

(Top) Section of Coober Pedy opal field. (Bottom) An opal gouger at work on the Lightning Ridge field.

Australia's Opal Fields

Visits to the white cave-dwellers
of Coober Pedy and the black
opal fields of Lightning Ridge

By CHARLES HENRY

NOT very far from where the salt waters of Lake Cadibarrawirracanna glisten in the sun live the cave people. To be more explicit, this community of white people living underground is at Coober Pedy on the Stuart Range in South Australia, 145 miles north of the Trans-Australian railway station of Tarcoola. They are opal gougers. They burrow into the earth, like rabbits, seeking gems and living—and even dying—in the holes they excavate. The Commonwealth Bank and the two stores are in dugouts. In fact, there is no building standing on the surface of the earth at all.

I reached Coober Pedy from the North after undertaking a 2000-mile trip in the "Never Never" country of the interior, studying the aborigines. With two friends, I motored down the overland route from Alice Springs, more or less the geographical centre of the Australian continent. For four hundred miles we journeyed through a drab, sunburnt world, relieved by the beautiful eucalypts that lined the dry watercourses, until we reached William Creek and then swung out west a hundred miles past Cadibarrawirracanna to the opal field. "Coober Pedy" is the aborigines' name for "white man in a hole." Through the centuries, the black people of the solitudes have hunted in this area. In some far-off period, these arid plains and ridges were beneath the waters of a shallow inland sea, of which all that remains is the lake with the big name along with a vast sheet of salt-encrusted mud and water, further east, known as Lake Eyre. In their endless "walkabout," the black nomads penetrated into this area from the wild Musgrave Ranges in the north, and smoke signals over a hundred thousand square miles called the tribes southward to the great corroboree ground at Ooldea on the Nullarbor Plain. The coming of the white man and the building of the railway across the desert, from the Western

