

Mapping Tasmania's past

Dr Richard Tuffin

University of New England

Undertaken with funding from:

Australian Research Council Linkage Project

2021-24



Mapping Tasmania's past

Revealing Maria Island's hidden convict past

Dr Richard Tuffin

University of New England

Prof Martin Gibbs

University of New England

Mike Nash

Tasmanian Parks and Wildlife Service (former)

A talk for the esteemed members of THRA, Jul 2024

Undertaken with funding from:



Australian Government

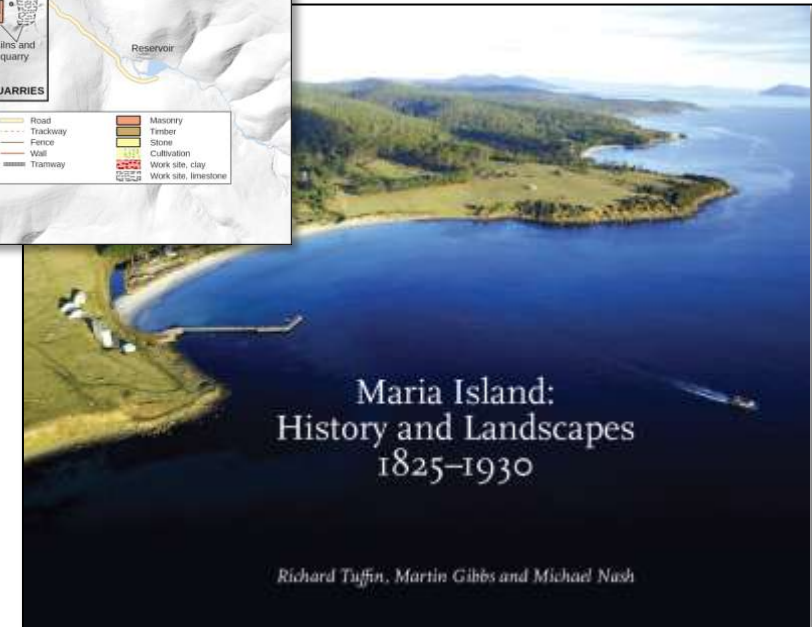
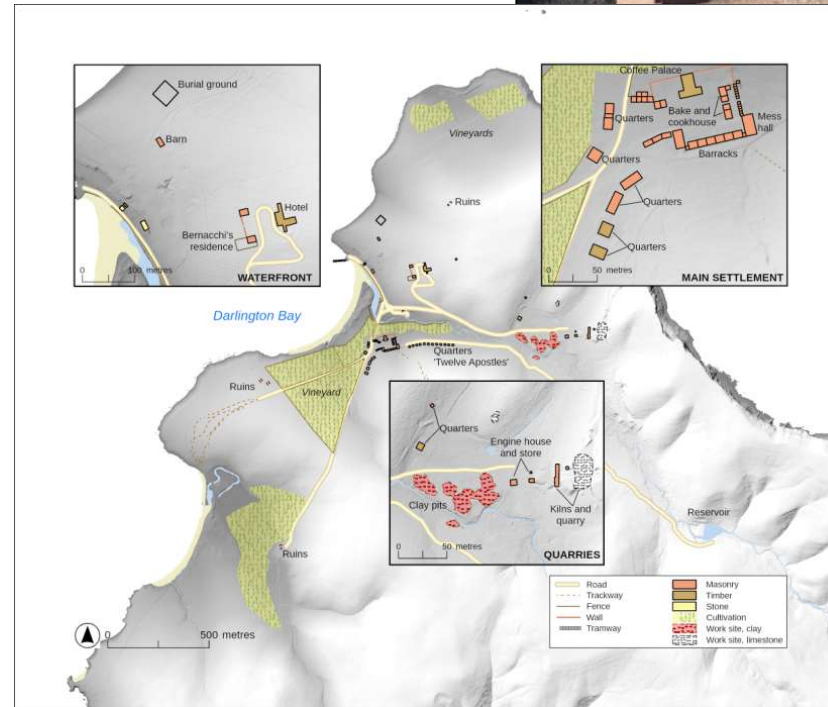
Department of Climate Change, Energy,
the Environment and Water

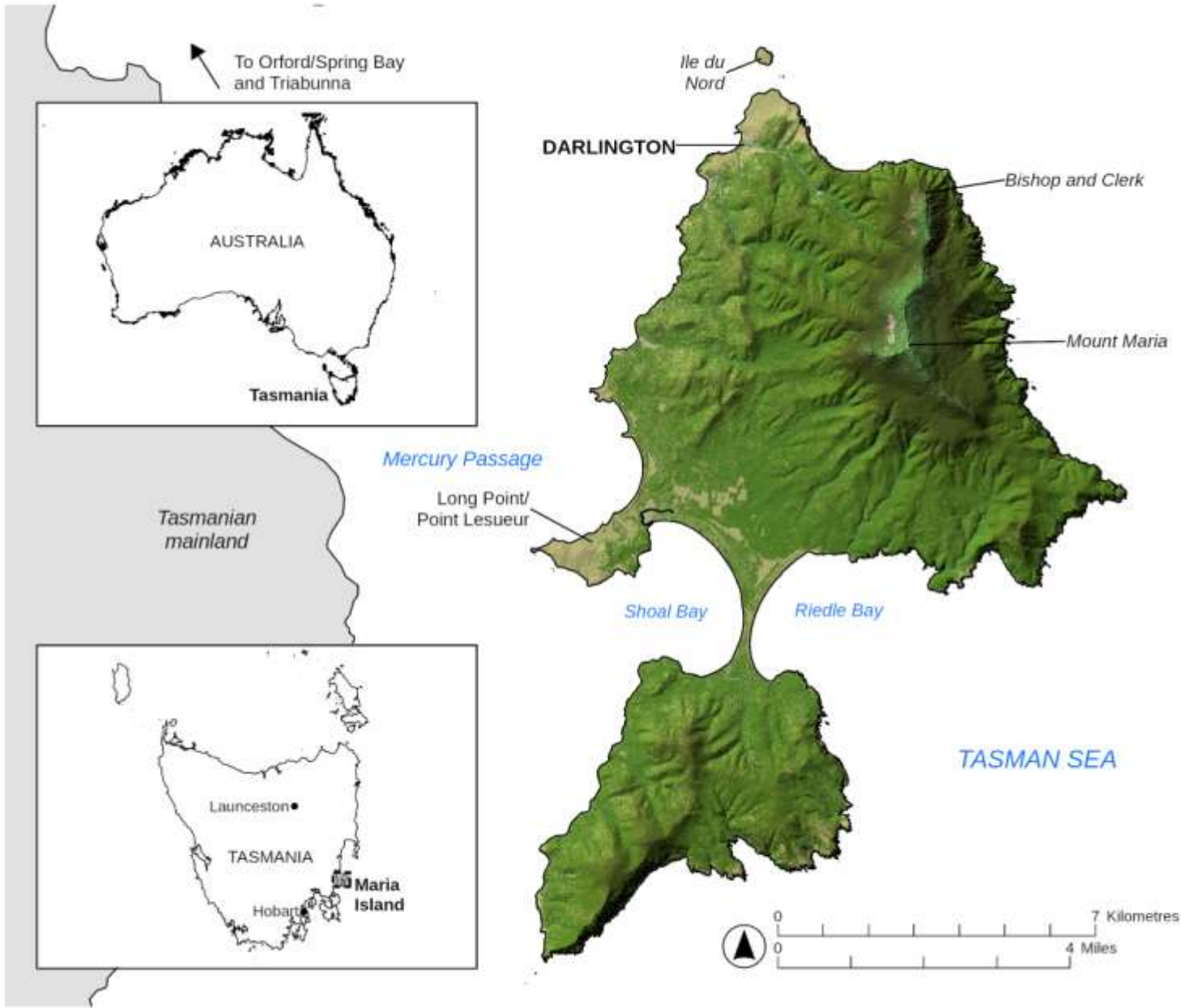
Australian Heritage Grant, 2022-23



History Fellowship, 2024

Australian Research Council, 2024-26





(Tas Parks)

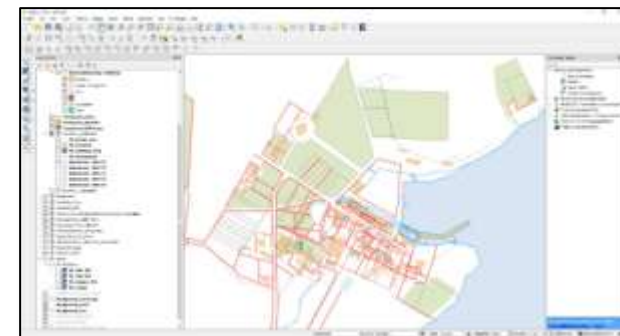
...it's disgustingly nice



(Tas Parks)

A well established research trajectory: (due to a lack of imagination)

- *Loooong careers working at convict sites, talking about them or teaching*
- *Landscapes of Production and Punishment, ARC DP 2017-20*
 - Port Arthur, Van Diemen's Land
- *Convict landscapes: Locating Australia's convicts, 1788-1868*
 - Australia, Probation in VDL, Norfolk Island, Port Macquarie
- *Putting death in its place, ARC LP 2022-24*
 - relationships between where people live, mortality, life expectancy and health
- *State Library Fellowship 2024*
 - The impact of Probation on the Tasmanian landscape



The Australian Heritage Grant

- Awarded 2022. Much rejoicing
- Joint project with Tasmanian Parks and Wildlife, Mike Nash
- ORIGINAL AIMS:
 - Map the labour landscape of the convict phases
 - Locate and record the First Penal Settlement (1825-32)
 - Create interpretation aids
- WHAT ACTUALLY HAPPENED:
 - Surveyed and mapped ALL phases
 - Did geophysics and found...not much
 - Extensive archival research
 - Published a web map
 - Did some talks (like this one, pay attention)
 - Wrote a book
 - Surveyed Long Point (maybe)
- Project wrapping up 2024-ish

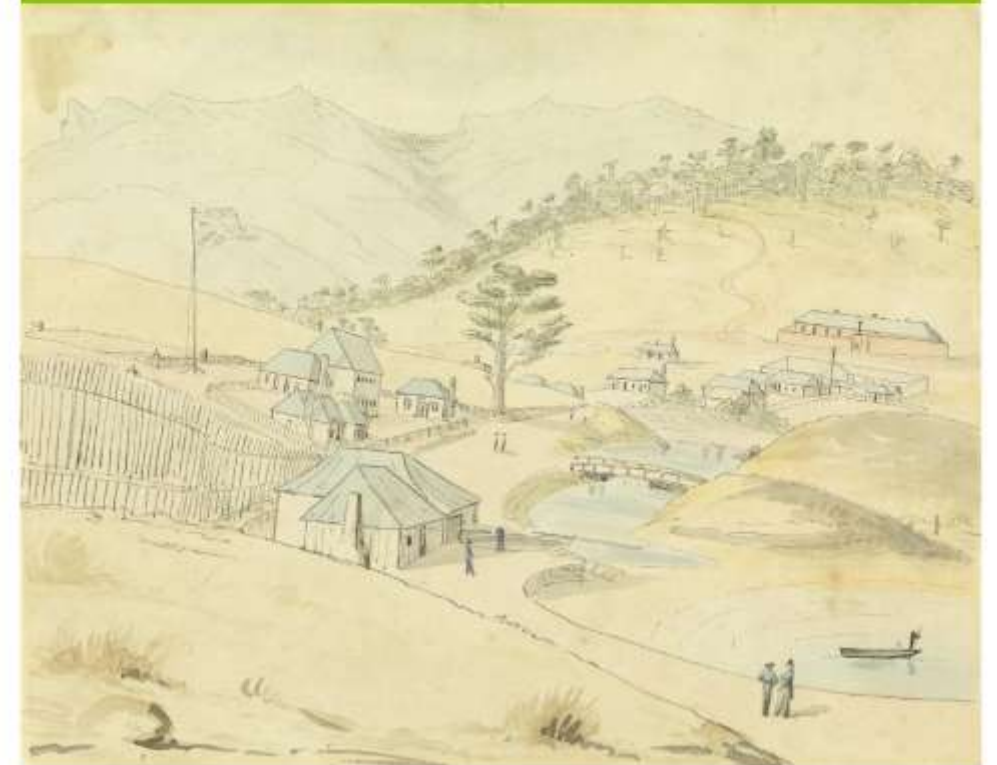


Project Plan:

Recovering Darlington Probation Station's hidden convict landscapes

Professor Martin Gibbs
Dr Richard Tuffin

8 October 2021



View of Darlington, Maria Island, Robert Neill, ca.1831. Tasmanian Archives

It's Maria Island

Stuff you already know...

- Aboriginal occupation and use
- Penal phase: 1825 – 1832
- Probation phase: 1842 – 1852
- A.G.D Bernacchi goes wild: 1884 – 1896
- Concreting paradise: 1920 - 1930
- The time of the tourist: forever

It's Maria Island

Stuff you already know...

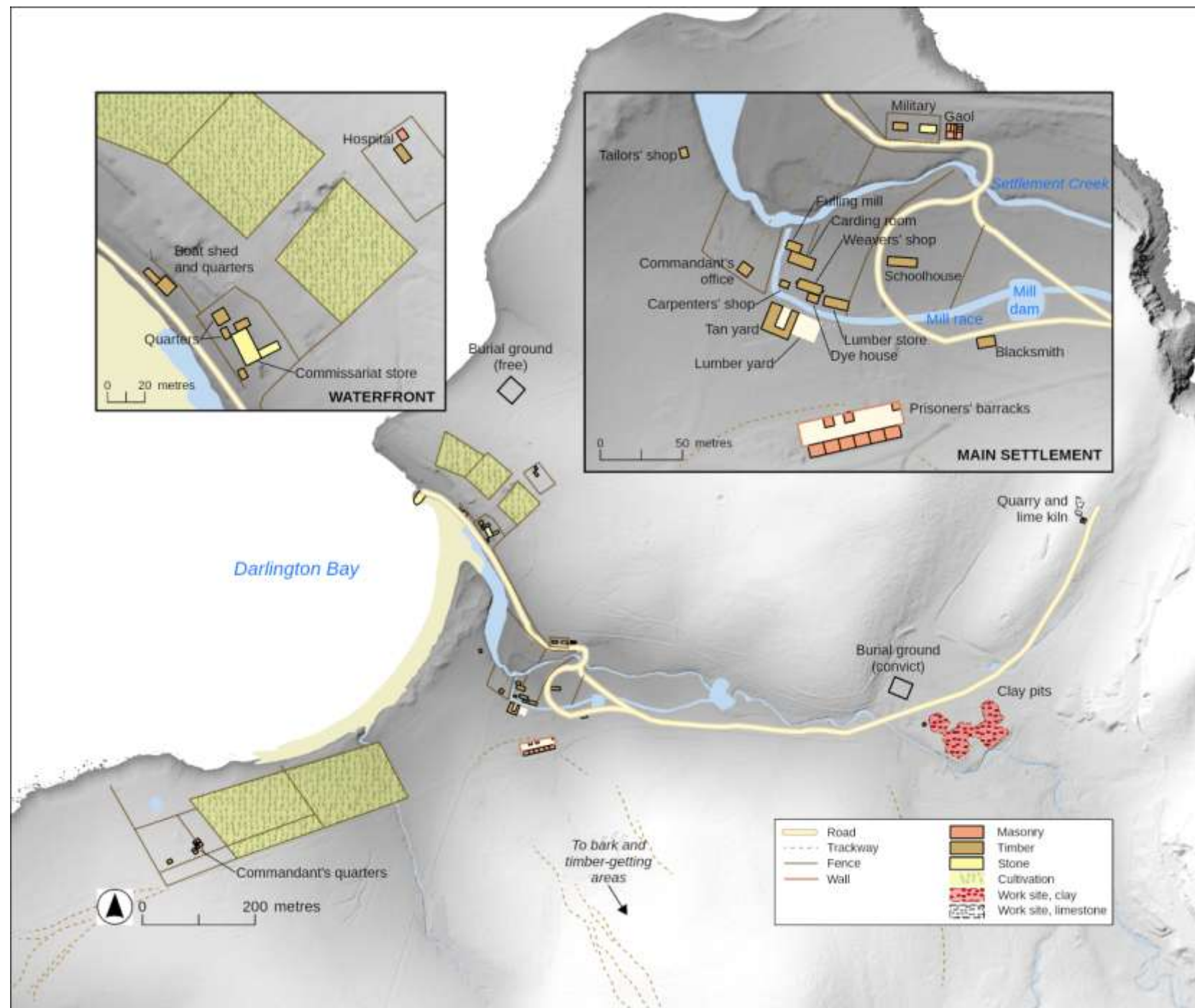
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- Probation phase: 1842 – 1852
- A.G.D Bernacchi goes wild: 1884 – 1896
- Concreting paradise: 1920 - 1930
- The time of the tourist: forever

It's Maria Island

Stuff you already know...

Penal phase: 1825 – 1832

- A penal station for those too good for Macquarie Harbour, but too bad for a chain gang
- Timber-getting initially
- Rapid diversification into complex industry: weaving, tanning
- Peaked at over 150 men
- Late exploitation of lime
- Replaced by Port Arthur



It's Maria Island

Stuff you already know...



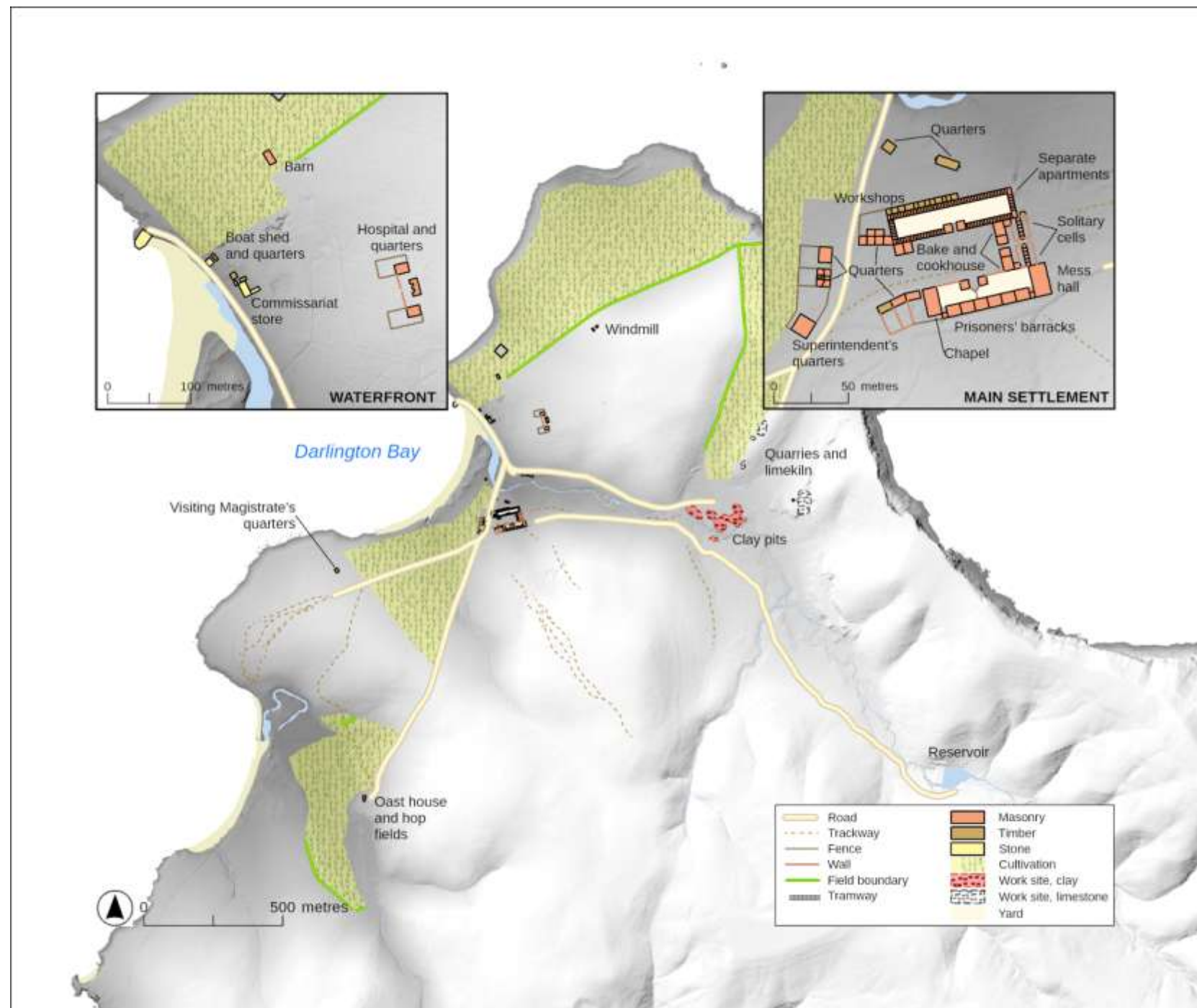
Robert Neill, ca.1832 (TAHO)

It's Maria Island

Stuff you already know...

