

RUINS - WALLAROO SMELTERWALLAROO

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HERITAGE SIGNIFICANCE

Historically, the smelter ruins are significant as the site of one of one of South Australia's most important industrial installations, for a time among the largest smelters in the world.

Physically, the smelter ruins are significant as extensive although fragmentary remnants of plant employed in a great variety of ore treatment processes.

Environmentally, the ruins are dominated by the smelter stack, which is already on the Register. The other elements, although less conspicuous, are significant because of their sheer scale.

The Integrity of the item has been lost.

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NOMINATION SOURCE/THREAT/OWNER

This report has been prepared in response to a nomination by local residents who are concerned at developments proposed for the site. The property is owned by Adelaide and Wallaroo Fertilizers Ltd. who intend to undertake building works which include partial demolition of the smelter ruins.

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HERITAGE CONSERVATION BRANCH RECOMMENDATION:

..... *Peter Ball* .....  
for Manager

It is recommended that this item be included/~~not be included~~ on the Register of State Heritage Items, and that it be categorized H1, H2, H3.

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SOUTH AUSTRALIAN HERITAGE COMMITTEE RECOMMENDATION:

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Chairman

South Australian Heritage Act 1978-82	Register of State Heritage Items ITEM EVALUATION SHEET Buildings and Structures	Ref. No. 6430-10137
	Item RUINS - WALLAROO SMELTER WALLAROO	Prepared By: Jack Connell Justin McCarth

### Supplementary Information Adaptation

The existing landscape with remnants of the smelting furnaces, flues, chimneys, walls, rail platforms, elevator casings and engine foundations should be maintained. Any new structures or facilities should not intrude upon the ruins or visually disrupt the views to or from the water. New vegetation should be minimal. Traffic through the area should be minimal and restricted to one clearly defined road.

### History and Sources

Copper was discovered in 1859 on Yorke Peninsula when James Boor, a Shepherd found green and blue Carbonates in the diggings of a native rat near Kadina. The area was to become known as Wallaroo Mines under the directorship of W. W. Hughes a local landholder. The ore was just shipped from the mine to Port Adelaide in 1860. In 1861 another Shepherd, Patrick Ryan discovered copper minerals in a wombat hole near Moonta. W. W. Hughes also gained control of this area and mining commenced in 1862. Both areas proved to be very rich, indeed Moonta Mines paid a dividend within a year of commencing operation.

To avoid high costs of transporting ore to Adelaide for processing and refining Hughes and his fellow directors decided to build a complete smelter and refinery at Port Wallaroo. With equipment and personal from Wales a refinery was built in 1861 and in a few years became the "largest refinery in the world outside Swansea".

In 1863, J. B. Austin reported that the Wallaroo smelter comprised "22 furnaces under a galvanised roof and 95 feet by 55 feet beside a refinery containing 3 furnaces in a building 80 feet by 50 feet". Labour was recruited from the earlier smelters operating at Burra, Kapunda, Bremer and Dawsley. The Wallaroo smelter was built by Tiver and Co. The first manager was Lyssom James, formerly of Burra and Kapunda smelters.

Total output of the mines and smelters were not revealed as the Wallaroo Mining Company was for some time a private Company and did not publish any records. The following are approximate output figures from 1860 to 1913.

Total Crude ore material	10,200,000 tonnes
Average Copper Content approx.	3%
Fine Copper produced	283,682 tonnes
Total expenditure to 31 Dec, 1913	13,528,000 pounds
Total amount of Dividends	2,223,000 pounds

South Australian Heritage Act 1978-82	Register of State Heritage Items ITEM EVALUATION SHEET Historic Site	Ref. No. 6430-10137
	Item RUINS - WALLAROO SMELTER WALLAROO	Status -
Age 1861	Subject Secondary Industry - Processing	Site Type

History	Context The Wallaroo smelter and refinery was established in 1861 to treat copper ores from the Moonta and Wallaroo mines. It remained in production until 1926 as a major plant on an international scale.	E	VG	AG	FP	NA
	Person/Group Associated with W. W. Hughes and other directors of the Moonta and Wallaroo mining companies. Managed by Captains H. R. Hancock and his son H. Lipson Hancock.	X				
	Event 1859 discovery of Wallaroo mines 1861 construction of smelter 1923 mines closed 1926 smelter closed		X			
	Natural Elements The site is an open area, much disturbed and with little natural vegetation surviving, by the foreshore of Spencer Gulf.			X		
	Man-Made Elements The site contains two reasonably intact buildings, the main office and pump house, and the extensive stone and brick foundations of furnaces, flues, power station, refinery and other buildings. Two elevator towers and sections of underground flue are intact. The slag dumps, artificially altering the shoreline, are important.		X			
Physical	Representation As the ruins of the state's largest copper smelter, the site provides the largest and best-preserved example of a rare type.	X				
	Continuity The site has little continuity with its environs.					X
Environment	Local Character The site contributes to the historic character of the Copper Triangle.		X			
	Landmark The stack is a conspicuous landmark. Other elements of the smelter ruins are most easily appreciated from close at hand.		X			
	Alterations The smelters have been demolished, and all useful plant removed.				X	
Integrity	Condition Ruins				X	
	Compatibility Part of the site is still used as a fertilizer factory, a use which dates from the smelting era.	X				