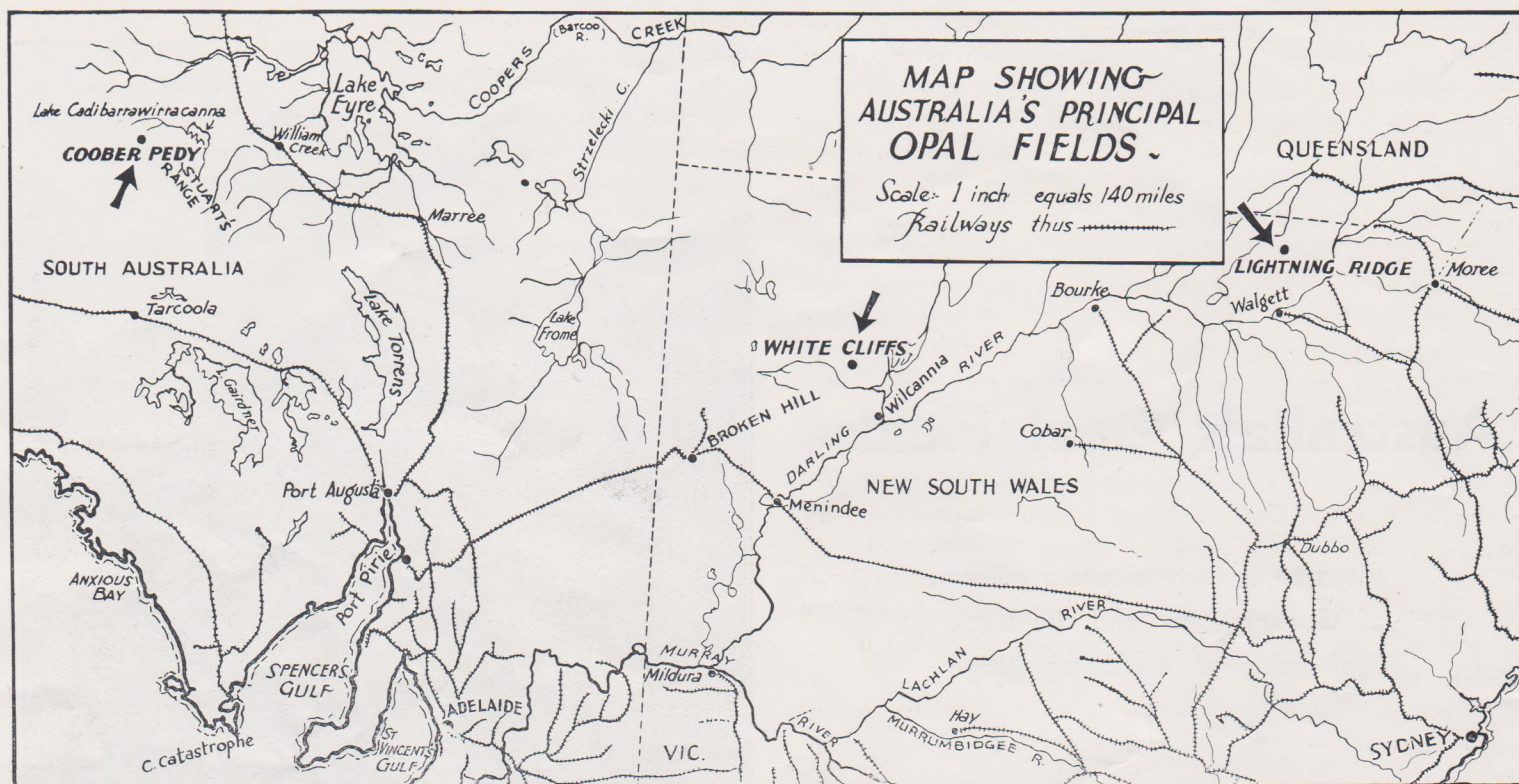


(Photo, H. J. Lamble.)

Typical opal gouger.

Australian gold town of Kalgoorlie to Port Augusta at the head of Spencer's Gulf in South Australia, ended the corroborees at Ooldea. But to-day, westward and north-west of Coober Pedy, there is still neither hoof nor homestead.

So much for the unusual background of Coober Pedy, lonely outpost of the opal-gougers. But they are comfortable, these white cave-dwellers, of whom perhaps there are a bare hundred. It is no trouble at all to build your own home at Coober Pedy. There your domicile costs nothing, as the excavations do not



require to be timbered, and there are no rates or taxes. The soft sandstone is easy to dig out, and, veined with gypsum, the bare walls are not unattractive. The dug-outs are warm in winter, and, when the mercury soars to 110 or 120 and the flies are a curse along this heat-blistered range, it's cool and peaceful "down below." Even if iron and wood were carted and surface structures built, they would be ovens; that is, if the occasional strong gales didn't blow them off the ridge. They have fireplaces and chimney and ventilation shafts, and the average depth below the surface is not more than ten or fifteen feet. The shelves in the dugouts, and even the bunks, are excavated in the walls themselves; if you aspire to wooden fittings and a table, petrol cases must suffice. Water was once a problem, but now a dam has been provided by the Government.

The underground village is surrounded by strange, flat-topped hills, and beyond are lumpy-looking sandstone plains. There are no trees and even most of the bushes have been used for fires. Drab and sunbaked, Coober Pedy is a place where rain seldom falls, but where, during the winter months, the air is bright and crisp and sparkling, like the brilliant opal that is mined there.

Opal, which is mined principally at Coober Pedy in South Australia and at White Cliffs and Lightning Ridge in New South Wales, occurs in a number of different forms, and its colours are legion. There is common opal, with a weak play of colours, and precious opal that exhibits a brilliant glow of changing hues. But the variety of precious opal that is most highly prized is the amazing black opal. And, when you gaze enthralled at the magic colours that blaze and dance in its mysterious heart, when you thrill to the flash of fire, of crimson deep as blood and blues and greens more vivid than the peacock's tail, think of a drab and lonely sandstone ridge far out on the northern plains of New South Wales. It is the only place in the world where the black opal is mined, and it is known as Lightning Ridge. Not far away, the Darling River bends at

Collarenebri to flow out west to Bourke and down Menindee way, then on through a land of sheep and cattle, where the tall, dry grass stretches as a golden carpet westward to the far horizon.

