess, 1967, 50.)

dry (a) Pertaining to a level being worked, a dusty opal level which is usually crumbly or hard with little or no opal in it; it is grey, yellowish or white in colour. (*Dry Level: Is opal dirt but as a rule no opal at all in it*, Lloyd, 1968, 169.)

(b) Pertaining to sifting the dirt and mullock, to treat it without water, that is, with a dry puddler. (*Dry puddling has become very popular and a big producer of opal*, Lloyd, 1968, 103.)

(c) Pertaining to a now little-used puddler, an apparatus in which opal dirt is broken up by rotating beaters so that the debris and dust pass through perforations and solid material is left to be examined for opal. Mullock dumps were gone over using one of these. N.S.W.D.M. Report, 1963, page 11, has a full description of the process. (*Dry puddlers are used on practically all diggings on the field*, N.S.W.D.M. Report, 1963, 51.)

duffer 1. Not restricted to opal mining, a shaft yielding no opal. (*You may bottom duffer after duffer, just as I did*, Idriess, 1967, 32.)

duffer 2. Pertaining to a mine, area, claim, etc., which has proved unrewarding and not worth further work, or an area which appears to hold little prospect of a good find. (*Duffer ground: "give it best" ground. By the look of it you wouldn't expect to find opal in it*, Lloyd, 1968, 173; *don't go out in the duffer country*, Waller, 1969, 100.)

dugout (a) Mainly S. Aust., and a feature of Coober Pedy, an abandoned working which has been turned into comfortable living quarters. (*abandoned workings . . . cosy in winter, and cool in summer, and are now known as "dugouts"*, Empire, 1912, 283.)

(b) Sometimes used as another name for a small working shaft. (*the vicinity of the open cut and dug outs*, Relph, 1959, 11.)

dump Usually in the plural, the mullock and dirt heaped up near each shaft and occasionally prospected for odd pieces of opal. (*when you sees the dumps you is on the fields*, Blackwood's, Feb. 1902, 247; *there is still opal lying around in the dumps*, Eyles, 1964, 95.)

dumper Commonly used name for the bucket dumper in which dirt is mechanically hauled up the shaft for screening, washing, etc.

E

exploding-flash Rare mobile pattern which appears to explode in all directions as the stone is moved.

eye-of-opal Bug-hole which looks like an eye because of circles of colour around it.

F

face 1. (a) End of the tunnel where the careful search for opal is taking place. (*Wilcannia opal is so friable that it is easily removed, . . . In fact, they are picked out of the "face" in the mines directly they are seen*, Cuttings, Vol. 83, xv; *A reddish seam . . . suddenly appears in a line right across the face*, Idriess, 1967, 75.)

(b) That part of the opal being cleaned and polished and which will show. (*lots of rouge and pumice powder to take the scratches out after using emery-paper on the face*, Standard, 18 June, 1935, no page.)

face 2. (a) Also *face up*, as applied to stones, to clean up, grind, and polish to give a beautiful surface. Thus to face stones is to prepare one surface in this way, because opals are bought according to the appearance of the face. (*"Facing" is the process of grinding the "potch" off one side of the stone*, Empire, 1912, 283; *There are two ways of selling opals, "in the rough", and "faced"*, Idriess, 1932, 240; *primitive grinding, or cutting machines to "face up" their specimens*, People, 19 Mar., 1958, 54; *parcel after parcel was brought up and faced*, Eyles, 1964, 88.)

(b) To show colour when looked at directly from any angle; a stone which won't face is one that has to be turned to catch light and show full colour from one angle only. (*The job was to try and estimate which stones would "face"*, Idriess, 1940, 117.)

false (a) Pertaining to the face of the opal when insufficient or inefficient cutting or grinding leaves a blurry surface over the colours. (*It proved to have a false "face"; a light smoky scum dimmed beautiful colours underneath*, Idriess, 1940, 119.)

(b) Pertaining to a level or tunnel taken off the shaft, high or low, not strictly at the right geological point. (*in a "false level", only fourteen feet down*, Leechman, 1961, 205.)

fault Fracture resulting from earth movement. Gems may form in the material of a fault or slide (as at L. Ridge) or opaliferous material may fill a slide (as in S. Aust.). (*tremendous forces (earthquakes) cracked and shifted the sea bed . . . This resulted in the formation of faults*, Kalokerinos, 1967, 56.)

fern Pattern type usually called *tree pinfire*.

field (a) Opal-mining district which embraces an entire area that can be made of smaller fields as under (b). (*soon after left for the Queensland "fields"*, A. Macdonald, 1907, 115; *The field at White Cliffs was five miles long and approximately two miles wide*, Eyles, 1964, 61.)

(b) Specific area of mining within the limits of the greater field, as under (a), hence, on the L. Ridge field there is the "10 mile" field among others, while at the Coober Pedy field one may have a mine on "Ryan's Hill" field.

Finch-claystone Name for the stratum of opal dirt in north-west N.S.W.

fire Sometimes called *live opal*, a name used to describe an opal with a good play of colours, usually with vivid red predominant, but often providing vivid contrasts. (*"fire opal", which has a*

vivid colour, A.B.M.R. Report No. 43, 12; *Because some opals show a predominance of red color, many term this type fire opal*, Eyles, 1964, 48.)

firsts Mainly S. Aust., opal of top quality. In L. Ridge better known as gems. (*he dug out his plant and showed us his "firsts"*, Wollaston, 1924, 62.)

fish To haul buckets up the shaft on a long rope. This term was used more where the miner, working alone, fills a number of buckets in the chamber at the bottom of the shaft then climbs to the top and with the hook on his hauling rope catches the handles of each bucket in turn and hauls them to the surface. (*The miner climbs to the surface and "fishes" for the buckets*, S.A.D.M. Mining Review, No. 109, 1958, 20.)

flagstone Opal pattern with various irregular colours resembling flagstones in their arrangement.

Flame Queen Name of a famous stone. (*we may find another Pandora, or a Flame Queen*, Waller, 1969, 14.)

flash (a) Descriptive and sometimes definitive term used with opal. See also *flash-fire*. (*In flash opal the fire shows as a single flash*, A.M.M., Jan. 1923, 201.)

(b) In general use pertaining to stones which flash in varied colours as they are moved. (*called "flash stones" because they flash into colour and out of colour as you turn them*, Buchanan, 1931, 17.)

flash-fire Also called *flash*, opal whose light shows as a single flash in a large patch of colour. It may move in one or several directions. See *rolling flash*. (*flash-fire, or flash opal, when the colour shows as a single flash or in very large pattern*, Q.G.S. No. 177, 1902, 11.)

flat (a) Used in the expression *flat nobby*, a characteristic flat form of the black opal which geologically is believed by some to be a replacement of marine life. See also *Chinaman's-hat*. (*"nobbies" and "flat nobbies" . . . are replacements of sponges and corals*, Wollaston, 1924, 105; *flat nobby . . . looking as if it has been pressed flat in some way*, Murphy, 1948, 140.)

(b) Mainly S. Aust., pertaining to opal which is continuous in a horizontal seam, as distinct from vertical opal in which the colour crosses the stone. (*In a flat seam, . . . generally true colour*, Murphy, 1948, 134.)

flint-band *Rare*. Clay under the bandstone when it too has be-

come extremely hard because of some opalisation in its mass. (*underlying clay has also become extremely hard . . . then known as "flint band" by the miners*, Q.G.S., No. 177, 1902, 19.)

float Variant of *colour floater, floater* (a).

floater (a) More common form for *colour floater*, also called *float* and *float opal*, loose opal which is of varying value but may indicate the presence of better deposits. (*first discovered opal as floaters in the vicinity of the present township*, S.A.D.M. Mining Review, No. 109, 1958, 13; *collected some pieces of the float and took these to the Mining Register*, Eyles, 1964, 60.)

(b) Mainly Qld. and usually plural, slab of boulder, six to twelve inches thick and flat on the underside, which occurs in the lower sandstone beds. (*Boulders occur in both beds of sandstone, and when in the lower one are termed "floaters"*, Q.G.S., No. 177, 1902, 20; *Floaters: Random slabs of sandstone . . . Found in shafts or drives. They are a nuisance and make working difficult*, Lloyd, 1968, 170.)

floral Opal pattern type with rounded irregular units of colour, larger than pinfire and having the appearance of a floral design.

fossicker One who digs unsystematically or only in a small way, usually over ground previously worked by others. (*201 persons (including 90 fossickers) obtained opal with an estimated value of £100,000*, N.S.W.D.M. Report, 1963, 51.)

fossil-pineapples Mainly S. Aust. and W. Cliffs, a name for radiating crystals of glauberite which have been replaced by opal. (*"Fossil pineapples", the miners' very descriptive name for the radiating crystals of glauberite replaced by opal*, A.M.M., June 1953, 59.)

freak *Obs.* Pertaining to opal which is of unusual form or quality, and usually much sought after by buyers. (*strenuous competition amongst them for what is known as "freak" opal*, R. M. Macdonald, 1928, 30.)

front Mainly S. Aust., at L. Ridge called the *top*, that surface of a sandstone fault or slide which faces upwards, as opposed to the *behind* or underside. (*The side that faces upwards is called the 'front' of the slide*. Kalokerinos, 1967, 60.)

full-colour Pertaining to colours clear to see and obviously good, especially when evident without viewing from special angles. (*I heard John say, 'Thick stuff and full colour'*. Kalokerinos, 1967, 97.)

fruit *Informal*. Kernel of opal in a nobby or other precious stone covered by rough stone. (*the centre of the nut—well, that's where the fruit is*, Waller, 1969, 81.)

