

THE VENTENAT POINT UNDERGROUND SANDSTONE QUARRIES, Bruny Island, Tasmania

SITE INSPECTION AND RESEARCH REPORT, JAN 2022



*“This stone is not surpassed in quality by any of the freestones of England,
and is superior to any hitherto used in the colony”*

The Argus, Melbourne, 14 Nov 1860

PREPARED BY:

DELEGATES TO THE INSTITUTE OF QUARRYING AUSTRALIA (IQA),
TASMANIAN BRANCH ANNUAL TECHNICAL SEMINAR,
HELD AT BRUNY ISLAND, 26-28 NOV 2021

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Executive Summary

The Ventenat Point sandstone quarries consist of several spectacular nineteenth century tunnels, or caverns, excavated into the lower cliff face of thick westerly dipping whitish to light grey coloured beds of sandstone, which outcrop on the coastline at Ventenat Point and Little Taylors Bay, Bruny Island, about 6km northwest of the township of Lunawanna.

Known to locals and mariners as 'The Quarries', they have an easterly facing aspect towards Quarries Bay, an indentation in Little Taylors Bay flanked by the rocky sandstone promontories of Ventenat Point to its north, and Swifts Point to its south. The dimensions of the portals of the caverns are impressive with some openings up to approximately 10m wide and 8m high.

The tunnels slope downwards at around 15 degrees, into the lower cliff face of sandstone, for a distance of about 25m following the 'choice' beds of 'Point Ventenat White Freestone', which was one of the most sought-after building stones in the southern Australian colonies during the Victorian gold rush and boomtime Melbourne.

The quarries were opened in around 1860 by a firm of Victorian-based stonemasons trading as Thomas Glaister and Company to supply the whitish to light grey coloured fine to medium grained quartzose sandstone for the facades and ornamental masonry of the Melbourne Post Office and other iconic Victorian gold-rush era buildings erected in boomtime Melbourne.

The aesthetics and masonic workmanship of the Point Ventenat freestone in the Melbourne Post Office building met with almost universal praise, following the public condemnation of the condition of the Victorian Treasury building, whose decorative sandstone masonry sourced from quarries in Victoria had started to disintegrate only a few years after construction in the late 1850's.

The Point Ventenat quarries, and other Tasmanian freestone quarries such as those at Spring Bay near Orford, provided a lifeline to colonial Melbourne as the booming city struggled to locate its own locally available and suitable sources of whitish-coloured sandstone ('freestone'), which the architects and public building committees insisted upon. Freestone is a general name of the type of building stone given to any fine-grained stone, especially sandstone or limestone, that can be cut and worked in any direction without breaking.

The much preferred use of Tasmanian white freestone, over Victorian freestone, in Melbourne's iconic public buildings also spawned resentment in some circles leading to what became known as the 'Stone Controversy', where despite objective evidence, the blame for

several of Melbourne's iconic yet embarrassingly crumbling buildings was apportioned to Tasmanian freestone, and not the sub-standard Victorian stone of the time.

Tasmanian stone was eventually exonerated after extended commissions of enquiry and indeed a royal Commission, after which the Victorian Government in 1881 accepted it had been misled for extended period by vested interests, and that Victorian stone had been the culprit in the ignominious crumbling of some of its great and expensive public buildings.

The entity Thomas Glaister and Co., which sought the quarry leases for and worked the Point Ventenat sandstone, was itself contentious. It was formed by the Operative Stonemasons' Society of Victoria (the stonemasons' trades union) and was a collective of stonemasons committed to obtaining work, under better conditions, for its members.

In the 1850's, the Operative Stonemasons' Society was at the forefront of the labour movement lobbying for an 8-hour working day: 8 hours of work, 8 hours of rest and 8 hours of recreation (8 x 8 x 8) was their motto which was proudly displayed on the union banners.

Many of the emigrant stonemasons attracted by the Victorian gold boom had been activists in the Chartism movement in Britain and held strong convictions of fairness and equity with respect to the rights and conditions of workers.

Stonemasons were amongst the most respected, skilled and well-paid of tradespersons (in terms of influence, perhaps analogous to doctors or pilots of today) but arduous working days up to 14 hours, six to seven days a week, in Australian heat, were typical for the masons and other building trades of the time. Skilled stonemasons were in demand and politically influential. Through their Operative Society, stonemasons were the main instigators of industrial relations reform in Australia and as it turned out, globally.

The Operative Stonemasons downed tools on Melbourne building sites on 21 April 1856, and led a general strike with their kindred trades organisations, demanding an 8 hour working day without loss of pay. There was much commotion, but public and Government sentiment turned in their favour and Victorian building workers became the first in the world to win an eight-hour working day without sacrificing pay and conditions. They still typically worked 6 days a week (48 hours), but had Sunday off, and time between shifts to rest and recreate.

Out of the cauldron and success of Victorian trades activism in boomtime Melbourne, emerged the stonemason's collective of Thomas Glaister and Co., who sought and gained the contracts for much of the masonry work for the Melbourne Post Office. Thomas Glaister, their leader, was a mason and stone consultant, and by historical newspaper accounts an articulate, persuasive, technically proficient, innovative and passionate project manager, committed to labour rights and unwilling to compromise on the quality of stone or workmanship.

Perhaps cognisant of the need for his 'Stonemasons Inc' collective to succeed and demonstrate that collectives or unions of tradespeople could succeed in mercantilist business endeavours against the 'capitalist establishment', Glaister left 'no stone unturned' in sourcing the best of freestone that could be obtained in the colonies, turning his eye and

attention to Tasmanian freestone, which had a proven track record in Hobart's early buildings.

In what we would term today a strategy of 'vertical integration', he moved quickly in securing from the Tasmanian Government white freestone quarry leases at Point Ventenat and Taylors Bay, Bruny Island, in the face of opposition from a Mr. A.H. Swift, who petitioned the Tasmanian Parliament in August 1860, against the granting of leases to Glaister and Co.

In any event, Glaister and Co. prevailed and seem to have wasted no time opening up the quarries in 1860, committing considerable capital in plant and equipment to quarry and dress the stone. Jetties into Quarries Bay were built to enable the cut stone blocks to be loaded by derrick crane onto schooners and barques for shipping to Melbourne.