Six months after my return from Coober Pedy, I was motoring from Walgett (460 miles north-west of Sydney) over the stock route that runs through Angledool up the map into Queensland. Walgett, a typical outback town, was soon obliterated by the dust of our car. Kangaroos, startled at their feeding, sat up on their tails and then bounded away through the coolabah trees with tremendous leaps, but the curious emus stopped to stare. The track in the centre of the stock route was good motoring; but, in the wet weather, progress is impossible, for the black soil plain will hold your car in a death grip. Sometimes, in the arid months, cracks miles long split the earth's surface.

When we were about 45 miles north of Walgett, a low ridge broke the flatness of the plain a mile or so away. Soon we were motoring between white dumps not more than 12 feet or so high, in vivid contrast with the deep green of the stunted eucalypts that sought to clothe the ridge. A few old shacks of bark and rusted iron, where garments drying on the bushes bespoke habitation, heralded our approach to the tiny village of Lightning Ridge, the home of the black opal. The name originated through a flock of 50 sheep being struck dead by lightning. The village comprised a few dozen shanties, a general store, and a circumspect post office, which seemed to frown disapprovingly at the yawning doorways of the jaded-looking hotel across the dusty, unmade street. But, despite its "outside old and mean," Lightning Ridge proved to be a friendly place, and its men, and women too, were fine types. There must be two or three hundred of them, scattered over many square miles of country.

There is only one way to go down an opal mine in the Lightning Ridge area, and that is to dangle at the end of a wire rope

and be lowered by a windlass. Usually a cowhide bucket filled with "opal dirt" comes up to the surface as you go down—it makes the lowering and hauling easier. I disappeared down a 40-foot shaft. It was about two feet six inches by five feet. At the bottom, a man with a candle grinned a welcome and offered to show me around. We walked six paces in a drive in which you could stand erect, and then crawled in a tunnel about three feet high. I was shown the "band," which constituted the roof. Apparently, in opal mining, you dig down first through the hard weathered crust of the ridge, which is known as "grey Billy" or "shin cracker," until you pierce what is known as the "band," a hard, thin strata under which is the "opal dirt" in layers.

"Got about £40 worth up there," volunteered the miner, pointing to a section of the roof to which the opal formation had been adhering limpet-like. "But here," he said, halting his crawl alongside a hole a man could curl up in, "I got £180 worth."

The miner explained that these stones found in "pockets" were called "nobbies," and you might find ten or a hundred in the opal dirt, or the pocket might contain only "potch," or worthless stone.

We crawled on. The sandstone, where exposed to the air, can be dislodged by hand. I looked apprehensively at the roof, but was assured that they seldom collapse.

The miner scratched here and there with a small 3-lb. pick to show me a specimen. Then I heard the pick grate on something hard. That grating sound, as the small hand pick strikes an obstruction, is the signal for the miner immediately to drop his pick and use his gouge, a pointed piece of iron about six inches long, and having a loop in the centre which holds a candle, enabling the gouger to see any glint of opal as he digs into the dirt.

Then, as the soft sandy clay was scraped away, I saw the glitter of opal—many lights and colours flashing from a cleft in a drab stone the size of a marble. It was not valuable, but was a lead to a good "pocket" where fourteen "nobbies," worth nearly £100, were unearthed subsequently.

According to the encyclopædia, opal is a "mineral consisting almost entirely of hydrated silica," which the dictionary records is a combination of minerals, including lime, magnesia, potash, and soda. This sounds rather scientifically dull, and when we read that "by its absorption of organic matter and its structural peculiarities, the opal not only shows colour, but brilliant flashes of light," the layman is not really very much the wiser.

Perhaps the most romantic thought that science contributes concerning this fascinating gem is that it is cradled in tremendous antiquity, its origin going back 20 or 30 million years to the time when a shallow inland sea stretched down from the Gulf into New South Wales. In this opal dirt in which we crawled are found fossil remains of giant kangaroos and diprotodons that once roamed the Australian continent. Shell fossils are common in the Lightning Ridge field, where there is now not a cupful of surface water. Here, too, a crocodile's partly opalized jaw and teeth were also gouged out, the museum designation of the specimen being "The Crocodile of Lightning Ridge."