G

geeser, geyser, geizer *Obs.* Probably a corruption of geyserite, a hard pebbly cement mixture with opal matter through it. (*the opal matrix being harder and consisting in great part of material locally known as "geeser"*, Gipps, no date, 8; *Some very fine quality geizer opal is coming from block 4*, Spectator, 4 Nov., 1910, 4.)

gel Name given to a form of opal believed to exist long ago in liquid form which filled spaces, cracks, etc., and eventually solidified.

gem Pertaining to top quality opal for use in distinctive jewellery. (*miners and dealers referring to a stone as a 'gem'*. Kalokerinos, 1967, 137; *the authors making no distinction between this common variety and gem opal*. Eyles, 1964, 31.)

gemmy *Informal*. Pertaining to deposits of better quality opal. (*discoveries of an odd gemmy fragment of opal have occurred*, Eyles, 1964, 33.)

geologist *Informal*. Name for a geologist's pick, different from that required for opal gouging. (*you call, this a pick. It's what we call a 'geologist'*, Waller, 1969, 60.)

get a line, get in line To estimate a place to sink a shaft by observing the layout of other dumps and shafts on the field. (*they would try to "get a line", would look out over the dumps that follow the opal*, Idriess, 1967, 82.)

ginger-whisker Fault recognised in rough opal from sharp right-angled fractures where breaks have occurred, and which indicates more is likely to break away with further handling, grinding, etc.

glass, glassy Pertaining to a form of opal sometimes known as hyalite, also called Muller's glass, a variety of opal which is colourless and translucent, and occurs in nodular clusters. (*The purest variety is called hyalite or glass-opal, which is transparent or translucent, colourless*, A.M.M., Jan. 1923, 200; *Hyalite, which is also known by the names of "glassy opal" and "Muller's glass", is a variety of the "noble or precious opal", but is of no commercial value*. Cuttings, Vol. 83, 73.)

good Usually pertaining to sandstone thought by miners as having properties which help the making of opal; in fact, much more

than this is necessary even if it is true that a hardness and whiteness in the sandstone means one is close to the region where silica has been stopped from moving upwards. (*certain physical properties about good sandstone that help with the formation of opal*. Kalokerinos, 1967, 56.)

gouge 1. *Rare*. (a) Pointed piece of iron, a screwdriver, or one's spider, used mainly in probing in a restricted area or near a piece of precious opal. (*to drop his pick and use his gouge, a pointed piece of iron about six inches long*, Walkabout, 1 Jan., 1935, 25.)

(b) Small hole excavated by gouging. (*The shaft . . . had a small gouge in one end, but there was no sign of even potch in it*. Barrington, 1958, 49.)

gouge 2. To cut carefully under the roof searching for a seam of potch so that full-scale cutting of the drive can begin. (*gouge your drive, viz., push a cut under the roof searching after the seam of potch*, Buchanan, 1931, 8; *We'll gouge . . . to start with; and when we strike something we can drive properly*. Berrington, 1958, 27.)

gouger Common name for the opal miner, usually one who works in soft ground. (*the reason assigned for the absence of the "gouger" from this hill is the extreme hardness of the ground not altogether the absence of opal*, B.W.P., 17 Sept., 1898, 13; *Matrix was seldom sought by the gougers*, Idriess, 1967, 37.)

gouging-pick Specially made short-handled pick, chisel nosed at both ends of the head, which can be used in a confined space.

grain *Obs.* Pattern on the face of the opal. See *pattern*. (*Australian opal boasts a pattern or "grain" as we call it*. Wollaston, 1924, 26.)

grass Pattern type similar to straw pattern but with thinner units and lineal striations.

gray Pertaining to poor opal existing in white or greyish forms, as distinct from some grey opal which is quite stable and not likely to crack, much depending on place of origin. It is also said that miners indicate in their mode of pronunciation whether "gray" or "grey" is meant, but there is no good evidence of this.

greasyback (a) Mainly Qld., section in and above opal dirt which might fall in. It is usually caused by penetrating water making the sandstone greasy and likely to slip away. In L. Ridge the term slippery back is used, but such a condition is rare.

(b) *Informal*. One who has been a long time in the opal fields. (Some of the old "greasybacks" wouldn't even speak to us. Idriess, 1940, 148.)

ground colour Mainly S. Aust., background colour, usually soft and milky to provide contrast for the main opal colours. (*A fine Opal, then, must have an appropriate "ground colour" to set off the "fire"*, Skertchley, 1908, 69.)

grub stakes *Obs.* Small return for work, only enough to survive on. (*For one that made even so much as "grub stakes" a hundred took to the track again, "dead broke"*. Russell, 1936, 54.)

guardian-angel stone *Rare*. Another term for *angel stone* (a). (*lenticular masses of the rock . . . "guardian angel stone"*. Cuttings, Vol. 83, xv.)

gully raking *Obs.* Now replaced by noodling, the process of going through previously mined areas in the hope of obtaining some opal. (*the fossicker goes "gully-raking" into old gullies and worked-out creeks, and into old workings*. Idriess, 1967, 67.)

H

hairband Pertaining to stone with a thin colour line running up the centre. (*Very good gem quality. Many hairband stones*. Lloyd, 1968, 73.)

handboring *Obs.* Use of a fish-tail hand bore to discover an opal deposit. (*one method . . . I have never seen on fields elsewhere. It is by hand boring, with a small gouge and ordinary fish-tail hand bore*. Idriess, 1967, 64.)

hard-band Mainly S. Aust., a very dense thin layer situated above the conglomerate and clay containing any opal. See also *band-stone*. (*conglomerate and clay constitute the opal horizon, and the "hard band" . . . the proximity of the horizon*. A.B.M.R. Bulletin No. 17, 1950, 22; *On top of this a hard and relatively impervious layer was deposited. This is the 'sandstone' or 'hard-band'*, Kalokerinos, 1967, 18.)

hard pan *Obs.* Bedrock or bottom under the opal dirt. (*Little did he know . . . of the depth down to the hard pan*. Eyles, 1964, 61.)

harlequin Precious opal pattern of small evenly made squares of colour in the best stones, but more commonly found with distortion of the angles and unevenness in arrangement. (*"harlequin" in which the colour is shown as small regular-sized squares*, Relph, 1959, 14.)

heading Mainly S. Aust., section driven off at right angles to the shaft when good colour signs are met. (*where encouraging traces of "potch" are met with, headings are driven off the shaft*. S.A.D.M. Mining Review, No. 84, 1946, 152.)

hoe into the toe *Informal*. To pick towards the bottom of the working face. This is partly to make digging room although there may be opal in the toe as well as under the roof. (*"hoe into the toe" . . . you drive your pick down towards the bottom of the face*. Idriess, 1967, 75.)

hold Of a precious opal colour, to remain when viewed from different angles rather than fade away quickly or "die".

hooked up for air *Informal*. Situation in which two shafts on one claim are joined by a drive so that air may flow down one and up the other.

horizon Shortened form of opal horizon, the horizontal band along which opal is expected to occur. (*Conglomerate and clay constitute the opal horizon*, A.B.M.R. Bulletin No. 17, 1950, 22.)

horizontal-banding Pertaining to pattern, the result of different types of opal gel tending to settle in layers to produce precious opal or potch. These layers could be bent by movement of the gel during solidification.

hyalite Also called Muller's glass, the technical name for glass opal, which is of little worth. (*Hyalite . . . is a variety of the "noble or precious opal", but is of no commercial value*. Cuttings, Vol. 83, 73.)

hydrophane Type of common opal, rare in Australia, which absorbs water and only displays opalescence when wet. See also *lick opal*. (*"Hydrophane" is a variety which displays opalescence only when immersed in water*. A.B.M.R. Bulletin No. 17, 1950, 9.)

I

in line with the run *Informal*. Pertaining to a shaft sunk in line with other shafts producing opal.

ironstone noodles Hard pebbles of ironstone which may look like nobbies to a beginner.

J

jelly An inferior type of opal with almost transparent patch colour, perhaps slight blue or green, and a weak play of colours, if any. It was once kept for selling cheaply overseas. ("Just jelly", he said. "No value at all!" Walkabout, 1 Dec., 1952, 20; *Not all opal is precious. A good deal is "milky" and "jelly"*. Summers, 1965, 107.)

jeweller's shop *Informal*. Mainly S. Aust., and as in gold mining, the name given to a rich find. (*the 26-foot level was a jeweller's shop*. Murphy, 1948, 102.)

Jonah stone *Obs.* Round hard lumps of grey gypsum, varying to boulders in size and regarded as a poor sign of opal. (*Jonah Stone: In opal dirt. Round and hard, grey gypsum or kopi. From tennis ball to boulder size*. Lloyd, 1968, 172.)

jumper *Informal*. As in other mining, a claim jumper against whom various devices were used as discouragement. (*get a couple of roo carcasses and dump them down the shaft, it should keep the 'jumpers' out*, Waller, 1969, 25.)

K

kernel Pertaining to opal found inside a kernel boulder. (*Inside an occasional boulder is a "kernel" of opal, hence "kernel opal"*. Idriess, 1932, 249.)

kernel boulder Small nodule of siliceous ironstone in which the centre or kernel is constituted of opal. (*The precious opal . . . is found forming the centre or kernel of small nodules of siliceous ironstone—"kernel boulders"*. Q.G.S., No. 177, 1902, 15.)

king-stone Also queen-stone, a superior stone which stands out in a patch or pocket.

knobby More frequently *nobby*, opal which is found as a solid lump at L. Ridge rather than in a seam formation which is a feature of most opal fields. (*A good lot of first-class knobby opal is being got*, Lloyd, 1968, 223.)

kopi Gypsum which sometimes carries good opal. In L. Ridge the kopi is different, being flattish crystals of silenite, rather than the gypsum clay of S. Aust. and Qld. (*struck a lump of "kopi" (gypsum) carrying good-coloured opal*. A.M.M., Dec. 1961, 389; *Valuable opal . . . is more commonly distributed in the "kopi" layer underneath*. A.L.M., July 1968, 18.)

ky-outing *Obs.* Also known as underlying, a process of cutting in from the side of a hill, face, or bank, leaving a roof jutting over the work area. (*put in drives or chambers by removing the clay for a sufficient depth to enable them to work in a crouching position, an operation known as "ky-outing"*, Q.G.S., No. 177, 1902, 20.)