The halcyon years for Glaister's Point Ventenat quarries were probably from 1860 to 1864, when his 'newly discovered' source of the 'finest white freestone in the colonies', with its strength, durability and ease of workability enabling it to be readily cut, shaped and carved, was considered amongst the most celebrated of colonial building stones, being reminiscent of the best of the freestones of Britain and France.

Nonetheless, by 1866, the tunnels at Point Ventenat are described as being abandoned and in poor state, with little chance of redemption. It appears that both the geological conditions such as the declination of the sandstone beds and dangerous underground conditions from weaker and fractured rock, coupled with market economics, were substantial contributors to their demise (the cost of underground quarrying being many times higher than its open cut equivalent).

Quarrying of the celebrated white to light-grey tinted sandstone exposed in the foreshore cliffs of Quarries Bay was resurrected by Thomas Glaister's initial antagonist, Mr A.H. Swift, in the mid to late 1860's after Glaister and Co. had moved on. Mr Swift opened new quarries (near Swifts Point a little to the south of Ventenat Point) in similar white freestone geology and successfully supplied his freestone to Melbourne for important buildings projects in the late 1860's and 1870's.

Shipping records in Hobart's Mercury newspaper in 1870 report the 82-foot schooner, Grace Darling, taking on a cargo bound for Melbourne of Taylors Bay freestone from jetties adjacent to Mr Swift's quarry.

In a poignant connection to the Bruny Island freestone quarries, the master of the Grace Darling, built in Hobart in 1869, was a Captain (George William) Hopwood, whom it is understood is a relative of the current landowner of the Ventenat Point quarries, Mr Rodney Hopwood.

Mr Rodney Hopwood kindly permitted the delegates to the Institute of Quarrying Australia's Tasmanian Branch seminar, held at Bruny Island in Nov 2021, to inspect the quarries on his land and the following notes and speculations have been prepared by some of the delegates in gratitude and acknowledgement of his hospitality and assistance.

The Point Ventenat underground quarries are remarkably well preserved, though deteriorating roof conditions after more than 150 years of exposure, is increasing the risk of rockfall. Such underground freestone quarries are rare in Australia, and the caverns excavated into the Point Ventenat cliff faces are amongst the nation's most evocative and enigmatic, given their spectacular scale, aspect, age and coastal setting.

The Quarries are certainly deserving of more detailed and professional study and interpretation. They remain as a lasting testimony to the extraordinary demand for the best of stone during the Victorian colony's gold boom era, and the entrepreneurship, endeavour and ingenuity of their builders, who employed methods and skills largely lost to us now.

Relatively untouched since their abandonment in colonial times, they are replete with stories of triumph and tragedy, including their intriguing connection with the winning and introduction of the eight-hour working day and its derivative "Stonemasons' Inc".

They are an important Tasmanian and Australian industrial legacy of the rollicking colonial times of the Victorian gold rush era, in a time of profound labour reform, and Melbourne's concomitant thirst for the best of freestone to adorn its buildings, in celebration of its new-found wealth and emergent status as a global city.

Now, some 160 years later, quietly basking in and reflecting upon their past glories, The Quarries rest in their idyllic cliff face settings on the western coastline of Bruny Island, as monuments to and from a bygone era. The stone they be-grudgingly gave up still adorns some of Melbourne's most iconic historic public buildings.

Report prepared by delegates to the Institute of Quarrying (IQA) Australia, Tasmanian Branch Annual Technical Seminar, held at Bruny Island 26-28 November, 2021.

Notes collated and edited by Dugald Gray, Fellow IQA, on behalf of the seminar delegates

31 Jan 2022

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The Ventenat Point Underground Sandstone Quarries, Bruny Island

1 Introduction

These notes and discussion have been prepared following a site visit and inspection of the Ventenat Point¹ Sandstone Quarries on Bruny Island, Tasmania on the 28 Nov 2021, by delegates to the Institute of Quarrying Australia (IQA) Tasmanian Branch seminar. The impressive nineteenth century underground quarries are situated on private and crown coastal reserve land.

The site visit to the quarries was arranged by IQA member Mr Ben Palmer with the kind permission of the private landowner Mr Rodney Hopwood, who with his neighbour Mr Dennis Fuller, accompanied and guided the seminar delegates. Mr Hopwood's property enabled access by 4WD vehicle to the coastal land of his property that hosts the Ventenat Point quarries. His is a private property and not accessible to the public. Those who occasionally visit the Ventenat Point quarries usually do so by boat.

The Bruny Island Historical Society also kindly provided to the IQA Tasmanian Branch, references to historical newspaper articles as well as photos from their historical records relating to the Point Ventenat quarries. Along with observations by IQA delegates from the site inspection, this information has been expanded upon following our further enquiry through Trove². A summary of the historical articles accessed from Trove and referenced in these notes is attached as **Appendix 2**.

Aside from the size of the sandstone caverns, the Ventenat Point quarries are intriguing to visitors because they pose the question as to why sandstone hewn from tunnels in coastal sandstone cliffs in such a relatively remote location in Southeast Tasmania found its way into some of Victoria's most iconic nineteenth century public buildings.

2 Ventenat Point Quarries :- Description and History

The sandstone quarry workings are situated on the western coastline of South Bruny Island at the tip and eastern side of Ventenat Point³, approximately 6 km northwest of the township of Lunawanna. The quarries have an easterly facing aspect towards Little Taylors Bay (**Figure 1**).

Unusually for building stone quarries, the most spectacular and comprehensive of the workings consist of a series of large underground caverns smoothly cut into the lower portion of coastal cliff faces of sandstone, their floor (invert) levels being about 6 to 8m or so in elevation above the shoreline of Little Taylors Bay. These caverns, with large unsupported rectangular portals, consist of tunnel chambers excavated some 20 to 25m into the lower cliff face of westerly dipping beds of thick, and predominantly white to light-grey coloured sandstone.

¹ Historically referred to as Point Ventenat.

² <https://trove.nla.gov.au/>

³ Named after Louis Ventenat, chaplain and naturalist on board the ship Recherche, which was part of D'Entrecasteaux's late 18th century expedition sent to search for the lost French explorer La Perouse.