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### History and Sources

The smelter worked from 1861 and although the mines closed in 1923 the smelter continued until October 1926 to process ores at grass. The assets were then sold off and realised sufficient to pay all debt and a final dividend of one shilling per share in 1928.

Persons and firms initially concerned were Mr. (later Sir) Walter Watson Hughes, Mr. Duncan, Elders, Stirling and Co. (later Elder Smiths). The Moonta and Wallaroo mining Companies operated separately until 1889 when they amalgamated as the Wallaroo and Moonta Mining and Smelting Company, Limited under Captain H. R. Hancock. In 1898 H. Lipson Hancock succeeded his father and managed the smelter and mines until 1923.

### Sources

- J. B. Austin      The Mines of South Australia 1863.  
 Gillingham      The Wallaroo and Moonta Mines 1914.  
 J. E. Connell    Wallaroo Smelting and refining Processes 1982.  
 R. P. Whitworth Baillieus South Australian Gazeteer 1865.

**Wallaroo Smelter Ruin and Hughes Chimney Stack****CC:241**

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**DESCRIPTION**

The Wallaroo smelter ruin is a large area on the shore of Wallaroo Bay covered with brick, stone and concrete remains of buildings, furnaces, flues, retaining walls and other structures. Large sections of the underground flue complex appear to be intact. There are extensive deposits of granulated slag forming an artificial shoreline and continuing under the sea. The site is dominated by the large square Hughes smokestack, the only surviving one of about 25 stacks which once stood on site. The brickwork of the stack is continuing to deteriorate, particularly on the seaward side.

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**STATEMENT OF HERITAGE VALUE**

The Wallaroo smelter ruin is significant as the remains of South Australia's largest industrial complex for much of the period 1861-1926, and for a time one of the great smelters of the world. It is a rare site and is of great technological and archaeological significance at the national level.

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**HISTORY**

Copper was discovered at Kadina in 1859 and Moonta in 1861. The two related companies that opened the two mines realised they controlled a very large resource, and set about preparing to exploit it efficiently and on a large scale. To smelt the copper from the two mines they planned a large central smelter, which needed to be on the sea to allow cheap maritime transport of coke and flux.

In 1861 the Wallaroo Mining Company started work on a smelter by the sea at the new town of Wallaroo. They connected it by train with the two mines, forming the Copper Triangle. For the first thirty years the smelter concentrated on copper ores, using Welsh reverberatory furnaces, then in 1889 the two companies amalgamated to form the Wallaroo and Moonta Mining and Smelting Company, ushering in a period of technological change and diversification.

For a time the smelters also smelted silver-lead from Broken Hill and gold from Kalgoorlie. By-product plants were built to produce copper sulphate and sulphuric acid, which was used to manufacture superphosphate fertiliser in a factory alongside the smelter. In 1910 the smelting plant was completely rebuilt with the new generation technology of blast furnaces and converters.

The Wallaroo and Moonta Company collapsed in the copper price fall that followed the First World War. The mines closed in 1923, and the Wallaroo smelters produced copper from stockpiled ore until 1926 when they closed and were broken up for scrap. The fertiliser factory has continued to operate on the site.

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**References**

Bannear, David, Archaeological Survey of the Wallaroo Copper Smelters, report to the Department of Environment & Planning, 1985  
State Heritage Branch Files, File No. 10137

