



Aspects of my copper collection

British Thematic Association Dec
9th 2020

acmillington@gmail.com



From The Big Bang to the Neolithic

- Copper minerals

Many properties, even more uses

- Electrical conductivity and lightning conductors

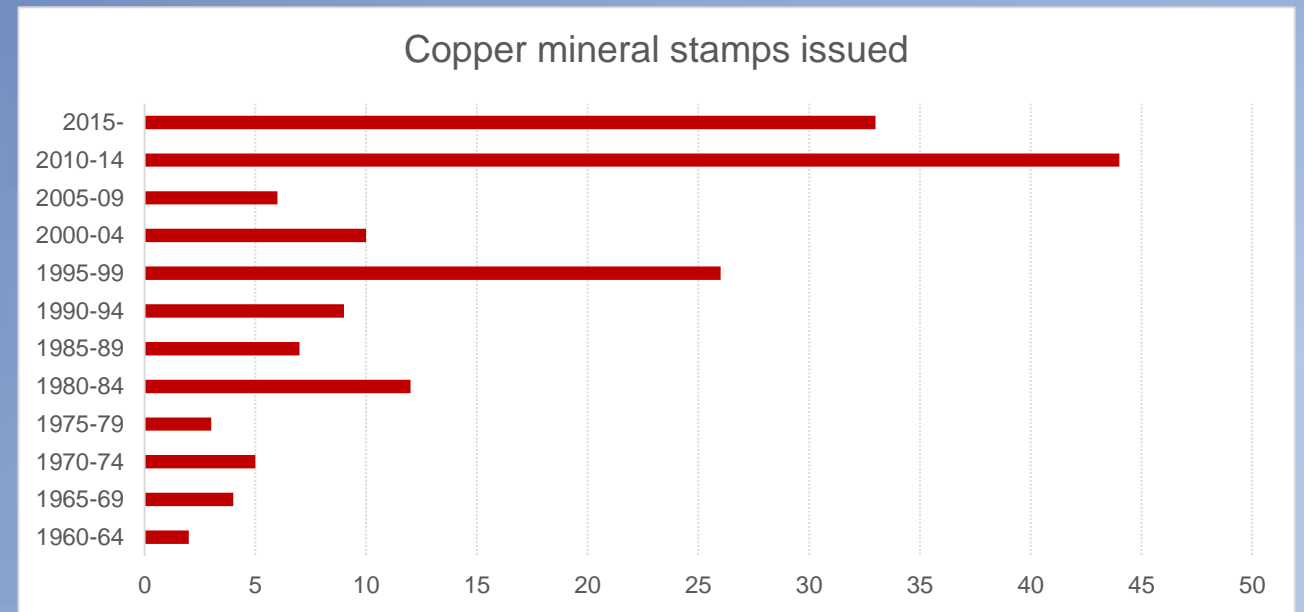
Social and economic history of copper mining, smelting and trade

- Nuccaleena Mine

□ Approximately 5600 known minerals

□ 156 copper minerals

□ 160 stamps, illustrating 31 of the 156 copper minerals



Which stamps should I include in my collection?



Copper mineral stamps

Mineral (maximum % copper)	# stamps issued
Native copper (100)	10
Cuprite (88.8)	7
Chalcocite (79.9)	1
Covellite (66.4)	1
Bornite (63.3)	2
Malachite (57.5)	43
Azurite (55.3)	30
Antlerite (53.7)	0
Enargite (49)	1
Chrysocolla (36.2)	1
Chalcopyrite (34.6)	15