The Ventenat Point quarries are known locally to Bruny Island residents and mariners who visit the shoreline as ‘The Quarries’. The small bay they adjoin is known as Quarries Bay, which is an indentation within Little Taylor Bay between Ventenat Point and Swift Point. The quarries are understood to have been developed and worked intermittently for about 10-20 years from around 1860 to the 1880’s, but mainly during the 1860’s.

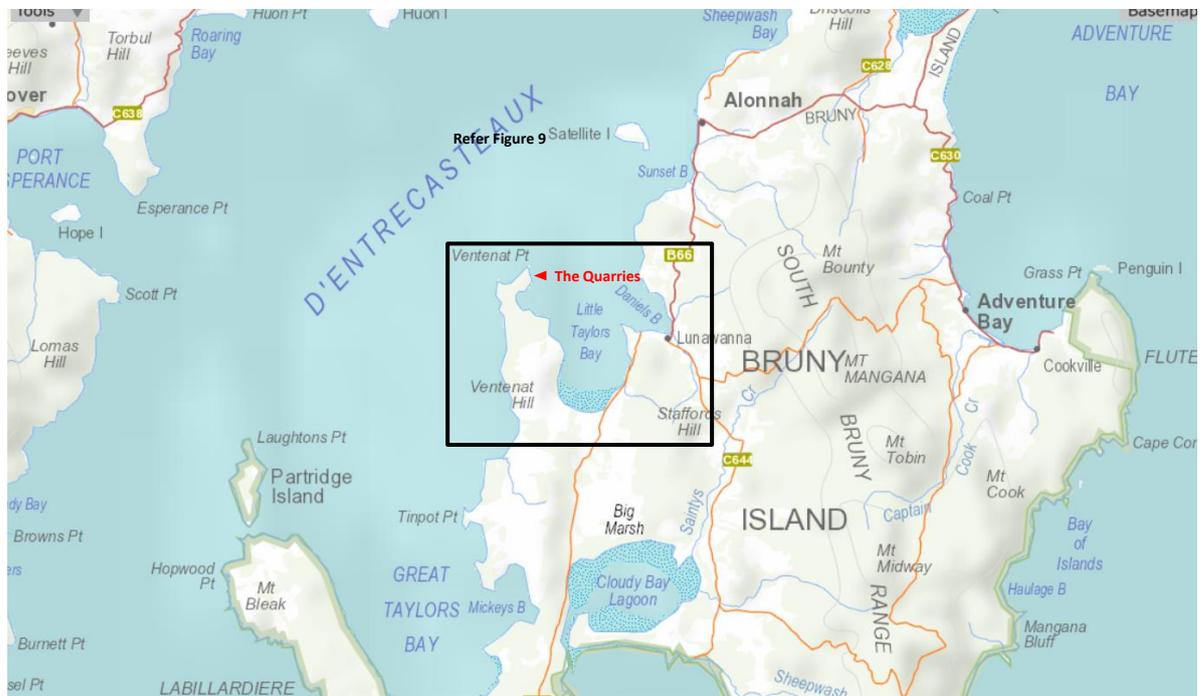


Figure 1: Ventenat Point Quarries Location Map (Source:- LIST)

The Ventenat Point sandstone quarries are not the only ones along the western coastline of Little Taylors Bay and others, such as at Swift Point (refer **Figure 9**, geological map extract) also produced and supplied building stone to Melbourne during the 1860’s and 1870’s.



Figure 2: The Quarries, Ventenat Point, Bruny Island (28 Nov 2021)

One of several sandstone caverns excavated into the lower cliff face of a white to light-grey coloured sandstone

From visual observation, the caverns at their cliff face portals have impressive unsupported roof spans, some up to approximately 10m across, and around 8m in vertical height.

The whitish to light grey coloured sandstone hewn from the tunnels was prized for its superior colour, aesthetics, strength and durability as a freestone⁴ for use in the stone facades and ornamental masonry of several of Melbourne's important buildings constructed in the latter half of the nineteenth century. These include the Melbourne GPO (~ 1861-67), the Bank of Victoria (~1862) and St Patrick's Cathedral (~1862 for windows, loopholes etc).⁵

White-coloured, aesthetically pleasing, strong and durable sandstone was in much demand by the architects of the day for use as freestone in the facades and ornamental masonry of Melbourne's iconic good-boom public buildings. However, geologically suitable stone with such attributes was at the time rare in the colony of Victoria.

Colonial Victoria produced fine quality (but sombre) bluestones and granites for use as building stone in foundations and basal layers and the like, but not good quality contrasting, and readily worked, white freestone insisted upon by the architects and building committees of the day, to emulate the celebrated freestone masonry of the great public buildings of Great Britain and France.

As the Victorian colony and its capital prospered on the back of Victorian gold wealth, and Melbourne ventured to join the echelons of the great cities of the world, colonial pride, parochialism and employment pressures compelled the Victorian Government to move to construct its gold rush-era grand public buildings, first with Victorian sandstones (freestones) from sources like Bacchus Marsh. But this ended in abject failure, at great cost, when some of the Bacchus Marsh freestone used for the façade and ornamental carved masonry of the Treasury building in the 1850's (**Figure 3**) started to crumble within a few years⁶.

It was a major embarrassment that the Victorian Treasury, built as a grand vault to store the colony's gold, and to provide offices for the leaders of the young colony, should so quickly start to deteriorate.

Shock, dis-belief, condemnation, political embarrassment, public outrage, commissions of enquiry and indeed a Royal Commission (which dragged on in various forms for a decade or more) ensued. An earnest search occurred for durable, white-coloured and easily workable freestone in the southern Australian colonies. After much politicking and technical

⁴ **Freestone** is a general name of the type of building stone given to any fine-grained stone, especially sandstone or limestone, that can be cut and worked in any direction without breaking (<https://www.collinsdictionary.com/dictionary/english/freestone>)

⁵ Appendix 2, E.g. Ref # 19, # 43 and # 44

⁶ Appendix 2, Ref # 38, # 43; Tasmanian freestone was ultimately used in replacement (circa £20,000 additional cost)

evaluation of stone specimens, it was Tasmanian sandstone (freestone) that came to the fore, despite resistance from some mainland circles⁷.



