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TOTLEY REVISITED: THE DEATH OF AN HISTORIC SITE.

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Totley, also known as One Mile, is located 2km north of Ravenswood in North Queensland. From 1880 to 1892 the site was occupied by two silver mines, a township, three treatment works, a tramway, and other ancillary elements, and the silver mines were revived on two occasions between 1947 and 1964. The site contained a remarkable concentration of physical evidence of mining settlement spanning nine decades.

The Totley settlement was described in a monograph by Peter Bell, Carol Edmondson and Kett Kennedy, Totley - a study of the silver mines at One Mile, Ravenswood District (James Cook University, 1981), which was reviewed by Ian Jack in the first issue of *The Australian Journal of Historical Archaeology* in January 1983. The site is on the Register of the National Estate, and was the subject of a paper at the 1981 ANZAAS Congress.

Soon after August 1980, when the site survey was done, Totley was chosen by the Northern Queensland Company Limited as the location for an agglomeration heap leaching plant to re-treat mullock and tailings from a number of mines in the Ravenswood district. Operations commenced in August 1982 and were completed by 1986. While this was another revival of the sites's principal historic use, this time it had radically different implications for the historic environment.

Agglomeration heap leaching is a modern revival of an old process for cheap extraction of mineral products from low grade tailings. It was first applied on copper mine sites, but is now usually associated with the re-treatment of gold and silver mine waste. Large areas of ground are graded to the necessary contours and covered with an impermeable plastic membrane. Cheaply obtainable mullock and tailing are heaped on this surface and sprayed with a solution of sodium cyanide and other reagents, if gold or silver are to be extracted. Gold/silver/cyanide compounds in solution percolate through the heap and drain by channels to a treatment plant where economic metals are extracted by zinc precipitation or carbon absorption. In comparison with most methods of precious metal extraction in the past, the process is extraordinarily cost-effective.

At Totley, the abandoned leaching plant occupies almost the entire area of the 1880s township and the King's mine workings. On 29 August 1987, Peter Bell and Janice Wegner briefly visited the site to identify the surviving historic elements.

Great Extended Mine

This site is outside the treatment area, and survives intact. Evidence on this site consists of a relocated MAN diesel-electric plant of 1912 and a steel headframe of c.1922, together with a c.1948 winder and several buildings. Since the 1980 survey, a major beam on the timber headframe brace of c.1948 has fractured, and the dependent timber elements of the headframe will soon fail and collapse entirely.

King's Mine and Old Mill

This 1880s site has been devastated by recent surface works, and is mostly buried under the modern plant. The jig dump and slimes ponds have been taken for re-treatment. Only the mullock heap remains.

Endless Chain Tramway

About 150m of the western end of the tramway survive, including the stone formation where the tramway crossed Birkby Street, 25m west of the perimeter of the heap leaching plant.

Kings New Mill and Great Extended Mill

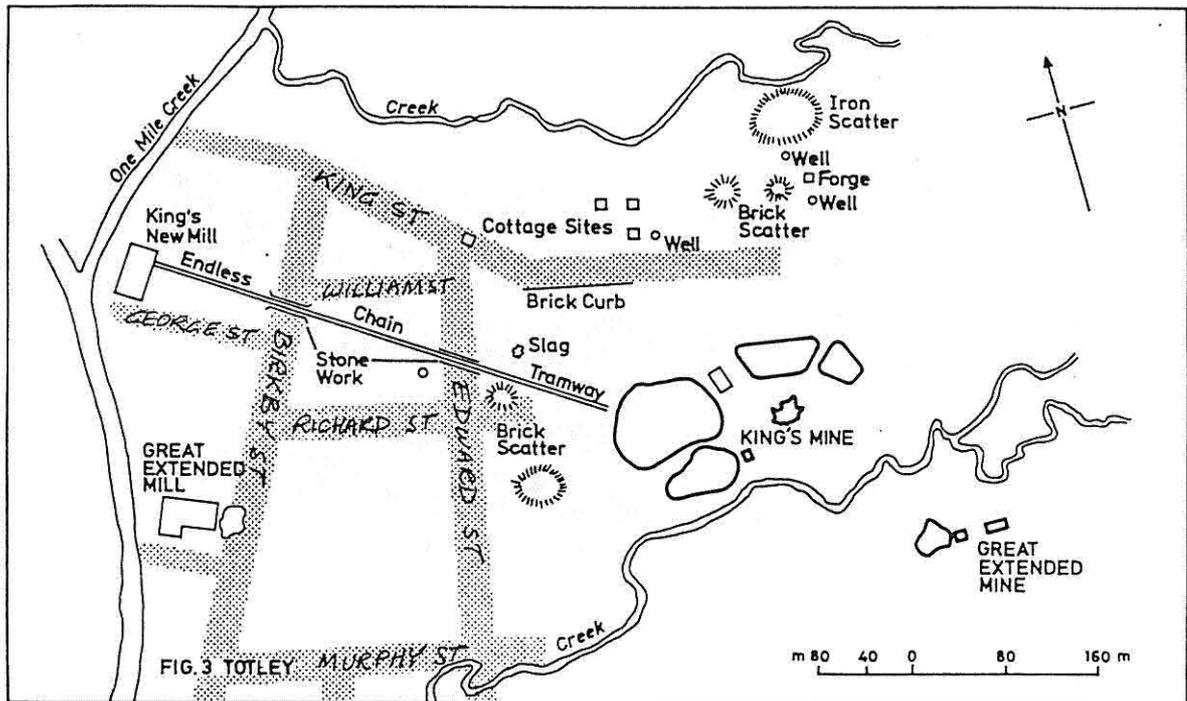
The two treatment plants on the bank of One Mile Creek, dating from 1888, are outside the modern leaching area, and have not been affected. They are visibly degraded by natural erosion since 1980.