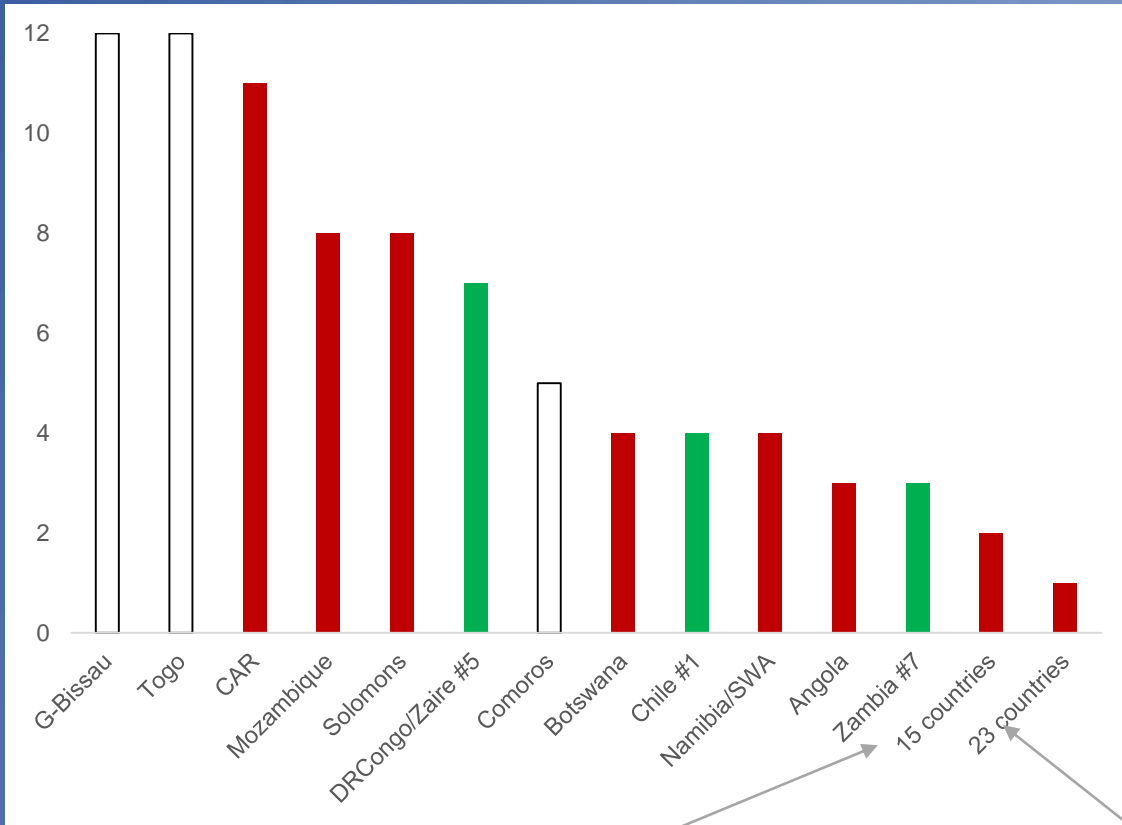


Economically-important ores and stamps



Economically important
but not an ore - Turquoise





incl. USA [3rd] and Kazakhstan [10th] largest producers

incl. Peru [2nd], Mexico [8th] and Russia [9th] largest producers



Countries and copper mineral stamps

Mineral	Country of type location	Stamp issuing countries
Abichite	GB	Central African Rep.
Atacamite	Chile	Chile
Azurite	France	30, not France
Bayldonite	GB	Angola, Malagasy, Togo
Chalcanthite	Chile	7, not Chile
Chalcopyhllite	GB	Central African Rep.
Enargite	Peru	Taiwan
Euchronite	Slovakia	Slovakia
Krohnkite	Chile	Chile
Libethenite	Slovakia	Slovakia
Plancheite	Rep. Congo	Comoros, Guinea-Bissau
Shattuckite	USA	Ivory Coast