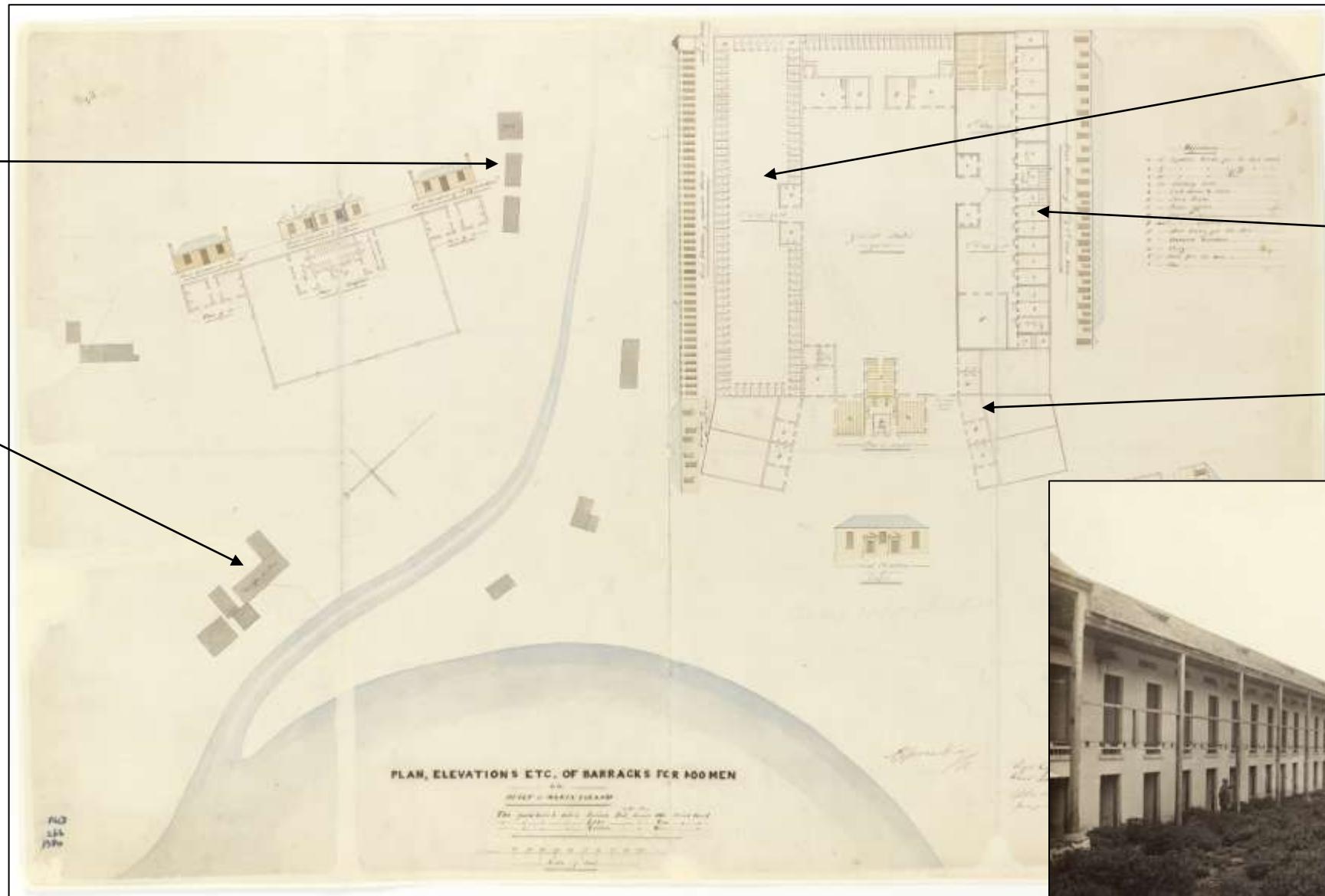
Probation phase: 1842 – 1852

- Got off to a slow start
- Renamed Darlington
- By late 1840s a model station
- Peaked at over 600 men
- Limited industrial focus, primarily agricultural station
- Hops as cash crop
- Some exploitation of lime
- Closed as part of colony-wide consolidation



It's Maria Island

Stuff you already know...



Quarters (former Military Barracks and Gaol)

Commissariat Store

Separate apartments

Barracks (former Penitentiary)

Quarters



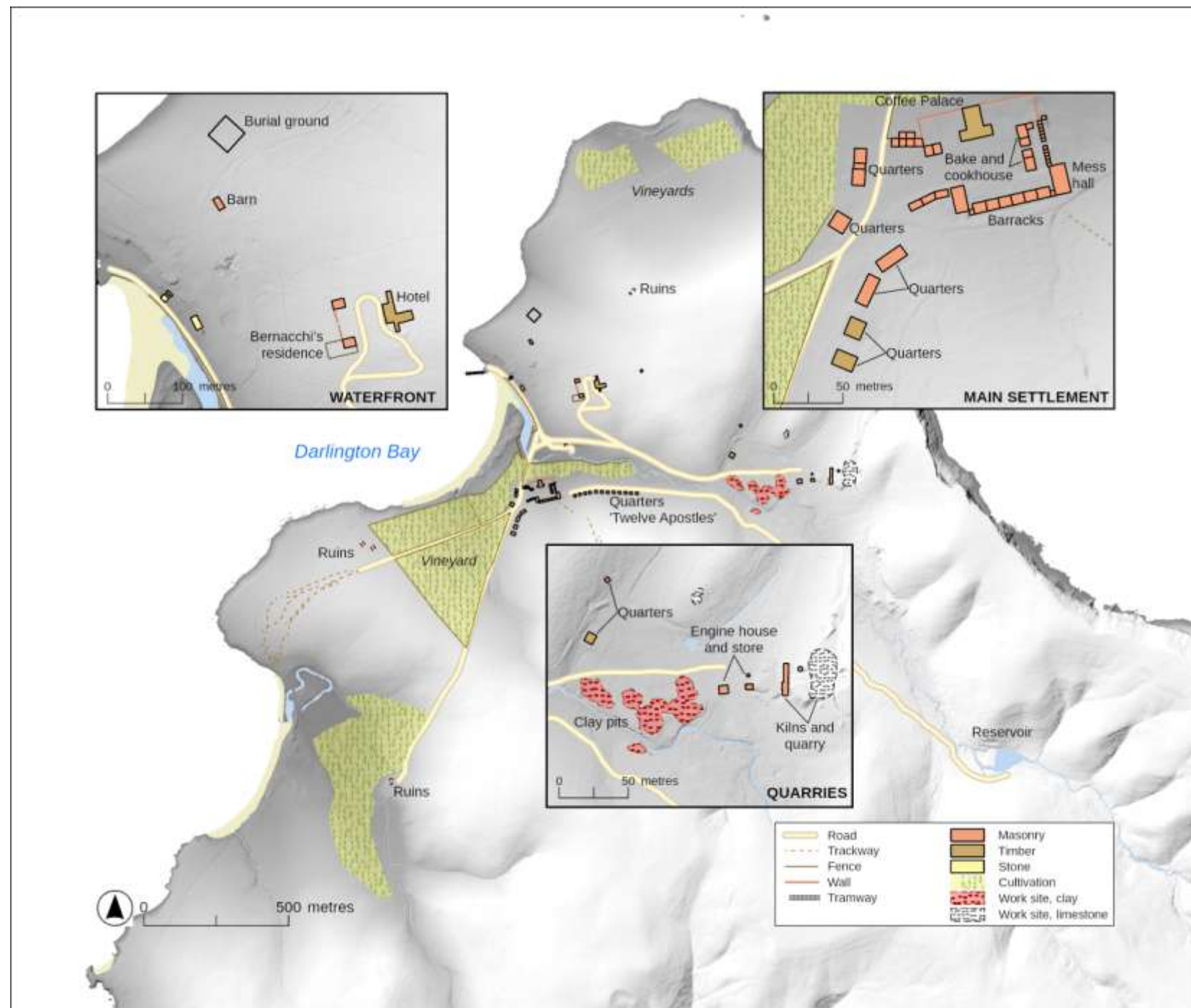
Proposed plan of station 1842 (TAHO)

It's Maria Island

Stuff you already know...

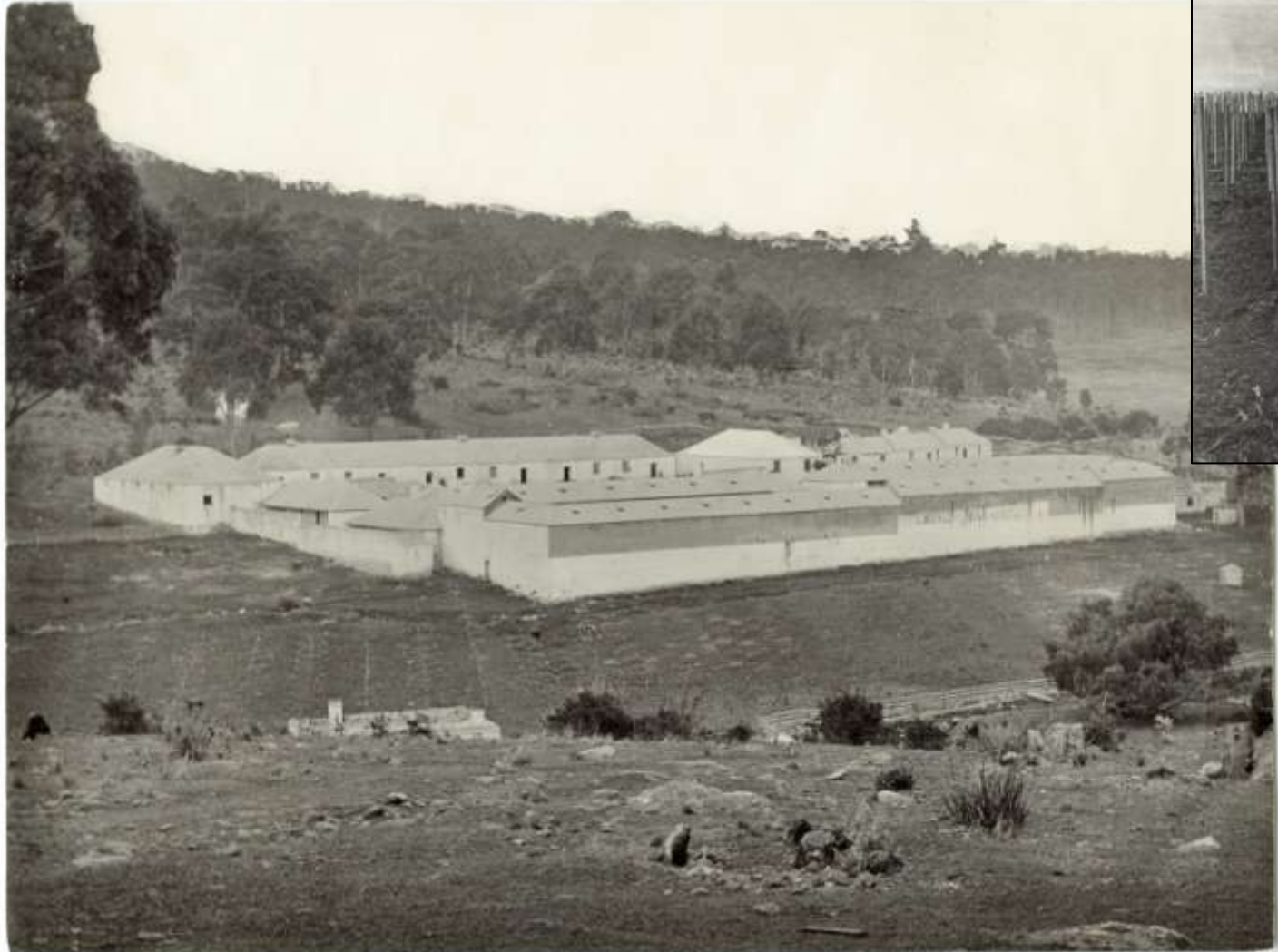
A.G.D Bernacchi goes wild: 1884 - 1896

- Island favourably rented
- Bernacchi a great showman and dreamer...but also a doer
- Workers' accommodation and hotel built
- Up to 260 on the island
- 50,000 vines planted...a failure
- Mulberry trees planted for silkworm cultivation...a failure
- Limestone quarried, kilns built...a failure
- 1892 marked end of venture...but Bernacchi kept trying

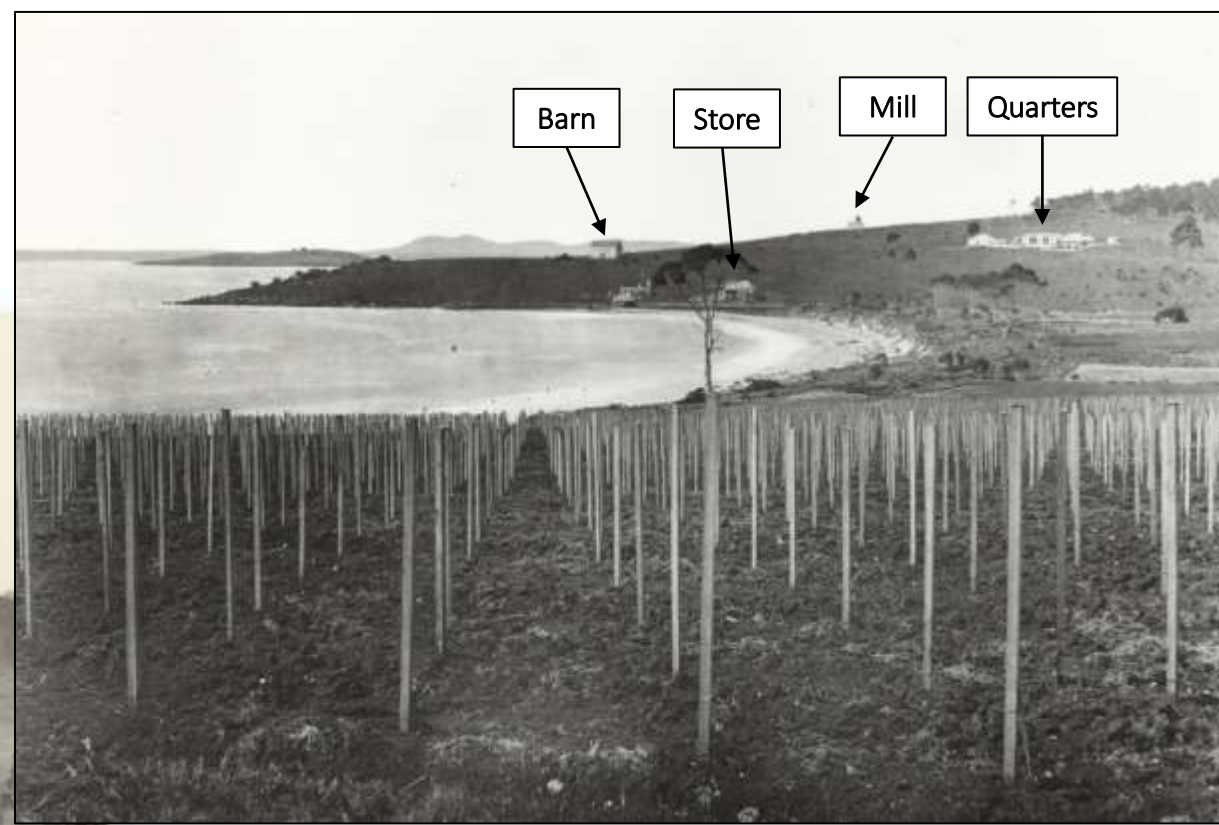


It's Maria Island

Stuff you already know...



Darlington, ca.1880s (TAHO)



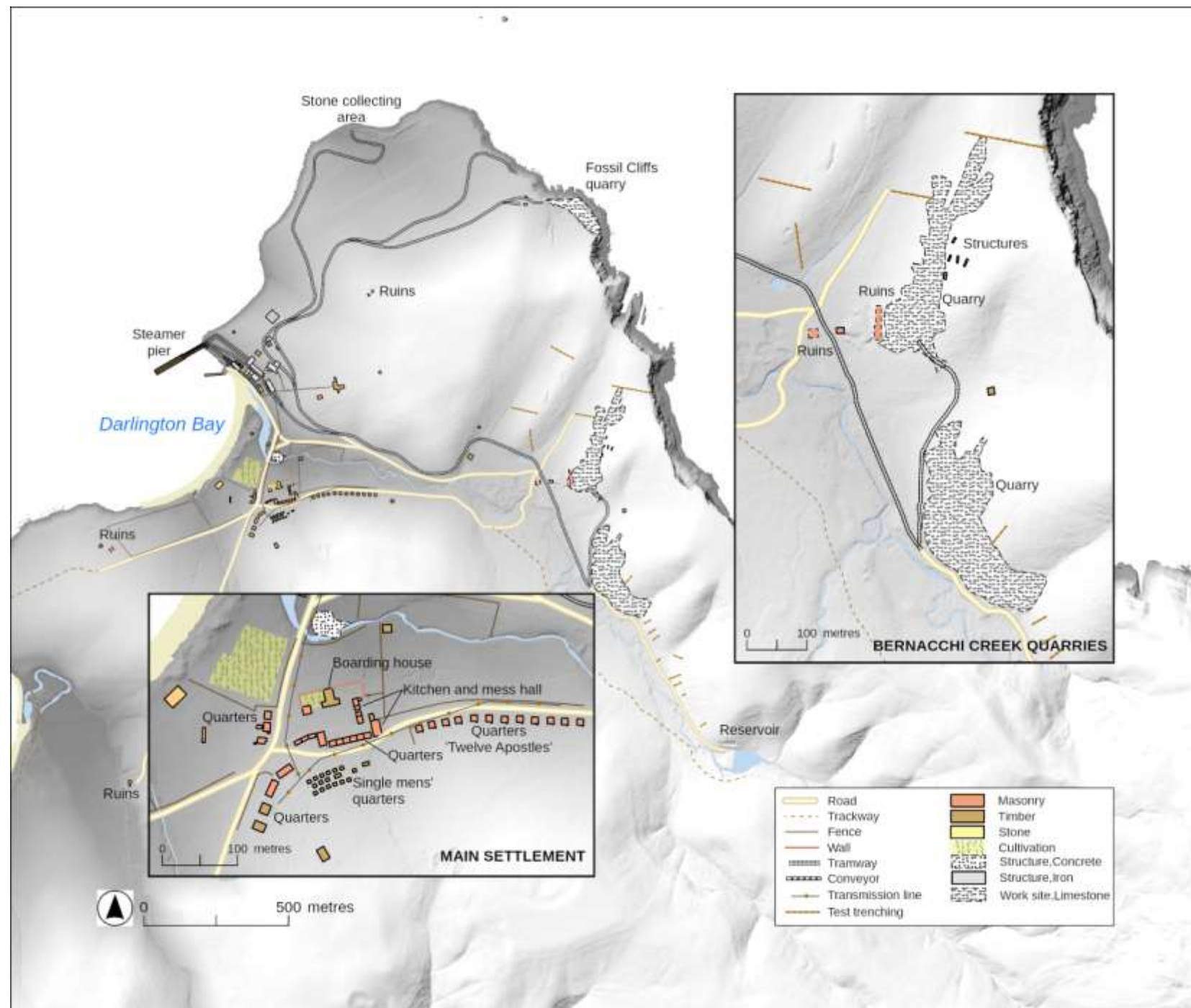
Bernacchi's vineyard, ca.1880s (TAHO)

It's Maria Island

Stuff you already know...

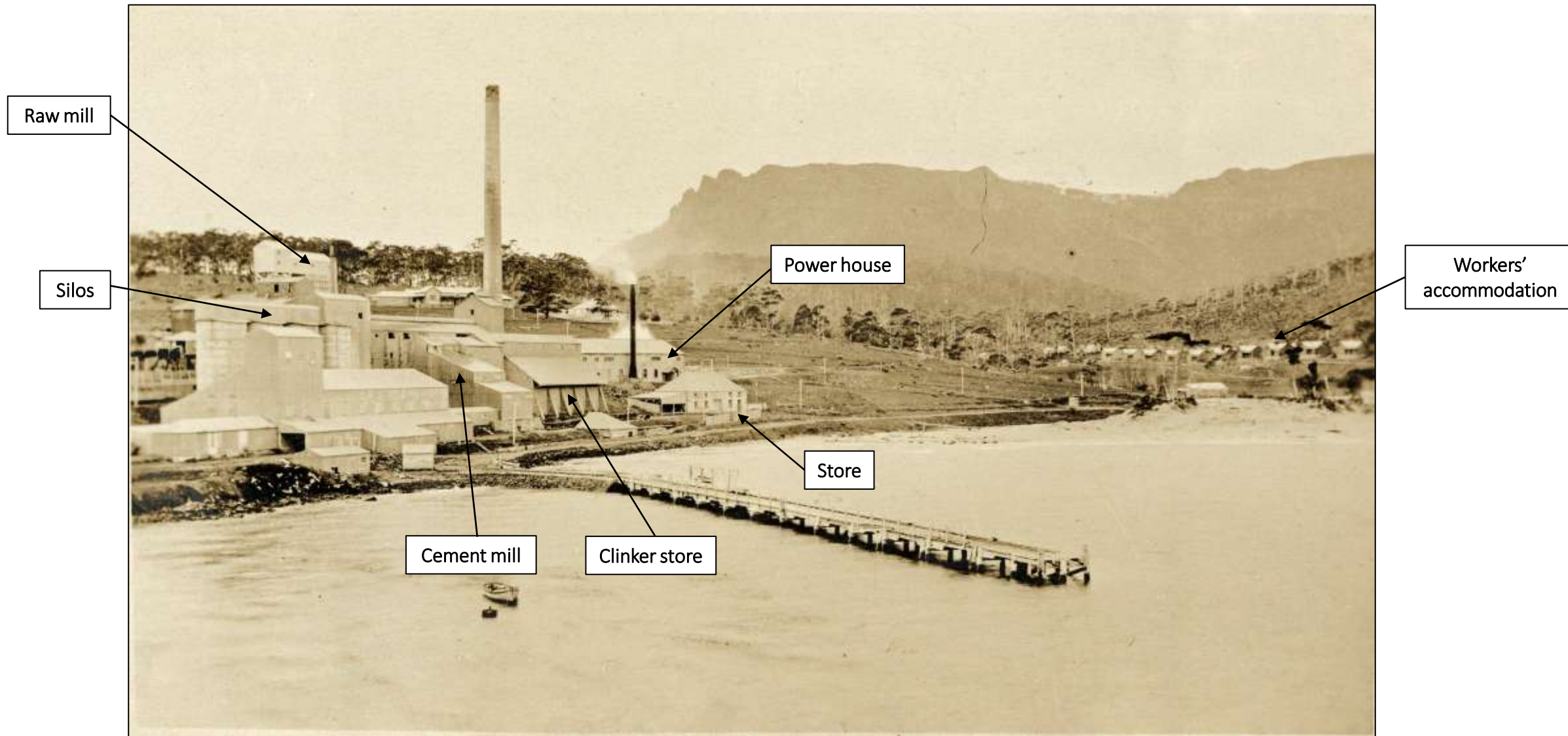
Concreting paradise: 1920 - 1930

- A direct result of Bernacchi's drive
- Many companies floated...and failed between 1892 – 1920
- Worked began 1920. Accommodation, sawmill, tramways
- 170 workers
- From 1922 work on site of cement factory. Completed 1924
- Controversial exploitation of Fossil Cliffs
- Operation of works 1924 – 1929, 100,000 tons cement produced
- Unserviceable debt, Depression



It's Maria Island

Stuff you already know...