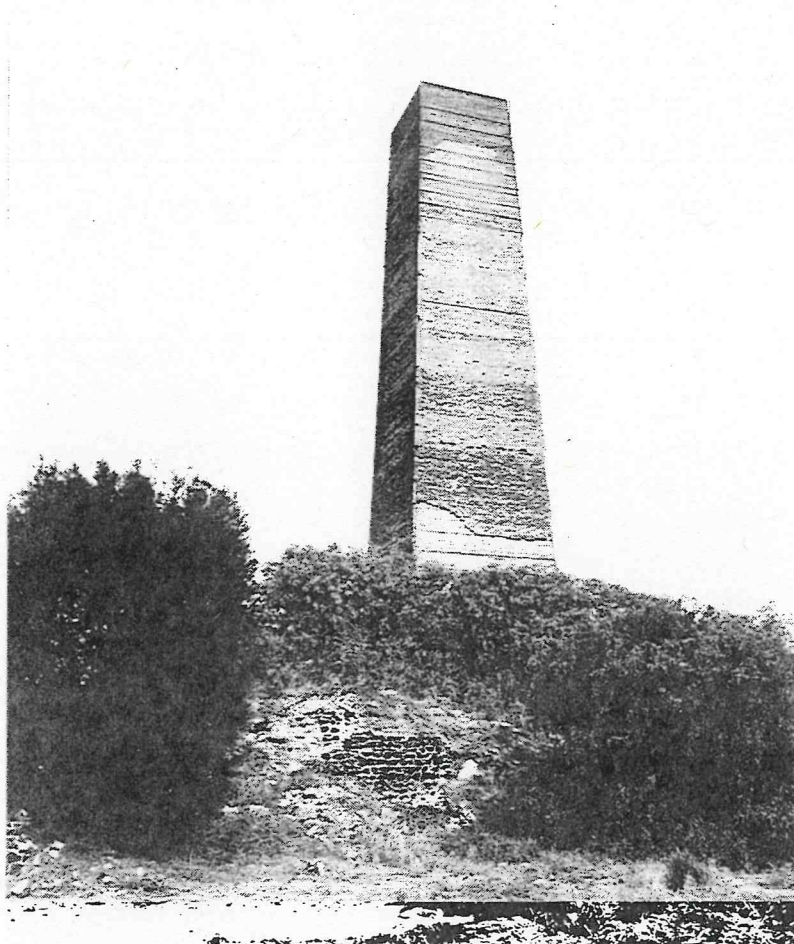
**Wallaroo Smelter Ruin and Hughes Chimney Stack****CC:241****LOCATION**

**Address** Jetty Road, Wallaroo SA 5556  
**Land Description** Lots 410 & 411, Section 16, Pt Lots 201, 202, 266-275 & 500 Closed Roads, Lot 101, Section 15, Lot 264 Railway Reserve, Hundred of Wallaroo  
**Certificate of Title** 5470/274 & 275, 1408/32, 5152/372 & 373, 5126/162, 1490/43, 1622/186, 21 1103/0317, 21 1100/2163

**Owners** District Council of the Copper Coast, PO Box 6, Kadina SA 5554  
Top Australia Ltd, 3/7 Francis Street, Port Adelaide SA 5015  
Adelaide & Wallaroo Fertilisers Ltd, 29 Francis Street, Port Adelaide SA 5015

**State Heritage Status** Registered, 5 June 1986 **SHR File No** 10137  
**Other Assessments** National Trust of SA, Classified (File No. 1843)