© Peter Orság

Svätodušná deposit, Ľubietová, Banská Bystrica District, Slovakia



Source: Chronica Hungarorum, 1488



© DIRECTMEDIA Publishing GmbH

Type locations and stamp issues



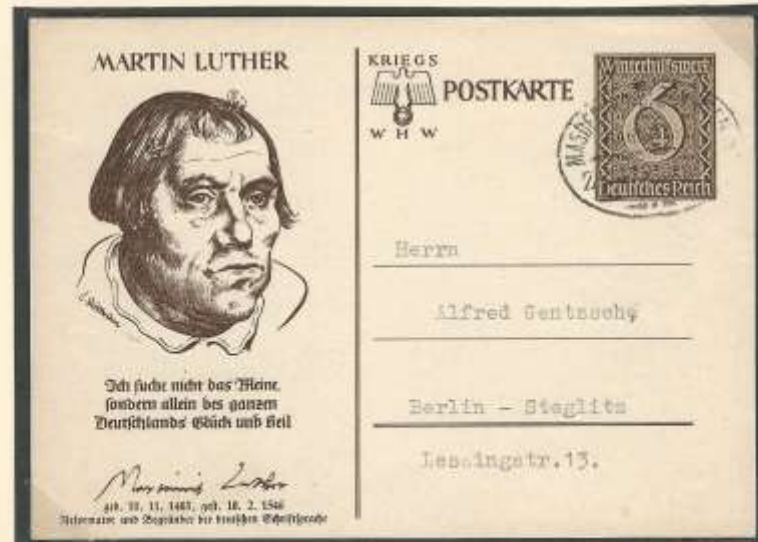
Ignacy Domeyko and
Domeykite



“It is a dogma of our faith that the demons can produce winds, storms and a rain of fire from heaven.”

St Thomas Aquinas

“It is a dogma of faith that our demons can produce winds storms and rain of fire from heaven” St. Thomas Aquinas.





Strasburg Cathedral had been an effective lightning rod since 873. In Germany 131 bellringers were electrocuted between 1750-83.



Tribulations of early adopters of lightning rods



216 - Chamonix — Monument de Saussure

France 2f commemorating bicentenary of the ascent of Mont Blanc by Balmat and Packard on 8 August 1786 tied by fdi postmark to a postcard of the statue of Saussure (left) and Balmat in Chamonix. Mont Blanc in the background.



Doc. B. N.

ROBESPIERRE (Maximilien-François-Isidore de)

Né à Arras en 1758, mort à Paris le 10 Thermidor 1794. Avocat. Député aux États-Généraux, il vota la mort de Louis XVI.

Il régna par la Terreur au moyen du Comité de Salut Public, dont il était l'âme.

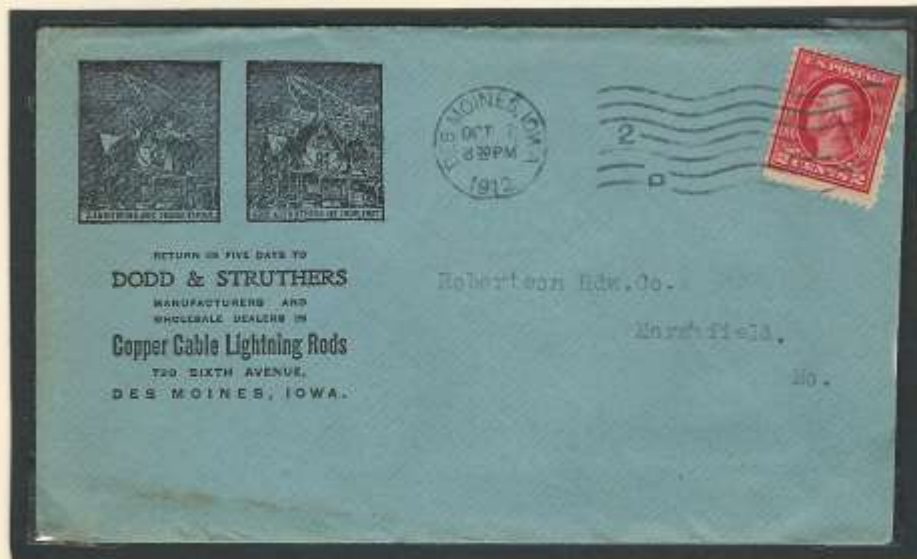
La coalition de la Plaine et d'une partie de la Montagne le renversa le 9 Thermidor et il périt sur l'échafaud où il avait fait monter tant de victimes.