Darlington, ca.1920s, taken from the steamer pier (TAHO)

It's Maria Island

Stuff you already know...

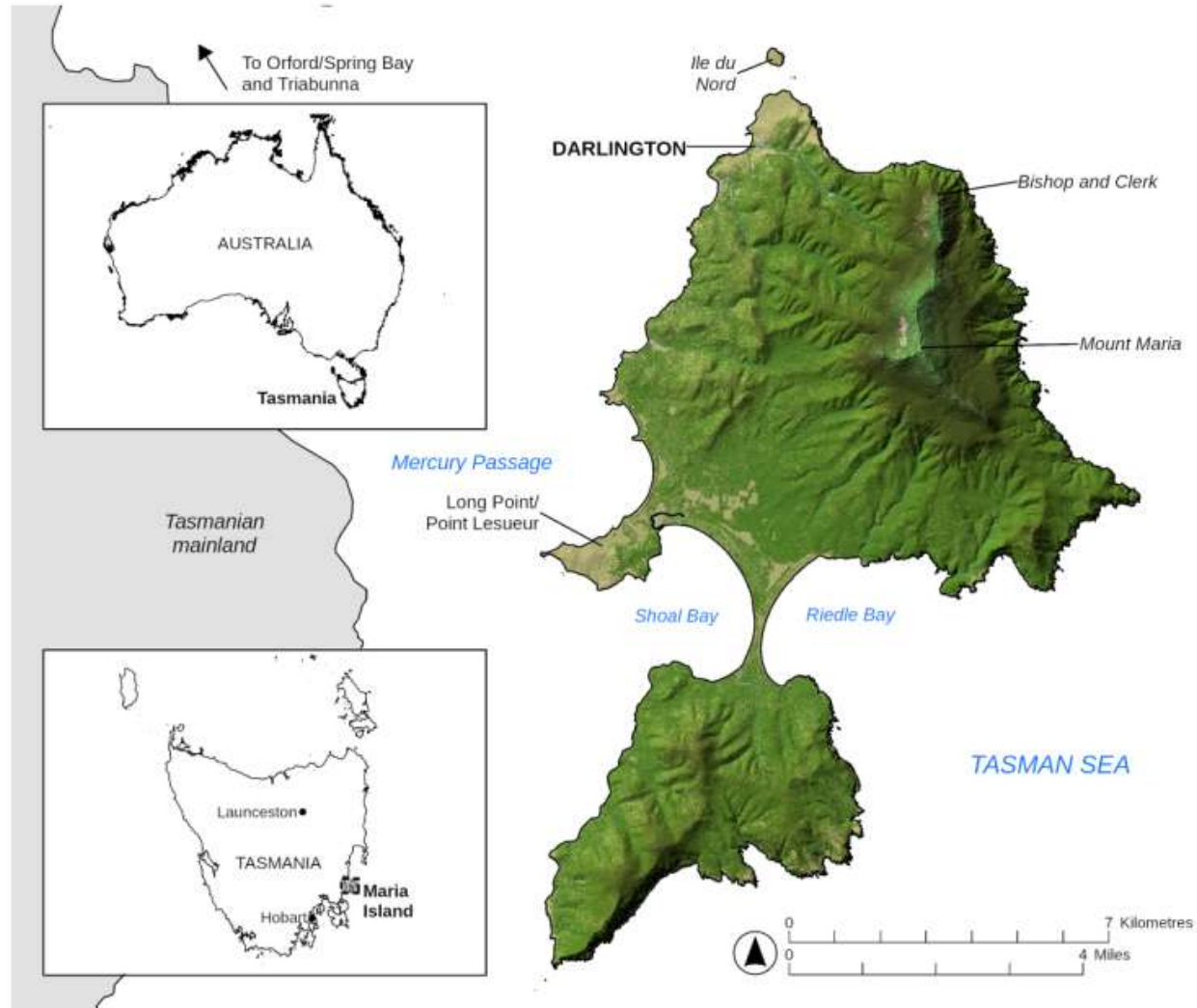


Darlington, today(ish) (Tas Parks)

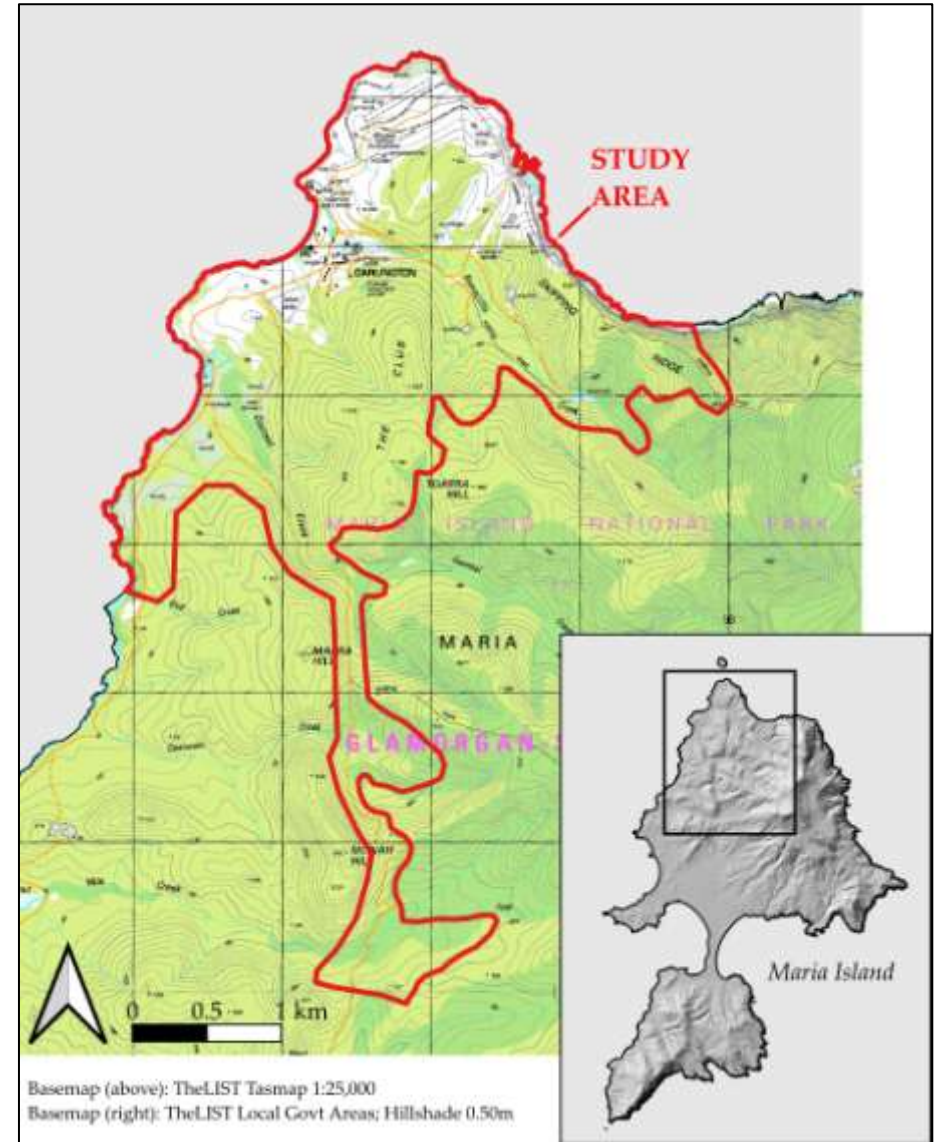
To the results...

- Surveyed and mapped ALL phases
- Did geophysics and found...not much
- Published a web map
- Wrote a book
- Surveyed Long Point

Surveyed and mapped ALL phases



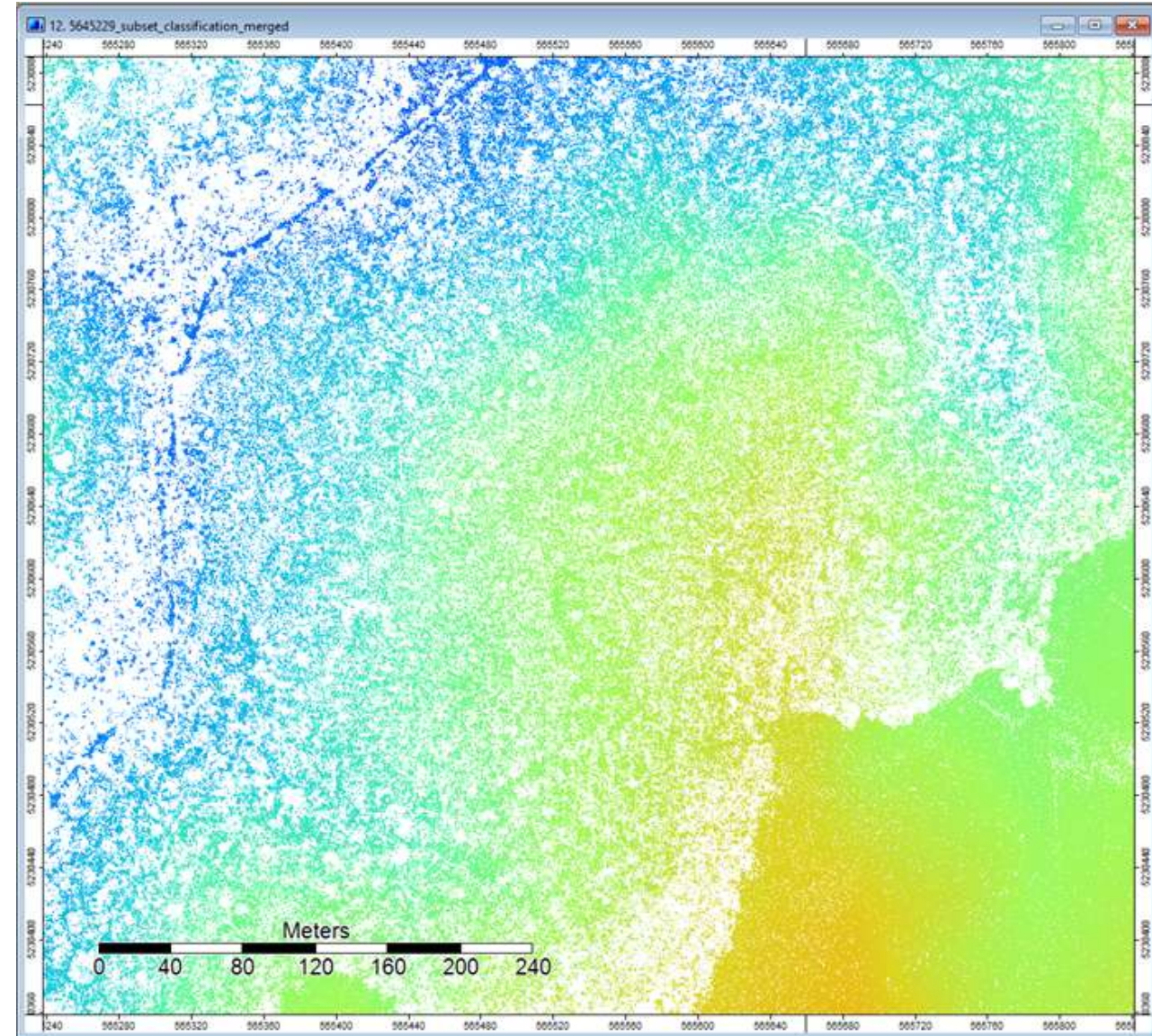
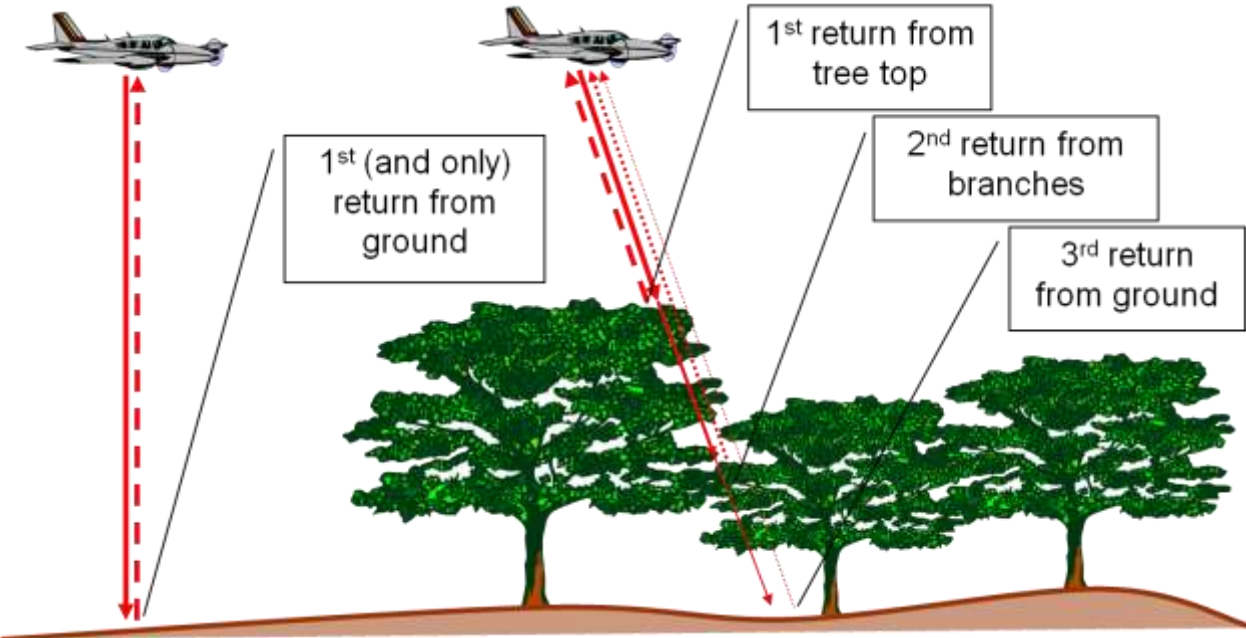
The island in all its glory...



...but we didn't survey all of it

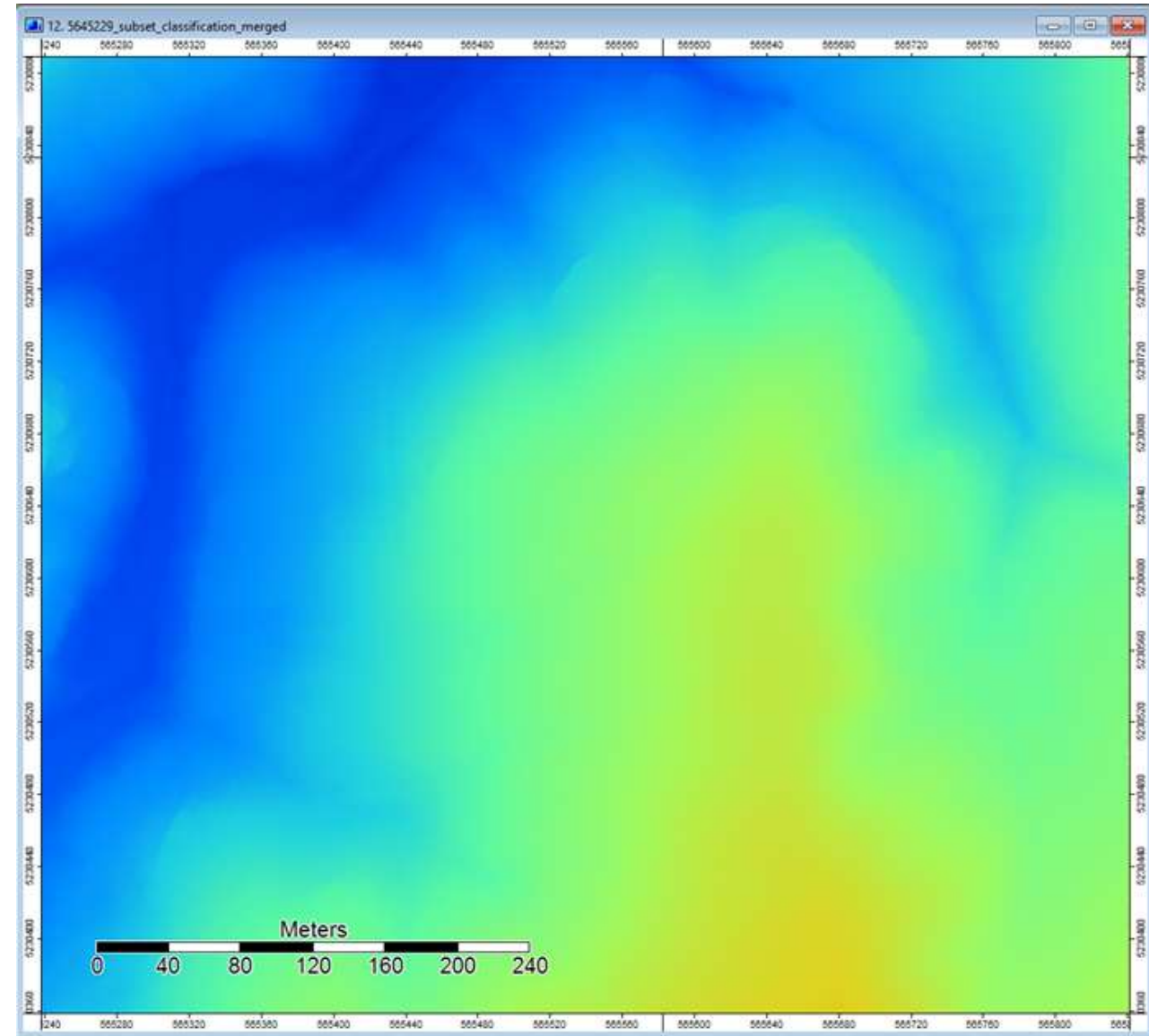
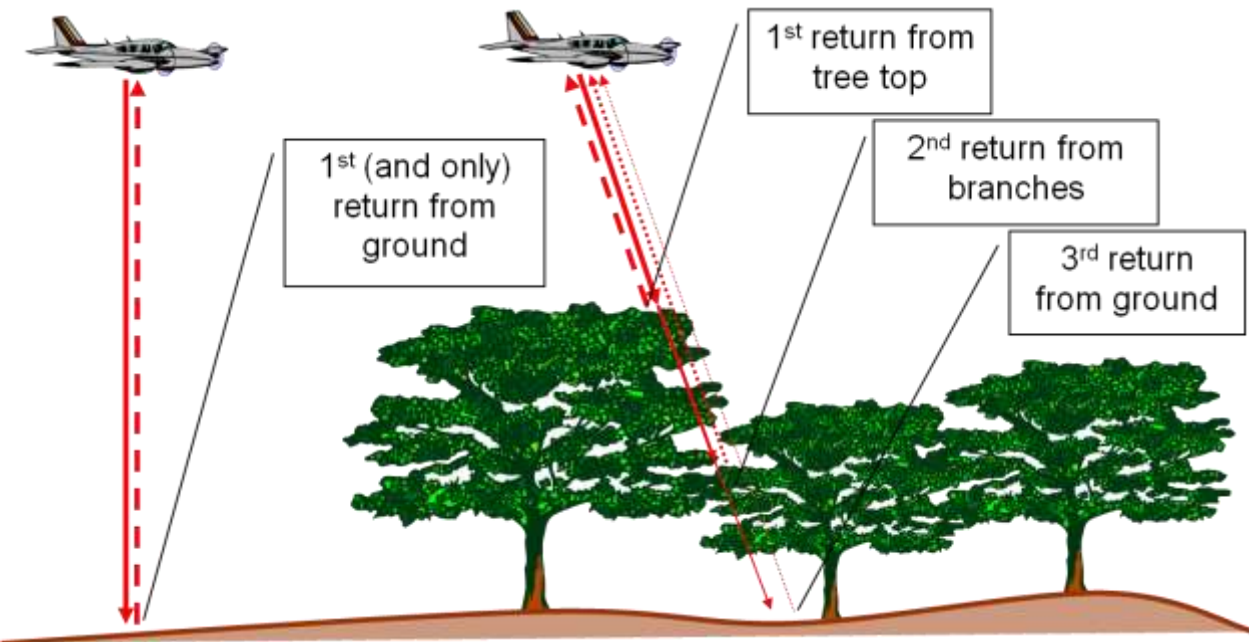
Followed a timeworn process...