**Photograph No** PB 01/52

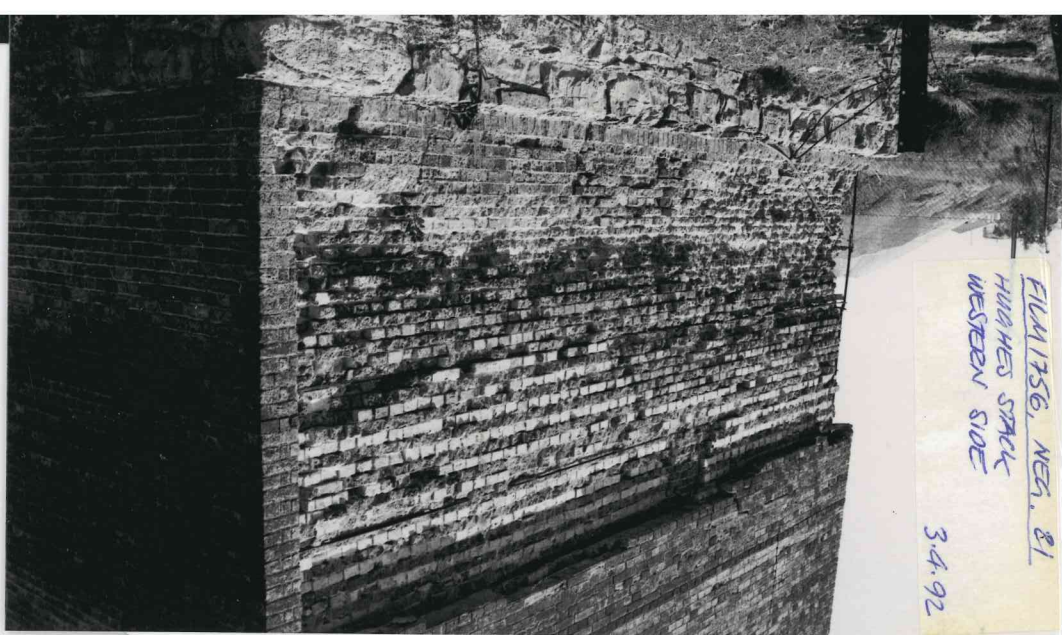


*Hughes Chimney Stack, Wallaroo Smelters*



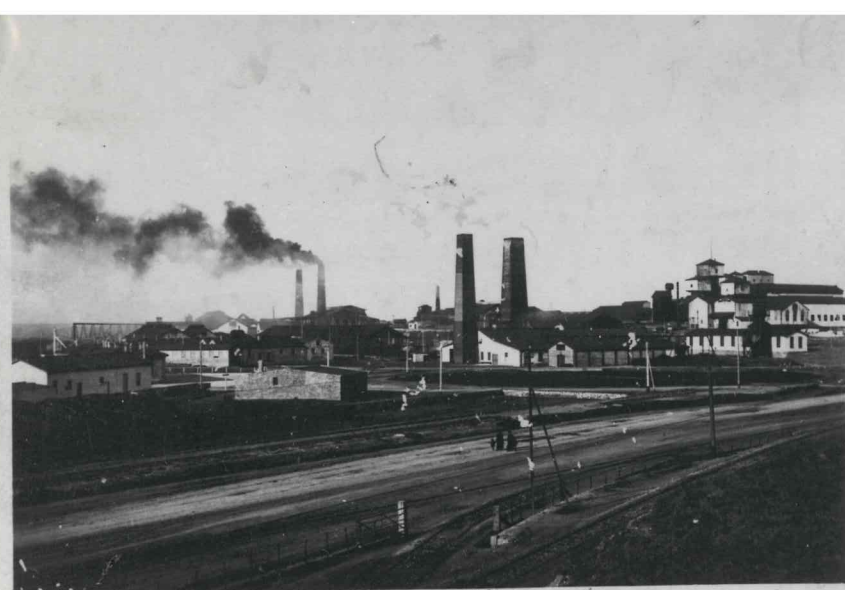




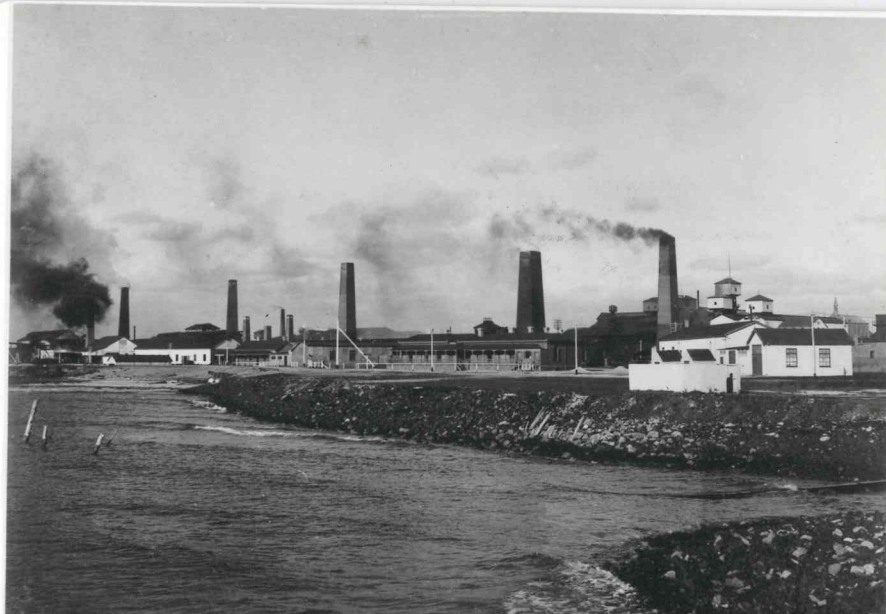


FILM 1356, NEG. 81  
HUGHES STARK  
WESTERN SIDE

3.4.92

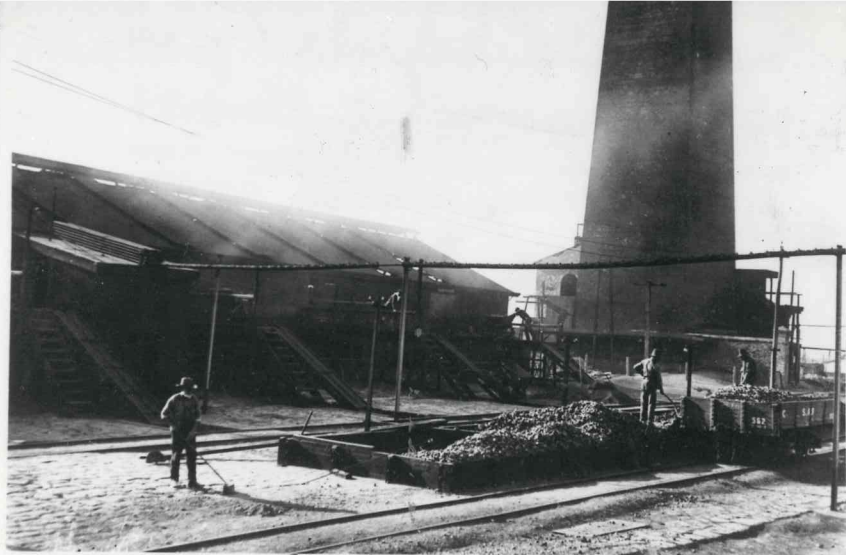


Wallaroo Smelting Works - 1920.