France 15+6f Robespierre stamp tied by Arras cds to postcard of Robespierre.

Lightning conductors

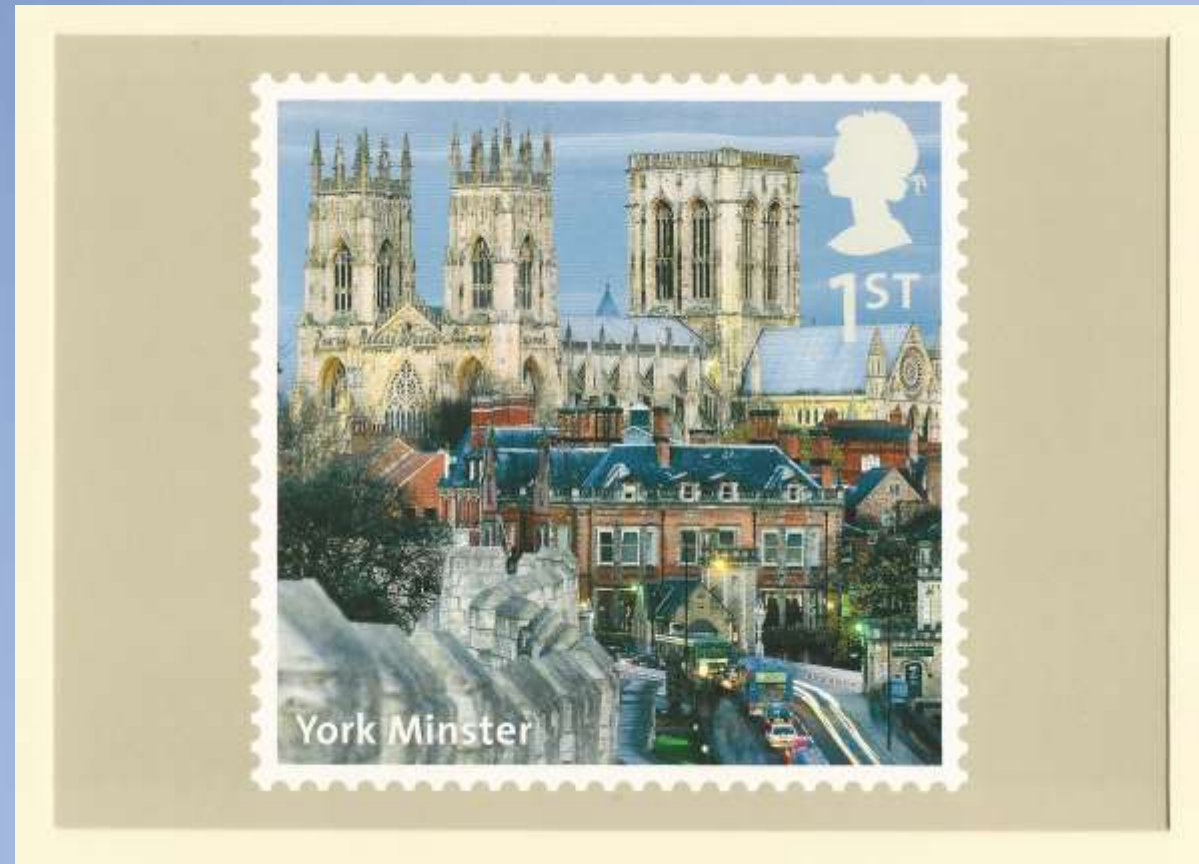


Belgium: Publibel card 2543N advertising 'scientifically tested' L'Aigrette lightning conductors to s'Gravenhage, Netherlands tied by Kalmthout single ring datestamp 9 May 19



USA advertising envelope of Dodd & Struthers, lightning rod manufacturers, of Des Moines IA to Marshfield MD. 2c tied by Des Moines wavy line cancellation Oct 7, 1912 pays domestic letter rate. Marshfield receiving handstamp of Oct 9 on reverse.