LiDAR – Light Detection and Ranging



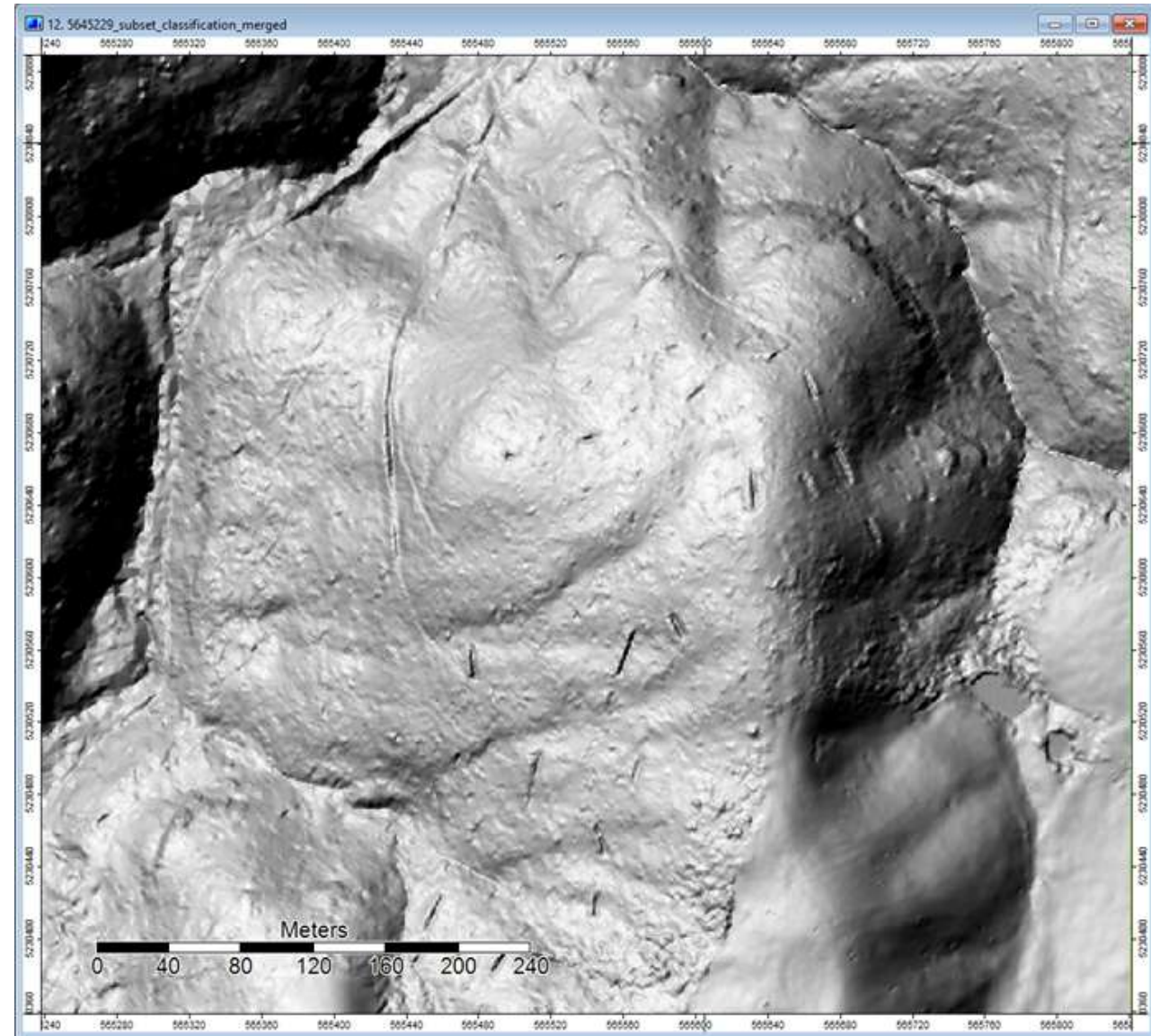
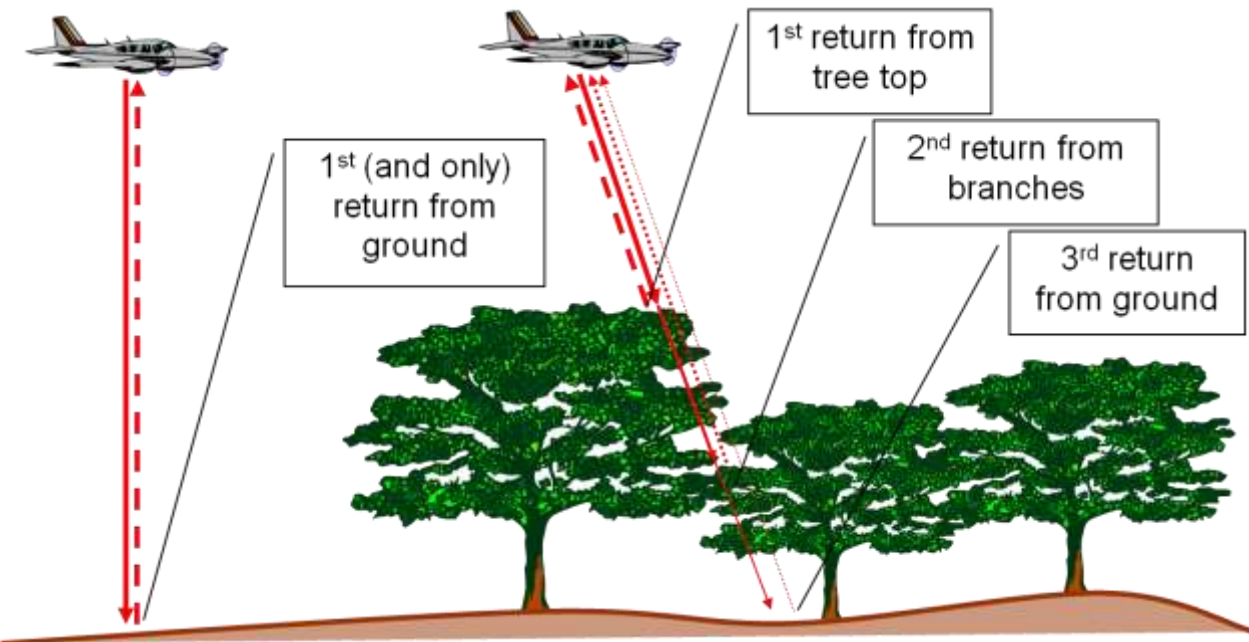
Point data

'Bare earth' returns



**Digital Elevation Model
(DEM)**

LiDAR – Light Detection and Ranging



Hillshaded DEM

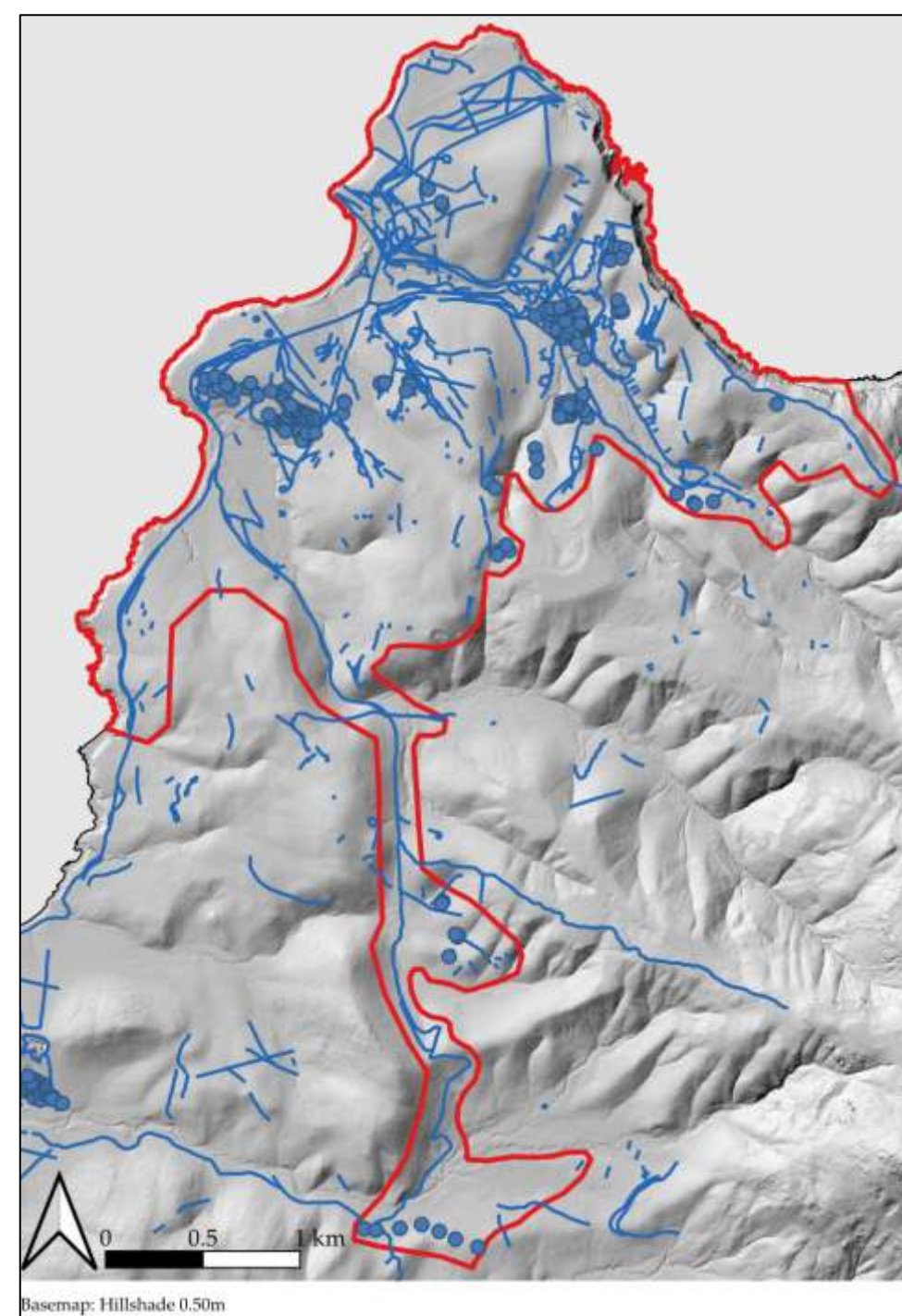
315 azimuth, 40 angle

Digitised things that looked interesting...

...uploaded them to a GPS...



...and ground-truthed it through archaeological survey



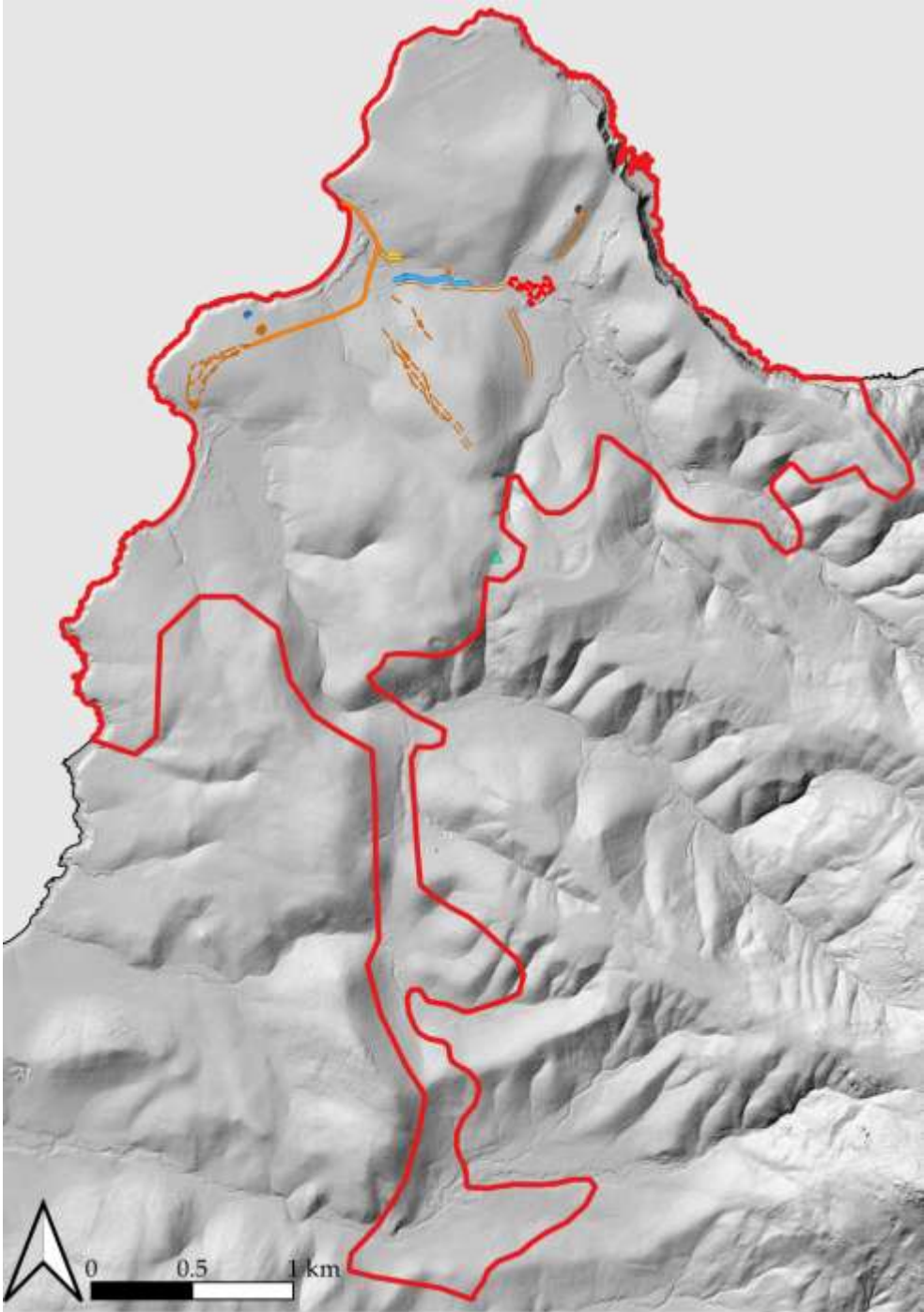
Boring numbers

Phase	Date range	# Features
Convict – penal	1825 – 32	61
Convict – probation	1842 – 52	117
Bernacchi period	1884 – 97	92
Industrial period	1920 – 30	367
Post-Industrial period	> 1931	141
TOTAL		515



Boring numbers

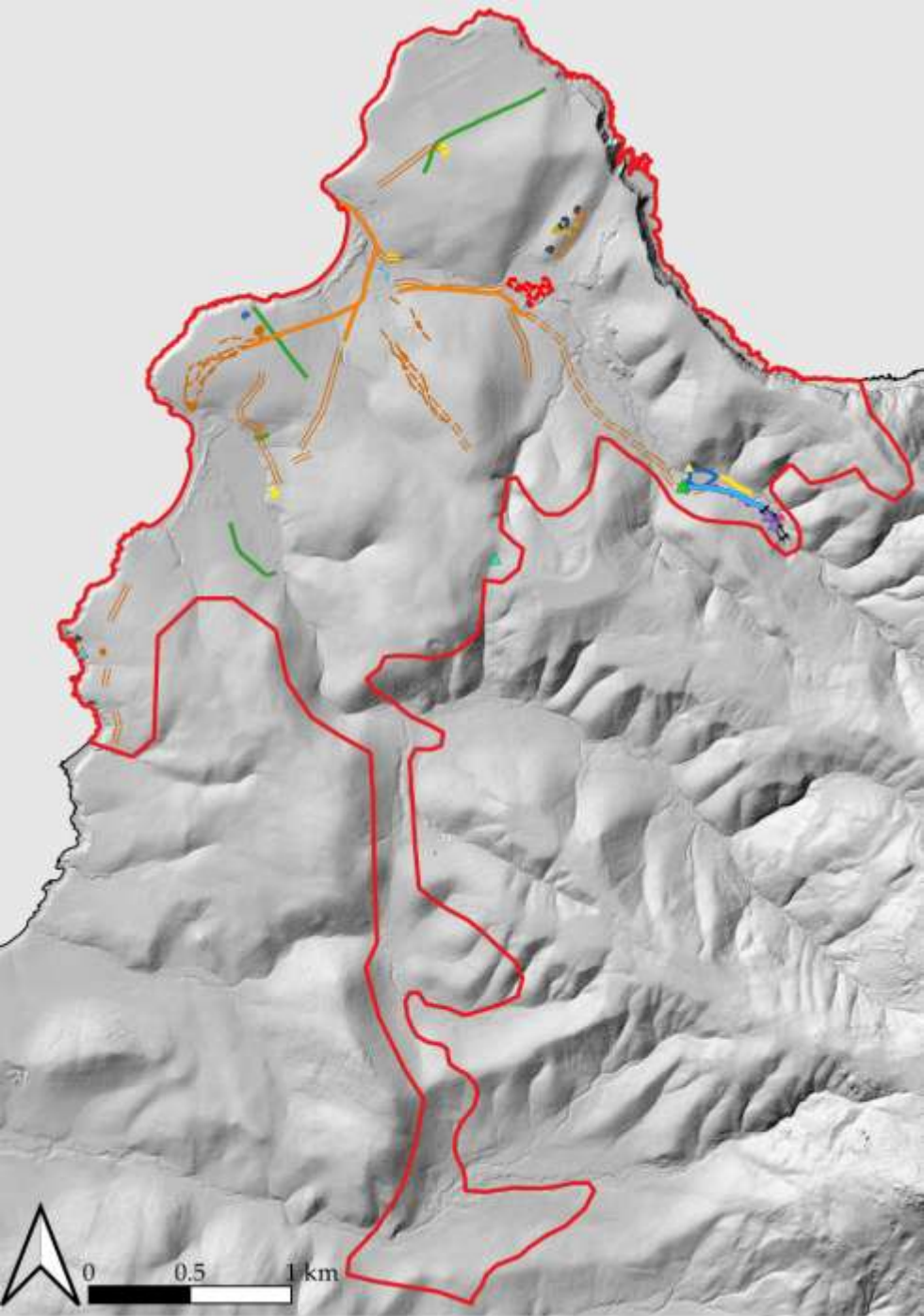
Phase	Date range	# Features
Convict – penal	1825 – 32	61