L

lead [led] back Opal with a slightly translucent grey back that is highly suspect as far as stability, cracking, etc., are concerned.

lead, leady Pertaining to opal with good colours but having a dull, leaden finish.

leader Usually pertaining to opal or stone, a good trace which might be followed to better opal. (*That's a leader stone, and I hope a nice leader opal. I thought you said there was no leaders, nothing you can follow*, Waller, 1969, 66.)

level (a) Depth at which tunnelling for opal might take place, hence the 20-foot level, top level, second level. (*The level at which the opal is now being found is about 40 ft*. B.W.P., 22 Oct., 1898, 13; *The top level on Quinn's is being tried, and some good opal is being found*, Opal Miner, 18 July, 1903, 1; *one shaft 100 feet deep had eleven levels with traces of opal on each one*. Whiting, 1962, 9.)

(b) Name given to the opal dirt broken into or "bot-tomed" through the sandstone when sinking a shaft, hence, "on the level", "at the level". It was thought that there was only one opal level on a field but in nearly all there are levels below the first one. Levels may vary in type—see also *broken, dry, false* (b), *mud*. (*You sink a shaft gradually into the sandstone from the surface, and in 5 feet to 40 or 50 feet you break through into a layer of fine soft fireclay called the "Level" or "Opal dirt"*. Buchanan, 1931, 5; *It is generally believed that there is only one Opal "level" on the field, although some miners claim that there is at least one other below the main one*. A.B.M.R. Bulletin No. 17, 1950, 20.)

(c) Horizontal band of any material within a larger level. (*the walls should be closely examined for "levels" of patch or precious opal*, Mineral, June 1958, 23.)

lick *Informal*. Probably another name for hydrophane, opal which has to be wet to make the colours visible. Opal is the most licked gem in the world, and in a sense all opals are "lick", this

being the way to make any colours stand out in rough stone. (*that's lick opal . . . you've got to lick it to make the colour visible*, Berrington, 1958, 183.)

light Pertaining to a clear, translucent opal type found mainly at White Cliffs, and better known as *jelly* at L. Ridge. (*a clear opal, that is you can see light through it like glass. It is sometimes called light opal*, Buchanan, 1931, 11.)

liquid Rare mobile pattern in which a rolling flash moves in one direction no matter how the stone is turned.

live, lively Another description for the scarce fire opal. (*"live" opal was the most sought after; naturally, being the rarest and most valuable*, Russell, 1936, 58.)

loading-chamber See *chamber*.

loam To go through a container of dirt to sort out opal. (*I've seen you loaming*, Waller, 1969, 17.)

Londoner Informal. Shaft which breaks through into a drive of someone else's workings. (*Londoner: A shaft which bottoms on someone else's workings*, Lloyd, 1968, 171.)

long toe Drive in which the digger has dug as far as possible, only taking out good-looking dirt and not clearing systematically in any way. See also *big toe*. (*Long toe; Reaching out as far as possible in a drive; and only gouging out the dirt which has opal traces in it*, Lloyd, 1968, 169.)

looks at you Said of a good stone when full colour is seen from any angle.

lousing Process of picking over the material in worked areas and mullock heaps. This was often carried out by numbers of women and children looking for any loose opal. At L. Ridge the term for this is the more delicate *noodling*. (*small parcels have been obtained by the method known locally as "lousing", which is simply picking the material over*, N.S.W.D.M.G.S. Mineral Resources, No. 36, 1934, 117; *"lousing the dumps" . . . looking for any loose opals that the miners may have missed*, Murphy, 1948, 128; *searching through the dumps for bits of discarded potch . . . The diggers called this "lousing the dump"*, Berrington, 1958, 38.)

M

magpie Informal. Black and white potch formed together. See also *banded*. (*A small amount of black potch is formed with the*

white to form "magpie" potch in one locality, Relph, 1959, 14.)

main Mainly S. Aust., pertaining to the level next above the bottom. (*There may be one or several levels . . . From the bottom up these are known as—bottom, main, squibby and bodgie*, Kalokerinos, 1967, 55.)

make (a) To form, develop into, be present. Thus some potch "makes" into first-rate opal, or a patch may peter out then "make" further on. (*"makes" into first-class or gem opal*, A. Macdonald, 1907, 127; *will "make" into a pocket of "potch"*, Lone Hand, March 1910, 494; *The patch may cut out for a few days, and then it will "make" again*, Idriess, 1967, 52.)

(b) To strike a reasonable deposit of opal. (*sooner or later they may "make opal"*, Idriess, 1967, 69.)

matrix Partially porous grey (mainly S. Aust.) or brown (mainly Qld.) low grade rocky material which has thin streaks of opal through it. In L. Ridge it can occur alone but it is usually attached to soft potch. See also *Andamooka matrix, band 2 (b), opal matrix, Queensland opal matrix, treat.* (*Matrix is a grey or brown . . . occasionally has a little colour in it . . . It may occur alone or 'welded' to potch or opal*, Kalokerinos, 1967, 62.)

matrix-lines Lines of matrix material which appear between units of colour in the face of an opal, and are a cause of cracking. Sometimes confused with *potch-lines* which do not cause surface cracks.

milk, milky Mainly S. Aust., pertaining to a common white variety of opal which sometimes has colourful veins or spots. (*Common or milky opal occurs in a number of places*, V.G.S. Records, Vol. 1, 1902, 85; *milk opal: white variety of opal sometimes containing pin-fire effects*, Eyles, 1964, 218.)

milkiness An opal quality which detracts from brilliance and sharpness in the play of colour.

monkey Informal. Secondary shaft sunk from a drive or tunnel (off the original shaft) usually following a trace or promising slide. In the early days some miners hid good opal dirt in a monkey and only toe dirt was sent to the top for all to see. (*Got good opal out of a monkey he sunk in a shaft*, Lloyd, 1968, 45.)

moss (a) Pertaining to a form of common opal, resembling moss, but not to be confused with moss pattern in more precious opal.

(b) Opal pattern type with fine grey-blue-green colouring which is usually not sought after as much as other colours.

mother-o'-opal *Obs.* Another name for matrix, the rocky material containing streaks of opal. (*a lump of matrix, or "mother-o'-opal", as it is known.* Walkabout, 1 Nov., 1942, 29.)

mottled Pertaining to a sandstone or clayey conglomerate just above the ironstone casing and usually containing poor quality opal, if any. See also *cuckoo, speckled hen.* (*in the mottled sandstone, where common opal and opal that is not quite saleable is very plentiful.* Q.G.S. No. 177, 1902, 25.)

mountain Type of opal made from silica of volcanic origin as distinct from sandstone, but believed to contain a high percentage of moisture. Thus rapid drying is said to make it crack or craze easily, and it may break when being cut or chip when made up. Also called *opalite, volcanic opal.* (*"Mountain opal" . . . clear and vari-coloured; it often contains a high percentage of moisture when first gouged out,* Leechman, 1961, 129.)

mud Pertaining to a deep level, usually the lowest, sometimes wet, containing no more sandstone, little or no iron staining, and resembling dried mud rather than the usual opal dirt. (*Mud Level: The material composing this level resembles soil or dried mud more than typical opal dirt. Usually a deep level and valueless.* Lloyd, 1968, 173.)

mud-boulder Another name for the *clay boulder* found in the opal dirt under the sandstone, mainly in Qld. fields. The unusual matrix formation coating some mud boulders is called *mud boulder opal matrix.*

mud-bug See *mud-pipe.*

mud-pipe Mainly Qld., long, soft, slim pieces of material which form in the sandstone and opal dirt and rarely contains opal. Also called *mud-bug.* (*"mud pipes" . . . are pencil-like pieces of considerable length formed in the mass of the sandstone,* Q.G.S. No. 177, 1902, 22.)

mug *Informal.* Poor quality opal stone sold to inexperienced persons for more than it is worth. Also called *mug-stone, tourist stone.* (*Mug Stones: Cheap or poor quality opal stones.* Lloyd, 1968, 170.)

Muller's glass Another name for hyalite or glass opal, a variety of little value. (*Muller's glass—Hyalite, a variety of opal.* Power, 1895, 43; *"Muller' glass", is a variety of the "noble or precious*

opal", but is of no commercial value. Cuttings, Vol. 83, 73.)

mushroom *Informal.* Flat nobby, concave underneath and convex on the upper surface.