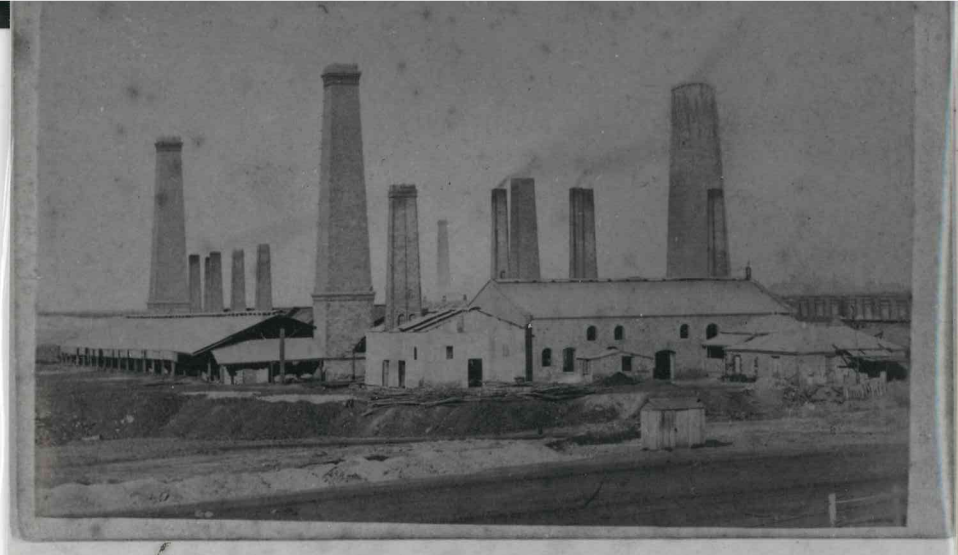


WALLAROO SMELTING WORKS

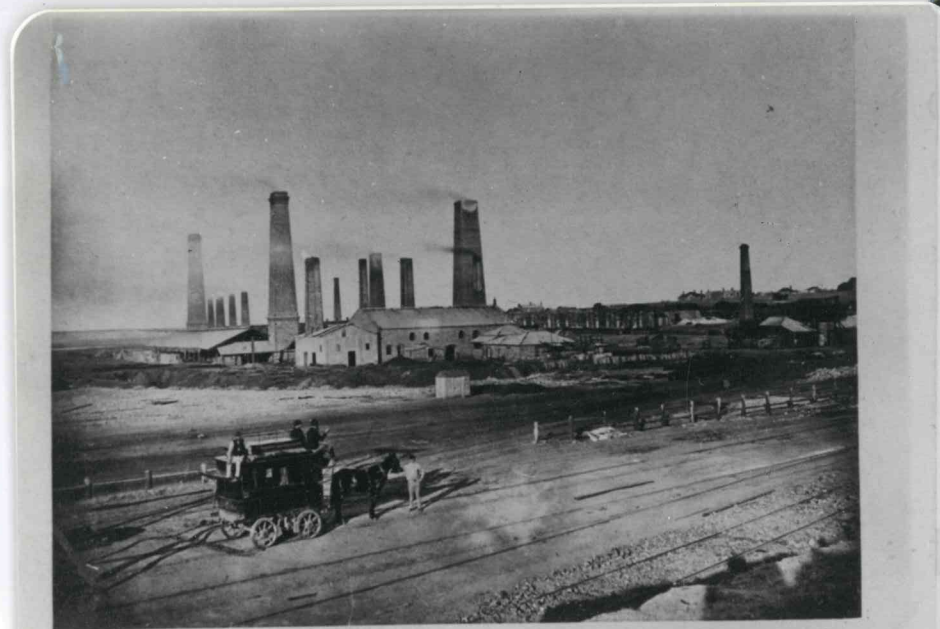




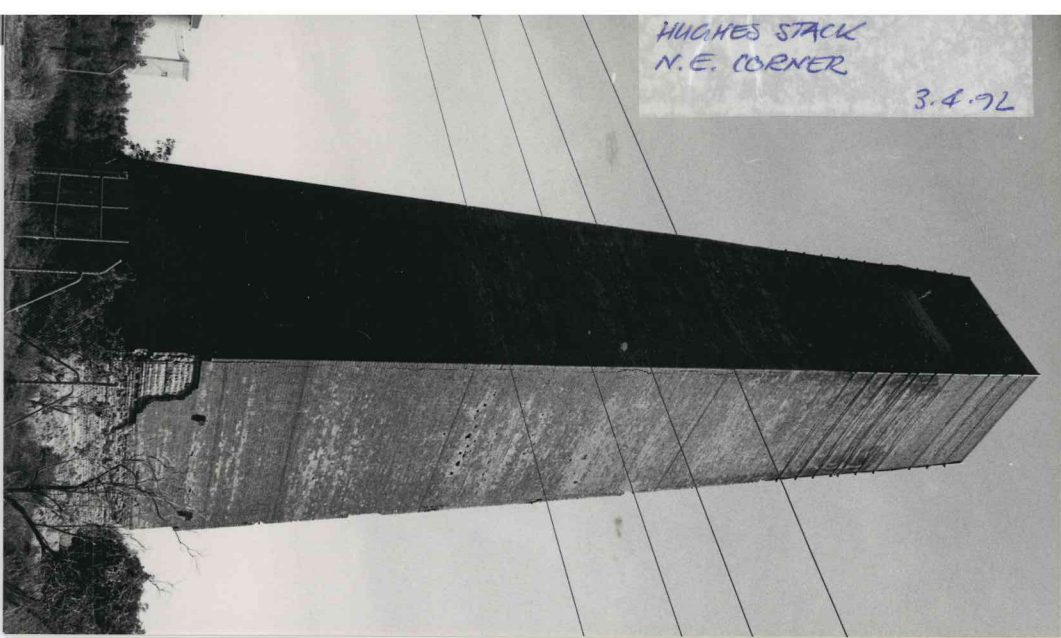
*Sulfur Burners - for Acid making.*