Totley Townsite

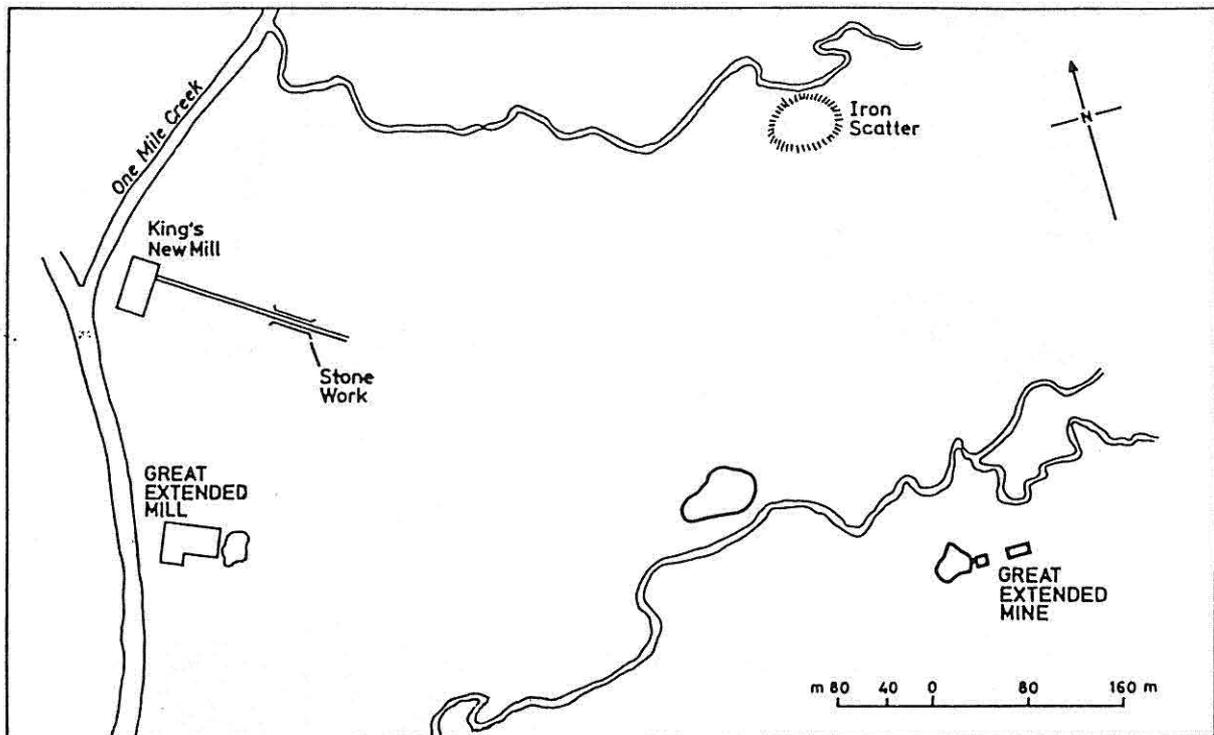
The township founded in 1879, surveyed in 1886 and occupied until the early twentieth century, is almost completely buried under the modern treatment plant. Only a sheet iron scatter at the extreme north-east of the settlement, a nearby forge made from a ship's tank, now removed from its original site, and the Birkby Street tramway crossing at the extreme west of the site, survive outside the heap leaching area.