N

natural-jointed Pertaining to nobbies formed in sections which have broken naturally from one piece.

nest Mainly Qld., collection of stones of one type as a pocket. In L. Ridge usually called a *pocket* if small, a *patch* if larger. (*"kernel boulders" are found here occurring in nests,* Q.G.S. No. 177, 1902, 26.)

nigger head Hard spherical masses of fine-grained silica ranging up to a hundred or more pounds in weight. They are generally formed round opalised wood and contain opal of some quality. (*Nigger-head—(White Cliffs, N.S.W.) . . . from 1lb. to 1 cwt., generally formed round a centre of opalized wood.* Power, 1895, 44; *nigger-heads . . . almost always contain a centre of opalized wood, often also containing opal of good colour in cracks caused by contraction.* Gipps, no date, 3; *nigger heads. These are hard, round (or nearly so), lumps of fine-grained silica,* Idriess, 1967, 70.)

nippers *Obs.* Instrument with which a miner cuts round the edge of a sample to estimate its value. In L. Ridge always called *snips.* (*to ascertain the value, has to snip it round the edge with a pair of "nippers".* Empire, 1912, 283.)

nobby Small drops of silica opal and the characteristic form of the L. Ridge black opal. They are usually found in horizontal levels and are scattered through the dirt, but may be in pockets. Most are rounded but they can be oval, flat, shaped like mushrooms, etc., or quite irregular. Some are said to be fossils of sponges and corals. They are not found in seams or any continuous system, they are very valuable, and vary almost to the size of a man's fist. (*characteristic forms of the Black Opal are locally known as "Nobbies" . . . pseudomorphs after sponges and corals,* Wollaston, 1924, 10; *nobbies which are rounded drops of silica opal.* Buchanan, 1931, 6; *nobbies are . . . scattered here and there like shells on the beach.* Murphy, 1948, 140; *nobbies: gem opal in almond-shaped pieces, occurring only at the Lightning Ridge field,* Eyles, 1964, 218; *dug out a cleanskin nobby. It was a bonza stone and a whopper too.* Lloyd, 1968, Intro.)

noble *Obs.* Mainly Qld., a qualifying term used generally in

mineralogy to express fineness and superiority, hence noble opal which is now known as precious opal. (*the noble and fire opals take precedence and are of greatest value.* Davis, 1888, 565.)

nodule Form of opal matrix found in gutters of yellowish opal dirt under the sandstone or hanging from it. They consist of fine ironstone with thin lines of opal running through it. (*It may occur in thin seams, but generally occurs as nodules.* A.B.M.R. Bulletin No. 17, 1950, 27; *Most nodules are hollow inside and empty, but others may contain opal,* People, 27 April, 1960, 51.)

noodle (a) To go carefully through a bucket of dirt sent up to the sunlight. (*Send the dirt up in the bucket where his mate . . . would carefully "noodle" it, seeking tell-tale patch and colour,* Idriess, 1948, 79.)

(b) To sift dumps or mullock heaps hoping for an opal a miner has missed. See also *lousing*. (*produced ten thousand pounds, with what was "noodled" or picked up from the dumps.* Buchanan, 1931, 10; *aboriginals were noodling a dump close to a deceased miner's former camp site.* Lloyd, 1968, 8.)

noodler One who combs dumps for overlooked opal. (*Other noodlers use a wire-screen and a shovel; Walkabout, 1 March, 1945, 15; All stones thus missed were regarded as the legitimate prey of the noodlers.* Idriess, 1940, 104; *A champion noodler. First to use shear blade to cut opal dirt on dumps.* Lloyd, 1968, 38.)

noodling Activity of turning over old heaps of mullock. See second quotation below for one suggested origin. (*some splendid opal is found . . . by turning over and searching the old heaps and mullock—"noodling".* Q.G.S. No. 177, 1902, 20; *small egg-shaped opals in an open cut in a gully. A visiting geologist tabbed these "nodules", and explained that they had originally formed inside a soft stone (like yowah nuts), which had later decomposed. The miners soon altered the name to "noodles"—and hence the "noodling" game.* Murphy, 1948, 129; *They were noodling dumps, but they had no opal.* Eyles, 1964, 182.)

nuts Informal. Opal inside a casing of stone. (*The coating on these nuts is . . . hard,* Waller, 1969, 81.)

O

on a streak Working on rock showing good colour. (*We're on a streak now;* Prichard, 1921, 90.)

on opal, on stone Situation of having struck favourable opal stone. (*I'm on opal sure as beans.* Nicholson, 1878, 4; *"We're on opal", he cried; "on opal!"* Prichard, 1921, 8; *The men were not "on stone", it seemed, but perhaps I could change the luck?* Wollaston, 1924, 61; *I'm on a fair show, and she'll know what it's like to be on opal.* Berrington, 1958, 24; *Being on opal, you won't mind that.* Idriess, 1967, 77.)

on the screw Obs. Pertaining to a rectangular or square shaft which tends to spiral as the digger goes downwards. Today most new holes are even and round, largely because of mechanical borers. See also *corkscrew* (b).

opal Opal is a relatively soft gem, affected by heat and cold, and is minutely porous. It is an amorphous form of hydrous silica with traces of other elements and compounds, including water, and is similar to glass in many of its physical properties. Its general description yields many names, for example, an opal type with almost colourless transparent patch, perhaps with a blue or green tint, is called *jelly*. With stronger colours (orange and red) the opal is called *crystal*. Stronger concentration of colour resulting in a semi-dark appearance yields *semi-black* in which the opal itself is only just transparent. The advance on this is *crystal black* in which blue in the colour play is very dark, appearing quite opaque from some angles. Those with black, dark blue, or dark amber in the background constitute the general class of *black opal*. Other names indicate different physical characteristics (see *amber, bone, burned, clear (a), glass, light, milky, moss, quartzite, resin, water, wax, wood*). Sometimes value is reflected in the name (see *all opal, big, common opal, dead, freak, live, semi-opal, sugary*), while other names indicate the way it occurs (see *alluvial, band 2 (a), boulder, kernel, mountain, opal matrix, pipe, sandstone, seam, volcanic*). See also *candlebox, gel, horizon, lick, opal agate, opal dirt, opal neck, snips* which may require explanation.

Further classification of opal is possible according to dominance and blend of spectrum colours, or spectrum with patch colours (see *red coming out of the black, red coming out of the blue, red covered by blue, red on blue, red on the black*). For reference to different shapes and colour within the pattern see *pattern*, and *chaff, clover leaf, fern, flagstone, floral, grass, harlequin, horizontal banding, pinfire, rainbow, ribbon, straw, tree pinfire*. Other patterns are named according to movement of colour within the gem (see *brogd flash, exploding flash, flash liquid, rolling flash, starflash, sunflash, twinkle*).

opal-agate Obs. Opal form with a banded structure of different

colours. ("*Opal-agate*" is a form with banded structure due to deposition of opal of different shades, A.B.M.R. Bulletin No. 17, 1950, 9.)

opal dirt Usual name for the material in which opal is found, in L. Ridge the Finch claystone area under the sandstone. Drives are made into this in the search for opal. (*The "Opal Dirt" is picking ground, being simply a layer of clay or sandy clay overlain by sandstone, N.S.W.D.M. Report, 1924, 84; using air compressor and jack spade on the softer opal dirt, N.S.W.D.M. Report, 1963, 51.*)

opal matrix Also known as *Queensland opal matrix*, a dark brown siliceous ironstone the result of very porous rock having absorbed in its pores a quantity of opal gel which then set hard. It is a kind of boulder opal, streaked with more or less opal, which can be cut and polished to beautiful colours. Not all matrix can be treated in this way. (*bought a lot of opal matrix from him—that is, opalized stone; Murphy, 1948, 158; It is out of boulder opal or opal matrix that beautiful cameos have been carved, Idriess, 1967, 37.*)

opal neck *Informal.* The crick in the neck which is the result of walking round with head down on the opal fields. (*we are forever scanning the ground; that's how we get opal neck. Waller, 1969, 64.*)

opalite *Rare.* Another name for mountain opal or volcanic opal, as distinct from sandstone silicas.

open Mainly S. Aust., to cut open a piece of rough opal at different places to check where the best colour lies so that the most attractive jewel can be made. In L. Ridge the term used is *snip*. (*our find . . . must be cleaned off and "opened" here and there to see just where the colour lies, Leechman, 1961, 165.*)

open out To develop, especially in the sense of yielding more as the seam widens. (*Our "strike" opened out fairly well, R. M. Macdonald, 1928, 54.*)

orange Mainly S. Aust., name given to opal with this distinctive colour. (*one stroke of the pick may . . . break in two a rich band of "orange". Chambers JL, Vol. 5, 1898-1908, 494.*)

ox blood *Informal.* Name given to the deepest of the red-coloured opals. (*miners describe colour as "ox blood", "pidgeon's blood", "port wine red", and so on, down to rose pink. Lloyd, 1968, 24.*)

P

painted boulder Mainly S. Aust., and sometimes called painted lady, quartzite or sandstone rocks which carry opal either in cracks or in thin whitish coats. (*the "painted boulders" being scarce. S.A.D.M. Mining Review, No. 62, 1935, 55; huge quartzite boulders have cracks from paper thickness to a quarter of an inch thick, completely filled with precious opal; the boulders frequently split along these cracks and are then known as "painted boulders". A.M.M., Dec. 1961, 392.*)

pan *Rare.* Usually called the *hard pan* or bedrock under the opal dirt. (*Little did he know . . . of the depth down to the hard pan, Eyles, 1964, 61.*)

Pandora Name of a famous stone found at L. Ridge. (*"The Pandora" . . . was a thick bar of opal five and a half inches long and two inches wide. Walkabout, 1 March 1945, 13; we may find another Pandora, or a Flame Queen, Waller, 1969, 14.*)

parcel Quantity (indefinite) of fine opal. Thus a miner might unearth a nice parcel (but more often called a *patch*), prepare a parcel of his best stuff for sale, or get a good price for a parcel. (*received satisfactory prices for their parcels, B.W.P., 29 Oct., 1898, 13; One fair parcel was unearthed . . . One parcel brought £600, Opal Miner, 21 March, 1903, 5; they gradually collected a "parcel" of choice stones. Berrington, 1958, 20.*)

patch Part of the drive rich in opal, an opal seam, or a series of rich deposits close to each other. See also *nest, pocket*. (*the "patches" are often, probably nearly always, connected . . . and are portions of the one lead. Gipps, no date, 2; the discovery of a rich patch of opal, A.B.M.R. Bulletin No. 17, 1950, 10; When a lot of pockets form one after another . . . you know that you have struck a patch, Idriess, 1967, 52.*)

pattern Feature of opal determined by variation in size and regularity or variation of arrangement, of colour units, block faults in the stacking, the nature of the silica spheres in opal, plus any traces of material dissolved as the opal gel is formed and solidified. It may be static or mobile, large or small, but occurs in such variety that no two stones can be perfectly matched. For some pattern types see description under *opal*. (*a variety of colour effects known as the "pattern", Walkabout, May 1940, 18.*)

pea opal *Informal.* Small opal stone about the size of a dried pea.