STATE LIBRARY



*Wallace's Mill in 1870*



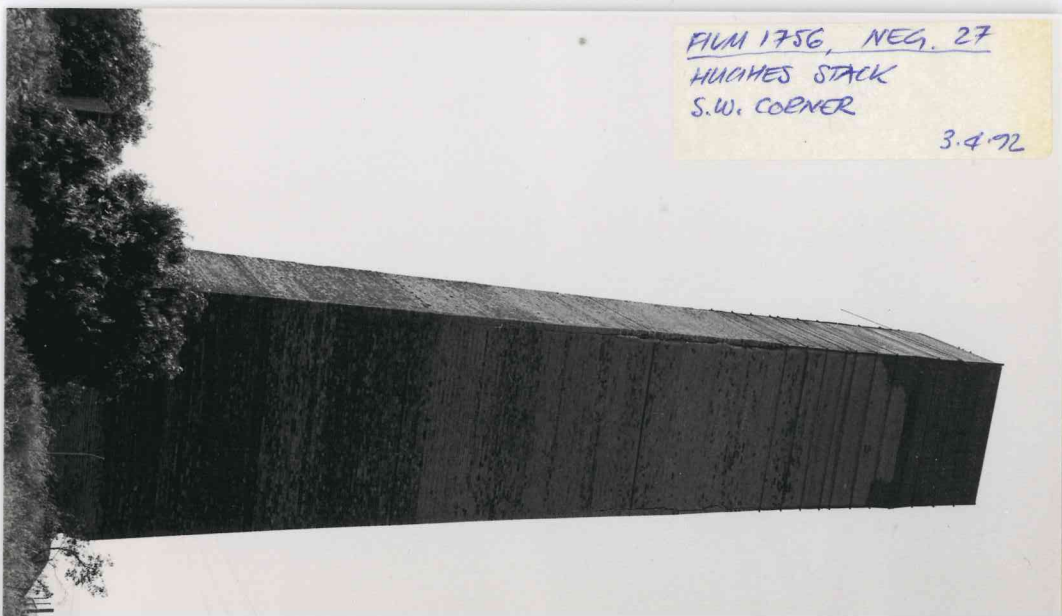
HUGHES STACK  
N.E. CORNER

3.4.92



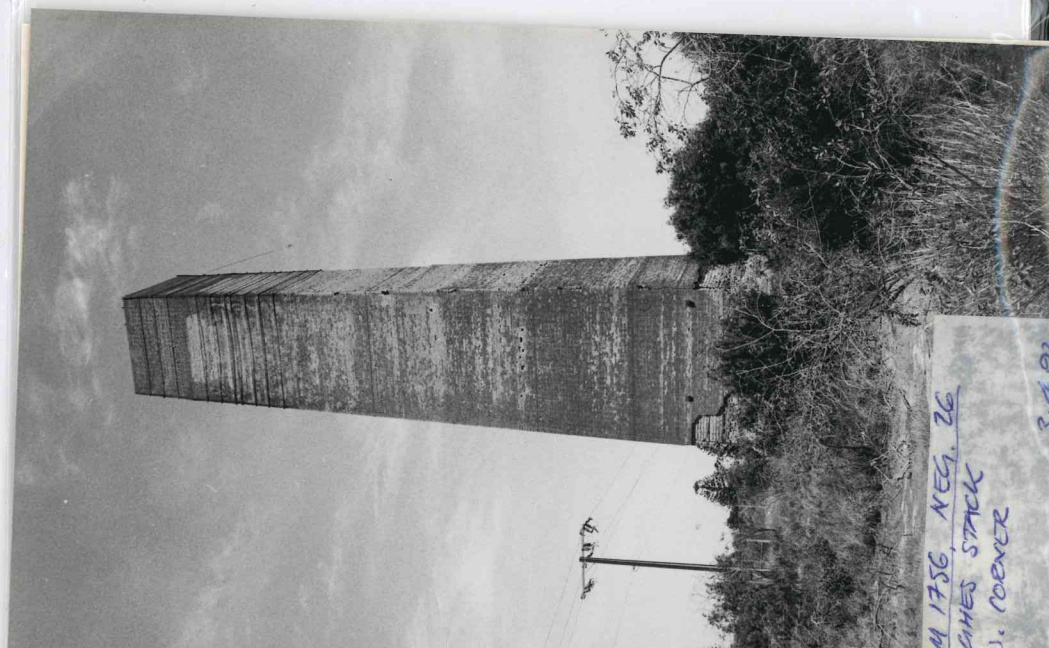