Basemap: Hillshade 0.50m

Boring numbers

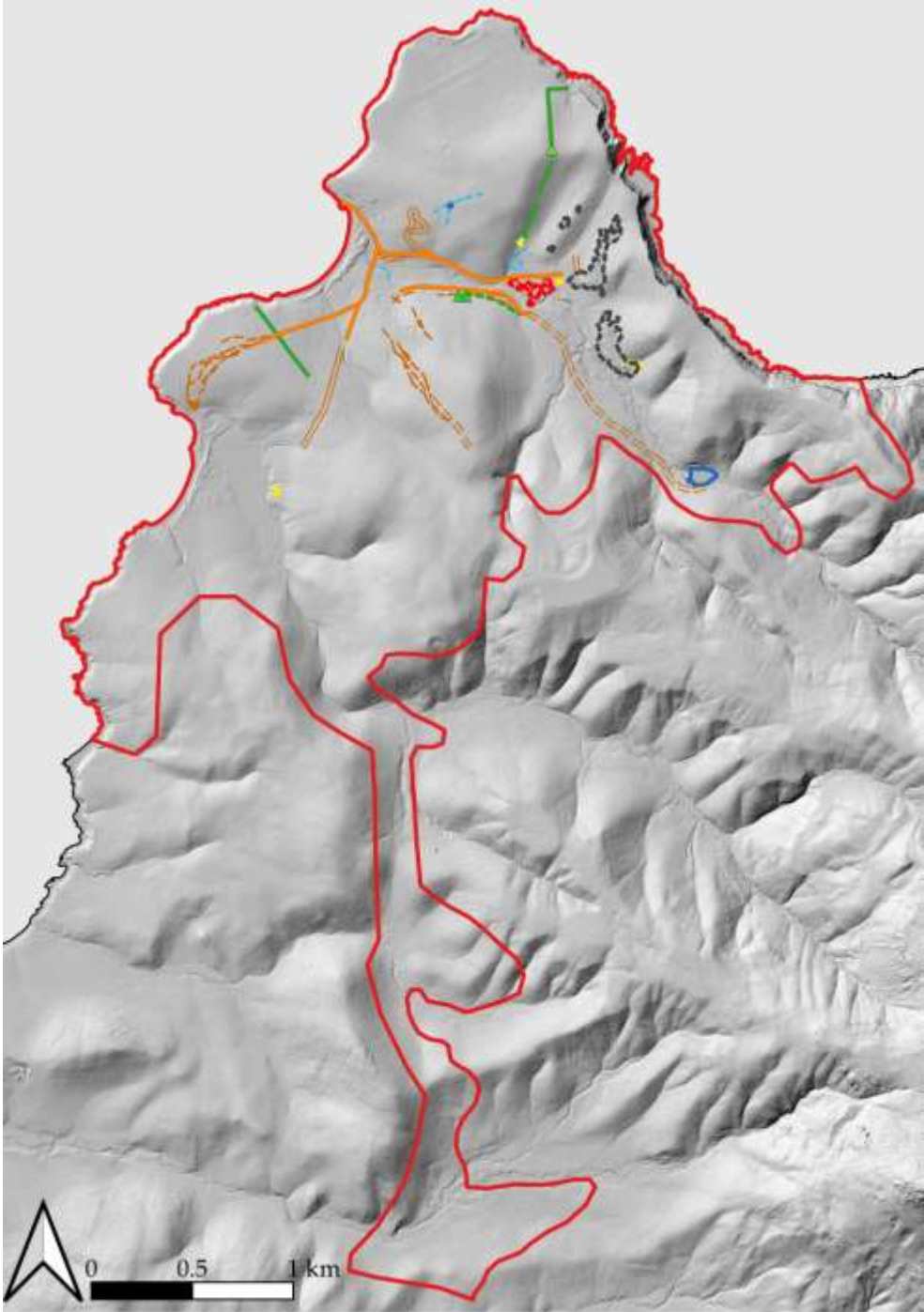
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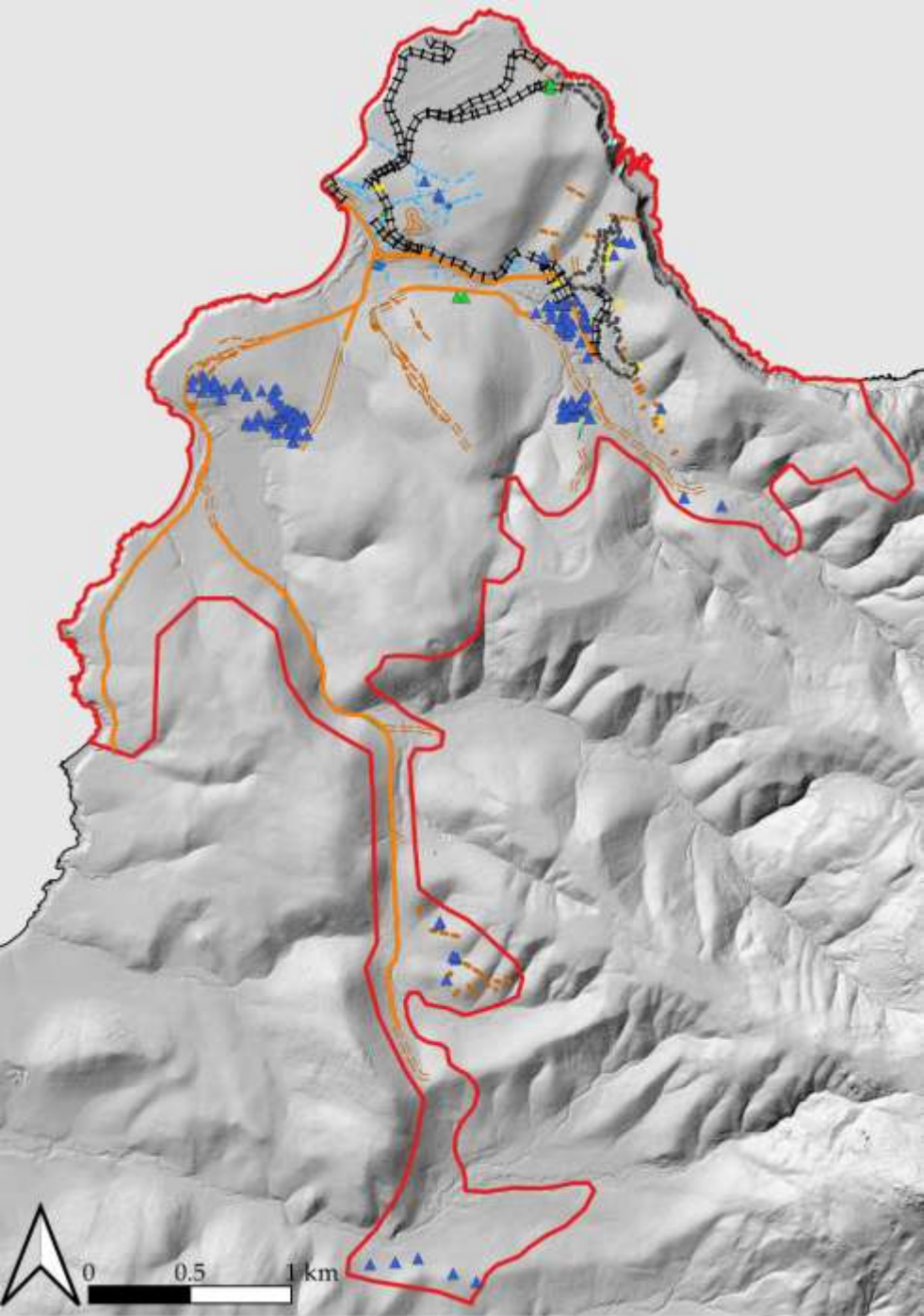
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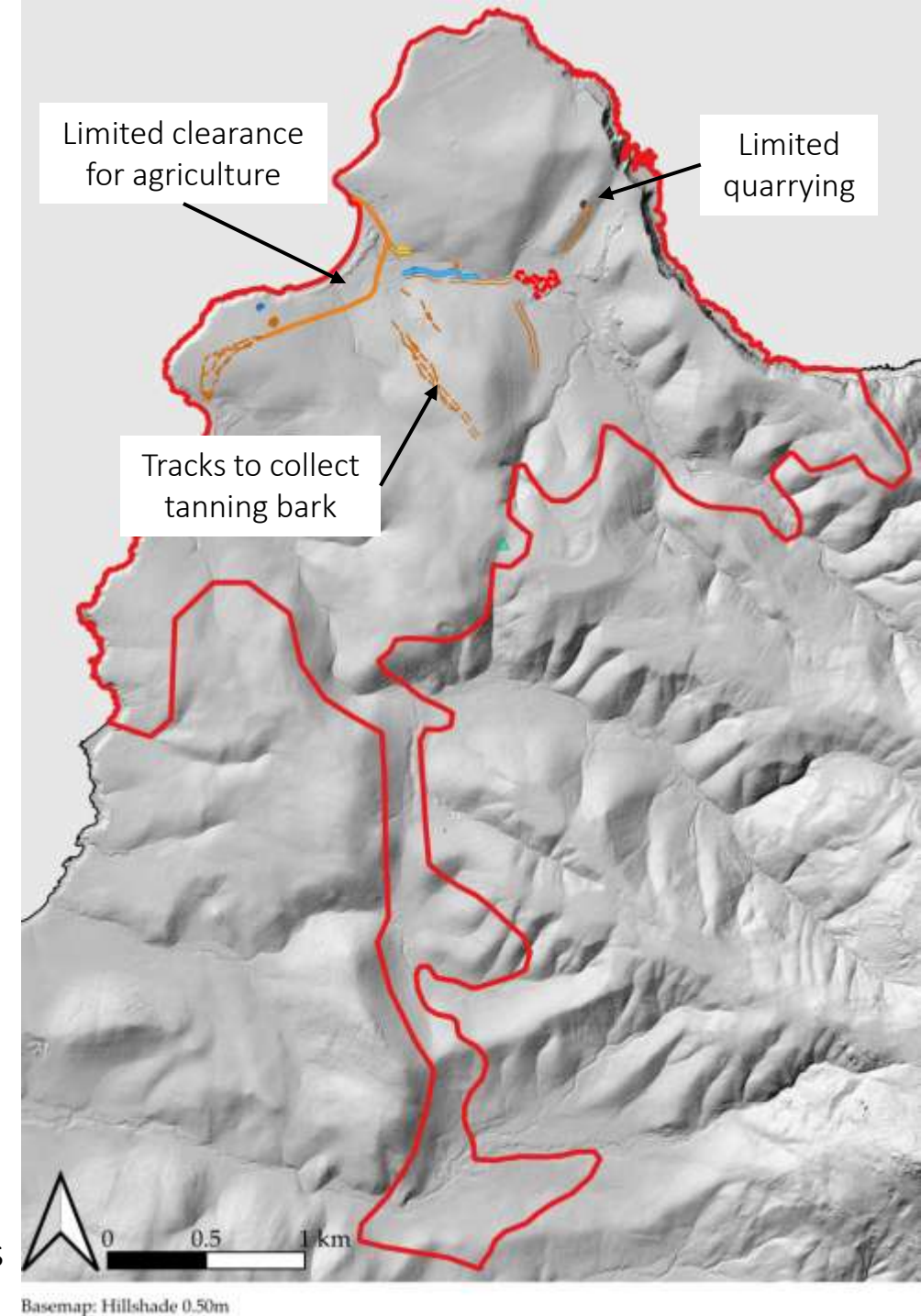
And what did you learn young man?

No startling finds were made, however...

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- the convict Penal Period had limited impact upon the hinterland

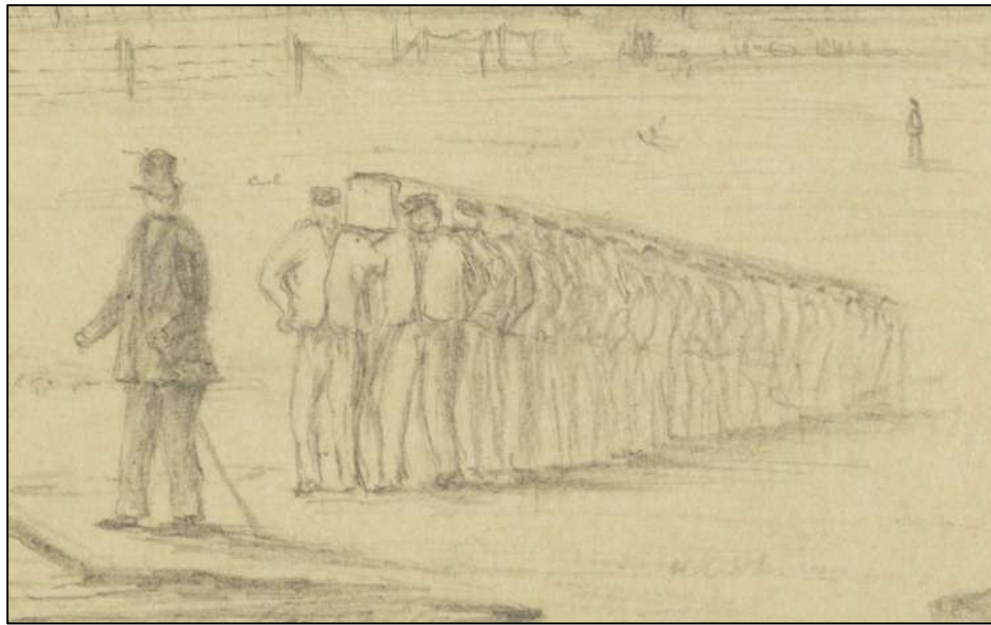


Penal Period features

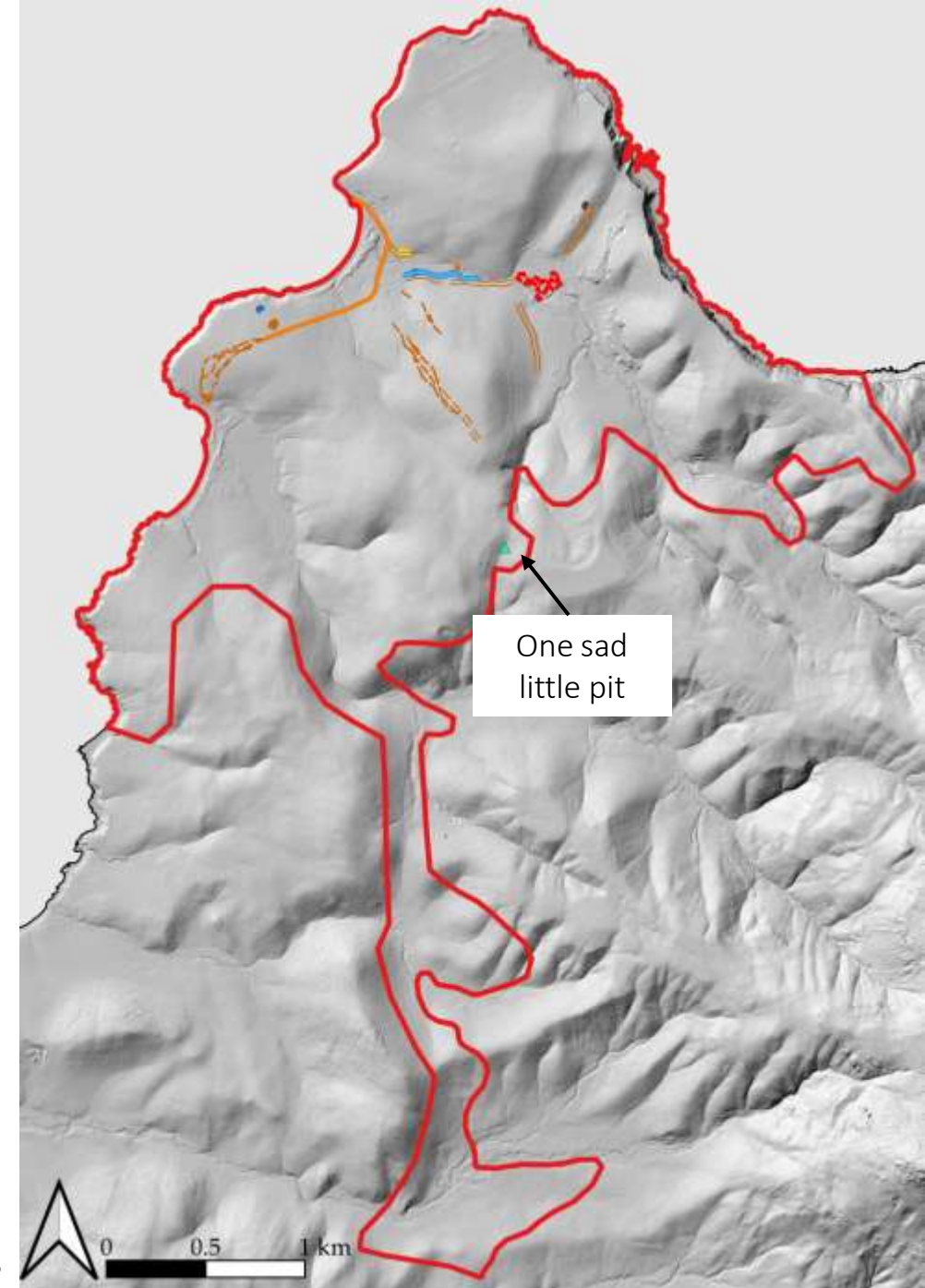
And what did you learn young man?

No startling finds were made, however...

- the convict Penal Period had limited impact upon the hinterland
- *a surprising lack of evidence of timber-getting (no pits?)*



Indicative of labour methods relying on bullocks and a lumber yard (Mitchell Library, SLNSW)



Penal Period features

Basemap: Hillshade 0.50m

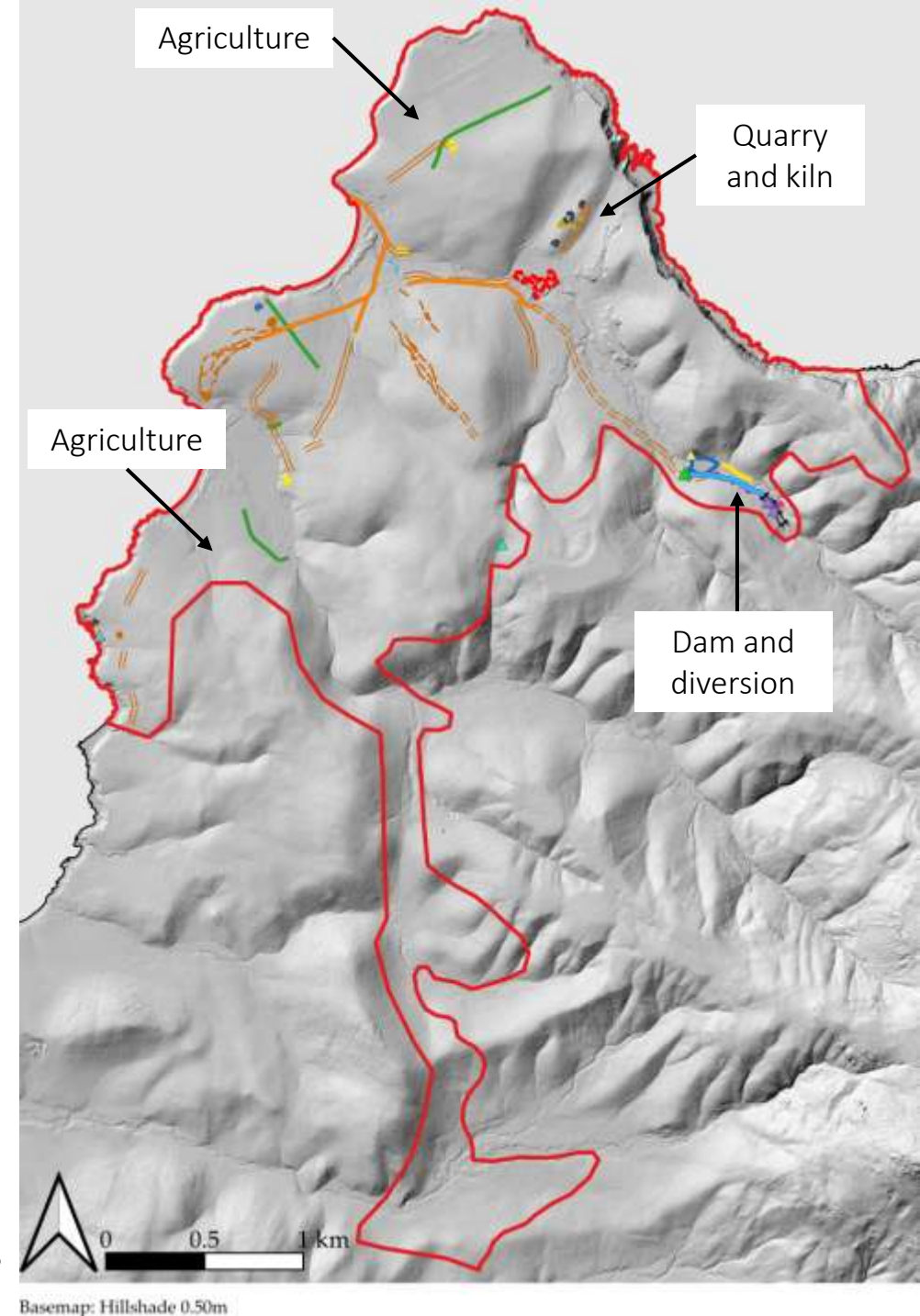
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- a surprising lack of evidence of timber-getting (no pits?)
- *clearance for largescale agriculture during the convict Probation Period moulded today's landscape*



Largescale wheat cropping for rations (NLA)



Probation Period features

And what did you learn young man?

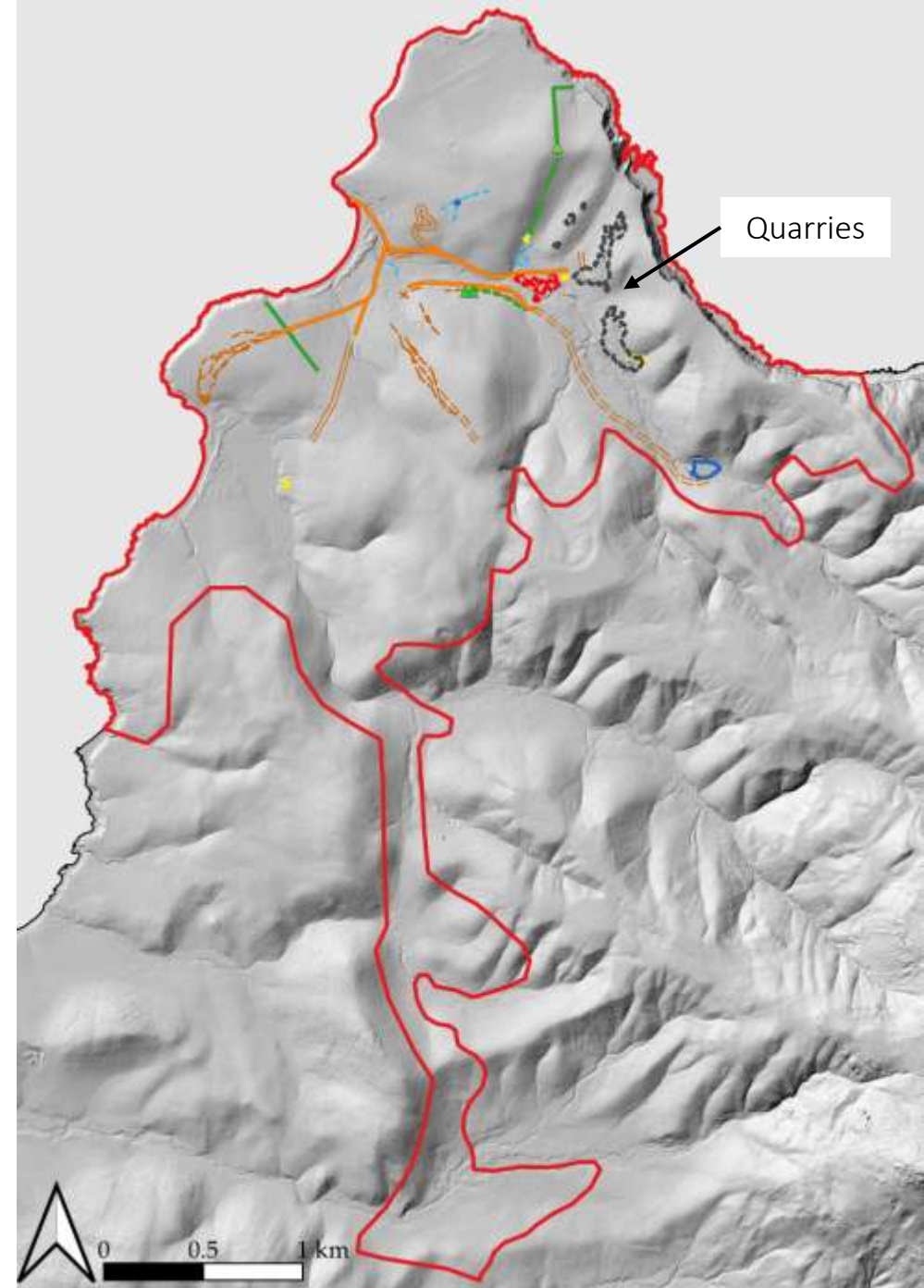
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- *Bernacchi largely stayed within the limits set by the Probation Period*



He had a stamp! (TAHO)