Figure 3: The Victorian Treasury building under construction, 1858⁸

Shortly after completion of the Treasury building the sandstone masonry (sourced from a Victorian quarry at Bacchus Marsh) started to disintegrate triggering a scandal, and a rigorous search for a replacement stone of better quality and aesthetic merit. This huge dent to Victorian pride, fuelled by politics, economics, vested interests, employment imperatives and the curse of ‘experts’ and committees, led to a huge and costly prolonged search and stoush in Victoria (into which Tasmania was dragged), as to what and whose stone was better; and which became known as the “Stone Controversy”.

Upon its discovery, and after its use in 1860 in the first floor of the Melbourne Post Office, the Ventenat Point quarries’ sandstone was described as possessing “a beautiful French, grey tint”⁹ and “not surpassed in quality by any of the freestones of England”¹⁰.

⁷ Appendix 2, Ref #37 and #38. The argument as to the merits of Victorian v Tasmanian freestone persisted, culminating in what became known in the 1870’s as the ‘Tasmanian Stone Controversy’, whereby blame for the crumbling masonry of some iconic Victorian public buildings was shifted onto Tasmanian freestone. In a somewhat extraordinary *mea culpa*, the Victorian Government in 1881, finally acknowledged it had been misled – that Victorian stone was the culprit, and Tasmanian stone, including that from Ventenat Point, was exonerated as suspects.

⁸ Source: In ‘Thematic History – A Thematic History of the City of Melbourne’s Urban Environment, 2012’, Context Pty Ltd, for the City of Melbourne:- the Treasury was built between 1857 and 1862 to a design by J.J. Clark (Photo source: SLV Accession No. H27165, photographed by A. Johnstone)

⁹ Appendix 2, Ref # 9, Hobart Town Advertiser, Weekly edition, 12 Apr 1861

¹⁰ Appendix 2: Ref # 5, The Argus 1861, 14 Nov 1860

The Ventenat Point quarries were opened around the gold boom time of 1860 by a co-operative firm of Operative Stonemasons (from the Victorian colony's Stonemasons' Trades Union) which traded as Thomas Glaister and Co.

The firm was headed by Thomas Glaister, a mason and stone consultant, who headed a collective or union of some 40 or so stonemasons, and which somewhat contentiously, and in consequence of the politics of the time including labour unrest in Melbourne, had been awarded the building stone contracts for the Melbourne GPO by the Victorian Government¹¹.

The opening of the Ventenat Point quarries by the Trades Union co-operative Thomas Glaister and Co. to win, supply, dress, carve and erect the freestone for the building of the Melbourne Post Office followed a watershed moment in Australian and global labour reform¹².



Figure 4: The Operative Stonemasons' banner with the number '8' featuring atop the stone monument¹³ who were at the forefront of the 8-hour working day movement.

¹¹ Appendix 2, Ref # 43, Sydney Morning Herald, 26 Dec 1902. This long and fascinating letter to the Editor by a John Young, who seems to have been a masonic builder and quarrying contemporary of Glaister, penned decades after the Ventenat Point quarries had closed (and written in relation to whether Contract or Day Labour should be employed on Government building projects) provides a detailed and critical account of Thomas Glaister and Co.'s modus operandi, and provides (John Young's) reasons for the co-operative's short-lived success and subsequent demise.

¹² It also represents a fine example of what we today refer to as 'vertical integration', where a firm, for reasons of competitive advantage, seeks to exert tight control over its entire supply and delivery chain, from the raw material to the finished product – cradle to grave if you like.

¹³ <https://pyrmonthistory.net.au/stonemasons?rq=stonemasons> – banner date, probably 1858

In the 1850s, stonemasons¹⁴ were amongst the large numbers of migrants that came to Australia because of the immense wealth of the gold rush and its boom time conditions. Many had previously been activists in the radical British workers movement known as Chartism and brought traditions of activism down-under, helping found new workers' organisations like the [Operative] Stonemasons' Society¹⁵.

On 21 April in 1856, building workers in Melbourne, led by the stonemasons, took strike action against employment conditions and after determined resolve, protest and effective politicking ultimately won the eight-hour day as a general industry standard. It was the first time in the world workers had won the eight-hour day across an industry, with no reduction in pay.^{15, 16}

Employers were aghast – how could profits be assured if workers toiled for less than ten hours a day? But the Stonemasons insisted that workers had a right to decent rest and recreation: - their motto proudly emblazoned on their banners was 8 hours work, 8 hours rest and 8 hours recreation (“888”). Our lives, they argued, should not just be about the work we do¹⁷.

The stunning results of Thomas Glaister and Co.'s building and masonry work for the Melbourne GPO (**Figure 5**, first storey), in contrast to the debacle of the poor-quality façade and ornamental stone used in the Treasury building, drew national praise, and introduced into the spotlight the Ventenat Point sandstone (and the equally highly respected Spring Bay sandstone near Orford which was also used). These Tasmanian sandstones, well-suited as freestone with their whitish colours, durability and alluring sheens and textures, won not only the hearts of the masons, architects and the public, but also stayed intact.

Tasmanian freestone had bailed out the Victorians, after the debacle of the Victorian Treasury building, thus preventing further Victorian ignominy. But there was resentment brewing on the Victorian side, and no doubt skiting in Tasmania given the colonial rivalry and the beauty and success of Tasmania's stone.

¹⁴ Stonemasons had a longer history than nearly all other trades of being able to work autonomously. The first use of the term 'freemason' dates from around 1390 in the English Halliwell text (Regius poem), which includes a short history of the craft, or mystery, of masonry. In the early guild of masonry, three classes of stonemason were recognised: Apprentices (indentured to their masters as the price for their training), Journeymen (with a higher level of skill and who could go on journeys to assist their masters), and Master Masons (considered freemen, or freemasons, who could travel as they wished to work on projects of their choice). That master masons had the right to travel and choose their work was an extraordinary privilege in medieval times – testimony to the reverence, awe and respect held by society for their skills and craft. The 'mystery' of masonry and its ritualised traditions have persisted into the modern era.