FILM 1756, NEG. 28  
HUGHES STACK  
S.W. CORNER

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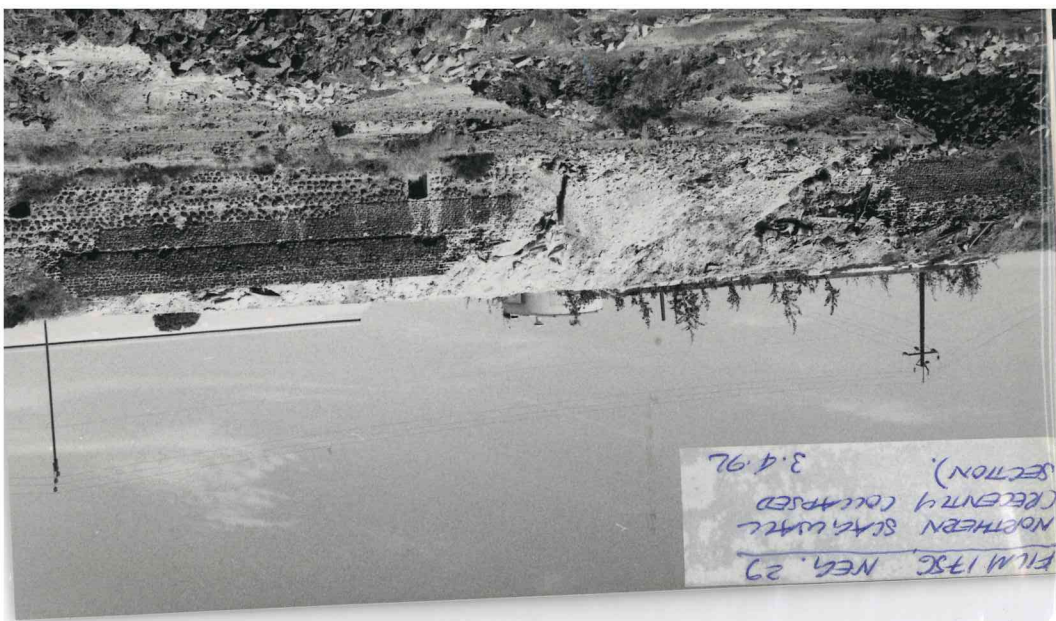
FILM 1756, NEG. 27  
HUGHES STACK  
S.W. CORNER