Bernacchi Period features



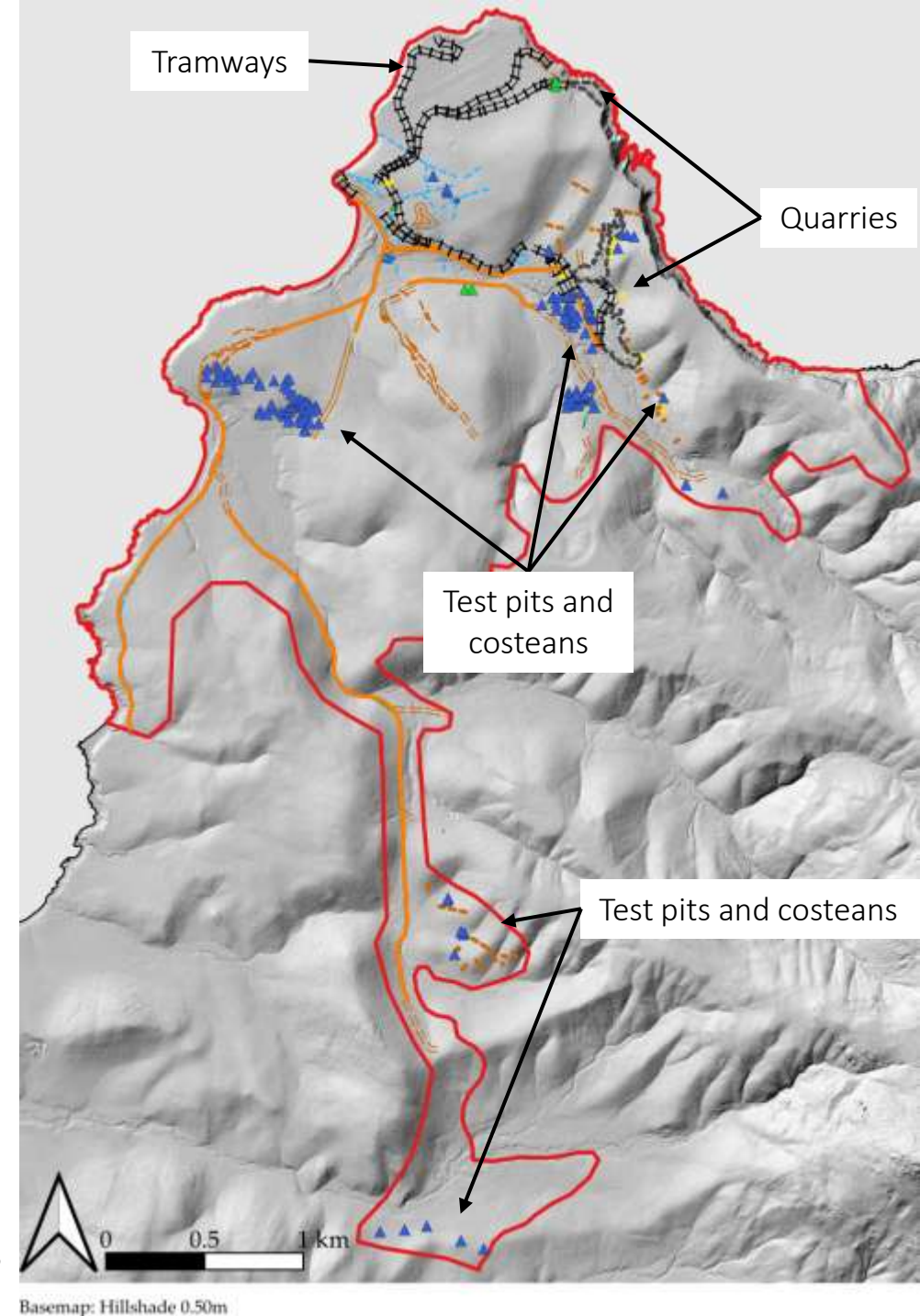
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- *the Industrial Period saw much greater exploitation and exploration of the hinterland*



Who needs nice scenery (TAHO)



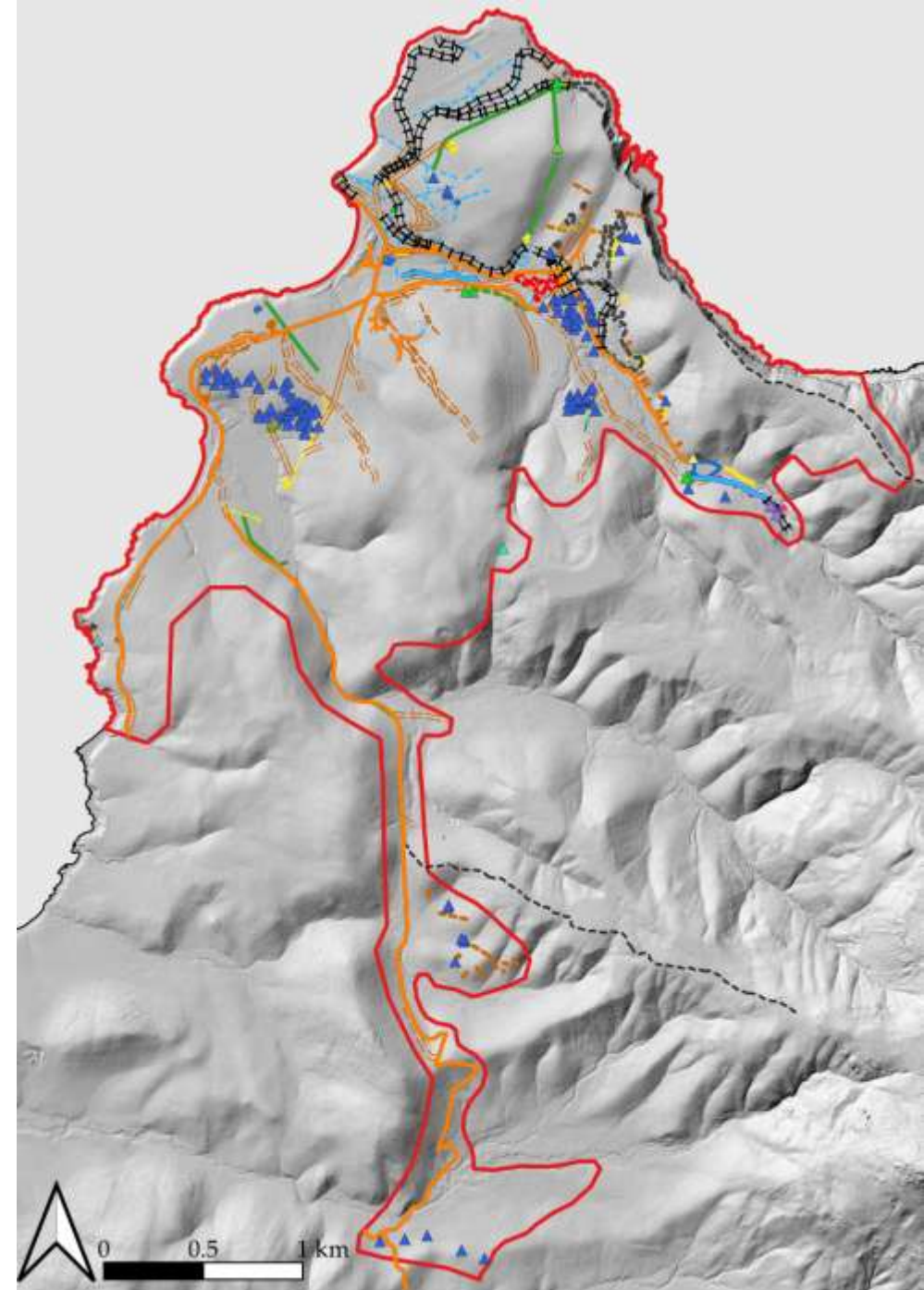
Industrial Period features

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- clearance for largescale agriculture during the convict Probation Period moulded today's landscape
- Bernacchi largely stayed within the limits set by the Probation Period
- the Industrial Period saw much greater exploitation and exploration of the hinterland
- *that today's island is a mish-mash of all periods*

All 515 cultural features surveyed



Basemap: Hillshade 0.50m

Did geophysics and found...not much

We'd looked at the hinterland, what remained of the Penal Station core?

Very little remains of the Penal Station – just the 1830 barracks building and the Commissariat Store

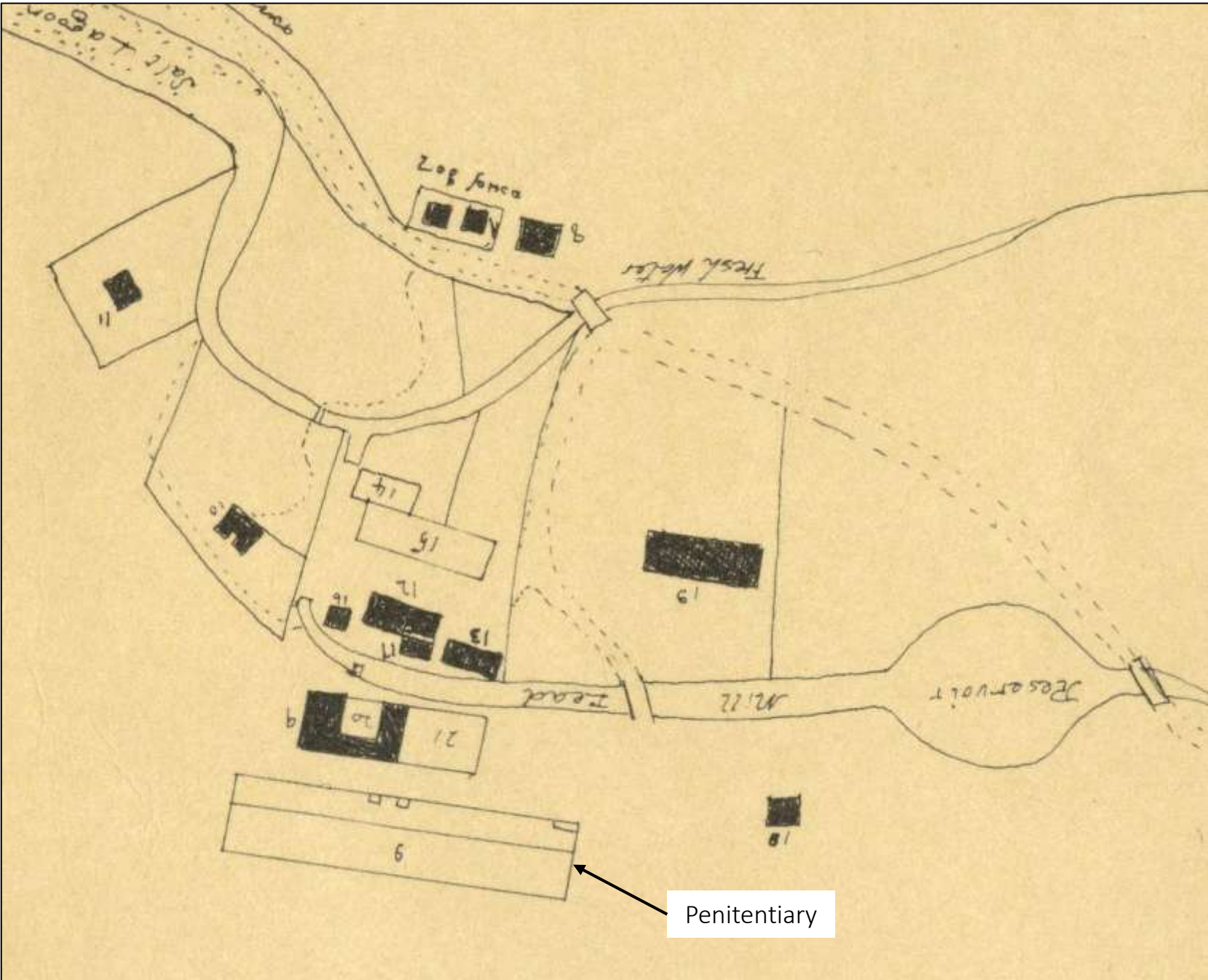


Penitentiary (David Roe)



Commissariat Store (David Roe)

One 1832 plan to guide us...



1832 plan of settlement (TAHO)

Recovering Darlington Probation Station's hidden convict landscapes

Extent of remote sensing survey



Basemap: Aerial and 10m contour, from theLIST ©State of Tasmania

Remote sensing area (9,000m²)



- Area 1
 - Military barracks
 - Gaol
 - First Store
 - Washouse and laundry

- Area 2
 - Workshops complex
 - School
 - Weir and pond

Station's extant structures

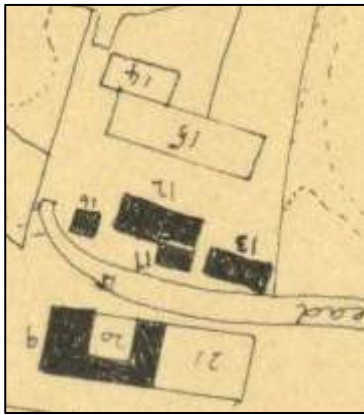
Penal Period buildings situated below Probation/Bernacchi structures and cleared ground along creek

Ground Penetrating Radar

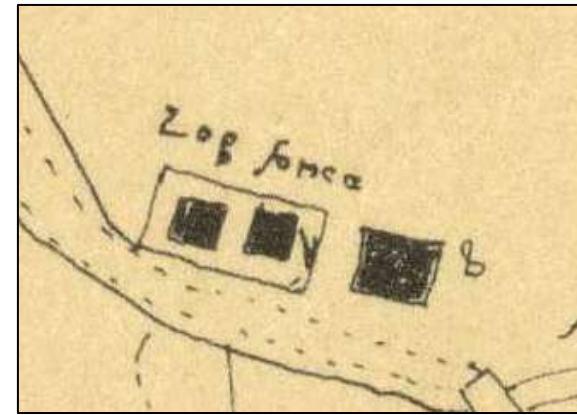


Resistance Meter

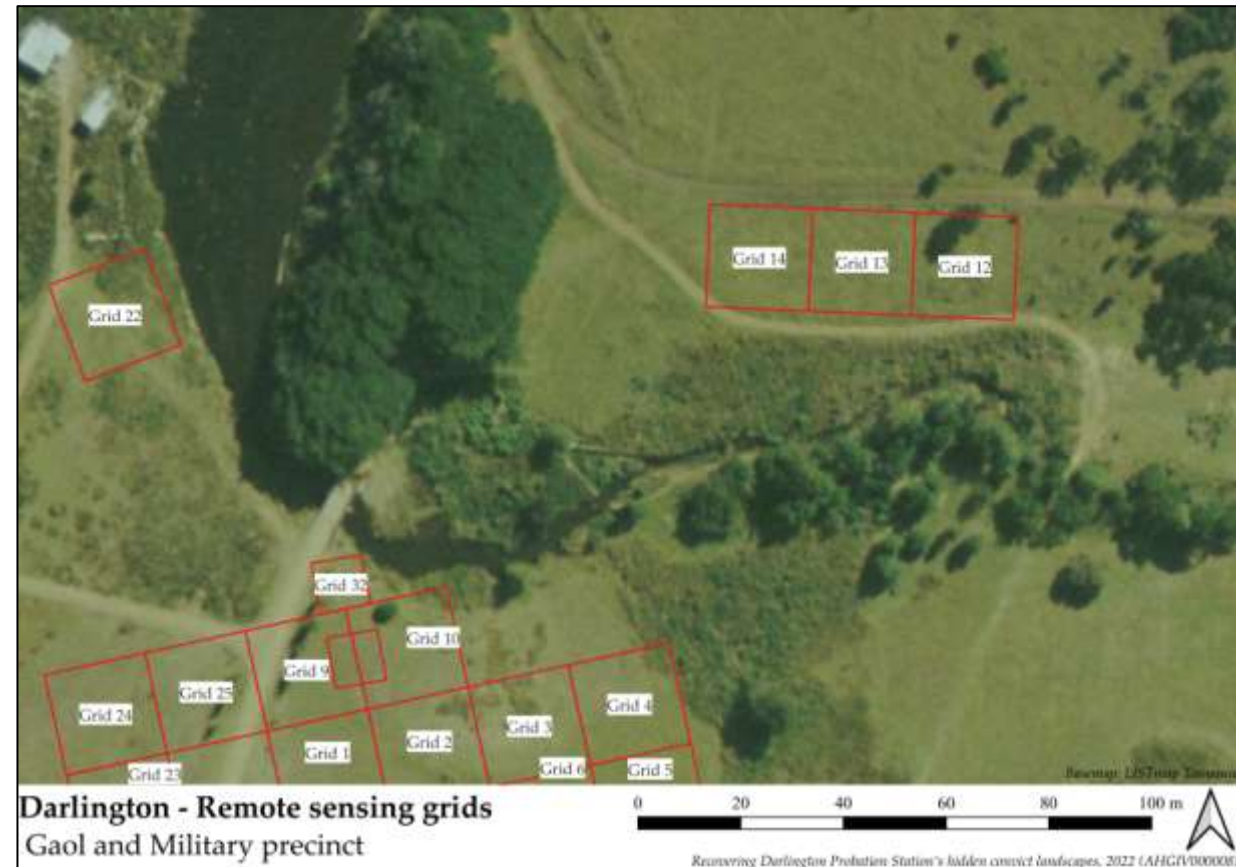
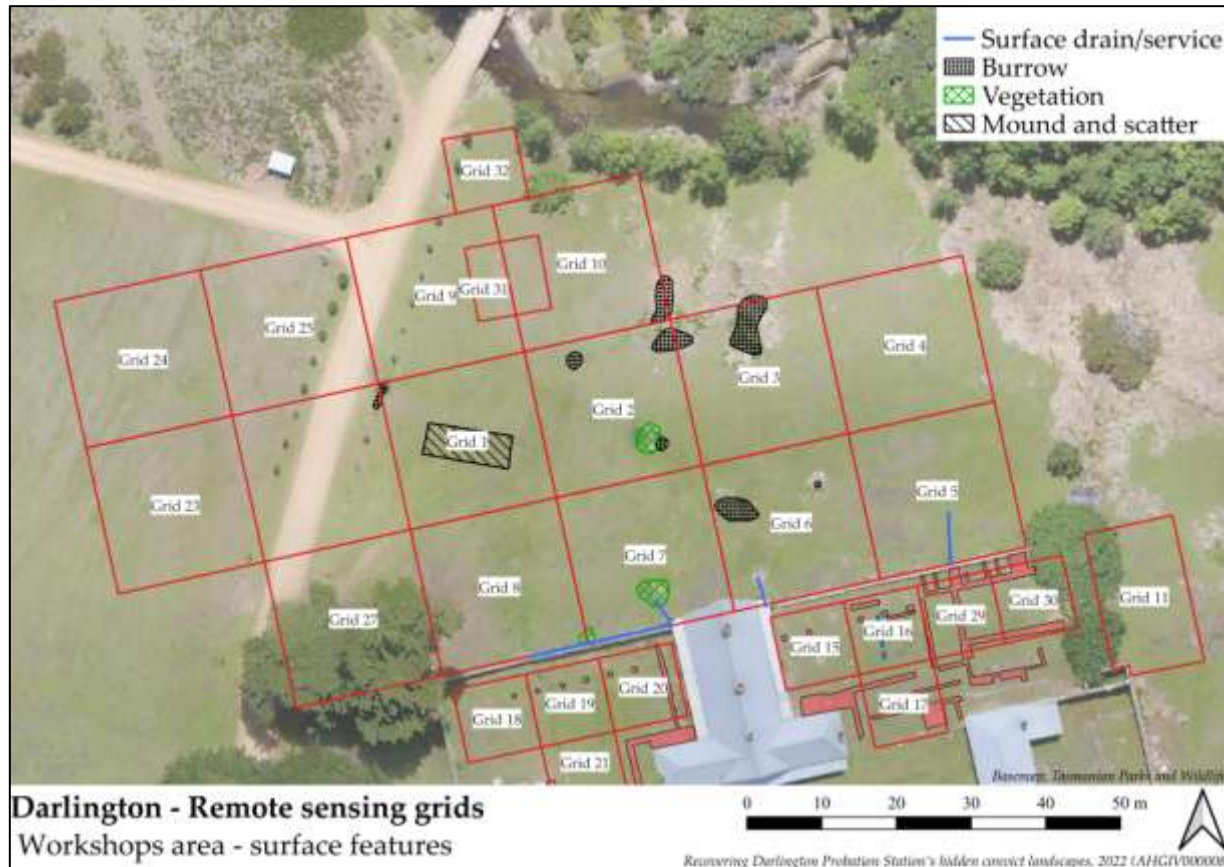




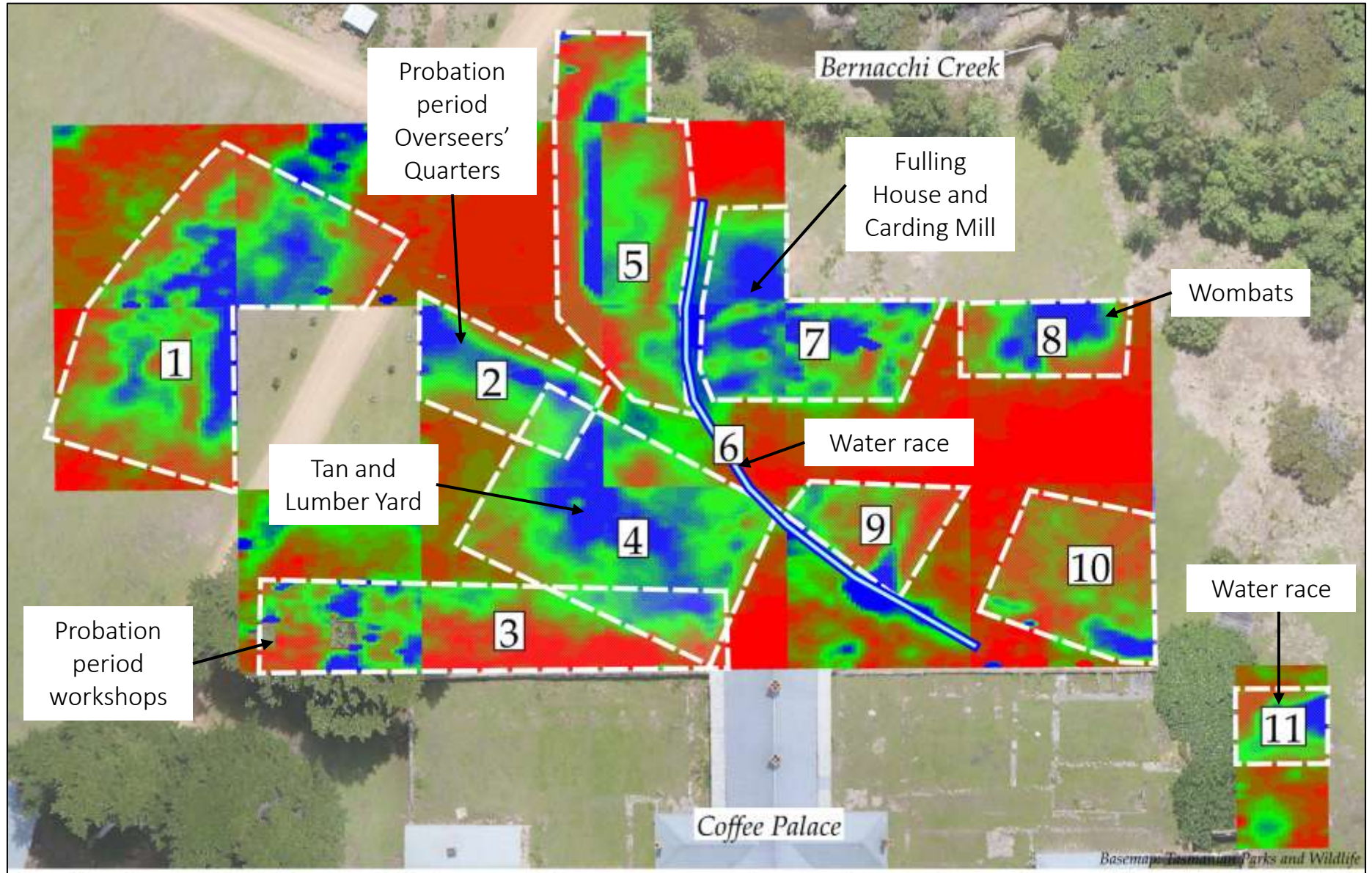
Workshops, Lumber Yard, Tan Yard, watercourse