pencil band *Obs.* Band of opaliferous material in a narrow seam up to about half an inch in thickness. (*the "brick pipes" and*

"pencil band" of the Jundah Field were also found. Q.G.S. No. 177, 1902, 32.)

pidgeon's blood, pigeon's blood *Informal.* One of the names given to red opals. An approximate comparison of red colour names is given under *ox blood*. (*Pidgeon's blood! That's what they call the fire!* Summers, 1965, 98.)

pillar-snatcher *Informal.* One who enters an old mine to cut out the natural pillars left previously as supports.

pincers, pincher Usually called *snips*, and used to clip off stone to see if good opal is underneath. (*a pair of pincers each*, Waller, 1969, 88; illustration, Waller, 1969, 55.)

pineapple Mainly W. Cliffs, pseudomorph of distinctive shape in which glauconite crystals have become opalised. ("*pineapples*" were extraordinary formations, spiked all over, Murphy, 1948, 115; what miners called "pineapples" . . . showed a definite crystal formation, Eyles, 1964, 62.)

pinfire Type of pattern in black opal in which fine points of colour resemble closely packed pinheads of light. See also *tree pinfire*. (*There are three kinds of black opal—the pinfire, the flash, and the black pattern brilliant.* Lloyd, 1968, 230.)

pipe Form of White Cliffs opal, distinct from a vein or band in a matrix, and believed to consist of opalisation of part of the cuttlefish. It also exists in Queensland as long, narrow, opal-filled cavities, and looks like the replacement of small roots. This Queensland pipe opal begins above the band of hard sandstone, passes through it, and hangs into the opal dirt below; it is usually sandshot above the band and potchy below, but can be good at the band level. (*Pipe opal—1. (White Cliffs, N.S.W.) Opalized belemnites. 2. (Queensland) Long narrow cavities filled with opal.* Power, 1895, 49; *showed us a nice little parcel of pipe opals*, Opal Miner, 1 Aug., 1903, 4; *Queensland "pipes" of opal (so-called) are not belemnites, as at White Cliffs.* Murphy, 1948, 141; "*pipe opal*" and which at one time in ages past were the horny internal structure of cuttlefish. Eyles, 1964, 62.)

pipe-boulder-opal Old variety of pipe opal; it is usually of good quality and may be several inches thick and up to a foot long.

plain shaft Shaft which has not been timbered. (*Had it been a plain shaft I would have soon been out of it. But I couldn't climb the slippery timber,* Waller, 1969, 76.)

plant Name given to a miner's hiding place for his opals. (*he dug out his "plant" and showed us his "firsts"*, Wollaston, 1924, 62; *buried his treacle tin of opal near to a tree . . . Gibson never located this plant of opal again.* Lloyd, 1968, 8.)

pocket Small cluster of opal suddenly met in one place; it can be a thickening of a fine seam, but is usually in the form of a number of nobbies. See also *nest, patch*. (*A dip in the seam, or some obstruction . . . temporarily dammed the stream, which thickened, solidified there, and formed a "pocket".* Lone Hand, March 1910, 494; *A pocket of opal may be an inch away from your pick*, Buchanan, 1931, 8; *stones found in "pockets" were called "nobbies"*, Walkabout, 1 Jan., 1935, 25; *some nice pockets of opal were found*, Lloyd, 1968, 217.)

port wine red *Informal.* Name given to a medium red colour in opal. (*In the reds, miners describe colour as "ox blood", "pidgeon's blood", "port wine red", and so on,* Lloyd, 1968, 24.)

pot *Obs.* Rich opal find, the one to clean out and retire on. (*had never yet 'struck' a 'pot' or rich find of opal.* Chambers JI., Vol. 5, 1898-1908, 494; *when any man makes a "pot" he leaves his ground to the first man who can reclaim it.* R. M. Macdonald, 1928, 32.)

potch Opaliferous material found in association with precious opal but worthless because there is no colour play. It may be a single colour or colourless, and varies from transparent and translucent to opaque. For various potch types see also *agaty, banded, beer bottle, black (b), blue bottle, bony, clear, crockery, dead, drip, magpie, smoky*. (*It's only potch, an' not worth a drink,* Chambers, Vol. 5, 1898-1908, 494; *it has no colour—it is just a milky glass which they call "potch"*, Bean, 1911, 222; *What's potch? . . . Opal crystal without fire. Looks something like pieces of crockery*, Berrington, 1958, 24; *Worthless opal we shall call potch*, Idriess, 1967, 25.)

potch-and-colour, potch-with-colour Opal potch with a slight colour of opal showing through. See also *young*. (*demand for potch with color being active*, Western Life, 22 Dec., 1900, 5; *a pocketful of "potch-and-colour"—that is, "potch" with a slight "colour" of opal*, Empire, 1912, 282; *the very low-grade opal, called "potch-and-colour"*, Murphy, 1948, 123.)

potch-box trade *Obs.* The buying up of tons of very low-grade opal, mainly potch-and-colour, for sale overseas. See also *candle-*

box. (activities along a new line, known as "potch-box" or "candle-box" trade. Murphy, 1948, 123.)

potch colour Pertaining to potch, the basic flat colour (white, amber, blue, etc.) which, unlike the spectrum colour of precious opal, does not radiate light or appear to move in the stone.

potch-lines Type of fault consisting of fine dark lines of potch between units of colour in the opal, which lower value but do not lead to cracking. Potch, which has run like a curtain between colour units from a nearby bar of potch during opal formation, appears as lines when cut at right angles. See also *matrix-lines* with which potch-lines are sometimes confused.

pothole *Obs.* One of several shallow holes sunk, usually in an attempt to establish the existence of opal dirt and the line in which it runs, before pegging out a prospecting claim. (*For a time I sank pot-holes alone then went mates with little Archie Campbell, Idriess, 1940, 90; keep the find quiet until you have sunk more potholes to prove that it is worth while pegging out, Idriess, 1967, 112.*)

potholer *Obs.* One who digs potholes at random before deciding on a place to sink a shaft.

precious Common qualifier for the valuable opal gem which displays the play of colour that contributes towards its value. See under *opal* for the various types. (*Precious opal is obtained in various localities from the clay, from the casing, from the band, and from the main mass of the sandstone. Q.G.S. No. 177, 1902, 10; Precious opal . . . Two main varieties are recognized in Australia—the 'white opal' in which the stone is translucent and milky, and 'black opal', which is dark grey or black and almost opaque. A.B.M.R. Bulletin No. 17, 1950, 9; precious opal: opal as a jewel, differentiated from common opal (potch), Eyles, 1964, 218.*)

prospect *Rare.* Area showing good signs of opal. (*a great many small prospects have been uncovered, Eyles, 1964, 56.*)

puddle To separate opal stone from gravel, etc., in a *puddler*. (*Machines are used to "puddle" (separate and sieve) opal dirt, Pix, 13 July, 1963, 21; opal dirt can be brought to the surface and examined or puddled. Lloyd, 1968, 1.*)

puddler (a) Machine which spins the dirt so as to separate opal-bearing pieces from the debris which falls through slots or holes. Puddlers can be *wet* or *dry*. (*modern miners remove the*

. . . 'pay dirt', in bulk . . . and spin it in a machine that sifts the dirt out and leaves the nobbies behind . . . These machines are called 'puddlers' and their variety is almost endless. Kalo-kerinos, 1967, 19.)

(b) The operator of a puddling machine. (*Puddlers have ruined the whole Lightning Ridge Field. Lloyd, 1968, 99.*)

puddling tank Large dam at which wet puddling takes place. At L. Ridge this term describes the facility established by the Miners' Association in the mid 1960's. There are two dams, each about half an acre in size, at which miners rent sites (at \$2 per week) where they operate power-driven wet puddlers capable of handling several tons of dirt in one operation. Only two-inch water pipes may be used and other rules apply according to prevailing conditions such as water supply and number of users.

pull *Informal.* To open up an abandoned shaft which has been left full of mullock by a previous miner.

pull-dirt *Informal.* Process of hauling opal dirt and mullock to the surface. Probable origin is in the windlass and bucket apparatus used everywhere to haul buckets of earth. (*use your motor car instead of pulling the dirt by hand. Buchanan, 1931, 12; "pulling dirt" in buckets while he excavated down below. Hill, 1937, 235; amount of dirt to be "pulled" is strikingly seen in the acres of surrounding dumps, A.M.M., Sept. 1953, 89.*)

pulling-mate *Informal.* One who winds up the bucket on a windlass for another miner, while working his own claim. (*Pulling Mate: When two miners each work their own mine but assist each other winding the mullock up by windlass. Lloyd, 1968, 168.*)

Q

quartzite Mainly S. Aust., an opal type, sometimes called bone opal or opal matrix (although true opal matrix is brown ironstone infused with opal), this is a quartz type of rock with opal scattered rather than in layers. (*"quartzite" opal . . . is a quartz type of rock with infusions of precious opal right through the stone, A.A.M., Sept. 1959, 76.*)

queen stone *Informal.* Also king stone, the opal which stands out in quality from a group taken from a patch or pocket.

Queensland opal matrix Not strictly a matrix but a form of boulder opal in which thin veins of opal and potch run freely. It is largely ironstone which may be close grained, fairly hard, or

sandy. The stones taken from this matrix are *Yowah nuts*, *nodules*, *band matrix*, and *mud boulder opal matrix*. See also *opal matrix*. (*Queensland opal matrix . . . has no relationship to other forms of matrix . . . The opal occurs in thin veins that run in all directions through an ironstone type of base*. Kalokerinos, 1967, 136.)