So, science triumphed over religious dogma, or did it?



Royal Mail PHQ Card, UK A-Z series Part 2 York Minster. Issued 10 April 2012

NUCCALEENA, SOUTH AUSTRALIA

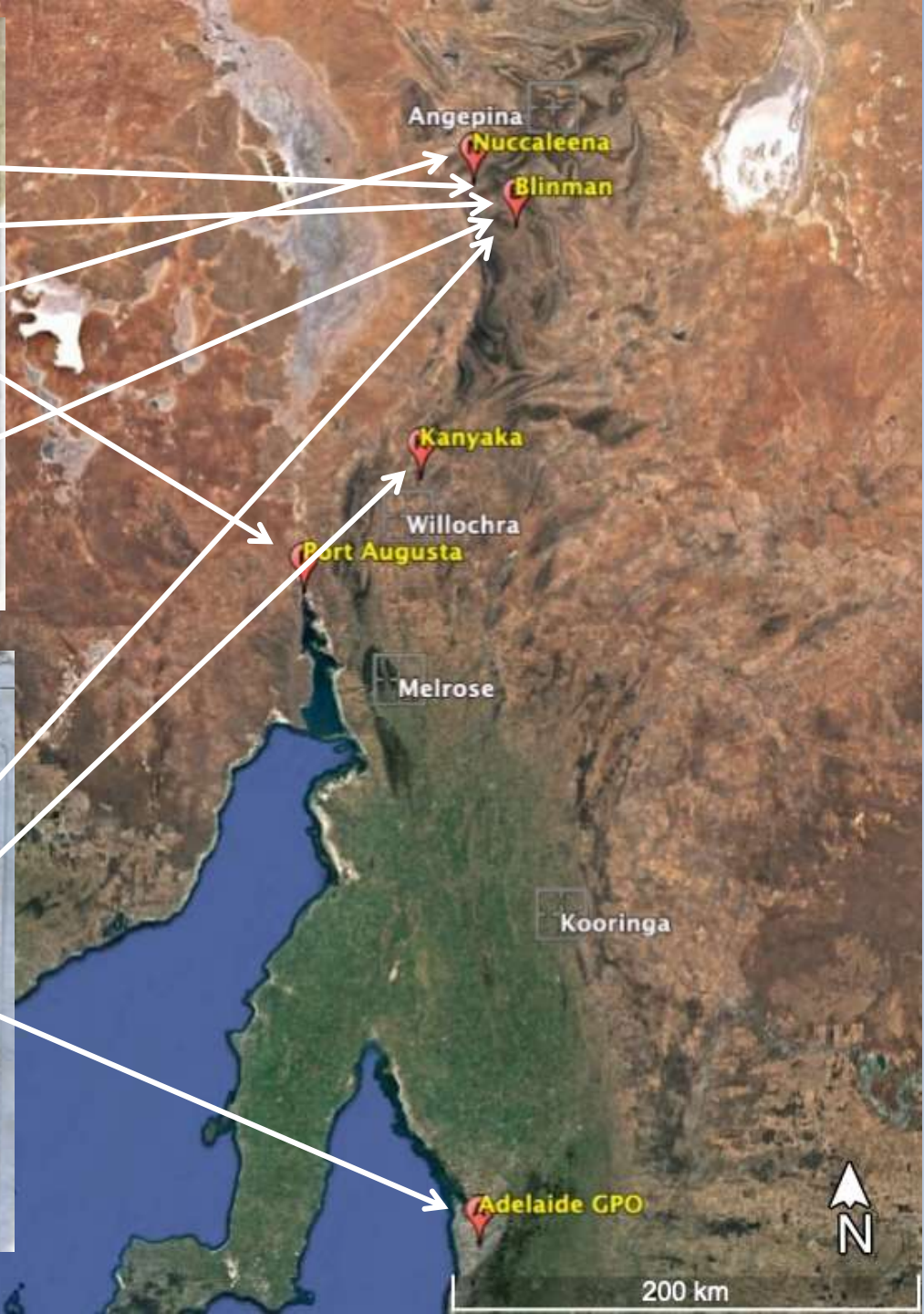
Nuccaleena copper mine, 440 km N of Adelaide in the remote Flinders Ranges, was operated by the Great Northern Mining Company. It opened 1860 but closed within a decade. It was one of a number of small mining leases in the northern Flinders Ranges in the Colony of South Australia, staked during 'Coppermania': few were actually mined.