3.4.92

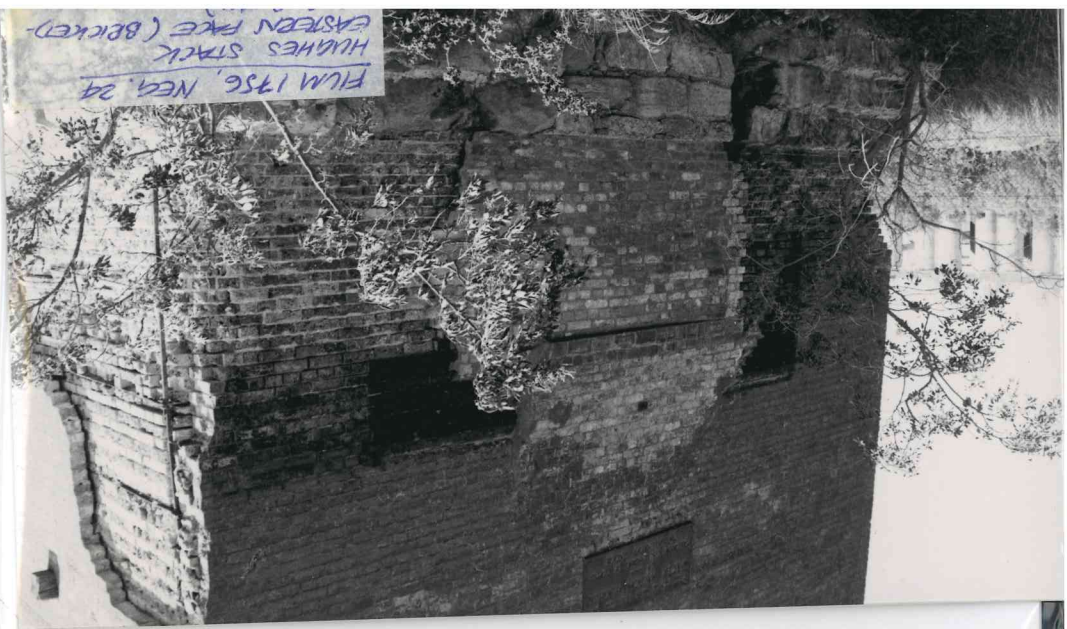


FILM 1756, NEG. 26  
HUGHES STACK  
S.W. CORNER

3.4.92



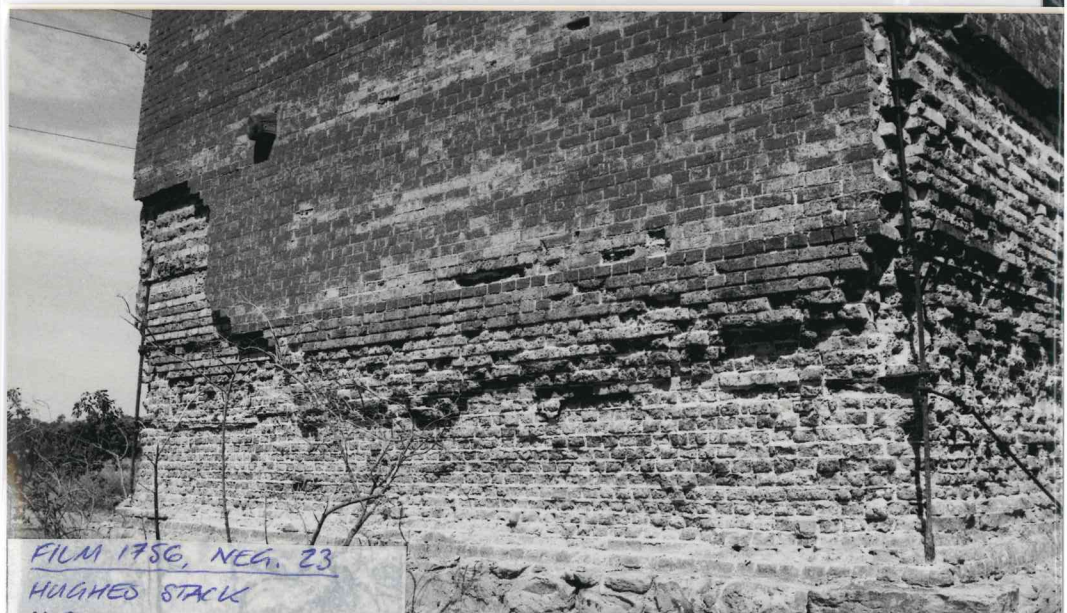
FILM 1756, NEG. 27  
NORTHERN SLAB WALL  
(RECENTLY COLLAPSED)  
SECTION).  
3.4.92



FILM 1756, NEG. 24  
HUGHES STACK  
EASTERN FACE (BRICKED)



FILM 1756, NEG. 22  
HUGHES STACK  
S.W. CORNER



FILM 1756, NEG. 23  
HUGHES STACK