R

rainbow Opal pattern with ribbon effect, but with merging pastel colours that curve like a rainbow.

rat To pilfer opal from a miner's hiding place or enter someone's mine and take out opal rock. (*hurry to work, climb down the shaft and—stand aghast. Ratted!* Idriess, 1940, 89.)

ratter One who takes opal from someone else's mine. See also *sandbagger*. (*Ratters are men, a gang as a rule, who work your opal out for you while you sleep*. Idriess, 1932, 239; *but the Ratters came . . . and gutted out the opal*, Idriess, 1940, 88-89; *they found the ratters had cleaned the place out entirely*, Eyles, 1964, 83.)

red coming out of the black Opal with a dominant red spectrum colour in black potch usually with a black background. (*'Red coming out of the black', means an opal that has a red colour pattern, a black potch background, and a backing that is usually black but can be any colour*. Kalokerinos, 1967, 133.)

red coming out of the blue An appearance of this happening with these two spectrum colours as the opal is moved.

red covered by blue An aspect of foreground and background colour in which spectrum blue appears to flow over spectrum red as the opal is moved.

red on black An aspect of foreground and background colour in which spectrum red overlays potch black. (*'Red on the black' means an opal that has a red colour pattern, a background that is clear potch, and a backing that is black potch*. Kalokerinos, 1967, 133.)

red on blue An aspect of foreground and background colour in which spectrum red appears to overlay potch blue.

re-louse *Informal*. To go through the opal dirt on the floor of the drive for a second time in case opal has been dropped. (*the careful ones, re-louse (as it is called) this opal dirt*, Idriess, 1967, 80.)

resin Mainly Qld., whitish yellow common opal type. (*resin opal, white, yellow, and black*, Q.G.S. No. 177, 1902, 17.)

ribbon Pattern type with parallel striping effect, edges sharp or merging, and with colour variations within each ribbon. Best examples are in the verticals of Qld. boulder opal.

rolling-flash Mobile pattern in which a flash of colour rolls across the stone as it is moved. There may be more than one and the direction of movement can vary.

roof Sandstone overlay within a mine under which opal dirt is usually found. See also *top rock*. (*almost all the sheet of potch containing opal lies within two ft. from the roof*, Buchanan, 1931, 8; *pipe opal . . . is mostly found in soft, white clay between one and six inches below the overlying sandstone "roof"*. People, 27 April, 1960, 51.)

rough 1. To grind off stony material from the opal. In L. Ridge "rub down" is more frequently heard. See also *face 2 (a)*. (*I rough them all myself before I send them to the cutters*. Lloyd, 1968, 127.)

rough 2. Pertaining to opal as it is mined before cleaning and polishing treatment. (*The visitor to Australia can purchase rough opal but usually only the cheaper grades*, Eyles, 1964, 147; *At Lightning Ridge nobody would sell a rough stone*. Kalokerinos, 1967, 102.)

rub down To grind and prepare a face of the opal, either quickly in order to obtain an idea of the likely quality of the gem, or in a painstaking way to prepare the stone for sale. See also *face 2 (a)*.

rumbler Another term for *tumbler*.

run 1. Mainly S. Aust., seam of opal or colour formed in a crack created by a slide or fault of sandstone. (*runs of opal would stand a much better chance of being discovered*, Opal Miner, 12 Sept., 1903, 5; *Very soon they too hit the run and produced solid chunks of opal*, Kalokerinos, 1967, 32.)

run 2. Mainly S. Aust., to move in a particular direction, as applied to an opal seam. (*the holes are dug upward as it is seen in which direction the opal is "running"*. Walkabout, 1 Nov., 1942, 29; *The line in which the opal is running*, Idriess, 1967, 54.)

S

sail Apparatus like a scoop, attached to the top of a windsel

or other ventilating rig so that air is caught and directed down the shaft. (illustration, Waller, 1969, 113.)

sand-hole Cavity left in the opal material where opal has formed round sandy material. (*reveal "sand holes" . . . lowers the value of your stone.* Idriess, 1932, 240.)

sand-shot 1. Fault occurring when sand damages the gem. See also *bug-hole*. (*no way of determining how far the faults or sand shots, as they are commonly called, run in the opal.* Lloyd, 1968, 18.)

sand-shot 2. Also *shot*, pertaining to opal affected by sand shot. (*'Sand-shot Opal' is one of the banes of the lapidary, often appearing only on cutting,* Skertchley, 1908, 45; *Some nobbies . . . are spoilt by being sand shot,* Kalokerinos, 1967, 18.)

sand-track Thread of sand through opal, thus severely detracting from its value. (*it had many sand tracks, and eventually he cut it into four stones,* Waller, 1969, 96.)

sandbagger *Obs.* Another name for opal stealers (*ratters*) and presumably any thief who uses violence. (*In few instances were the opal recovered or the highwaymen and sandbaggers arrested,* Russell, 1936, 56.)

sanded Pertaining to a fault in the opal caused by the penetration of grains of sand into the gem. Sometimes this is not discovered, especially with rough black opal, until the stone is cut. See also *bug-hole*, *sand-shot 2.*, *sandspotty*. (*a large patch of opal, but unfortunately it is sanded to a certain extent,* Spectator, 29 July, 1910, 4.)

sandspit *Obs.* Lump of sand in an opal stone which leaves a sandhole when removed. (*If you find a "sandspit" . . . Don't grind and grind, hoping to grind it out.* Idriess, 1932, 245.)

sandspotty Another term for *sanded*. (*That parcel might face "sandspotty",* Idriess, 1940, 117.)

sandstone 1. Sometimes called sandstone cap, sandstone cement, sandstone cover, the main sedimentary material of the cretaceous age which overlies the opal-bearing dirt and clay area. The sandstone varies in thickness (up to sixty or seventy feet) and in hardness, but often consists of a cover of Coocoran claystone (*shincracker*) at the top, then becomes a thick area of Wallan-gulla sandstone, hardening to a silicified *bandstone* before the Finch claystone or opal dirt is reached. See also *bad*, *Coocoran*, *cuckoo*, *good*, *mottled*. (*the general pattern . . . shincracker,*

sandstone cement, opal dirt. Waller, 1969, 60; *we've got to take the sandstone cover off it first,* Waller, 1969, 67.)

sandstone 2. Mainly Qld., pertaining specifically to that opal occurring in pipes up to an inch in diameter and running through sandstone. The term is now used to cover all free opal. (*two classes, known to miners as "boulder" opal and "sandstone" opal respectively,* Q.G.S. No. 177, 1902, 10; *Western Queensland was also the scene of the discovery of the next type of opal . . . known as Sandstone Opal,* Walkabout, 1 March, 1945, 12.)

sandstone boulder Mainly Qld., usually pertaining to a type of mine, that is, one in which spheroidal or ellipsoidal ironstone concretions of varying size occur irregularly in the mass of sandstone. (*Both . . . are "sandstone boulder" mines,* Q.G.S. No. 177, 1902, 24; *mine is of the "sandstone boulder" type, the boulders occurring irregularly in a bed of light-coloured kaolinic sandstone,* Q.G.M.J., 20 Feb., 1948, 50.)

sandy whisker *Informal.* Mainly S. Aust., opal with only minute streaks of colour or with reddish iron stains. Similar to *potch* and colour elsewhere. (*containing little or no colour, being very cloudy or too watery . . . known locally as "sandy whisker".* Gipps, no date, 2.)

schlide Mainly Qld., another name for the glassy, bluish common opal which exists in large pieces and is almost valueless. It probably describes *potch* also and constitutes more than 90 per cent of the opal mined. (*valueless, being common opal, "schlide" of the miners,* Q.G.S. No. 177, 1902, 11.)

screening Method of noodling in which a wire screen, bed frame, perforated drum, or anything providing a mesh, is used to shake out dirt and leave concentrates to be searched for opal.

scum Rare fault, resulting in loss of brilliance, and appearing with age as a film over the opal surface. (*impurities and blemishes such as sandspots, smoky scum,* Idriess, 1967, 39.)

seam Pertaining to veins of opal, lying generally in horizontal levels that usually occur in a form of desert sandstone. It is found at White Cliffs and S. Aust., in flat layers from wafer thin to more workable thicknesses that usually contain a great deal of *potch*. It has usually been broken into irregular cakes by the cooling of the earth after the upheaval which helped to create it, and is mixed with included rocks. (*At White Cliffs opal runs in seams through soft, white, siliceous rock;* Lone Hand, Mar. 1910, 493; *true "Seam" opal . . . in thin flat cakes,* Wollaston, 1924, 9;

White Cliffs is all seam opal, found in flat layers of various thicknesses, Murphy, 1948, 134; the action of the original movement tended to disturb the ground most. This makes seam opal irregular and, very often, dirty. Kalokerinos, 1967, 62.)

second Pertaining to a level running roughly parallel and below an existing level, usually met after sinking from a worked drive. (*a second level has only just been discovered on the field. Idriess, 1940, 194.*)

seconds Mainly S. Aust., along with *firsts* and *thirds* (or *tail*) a rough system of grading one's opals. (*his "seconds" and "thirds" . . . were by no means poor, Wollaston, 1924, 86.*)

semi-black An opal type with stronger concentration of potch colour than *crystal* and in which the opal is only just transparent. The L. Ridge semi-black is any variation between light and black opal, it is nearly always very bright, and can be very valuable.

semi-opal *Obs.* Variety of harder, more opaque, common opal with little commercial value. (*The common or semi-opal is less iridescent. B.P. Magazine, 1 March, 1932, 42; ninety-five per cent. of the opal obtained on the field is of no value, some of it being common or semi-opal, Gipps, no date, 2.*)

shallow country In contrast to "deep country", a landform with a few feet of soil and gravel to a biscuit band up to eight feet thick, followed by possible sandstone up to three or four feet thick over the first dry level of opal dirt.