¹⁵ <https://www.atui.org.au/union-history-blog/the-8-hour-day>; and https://en.wikipedia.org/wiki/Eight-hour_day#Australia; and https://ebrary.net/166873/sociology/remembering_movement_hours_commemoration_mobilization_australia - Sean Scalmer

¹⁶ They still worked 48 hrs per week (6 days x 8 hrs) but could have Sunday off, and time to rest and recreate with their families. Workers were rotated (rostered we would say these days) to share the work between stonemasons

¹⁷ Source: As per Footnote 14

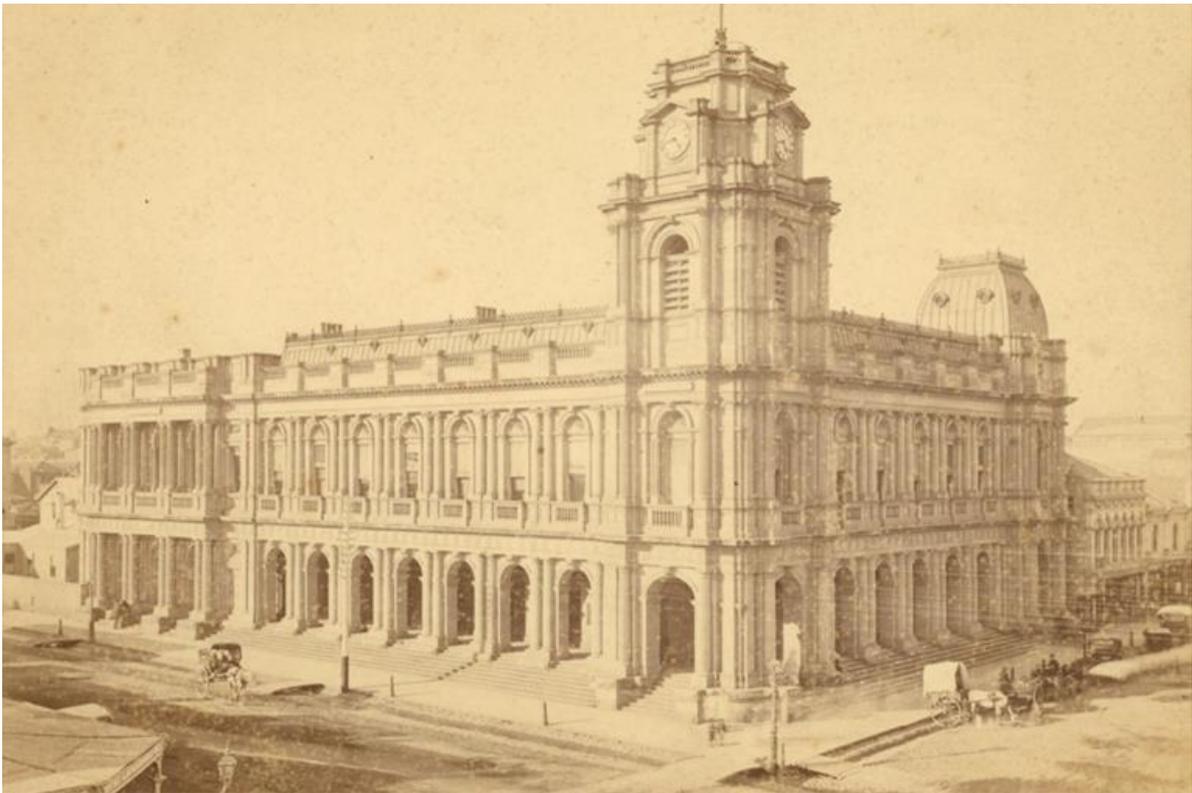


Figure 5: Melbourne Post Office, 1863 (NLA)¹⁸

Completed in 1867, the Melbourne Post Office was hailed as one of the “finest buildings in the Southern Hemisphere”. The Ventenat Point stone was used in the façade and ornamental masonry of the first storey¹⁹ and attracted much attention for its white colour, fine aesthetics and the quality of masonry. It was described in the contemporary Melbourne newspaper reports as “about the best building stone ever used in these colonies”, and had proved itself to be “as pure [a] grit sandstone as any to be found even in England”

The ‘Tasmanian White Freestones’ of Ventenat Point (and other coastal quarries near Hobart and Orford) established an almost reverent reputation as the best of the best of the colonies’ freestones, much to the chagrin of the proponents of Victorian stone (and indeed Sydney’s Pymont stone). On the back of the Melbourne GPO success, the Ventenat Point stone was exhibited as far as London. It was used in the façade and decorative masonry of the National Bank of Victoria in Collins Street which was constructed during the early 1860’s (**Figure 6**).

Point Ventenat sandstone was a key feature in the large ‘trophies’ of Tasmanian freestone exhibited at colonial Exhibitions (‘trophies’ being large, carefully curated geometric assemblages of the finest dressed stone examples). Resources of the ‘finest stone’ were said to be ‘inexhaustible’ at Point Ventenat and Taylors Bay. Tasmania’s Bruny Island had a world-class freestone and the Victorians didn’t!

¹⁸ Source: National Library of Australia, <https://nla.gov.au/nla.obj-146722258/view>, photo by Donald McDonald

¹⁹ It appears from the historical newspaper article and letters record, that the Point Ventenat quarries ran out of the good quality white stone after a few years, and thus Thomas Glaister and Co. were compelled to open quarries at Spring Bay near Orford, which could produce similar freestone, in order to complete the building contracts for the Post Office. See for example ref #35 in Appendix 2; *The Argus*, Melbourne, 5th Nov 1880.



Figure 6: Bank of Victoria, Melbourne, c 1860-70²⁰

Yet, the historical record tells that by mid-1862, Thomas Glaister and Co. had offered the Point Ventenat quarry lease of 320 acres for sale by private tender²¹. The co-operative appears not to have found a buyer, for in 1863 the firm is named as the quarry operator in the tragic circumstances of a fatality at the Point Ventenat quarry²², whereby :

“a man named William Goldie, a quarryman in the employ of Mr. Glaister, met his death some days since by the falling in of a tunnel which he and two mates had been engaged in driving. The two mates had gone a few yards away from the work for a minute or two when the accident happened, and thus they had a very narrow escape.”

A letter to the Hobart Mercury in 1866 by a John Abbott, whilst in praise of the Ventenat stone, asserted that its quarrying has *“voided the land, and sinking down into the earth has*

²⁰ Source: PictureAustralia

www.cbcbank.com.au/images/Branches/VIC/Melbourne/Bank%20of%20Victoria%201870c1880%20mp000618%20PictureAustralia.jpg

²¹ Appendix 2, ref #14, The Argus, 18 Jun 1862

²² Appendix 2, ref #17, Launceston Examiner, 27 Oct 1863, FATAL ACCIDENT AT TAYLORS BAY.