The entire, from Port Augusta Insolvency Court to John Pascoe (one of three known items posted from court to 'the North' on 4 Oct 1862), went by the mail route from Port Augusta to Willochra, where it joined the North (Melrose-Angipena) mail route which served Blinman.

Delivered to the post office at Blinman (opened five weeks earlier, 1 Sept 1862), another copper mining settlement and taken privately to Nuccaleena (post office was not established until 1863). The Blinman postmaster tried to deliver it twice, then returned it to Adelaide GPO by a mail route covered by four contracts – Angipena to Melrose (it was cancelled at Kanyaka en route to Melrose), Melrose to Kooringa, Kooringa to Kapunda, and Kapunda to Adelaide.





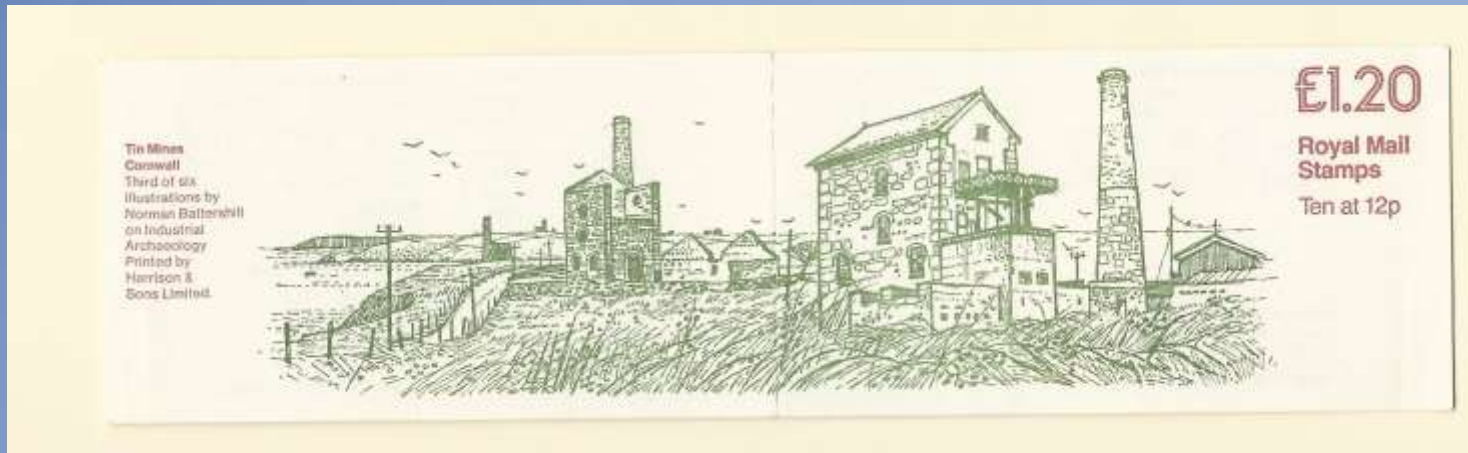
What do we know about the addressee – John Pascoe?