sheddings Mainly Qld., pieces of potch or dirt containing opal colours where it emerges at the surface on the sides of slopes or ridges. (*Sheddings: Are opal colours, or particles of potch, or opal bearing dirt; where it comes to the surface. Lloyd, 1968, 174.*)

shin cracker Also *shin cracker*, common name for the fine-grained Coocoran claystone which on exposure at the surface becomes a hard, brittle, siliceous rock that usually has to be dug through to get to the opal ground. Its name is appropriate because, when worked with a sinking pick or jack hammer, pieces shatter or fly off to strike the digger's shins, hence the injury called "shin-cracker shin". Sometimes it is erroneously called "skin" cracker. (*bed of cherty and siliceous rock commonly known on the field as "skin cracker". N.S.W.D.M. Report, 1919, 173; "shin-crackers", that is, blows on the shin owing to the rock suddenly breaking off, Wentworth, June 1928, 33; Black opal . . . is found in the sandstone (and opal dirt) underlying the 'Shin Cracker' or 'Grey*

Billy', A.B.M.R. Bulletin No. 17, 1950, 26; ailments common to the Lightning Ridge, such as shin-cracker shin; Waller, 1969, 20.)

shot More frequently "sand shot", pertaining to opal affected by sand.

sinker One who "sinks" a shaft, hence "sinking". (*The drivers get the opal not the sinkers, Lloyd, 1968, 96.*)

sinking pick Heavy pick used to break up hard top-rock while sinking a shaft by hand. (*The driving pick blunts considerably slower than the sinking pick, Idriess, 1967, 95.*)

sinter *Obs.* Mineral incrustation on rocks loosely used as another name for the plentiful but almost valueless *common opal*. (*semi-opal, sinter, etc., is plentiful, Q.R., no date, 24.*)

skin *Informal.* To remove the rough outer coating from an opal. (*He 'skinned' it, only to find that it had many sand tracks, Waller, 1969, 96.*)

skin shell What looks like a solid opal but only has a thin skin of opal (probably where an original shell was), and an inside composed of sand. (*"skin shells", were only opal to the thickness of the original shell, the inside being composed of petrified sand, Berrington, 1958, 36.*)

sleepers *Informal.* Another term for a slip or small slide. (*A small slide, known as a 'sleeper' or 'slip' . . . can increase the amount of the cracking and therefore the opal. Kalokerinos, 1967, 63.*)

slide Dislocation occurring in the sandstone sea bed as a result of earthquake or less severe upheaval. It was these displacements, varying in thickness and which travelled at an angle from the roof, which provided the cavities and cracks in which some opal formed. (*The more faults or slides you've got the more chance you've got. Lloyd, 1968, 98.*)

slip A small slide caused by movement of the earth's crust, thus providing the sandstone fault which may contain opal, but it can spoil good opal in the making. (*A rift in the level caused by an upheaval of the earth's crust, and called a 'slip', is considered a very good indication of the imminence of opal. A.L.M., July 1968, 19.*)

slippery back L. Ridge term for a major slide in the opal dirt area so that there is risk of a cave-in. Usually it is water which causes stone to slip. See also *greasyback* (a).

slum *Informal.* Bed of soft clay material which does not usually contain opal, but under which sandstone occurs, with possible better prospects. (*soft and clayey rock, locally called "slum"*, Cuttings, Vol. 83, xv.)

smoky (a) Pertaining to a hazy appearance without clear-cut colours which can lower the value of opal. (*a "smoky" tinge considerably detracts from value.* Lone Hand, March 1910, 495.)

(b) Pertaining to a translucent type of patch, blackish or sooty in nature, and providing the semi-dark background for the star-flash pattern in precious opal.

snide Name common in Qld. for large pieces of what is called patch in N.S.W. (*"potch" in N.S.W., "snide" in Queensland—usually a dull bluish-grey with, at times, sombre patterns,* Murphy, 1948, 137.)

snip To trim the edges of rough opal to ascertain quality, an activity usually accompanied by *facing* or *rubbing down*. (*be canny in snipping . . . you want to show the stone to the best advantage,* Idriess, 1932, 240; *older gougers will snip any stones you find and "face" them,* Summers, 1965, 107.)

snips Essential for the opal digger, this tool is something like a pair of pincers with sharp jaws and is used to remove a small section of nobby to see what colour is carried. (*As the miner's hand gently closed on the snips the jaws came together and bit a chip from the edge of the nobby,* Idriess, 1940, 88; *The snips . . . with them the digger removes a tiny corner of the nobby,* A.M.M., 15 Sept., 1953, 89.)

solid In contrast with doublets and triplets, a full stone which has not been modified beyond cutting and polishing. Part of a solid may be patch or solid rock.

specking Fossicking for pieces of opal on the surface heaps, especially after rain or wind may have exposed a glint of opal. (*most of the residents of Lightning Ridge are experts at the art of "specking".* Walkabout, 1 March, 1945, 14; *a couple of tourists specking for bits of patch and opal,* Waller, 1969, 116.)

speckled hen *Informal.* Mainly Qld., a term to describe a sandstone or conglomerate band known also as *mottled sandstone* or *cuckoo sandstone*.

spectrum colour Pertaining to precious opal, the colours of the spectrum which radiate from the gem, and quite different from flat patch colour.

spider Small iron instrument (pointed or hooked for fixing to the clay wall) which has a ring to hold a candle that lights the working place. Sometimes the point was used to prise opal from its surrounding earth. (*a "spider", a small iron instrument which serves the double purpose of holding the candle, and "lifting" the seam of opal,* Empire, 1912, 281; *a candle stuck in a "spider" in the walls provided light,* R. M. Macdonald, 1928, 84; *I gouged around and under, then pryed it out with the spider point.* Idriess, 1940, 158; *a candle in a "spider" that queer, spiked holder that is used below ground.* Berrington, 1958, 33.)

spring *Obs.* Usually in the expression *spring one's plant*, to go to one's hiding place and open it up to take out or add opal. (*not etiquette to look in the direction the gouger is going when he "springs his plant",* Wollaston, 1924, 85.)

square the toe Clear unwanted dirt and rock from under the opal-bearing material, thus shaping the drive and providing room to move. (*square the toe, and now the beginning of your own drive takes shape.* Idriess, 1967, 75.)

squibby *Informal.* Mainly S. Aust. When there are several levels, separated by three feet or so of rock, the third up from the bottom is called squibby. (*several levels . . . are known as—bottom, main, squibby and bodgie.* Kalokerinos, 1967, 55.)

starflash Type of pattern with a play of colour on semi-translucent smoky patch which gives an effect like stars in a semi-dark sky.

steel band Another term for *bandstone*. (*the first or upper level is indicated by the presence of a very thin and hard band of siliceous sandstone known as the 'Steel Band'.* A.B.M.R. Bulletin No. 17, 1950, 27; *Precious opal occurs . . . underneath the "steel-band",* Whiting, 1962, 9.)

stone (a) General name for the opal-bearing material. (*a patch of stone was taken about the end of the year which brought £1,200,* N.S.W.D.M. Report, 1895, 68; *The four adjoining claims are also producing good stone.* Whiting, 1962, 15.)

(b) The opal itself. (*You don't suppose Jim'd try to take the stones off of him, do you?* Prichard, 1921, 33; *The black opal . . . in which a thin straight layer of colour runs straight through the stone.* Buchanan, 1931, 15; *Stones that are worth \$2,000 or more on the field are found at a rate that would not exceed one per week.* Kalokerinos, 1967, 18.)

stowing Process of putting waste dirt or mullock into another nearby disused drive, thus obviating the need to haul it to the

surface dump. (*Stowing: Putting dirt worked over below, in another drive*, Lloyd, 1968, 171.)

straw Type of pattern with the appearance of flat pieces of straw overlapping irregularly.

streak *Obs.* Usually in the phrase *on the streak*, which meant to have struck good opal colour in the digging. (*That's a nice bit of colour . . . We're on a streak now*, Prichard, 1921, 90.)

stringer (a) Mainly Qld., thin line of opal colour, usually not worth mining, but followed for a possible thickening into valuable opal. (*beautiful stringers of opal occur in a ferruginous hard siliceous matrix*; Eyles, 1964, 56.)

(b) *Informal.* Developing from the above, the patch and colour which "strings" or encourages one on and on. (*It's only a stringer . . . Patch and colour that strings us on*, Idriess, 1940, 160.)

sugary *Informal.* Pertaining to opal in which cracking or crazing is so bad that it is likely to crumble into grains.

sunflash Pattern exhibiting flashes of colour, usually weak, in a dark patch background. Unlike starflash it is opaque and strong light is needed to see good play of colour.

surface indications Mainly Qld., signs on the surface of a likely opal area, e.g., pieces of rough weathered opal, opalised wood. (*Wherever there is an opal patch or field, there are surface indications*, Murphy, 1948, 143.)