*vainly challenged man to follow. The quarry is now abandoned as the consequence of the expense, so it is said, of continuing to work it.”*²³

Whether the Ventenat Point quarries were subsequently worked is uncertain – by most accounts they were inactive by 1864. When advertised for sale by auction 14 years later in 1878, the quarries still failed to attract a buyer.²⁴

A most comprehensive description of the reasons for their demise appeared in *The Argus*, Melbourne in 1880 in reference to the building of the Melbourne Post Office in the 1860's, which reported:

*“The stone from this building was obtained from the base of a high cliff, the bed dipping inwards, and when the building was about up to the level of the first cornice, the line was reached at which the stone had either to be followed by quarrying, or to be laid bare by stripping, to borrow the technical term, the whole of the earth and rock overlying the white bed of stone, and as the expense in either case would have outweighed any compensating advantage to be obtained, the quarry was abandoned”*²⁵.

These historical references and reports of the Ventenat Point freestone and its quarries, whether of compliment or criticism, provide valuable detail and insight into a quite remarkable Tasmanian venture of its day, including its spectacular rise to stardom and its more prosaic demise because of the reality of geological conditions and quarrying economics.

The geology and caverns are discussed a little further in the following notes, but before so it is worth our while taking a few salient cues from the descriptions and lessons of the past.

Whilst enticing to the visitor, the Ventenat Point caverns were excavated over a century and a half ago. They were hazardous then, as the 1863 death of the quarryman William Goldie attests, and they are hazardous for the unwary today.

In the time since the blocks of building stone were cut and shipped to adorn some of the great public buildings rising from the wealth of the Victorian gold rush, the elements of sea, salt, fresh water, air, and forces of gravity have weakened the underground quarries.

In the caverns there is evidence of recent rock falls (slabs of sandstone from the roof). Indeed, because good internal views and photos are available from the cavern entrances, there is no need to explore too far in, where rockfall risks increase.

Insofar as the number of excavations is concerned, there are several clustered 'sets' of underground quarries all excavated as downwards trending caverns (dipping west at

²³ Appendix 2, ref #19, *The Mercury*, Hobart, 9 Jul 1866: Letter to the Editor by a John Abbott. Mr. Abbott's criticism, whilst seemingly second-hand', is not without merit. Only the best of the stone has been quarried (in mining and quarrying vernacular we refer to this as 'high grading' – taking the best stuff without particular thought to the remainder of the resource). Pillar widths between caverns appear to taper inwards, so that at the end of the twin cavern in Figure 7 there is in effect little or no intervening pillar support.

²⁴ Appendix 2, ref # 34, *The Herald*, Melbourne, 30 Jan 1878

²⁵ Appendix 2, re #36, *The Argus*, 5 Nov 1880; APPARATUS AND PROCESSES OF BUILDING, [Melbourne International Exhibition - THE TASMANIAN STONE TROPHY]

between about 10 to 20 degrees) into the lower part of the sandstone cliffs. The caverns appear to extend underground approximately 20 to 25m before terminating, though the lower workings are typically flooded (in most but not all the quarry caverns).

Old, broken and under-sized timber props are visible in some caverns – for example holding up loose blocks in the roof where an adjoining pillar has been partially removed (**Figure 7**).

The photo in **Figure 7** provides a ‘window’ into the geology of one of the underground quarries and provides an explanation of why the quarries are shaped as they are.



Figure 7: View looking NW into the southern chamber of one of a ‘pair’ of caverns separated by a thin pillar of rock (see wooden prop in background), 28 Nov 2021

In Figure 7, the right-hand wall of sandstone forms the excavated ‘face’ of a thin pillar of rock left in place by the nineteenth century quarrymen to hold up the roof between it and its neighbouring chamber. Both it and its neighbour exploit a ‘choice’ thick band of cream to orange-tinted sandstone – it would have been tempting for the quarry to take as much of the good stone and leave as little pillar as possible. The roof of the cavern is composed of a more fissile (fragmentable), iron-stained sandstone of no (or limited) utility as a high-quality freestone. Thus, the quarry went no higher.

At the rear of the chamber in Figure 7, the narrowness of the width of the pillar is evident. The pillar has broken through into the chamber next door. The ‘lonely’ thin wooden prop is probably a later addition and is little more than cosmetic. The unstable slabby nature of the roof conditions is evident from the large and small slabs of sandstone on the floor of the

chamber and the cracks in the roof. Whilst there is graffiti on the inner walls, venturing into these caverns is high-risk because of the risk of rock fall, as the sandstone caverns age.

In Figure 7, the square or rectangular symmetry and spacing between the natural cracks or fractures in the sandstone is quite visible in the right-hand wall. You can see the straight lines and imagine a tilted 'square' block of sandstone pre-formed in the wall. Along with the sandstone's colour, durability and workability, it is these fortuitous natural characteristics of the spacing, regularity and orientation of 'weaknesses' such as joints and bedding planes in the rock mass that are crucial to its suitability for use as dimension stone. If the stone is too fractured, you get rubble not building stone.

In the Figure 7 photo of the pillar wall, the sub-horizontal joints or bedding planes (between different layers of sediments that comprise the sandstone) are dipping downwards to the left (west) at around 15 degrees. The quarry floor and roof have followed their trend inwards and downwards, with the lower workings now flooded.

The other major fracturing, or 'joint set' in the wall of the pillar in Figure 7 is at right angles to the sub-horizontal bedding planes or jointing. The spacing of both sets of planar joints or fractures in the sandstone rock mass is sufficiently far apart (spaced) so that 'fit for purpose' solid right-angular blocks of square or rectangular building sandstone can be recovered by careful drilling, wedging, chiselling and prising along the planes of weakness. Some of the Ventenat Point sandstone blocks landed in Melbourne reportedly weighed 5 tons²⁶.

Thus, the caverns were necessarily excavated as relatively steep declines to follow the lower thick bed of westerly dipping and favoured sandstone they were chasing. As any tunneller will attest, this leads to higher costs, complexities, inconveniences and risks – from the likes of flooding, rocks sliding and the sheer awkwardness of working and raising large blocks of stone on sloping surfaces from underground workings.