Later we walked around the tiny village, and saw the church—a well-supported church. It was partially blown over by a gale, and is now propped up on one side with poles; but,

according to the publican, it is still a perfectly good church inside.

There are apparently opals and opals, the best "find" at Lightning Ridge so far being the Pandora opal, as large as the end of a brick, and valued at several thousand pounds. But you can buy opal of sorts for a few shillings. Opals, too, are not always what they seem, for in an opal-cutter's shed, we saw common opal being given a richer play of colours by having a



(Photo, R. H. Croll.)

Even the Commonwealth Bank at Coober Pedy is located in a dug-out.



The well-supported church of Lightning Ridge.



Two of the largest pieces of opal in existence, weighing 9,512 carats and 6,805 carats, respectively, owned by Mr. Percy Marks, of Sydney.

thin layer of black potch stuck on the back of it. You couldn't detect the "join," so perfectly was the job executed. These ordinary opals, masquerading as black opals, are known as "doublets" and suit the demands of the limited purse. The real black opal is distinguished by the black body ground in which the colours gleam, the background of the ordinary opal being milky. All opals to be treated for cutting and shaping are gummed on the end of a stick, to save the fingers of the cutter when he uses the grinding and cutting wheels.

We went into one shanty, and, on a table in a front room with a boarded-up window, a miner-buyer showed us his opals. He had them in paper packages done up like Sedlitz powders, about a dozen packets in all. At first we saw ordinary stones, handfuls of them, then the packets were opened in turn to reveal one wonder after another in ravishing, flashing colours—black opals. They were not expensive, for the most select gem was valued at only £50. Australian opal is marketed mostly in London, but sales are also effected in New York, on the Continent, and in the East, where native potentates purchase many choice stones. Later on, in Sydney, I was to see an even more beautiful collection of gems owned by Mr. Percy Marks, a world authority on black opals, which he has exhibited in America, England, and on the Continent. Marks himself once worked as a miner and lapidary at Lightning Ridge, in order to gain experience, and he tells a fascinating story of the early days. He is in possession of a famous black opal known as the "Pride of Australia," weighing 225 carats and valued at £2,000, and the two largest pieces of opal in existence, weighing no less than 9,512 carats and 6,805 carats respectively. These huge stones are not, however, black opal.

Australia's opal fields are officially recorded as having produced about £2,000,000 worth of gems to date; but, doubtless, a large number of stones found are marketed privately. The black opal is, without question, one of the most unusual and beautiful gems in the world, and yet it is sold at such a ridiculously low price in comparison with other gems.

Not all the miners at Lightning Ridge are fortunate. Some are receiving the unemployment dole; but they gouge on—hoping. At the Ridge there is only one underground residence, and that is quite an apartment. At White Cliffs, the other big opal field in New South Wales, the miners do not live in dug-outs either, that feature being peculiar to Coober Pedy. The White Cliffs field was discovered by a kangaroo hunter in 1889. For some years now, the output has rapidly dwindled.

The man who discovered the Lightning Ridge field in 1903 received a set-back from the Sydney buyers—they wouldn't buy the gems because they were too dark! Disappointed, but convinced that he had made a worth-while discovery, the miner went out west to White Cliffs, seeking a buyer who was wise in the ways of opal. There the unusual stones were eagerly purchased, and the buyer himself set out on a long trek up the Darling to the scene of the new find.

Apparently the common opal was both known and prized in very early days, for did not Antony covet an opal belonging to a friend, presumably to present to the fair Cleopatra. His friend, however, declined to part with it, and was banished. Perhaps that is the origin of the superstition which associates ill-luck with the gem!

It was late when we left the Ridge and, as we headed southward, an orange moon blazed full in an opaque sky, tinging the tiny village and the white dumps with the warmth of gold! Brilliant and beautiful, night itself suggested a little the glories of fire and colour of the gems still hidden in the breast of the lonely ridge!



Section of Lightning Ridge field.

(Photo, H. J. Lamble.)



Typical gouger's shack at Lightning Ridge.

(Photo, H. J. Lamble.)