- ❑ Mine captain at Nuccaleena from 1860; not there by April 1863
- ❑ He was a 20 year old miner from Breage, Cornwall when he and his wife Ann embarked on the 'Gilmore' on 10th March 1857 at Plymouth, and arrived at Port Adelaide on 3rd July
- ❑ An eventful 123-day voyage
- ❑ Worked for another mining company near Adelaide before moving at Nuccaleena

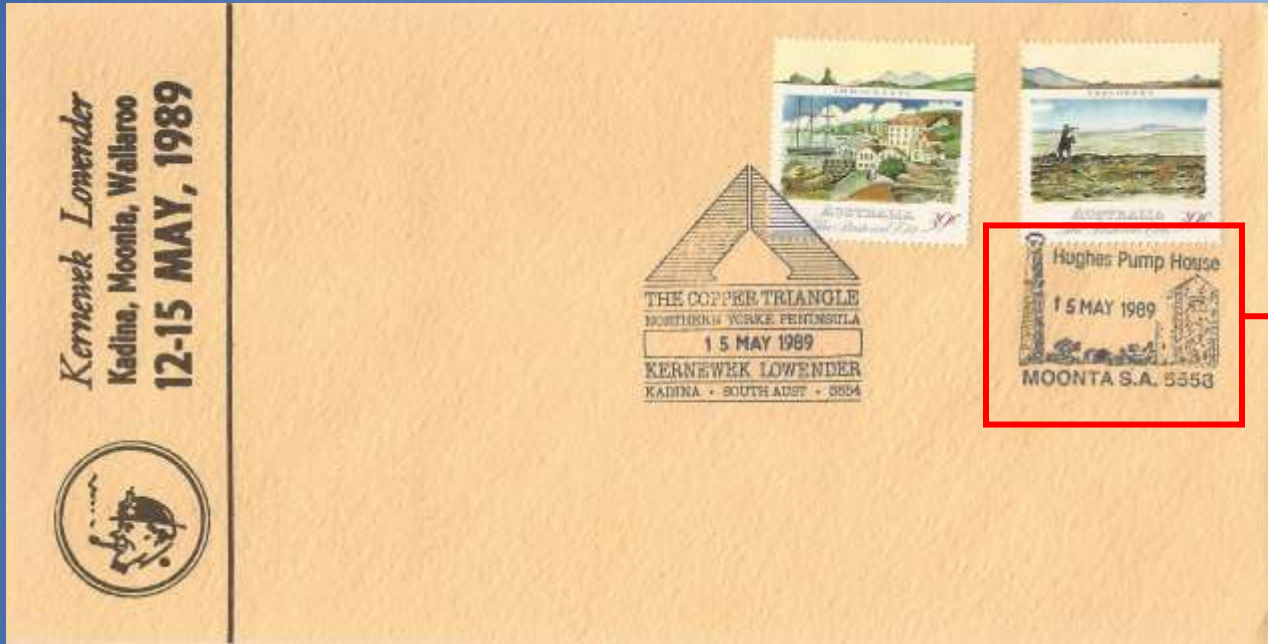


Rouletted Cornwall label

Enginehouse and workshops, Nuccaleena Mine.



1980 Industrial Archaeology booklet FJ2, without black counter bar





- Discovery of electrical conductivity in late 18th century

- Unprecedented, exponential growth in demand for copper starts in 19th Century

- ‘Coppermania’: copper exploration, production and trade in 19th Century

- Advances in mining and Cornish emigration

- Discovery of new copper minerals as more mines open in 19th Century

THE BURRA BURRA COPPER-MINE, IN SOUTH AUSTRALIA.



KOORINGA.—THE BURRA BURRA TOWNSHIP.



1851 (Sep 9) entire headed "Aberdeen near Koorlinga" and signed "Richard Randall" to Adelaide with very fine 24mm KOORINGA/SOUTH-AUSTRALIA cds (rated RR), Ms "4" in red and very fine strike of the now worn [crown]/PAID/ 184-' d/s in red (#CrPd-1; the only recorded strike with year only).