As Figure 7 suggests, the competency of the weaker sandstone in the roof seems to diminish as the cavern deepens and a more confused and fragmented assemblage of sandstone occurs at the end of the cavern²⁷. Thomas Glaister's quarrymen would have been presented with a major growing difficulty. To further quarry the prized white freestone, they would need to quarry farther in and downwards, but to do so would require not only large horizontal (cross-sectional) unsupported spans which were necessary for economic underground quarrying, but also a growing longitudinal span from the portal to the tunnel face.

The additional ground support that would have been required to maintain tunnel/cavern stability if quarrying proceeded further underground, along with the dewatering apparatus needed to prevent the caverns from flooding, would have been cost prohibitive (as it still would be today). The economies of quarrying relied on maximising the spans of the caverns

²⁶ Appendix 2: Ref #9, Hobart Town Advertiser, 12 Apr 1861

²⁷ The geological map in Figure 9 shows a major fault structure not far to the west, which may be a contributor to greater fragmentation as the caverns were excavated towards it. Note also, there are visible stratified, iron-stained water marks on the stone walls, indicating different levels of standing water in the lower part of the cavern. These are horizontal water stains, not sandstone bedding planes.

and minimising the loss of material retained in pillars: requirements which become impossible given the geological setting as the quarries penetrated the underground.

The constraints upon further quarrying are well expressed in the previously referenced article in *The Argus*, Melbourne, 1880 (Appendix 2, Ref # 36) of these notes. Unable to quarry deeper and given the great depth of overlying rock that would have had to be removed by 'stripping' to expose the deepening white sandstone beds (by way of an open cut quarry operation), the solution appears to have been to excavate large, but relatively short-length, caverns into the cliff, which would account for multiple, but truncated caverns at Point Ventenat.

Whilst Glaister and Co.'s' boast of inexhaustible quantities of the finest white freestone, may hold geologically, practically and economically it could not be accessed. Whilst the white freestone continued underground, it was not economically viable to try and further remove it.²⁸.

As to what the cut stone looked like, there are several smaller sandstone blocks (**Figure 8**), roughly dressed and ready for despatch, but which never made the trip to boomtime Melbourne, and which sit stranded near the shoreline at the tip of Ventenat Point.



Figure 8: Two roughly-dressed sandstone blocks at Ventenat Point (28 Nov 2021)

The stone at left in Figure 8 probably weighs around 500kg. The mason's tool marks are evident in the face of the block. The sandstone colour of whitish to light grey tint is now

²⁸ The matter of distinction between a 'resource' (a geological occurrence of a mineral in a concentration that may be of economic value to extract), and a 'reserve' (that portion of a resource where it has been credibly demonstrated is economic to extract) is one still with us today. In mineral economics, 'reserves' are a 'sub-set' of 'resources' and they change in quantity as (known) geology and economic conditions change. Glaister is referring to potential 'resources', not 'reserves' of white freestone, and there is a massive difference between the two.

harshened and obscured by lichen and some 150 or more years of weathering from the elements, including saltwater. But overall, the stone is remarkably intact.

Salt attack is an enemy of freestone, causing (sometimes rapid) deterioration of the surface. In Figure 8, evidence of surface ‘spalling’ of the stone’s worked face is visible as a thin crack along the surface veneer.

As for the quality of the Ventenat Point sandstone, there are mixed messages in the historical newspaper records of its durability. Most historical reports reviewed for these notes from the 1860’s and 70’s extol the sandstone’s virtues as a superior freestone suited for the best of public buildings in Melbourne, but some also refer to claims of its disappointing durability (for example, in a bank building in Melbourne where the stone had to be replaced, and the Victorian Parliament House²⁹).

These are the arguments of the 1870’s Stone Controversy, with much finger pointing because not just the Treasury building, but other Melbourne buildings also suffered from premature deterioration of the freestones: the controversy finally being settled in 1881 in favour of Tasmanian freestone over its Victorian counterparts, but by which time the halcyon days of Mr Glaister’s Point Ventenat quarries were long since over.

It was likely that despite the vindication of the Tasmanian white freestones in the ‘Stone Controversy’, Tasmanian supply was not without fault from time to time. It is a natural product, and its quality can vary within and across the sandstone beds even within the best of them. Quality control was crucial.

In colonial Victoria, there were perennial questions to whether the samples of stone presented for inspection and testing, in order to win architectural and masonic favour and building contracts, were representative of the stone that was actually supplied from quarries³⁰. There was also the issue and risk to stone durability of saltwater ingress into the stone blocks during the shipping voyage from Bruny Island to Melbourne.

The suitability, durability and longevity of freestone, including that quarried from Ventenat Point, depends on factors such as mineralogy and consistency within and between beds of slightly different sandstone, which are a function of its geological origins, discussed below under the headings ‘Geology’ and ‘Sandstone Quality and Characteristics’.

3 Geology of Ventenat Point

The regional surface geology of the area is shown on **Figure 9** which is an extract from the MRT³¹ Dover geological sheet, 1:50,000 scale. ‘The Quarries’ are shown by red arrow. They are established towards the base of a coastal cliff, in layered beds (~ 2m to 4m thickness) of fine to medium-grained sandstone of Triassic Age (approx. 200-250 million years old (Ma)),

²⁹ Appendix 2: Ref #38, The Mercury, Hobart, 28 Mar 1878

³⁰ Appendix 2 Ref # 36... “it is it is doubtful whether the [Point Ventenat] stone [in the Tasmanian stone] exhibit in the trophy [at the Melbourne Exhibition] is from the same quarry which turned out of the [Melbourne] Post-Office

³¹ Mineral Resources Tasmania

cross bedded³³ fine to coarse grained quartz sandstone with subordinate interbedded grey, green, purple and blue mudstone, siltstone and granule sandstone and rarely pebbly sandstone”.

In the Triassic period, Tasmania was near the South Pole, but climatic conditions were warming (from the previous cold Permian period) and as polar ice disappeared so did the rivers run. Based on the evidence of a common feature known as ‘cross bedding’ revealed in Tasmania’s sandstone exposures, geologists believe the large rivers of the Triassic that carried the quartz-rich sands generally flowed in an easterly or south-easterly direction³⁴.