The revival of gold mining in the 1980s, and the technological advances of the modern industry, will repeat the Totley experience on many mining sites throughout Australia. Gold production today relies on cheap and simple methods of mining and treatment, efficient beyond the wildest dreams of the nineteenth century miner, but which extract an enormous price from historic sites because of the sheer area of ground which they occupy. Opencut extraction and agglomeration heap leaching are land-intensive operations now destructive beyond the powers and the budgets of all Australian conservation agencies.

The implications for future archaeological research at Totley are uncertain. Some elements of the townsite may be preserved under the leaching deposits. However, the nature of the earthworks necessary for such an enterprise make this a remote possibility, and about two-thirds of the historic site must be regarded as irretrievably lost.

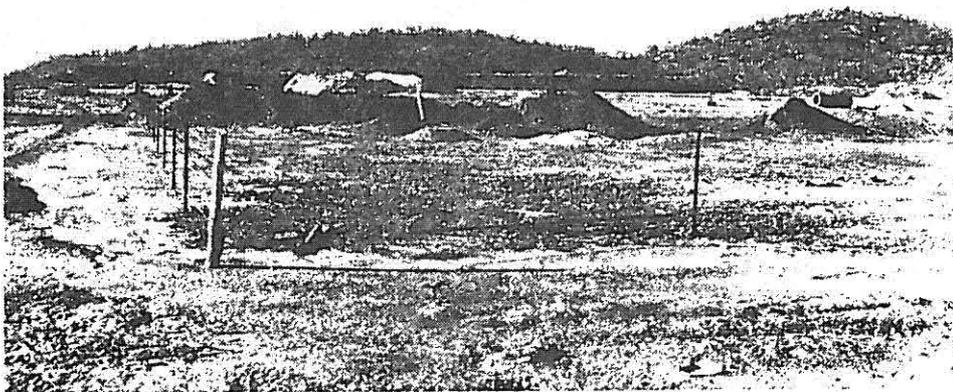


Historic elements identified at Totley in August, 1980. The shaded area is the street plan from the 1886 survey.



Historic elements remaining at Totley in August, 1987.

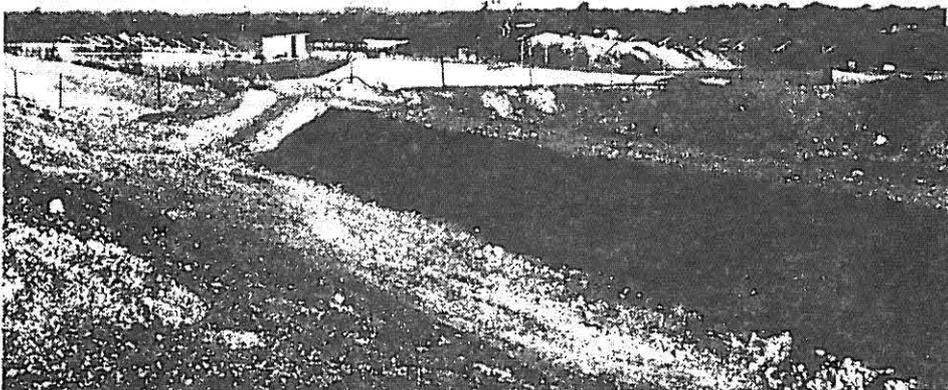
The story of Totley is being repeated across the country. Members of this Society have a special interest and obligation to record these sites before they are obliterated. Too often we are not informed of intended 'redevelopment' (= total destruction) before it is too late. So record the site near you now, lest it be lost forever. Research Bulletins on historic sites of all descriptions are eagerly awaited. - Ed.



Totley town site , looking north along Edward Street, 29 August 1987



Totley town site , looking east toward the King Street cottage sites,
29 August 1987.



Totley town site , looking southeast from near the junction of King
and Edward Streets toward the silver mines, 29 August 1987.