T

tail Mainly S. Aust., another term for *thirds* or poor-grade opal coming after firsts and seconds. (*sorting the stones into different grades . . . firsts, seconds, and "tail"*. Berrington, 1958, 51.)

take a pillar Colloquially called *pillar snatching*, to dig out the column of earth left as a roof support and search it for opal. (*Taking a Pillar: Is removing ground left for supporting the roof*. Lloyd, 1968, 170.)

take up *Informal.* Usually of abandoned shafts, to reopen and mine for opal. (*someone might . . . "take up" that particular shaft*. Waller, 1969, 27.)

teat Smaller pointed end of the solid cone shape of a nobby, informally known as a "Chinaman's hat". In their usual formation the teats hang down, but they often occur loose in the dirt. (*The*

true nobby is . . . round at one end and sloping to a point or "teat", as the miners call it, Murphy, 1942, 140.)

tedding Process of going over and sorting through dirt for signs of opal. (*sitting on the dumps, tedding the opal dirt*. Waller, 1969, 18.)

tertiary level Name for the surface deposit of mixed ironstone, quartz, agate, gravel, etc.

the Ridge *Informal.* Lightning Ridge, a rich opal field in N.S.W. (*The Ridge is of course Lightning Ridge where they get the opal*, Waller, 1969, 12.)

thirds Mainly S. Aust., poorer grade of opal after firsts and seconds, and sometimes called the *tail*. (*the "seconds", fondly wrapped in my swag and Joe's bold chestnut trusted with the "thirds"*, Wollaston, 1924, 87-88.)

toe Bottom section of the opal level which should be dug out first so that the more valuable material under the steel band can be removed or made to fall easily. (*what he calls toe dirt, because it is at his toes as he works*. Leechman, 1961, 77; *there is a long sloping "toe" before you, a toe of opal dirt, the top end of which has been gouged away deeply under the roof*. Idriess, 1967, 74.)

toe pick Large, heavy pick used to remove toe dirt. (*Toe Pick: A larger and heavier pick than the gouging pick. Used to pick up the toe dirt*. Lloyd, 1968, 173.)

top rock Mainly Qld., stratum of hard rock which provides a safe area to work under. See also *roof*. (*Above this level . . . it is also extremely hard, and known as "Top Rock" among opal-miners*. Q.G.S. No. 177, 1902, 9.)

tourist stones Inferior stones not wanted by discriminating buyers and usually sold to tourists. See also *mug*. (*many "tourist" stones . . . not good enough to be considered by the overseas buyers*, Waller, 1969, 28.)

trace Usually plural, the patch or thin opal colour met in a shaft and which indicates that tunnelling to establish a level might begin. (*if you get better traces, say patch with colour in it, then drive after the colour*. Buchanan, 1931, 8; *they are splendid traces and may lead to a big patch . . . But at the end of the day his beautiful traces had thinned to nothing*, Berrington, 1958, 29; *Patch, matrix, bony patch and thin pieces of opal are known as 'traces'*. Kalokerinos, 1967, 62.)

treat Usually in the expression *treated Andamooka matrix*, which is a pale porous matrix with little dispersed opal, but able to be converted to an appearance of solid black opal by a process of dehydration and treatment with sugar and acid which deposits carbon in the pores. The three-dimensional result can look extremely beautiful. It is not the same as Queensland band matrix, which polishes beautifully without such treatment.

tree pinfire Also called fern pattern, a pinfire pattern with tree-like branches.

tribute Mainly S. Aust., one's share when working on a partnership basis, that is, as a *tributer*. The situation is usually of working another man's mine and paying him a percentage of the opal, the tribute. The owner does not usually work at his mine under this arrangement, which often results in considerable dissention, especially when the yield is poor. (*Paul, being on 50/50 tribute, pocketed £2,000.* Wollaston, 1924, 131.)

tributer, tributor Mainly S. Aust., one who mines on a share basis or tribute, as when backed by outside persons for a part of the profits, generally 50 per cent. (*some of the tributors are on good stone, Western Life, 21 July, 1900, 5; the sales all being booked 50% to the tributer and 50% to the Syndicate.* Murphy, 1948, 107.)

triplet Name given to opal as part of three layers with potch and crystal. These are manufactured by cementing opal on a black backing (making a doublet) then cementing domed quartz or plastic on the face to act as a protection and a magnifier.

trucker *Obs.* One involved in buying and selling opal. (*with all the German buyers, and field buyers . . . and truckers locally evolved, formed a host of lively rivals, and prices soared,* Wollaston, 1924, 93.)

true (a) Mainly S. Aust., pertaining to bands of opal which are continuous in a seam and do not terminate abruptly or merge into the common opal, hence said to be "running true". True opal is very valuable and occurs most in horizontally placed seams. (*Some of them (bands of precious opal) are continuous in a seam and the stone is then said to be "true", S.A.D.M. Mining Review, No. 25, 1916, 40.*)

(b) Opal which flashes spectrum colours over all or most of the stone from all or most of the angles of view.

tumbler Screen-type device, usually mechanically operated, to sift

dirt and gravel from possible gem stones. This must not be confused with rotating tumbler used to polish small non-precious stones.

turkey's nest Mess at the bottom of a shaft as a result of collapsing dirt, timber, etc. (*Turkey's Nest: The bottom of a shaft where some of the top timber and dirt has fallen in, Lloyd, 1968, 173.*)

twinkle Pattern of small separated star-like colours, rather like a scattered pinfire.

U

underlying See *ky-outing*.

untrue Of opal colour, not *true*, i.e., not continuous in the seam. (*if it runs in streaks or patches alternating with colourless or inferior quality, that is "untrue", it is of comparatively small value.* Gipps, no date, 8.)

V

vertical Cracks or faults in the sandstone filled with opaline material and running downward from the roof, generally varying to about 45 degrees from the horizontal. These cracks are clean so the opal formed is usually free from included rocks. At L. Ridge such opal is usually found *behind*, that is, on the lower side of the vertical. (*The mineral is found also in vertical or sub-vertical joints and cracks . . . these features, known locally as "verticals", N.S.W.D.M.G.S. Mineral Resources, No. 36, 1934, 116; vertical seams represent cracks or faults in the sandstone . . . known to miners as "verticals" or "blows". Mineral, June 1958, 21; a vertical seam cuts in: that is, a seam running downward from the roof . . . which in general we used to call a "vertical", Idriess, 1967, 48.*)

volcanic Pertaining to opal which is made from silica of volcanic origin and believed to contain a high percentage of moisture. Sometimes also called *mountain opal*.

W

Wallangulla sandstone Geological name for the general sandstone above the opal dirt. It can be from ten to over seventy feet thick and its lower foot is often silicified to form the very hard "steel band" just above the opal dirt.

walnut stone Mainly Qld., hard rounded porcelain-like rock which has developed within the clay shale and holds potch along its joints. (*Potch . . . in small pieces of porcellanite . . . locally termed "angel stones" and "walnut stones" by the miners.* Whiting, 1962, 9.)

water Opal type which has a fault consisting of bars of clear potch like a glassy ribbon on the opal surface. It is not very valuable but if cut and domed horizontal to any opal underneath it can enhance the opal pattern. ("*water opal" which is almost transparent and has a play of colours simulating drops of iridescent water.* A.B.M.R. Report No. 43, 1959, 12; *Bars of clear potch in opal are referred to as 'water bars'.* Kalokerinos, 1967, 132.)

wax Applied to opal but really a white potch with a waxy appearance or feel; a form of common opal.

web, webbing Fault sometimes appearing with age and consisting of fine lines which run in different directions over and through an opal. It may first be only on the surface and thus able to be polished off, but it will recur.

welded Mainly S. Aust., pertaining to matrix with a little colour like opal in it when combined with potch or opal, rather than occurring freely. (*Matrix . . . It may occur alone or 'welded' to potch or opal.* Kalokerinos, 1967, 62.)

wet puddling Process of churning opal dirt with water so that the slurry or mud can be run away leaving solids for examination. See also *puddling tank*. (*Wet Puddling: Is the mixing of opal bearing dirt with water in the same type of container as used for dry puddling.* Lloyd, 1968, 102.)

white horse Rare. Hard cementy patch in the opal dirt at the bottom of a vertical and regarded by some as a favourable indication of good opal. The seam tends to run either side of it, thus straddling it like a horse. (*White Horse: it is a hard cemented patch at bottom of a vertical.* Lloyd, 1968, 69.)

wind dirt To act as the man at the top who hauls up opal dirt from below, often helping a neighbouring miner as well in this capacity. (*Watty was winding dirt, standing by the windlass on the top of the dump over his and his mates' mine,* Prichard, 1921, 45.)

windsel, winsel, wind-sock Ventilating apparatus, consisting of a pipe, sometimes made of calico, running down the shaft. The top section is funnel shaped and set on a loose frame to catch any

breeze, or it may have a revolving neck and wind vane. (*attend to our equipment; an air compressor . . . buckets, wind socks, signal bells,* Kalokerinos, 1967, 54; *Windsel: To get air down a shaft, causing ventilation. Used for any depth over ten feet.* Lloyd, 1968, 168.)

wine red Informal. Opal with rich red colour. See quotation under *ox blood* for comparison of different reds.

won't face, won't look at you Pertaining to an opal which on being cut and faced only shows colour properly when looked at from one angle. (*Won't Face: Is opal with apparently good quality colour, but when cut it "Won't look at you"—i.e. the colour only shows to advantage from one angle.* Lloyd, 1968, 170.)

wood Mainly Qld., pertaining to a form of opal resulting from the fossilising of wood, the structure of which is preserved in the opal. (*Such fossil trees of 'Wood Opal', as it is often termed, may be found in the tin gravels under the basalt,* Skerchley, 1908, 16; *Probably the most common form of opal in Australia is wood opal,* A.B.M.R. Bulletin No. 17, 1950, 9.)

Y

young Obs. Pertaining to potch and colour which is of little value. (*Potch and colour is opal, but not "precious". It is "young opal",* Idriess, 1932, 233.)

yowah nuts Distinctive type of opal found embedded in Queensland opal matrix, usually in dipping levels. They can be several inches in diameter and need not contain opal, but the centre part could be valuable solid opal with concentric rings or spokes of opaliferous material radiating from it. The name comes from the Yowah homestead in S.W. Queensland where these gems were found. (*The "Yowah nuts", in the Eulo district, are famous. These "nuts" are ironstone packed like pebbles and the kernels have produced gems fit for a queen's purse.* Idriess, 1932, 249; *Yowah nuts: distinct variety of gem opal embedded in limonite nodules,* Eyles, 1964, 219.)

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