Military barracks and gaol

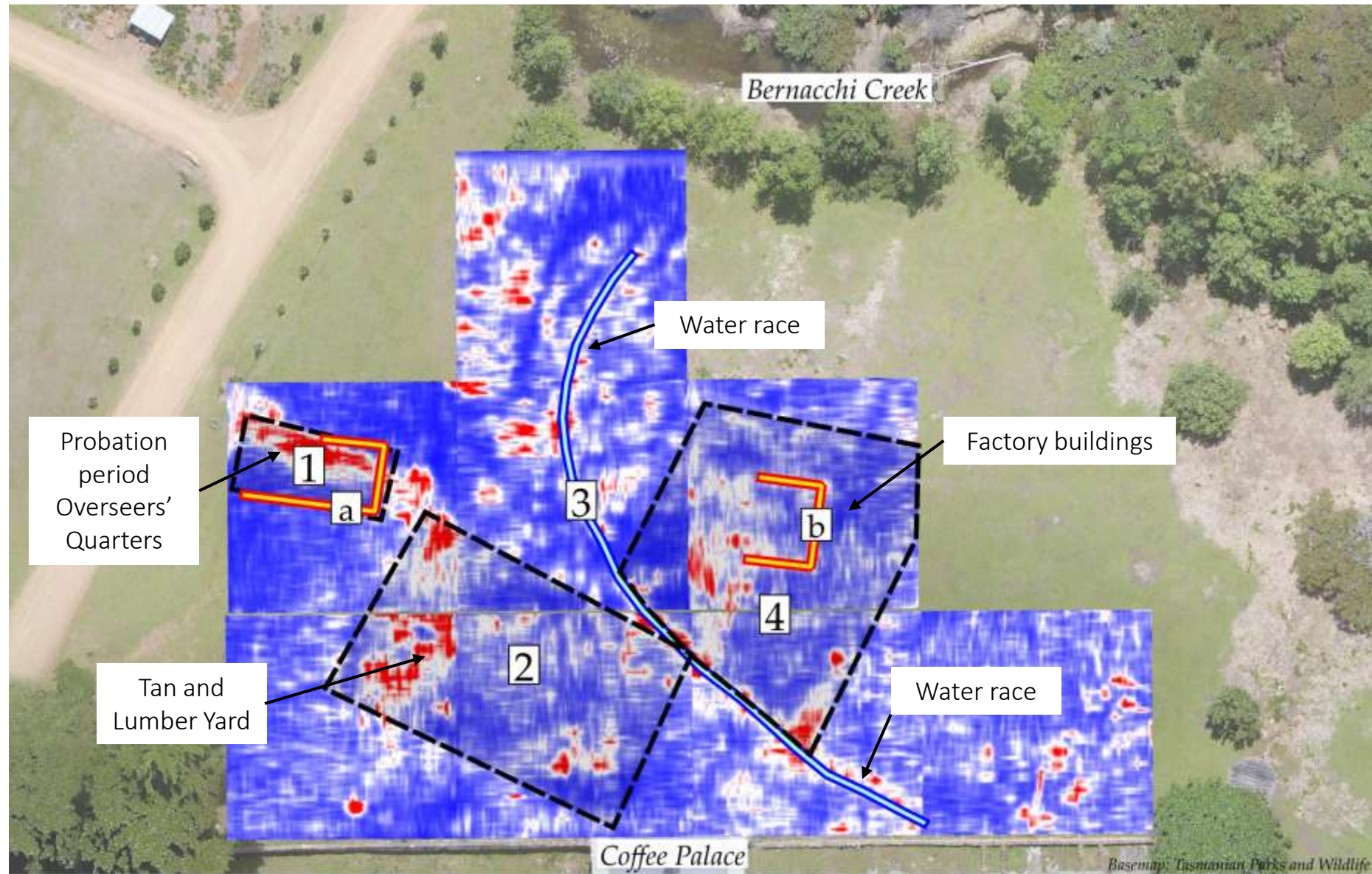


Workshops results – Resistance Meter



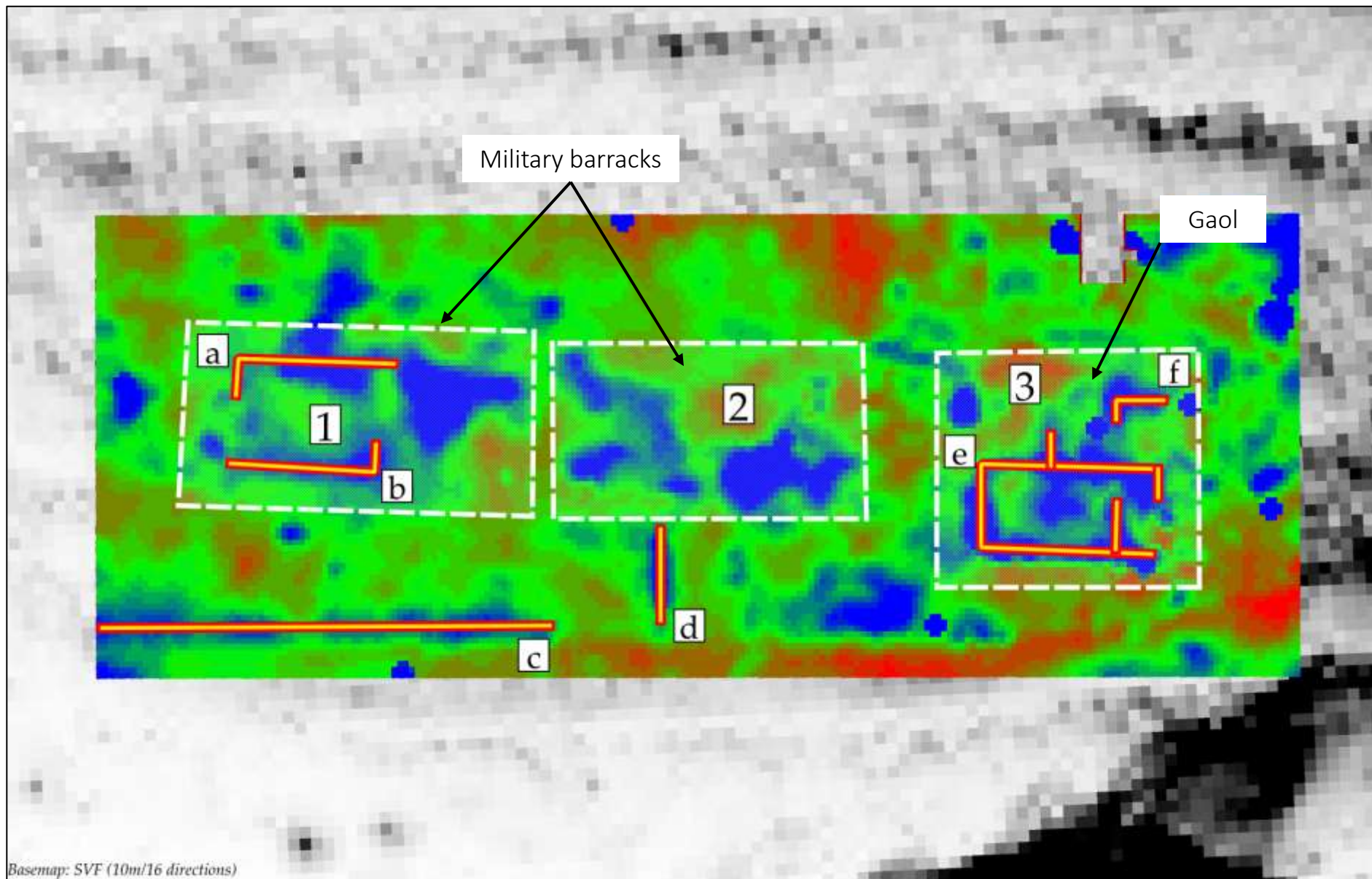
Darlington - Resistance Meter results
Workshops area

Workshops results – GPR



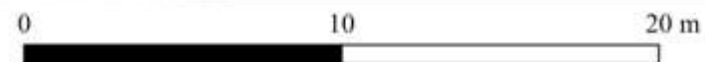
Darlington - GPR results
Workshops area

Workshops results – GPR



Basemap: SVF (10m/16 directions)

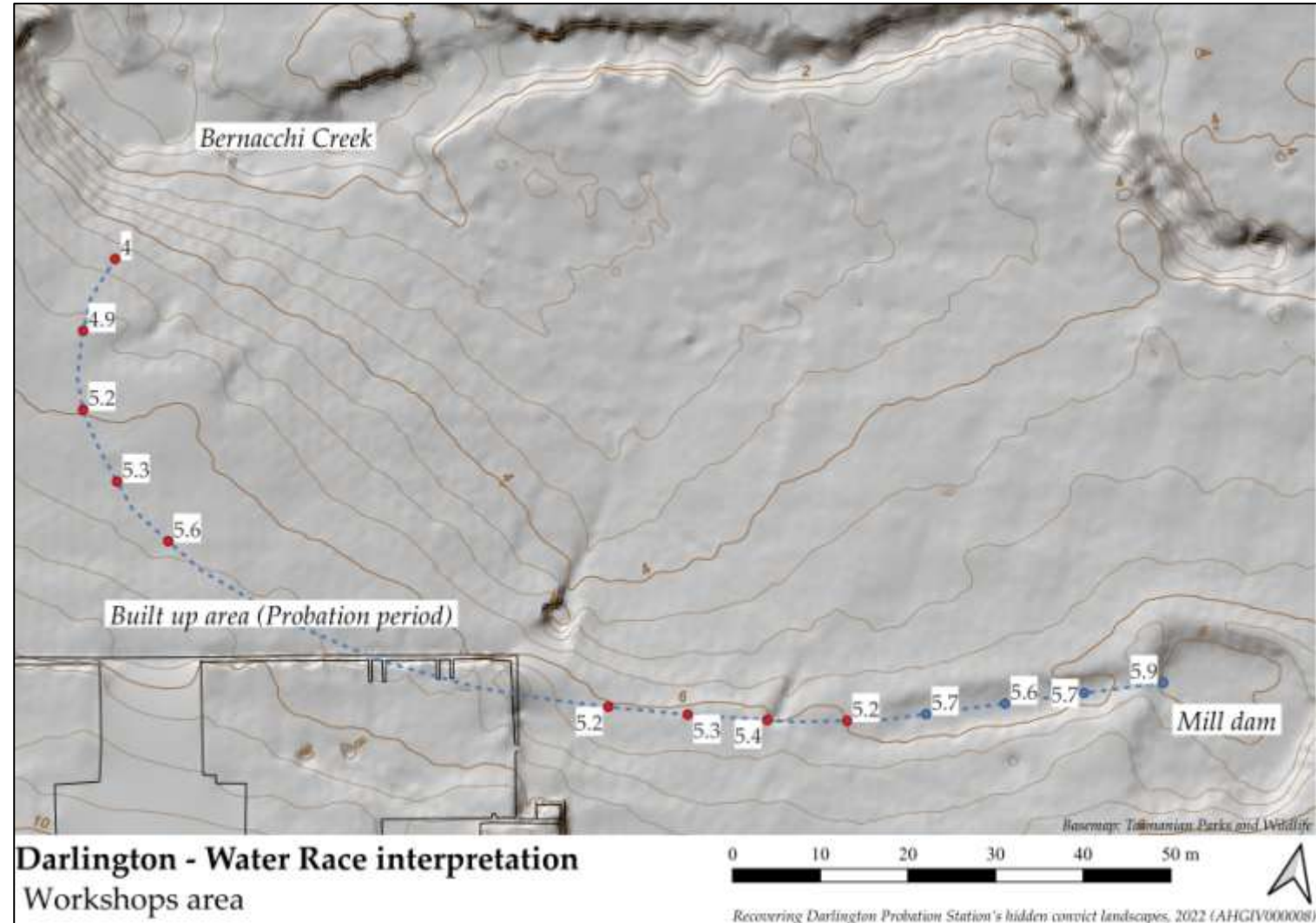
Darlington - Resistance Meter results Gaol and Military precinct



And what did you learn young man?

That geophysics is hard, but also...

- *refined alignment of water race*



Estimated alignment of water race, showing heights

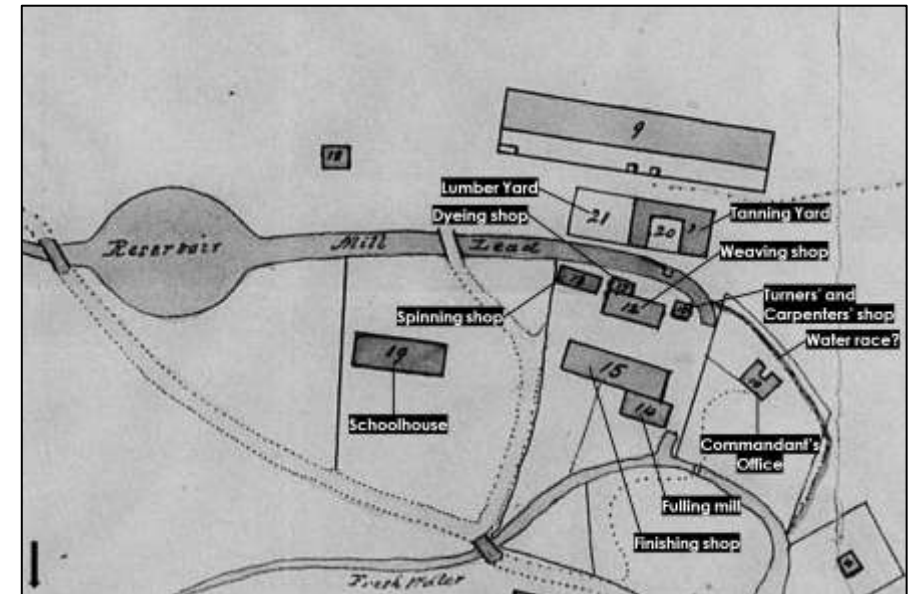
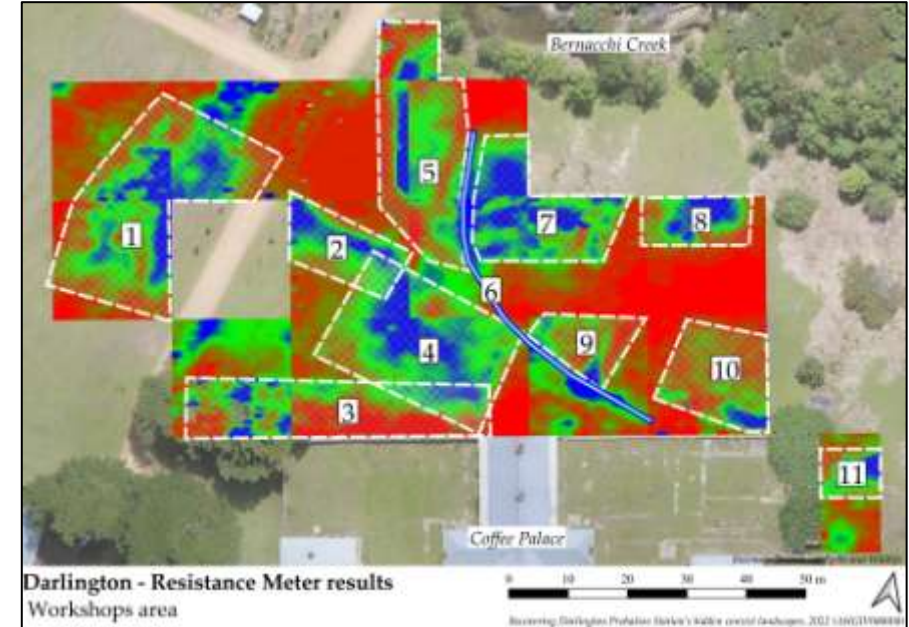
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That geophysics is hard, but also...

- refined alignment of water race
- *which helped us place factory structures*



1832 illustration, showing factory complex (TAHO)



And what did you learn young man?

That geophysics is hard, but also...

- refined alignment of water race
- which helped us place factory structures
- *which helps Parks manage and interpret an otherwise empty field*



Naughty



Not much to look at

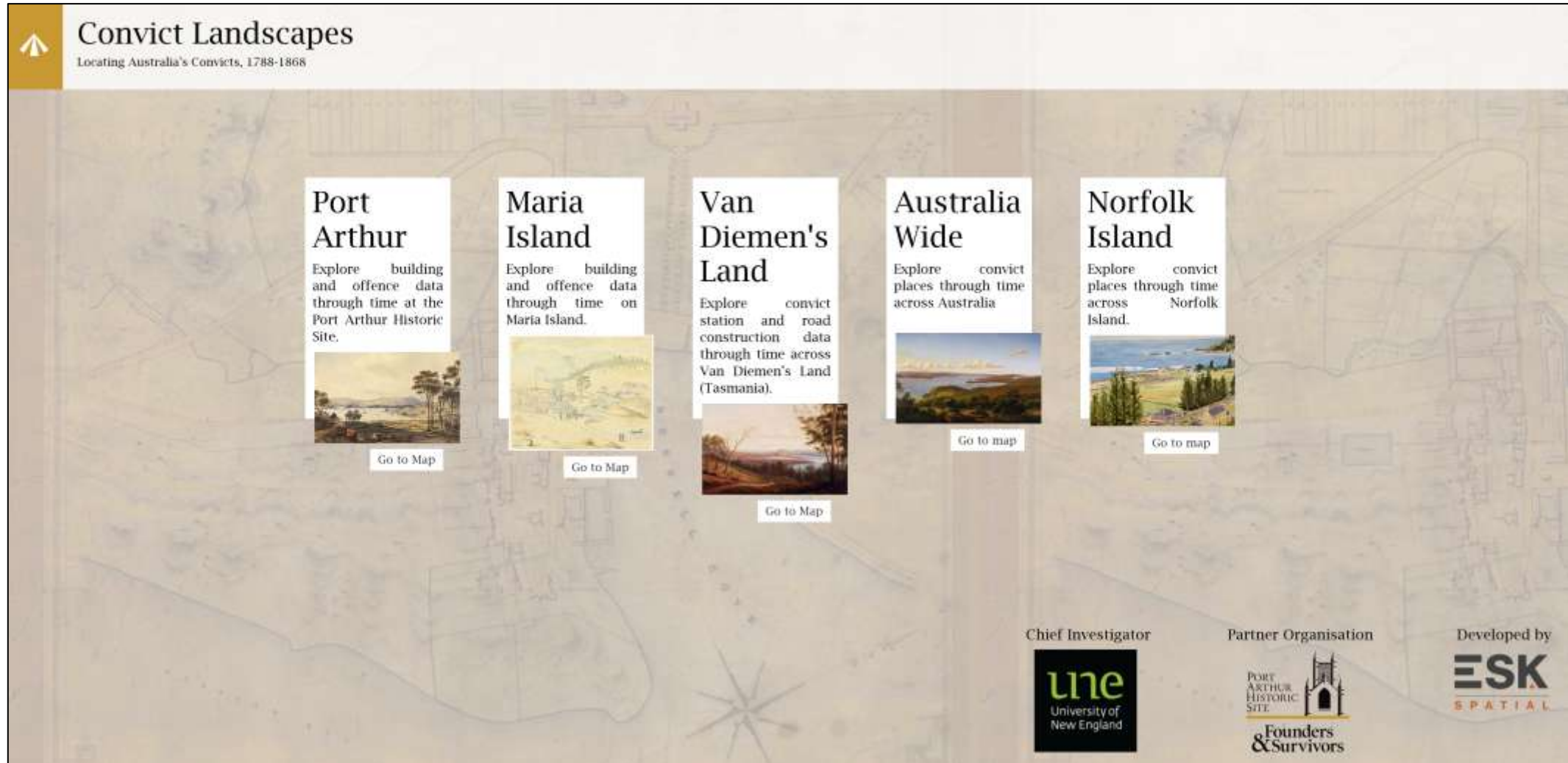
And what did you learn young man?

That geophysics is hard, but also...

- refined alignment of water race
- which helped us place factory structures
- which helps parks manage and interpret an otherwise empty field
- *which leads directly to our main outputs...*

Published a web map

Part of a suite of maps done for previous projects: Port Arthur, Van Diemen's Land, Australia



Convict Landscapes
Locating Australia's Convicts, 1788-1868

Port Arthur
Explore building and offence data through time at the Port Arthur Historic Site.
[Go to Map](#)

Maria Island
Explore building and offence data through time on Maria Island.
[Go to Map](#)

Van Diemen's Land
Explore convict station and road construction data through time across Van Diemen's Land (Tasmania).
[Go to Map](#)

Australia Wide
Explore convict places through time across Australia.
[Go to map](#)

Norfolk Island
Explore convict places through time across Norfolk Island.
[Go to map](#)

Chief Investigator
UNE
University of New England

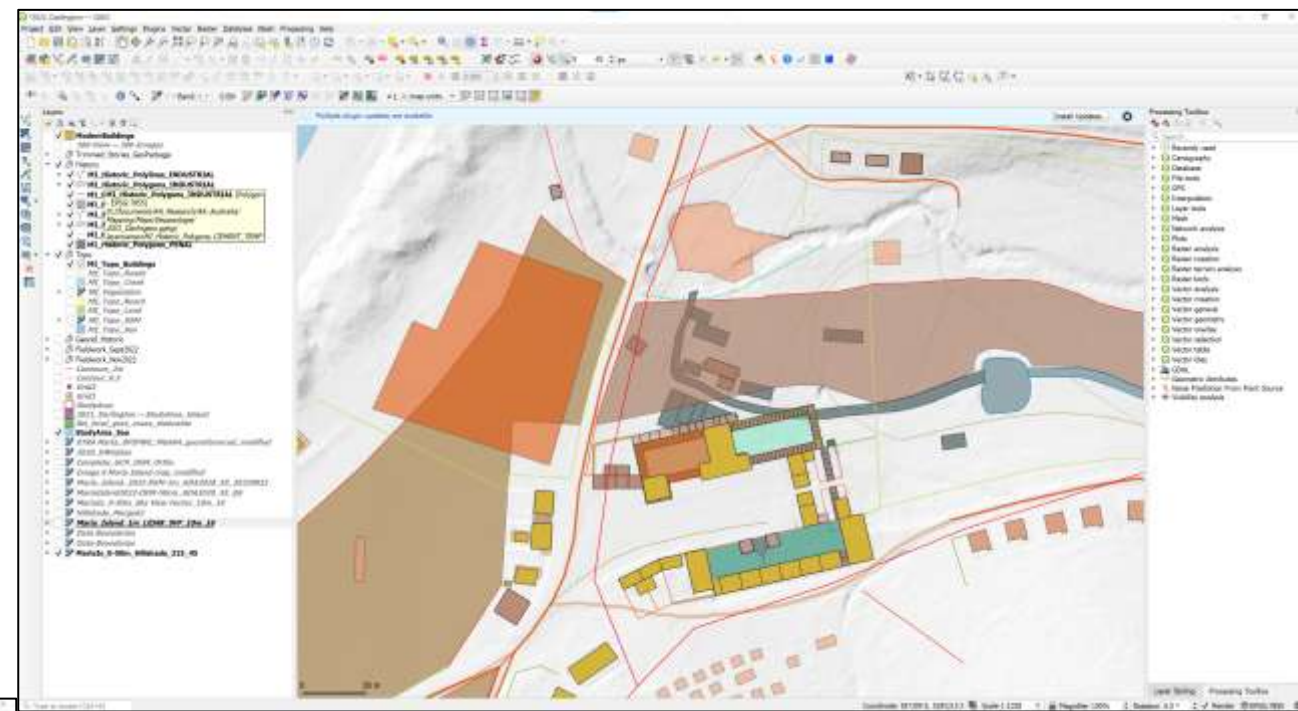
Partner Organisation
PORT ARTHUR HISTORIC SITE
Founders & Survivors

Developed by
ESK
SPATIAL

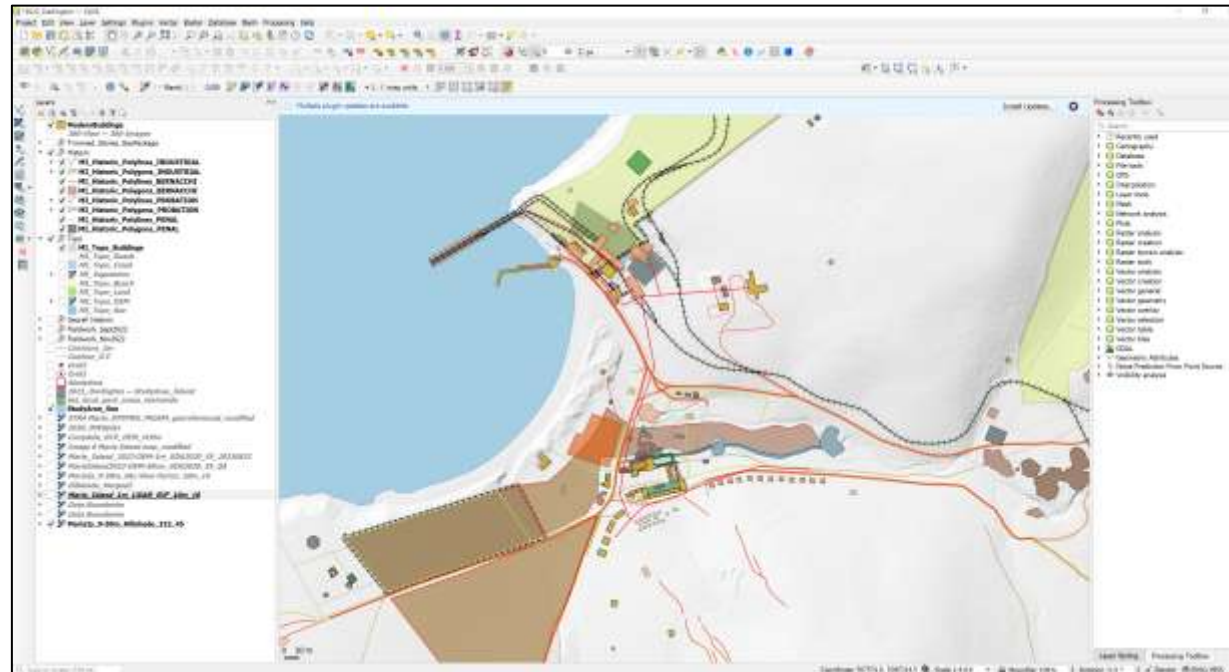
Published a web map

Originated as a GIS map using information from:

- LiDAR archaeological survey
- geophysics
- archival research



Changes in settlement over four phases

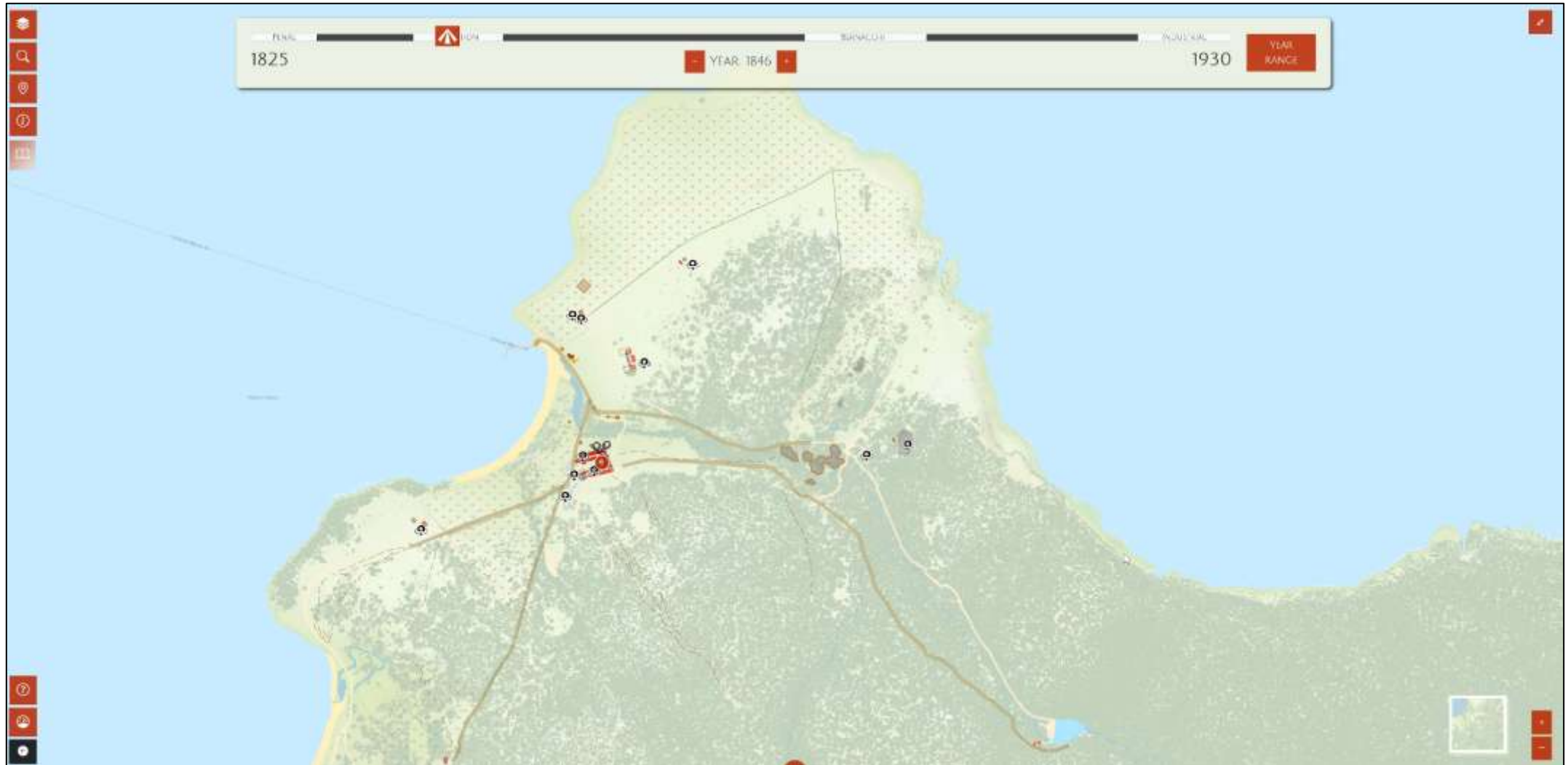


Changes over wider landscape

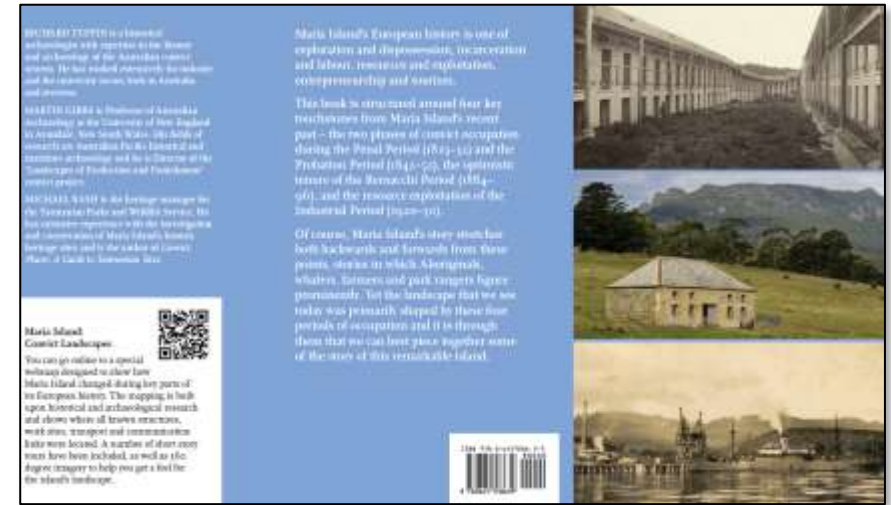
Published a web map

Created in collaboration with **Esk Spatial**

- available desktop and mobile
- allows visitors to see where historic features were and how they changed



Wrote a book

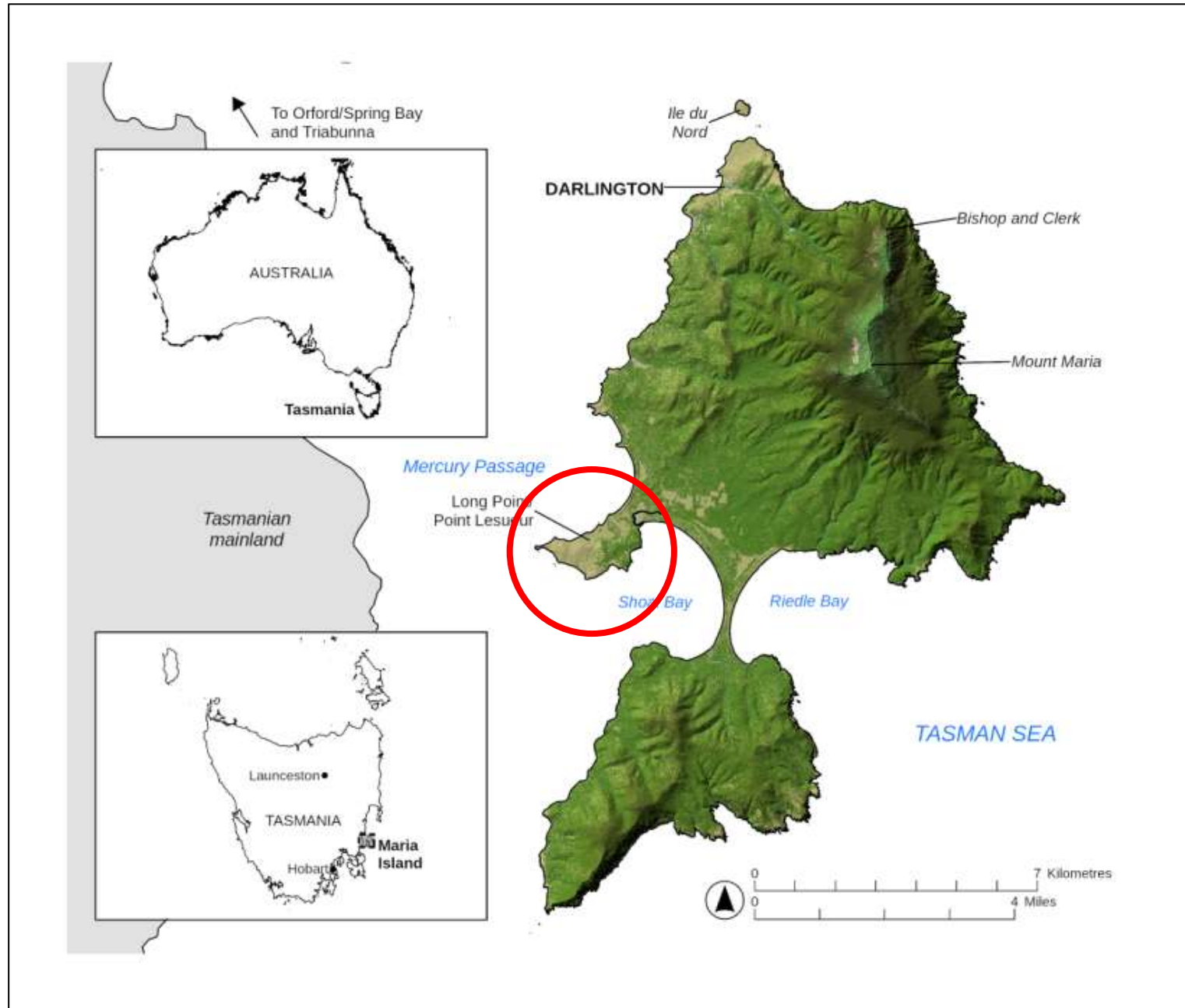


'The best book ever written'

Richard's mum

As an added bonus...

Survey of Long Point/Point Lesueur



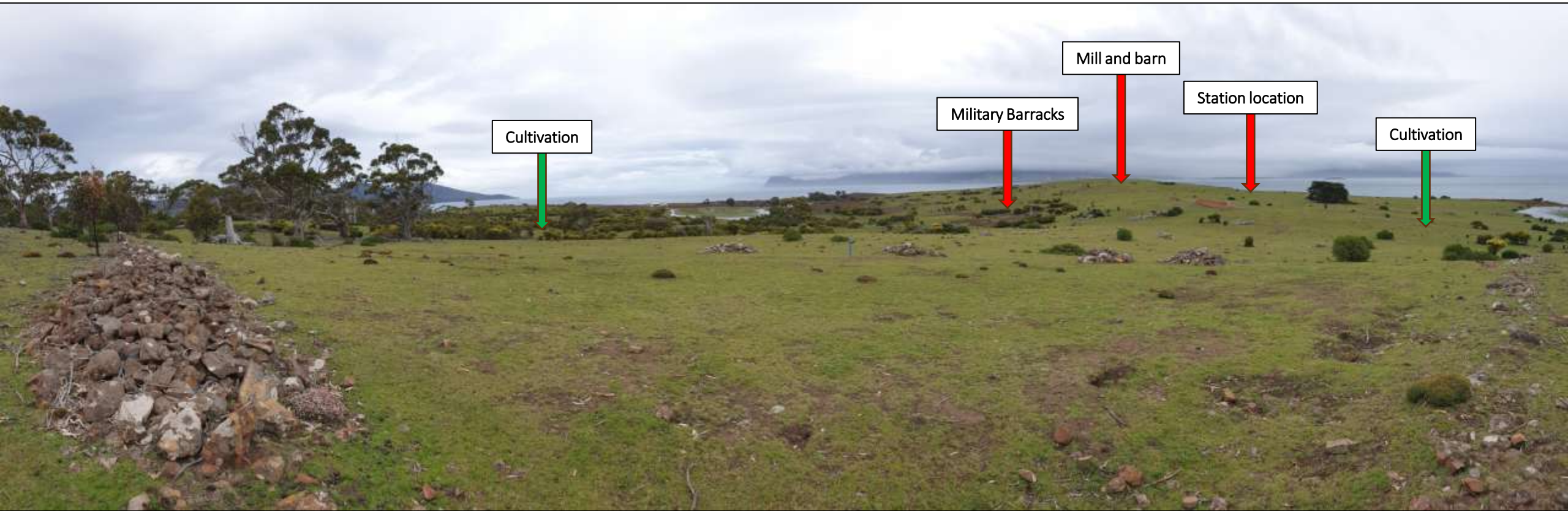
Survey of Long Point/Point Lesueur

- Another probation station on the small island
- 1845 – 1848
- Population peak of over 370 in 1846
- Primary focus on agriculture and stock husbandry
- 300 acres cleared, largely wheat
- Accompanying infrastructure like windmill and barns
- Closed as a colony-wide rationalisation of the convict system
- Limited post-convict occupation



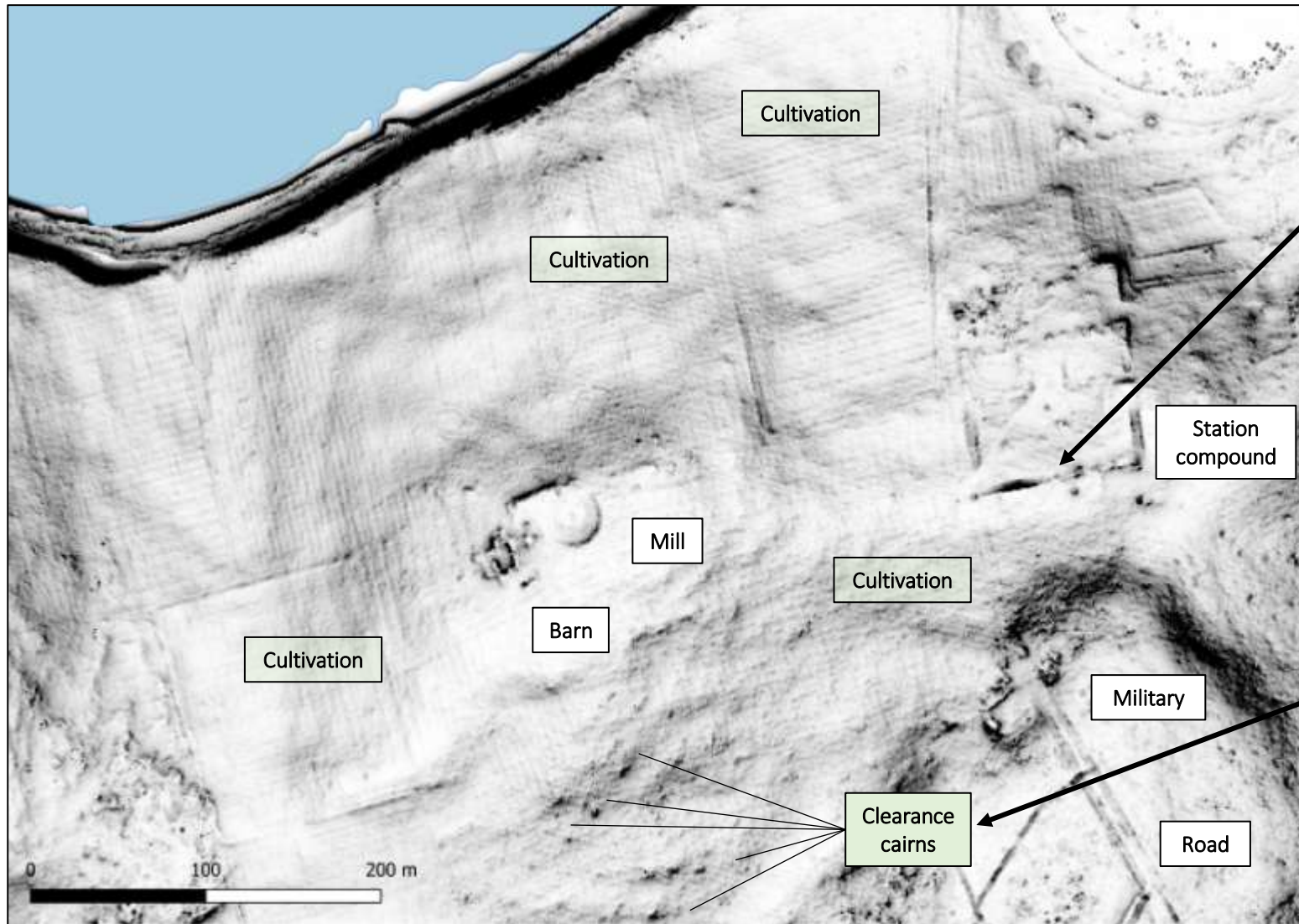
This is not Long Point (TAHO)

Survey of Long Point/Point Lesueur



View looking south to the station

Survey of Long Point/Point Lesueur



LiDAR-derived survey, showing convict period features (Author)

Separate cells (top) and clearance cairn (base) at Long Point. Martin for scale (Author)

Acknowledgements:



Australian Government

**Department of Climate Change, Energy,
the Environment and Water**

Australian Heritage Grant, 2022-23



History Fellowship, 2024

Fieldwork volunteers:

- David Roe
- Hannah Waterhouse
- Karen Welsh

Parks and Wildlife staff:

- Mike Nash (Heritage Officer)
- Katherine Hitchcock (Officer in Charge)
- Martin Fieldhouse
- Andrew Hitchcock (Field Officer)
- Madalyn Riley (Ranger)
- Andrew Ryan (Ranger)
- Geoff Swan (Field Officer)