We observe the Triassic sandstones today as Tasmania’s ‘golden sandstones’³⁵ which outcrop in many areas of Southeast Tasmania. Their aesthetics and the durability of certain thicker layers for potential use as freestone have long drawn the eye of the inquisitive mariner, surveyor, landowner and mason.

In the coastal cliffs of Southeast Tasmania, the sandstones, their bedding often sub-horizontal, are from time to time graphically exposed by the erosion of the sea. In viewing such exposures, we can peer into the earth through a natural geological cross section. We can see the sandstone’s colours and hues beautifully layered, banded, variously iron-stained and contoured with dissecting structural features (layers, bedding planes, joints, etc) revealed to the astute observer.

Following deposition, the sand and finer (siltstone and mudstone) sediments have been subjected to lithification and subsequent tectonic forces which have uplifted, fractured and at Ventenat Point tilted the sedimentary rocks (to the west).

Through such fractures and secondary jointing, iron rich groundwaters can percolate leaving distinctive orange iron-stain traces in some, but not all the beds of sandstone. Iron staining in sandstones can form in proximity to iron-rich igneous rocks, probably through weathering-related groundwater processes³⁶. The nearest igneous rocks to the sandstones of Ventenat Point are Tasmania’s famed Jurassic dolerite, which lie just 3km to the east (orange coloured, geological symbol Jdl, on Figure 9).

Tasmania’s Triassic sandstones exhibit common precipitation patterns including the attractive concentric ring patterns known as "Liesegang Rings", often centred on fractures or joints along which iron-bearing waters have migrated and percolated into the stone. Other common patterns include irregular patches, bands along bedding, spots and nodules, as well as uniform overall ("bulk") colourations³⁷.

³³ Corbett K., (2019) *Child of Gondwana*, at page 105, “The (Triassic) sandstones mostly represent the deposits of the river channels, which had abundant sand bars up to a metre high, which formed cross-bedding as the bars migrated downstream”.

³⁴ Sharples, C.E (1990), *The Durability of Tasmanian Building Stone*, Thesis, University of Tasmania, p36

³⁵ Ibid

³⁶ Sharples, C.E, *The Durability of Tasmanian Building Stone 1990*, Thesis, University of Tasmania, Abstract, section XIII

³⁷ Ibid at p 11, under Iron cementation (staining) in Tasmanian sandstones

Liesegang Rings are largely absent in the Ventenat Point sandstone and the colour and hue of the most sought-after freestone was the quartzose (quartz-rich) sandstone of white to light grey. Where iron-staining is present in the Ventenat Point caverns, it appears to be patchy and largely confined to deposition adjacent to joint sets and in the upper bed(s) towards the cavern roofs.

4 Sandstone Quality and Technical Characteristics

Aesthetic appearance, strength and durability are fundamental determinants for high quality building stone. A large proportion of natural stone is therefore not suitable for building purposes by reason of low durability, propensity to fracture or unsuitable aesthetic characteristics.

The technical criteria for high quality building sandstone include the degree of rock freshness, joint breaks and fracturing, cracks and micro-cracks, lineation and foliations, bedding and 'ribbons', colour, texture, textural defects, chemical composition, mineralogy, strength, porosity, water absorption, density, resistance to salt/ chemical attack and abrasion resistance³⁸.

These characteristics can vary within and across the different beds or layers of sandstone as evidenced by the natural erosion of the exposed sandstone jutting out from Ventenat Point into the D'Entrecasteaux Channel (**Figure 10**).

The upper, tilted bed of light-grey coloured sandstone in Figure 10 indicated by white arrow is considerably less eroded than its underlying, orange-coloured neighbour where the action of waves and salt attack has undercut the weaker bed.

It was stone similar to this upper white to light grey quartz-rich layer which made the Ventenat Point quarries famous. In an 1860 letter, Thomas Glaister describes it as being *"universally admired in Melbourne for its excellent quality and uniformity of colour, and being of a pleasing and peculiar tint, is noticed for its extreme susceptibility to light and shade thereby producing a splendid effect on embellishments of any description"*³⁹.

The problem was that the choice whitish beds tilted (dipped) downwards, to the west, under the land, and were situated towards the bottom of the cliffs (facing Quarries Bay). Once any suitable surface stone was recovered from open cut quarrying of any fresh residual rocky outcrop near the shore, the only practical means to recover quality stone of any commercial quantity was to embark on underground quarrying, and underground quarrying. leaving aside the added rockfall risks, is expensive (and underground quarrying by declined chamber, even more so).

³⁸ Sharples, C.E (1990) The Building and Ornamental Stone Resources of Tasmania, S 2.3. p 18, Tasmanian Dept. of Resources and Energy, Division of Mines and Mineral Resources – Report 1990/31

³⁹ Appendix 2, Ref #7, The Mercury, Hobart, 8 Mar 1861; Letter to the Editor by Thomas Glaister.



Figure 10: Sandstone outcrop at Ventenat Point (28 Nov 2021)

Stone similar to the grey-tinted, durable stone at the top of the Ventenat Point outcrop (indicated by white arrow) was the type sought after. It has a high quartz content and is strong and resistant to erosion, unlike the underlying thin and softer layer of orange banded sandstone, which has undercut the harder sandstone above⁴⁰.

The results of some geological observations, measurements and testing of the Ventenat Point sandstone are summarised by Charles Sharples in his thesis titled *'The Durability of Tasmanian Building Stone'*, published in 1990, University of Tasmania⁴¹ (Refer extract in **Appendix 1: Sandstone Source Data Sheets**).

The Ventenat Point Sandstone quarry is described in Sharples' Sandstone Source data sheets as being operated by Thomas Glaister & Co (Melbourne), whom we have met, with stone being shipped direct from Taylors Bay to Melbourne in the period 1860-1864.

The data sheet contains geological details of three samples of sandstone taken from the Ventenat Point area including the results of testing of technical properties. With respect to quality, durability and variability, based on the samples, the data sheet concludes the Ventenat Point sandstone to be *'probably (of) moderate durability only, and susceptible to salt attack'*.

⁴⁰ Mr Ben Palmer of the IQA reports this sandstone outcrop, with its various indentations extends some distance out underwater into the D'Entrecasteaux Channel, providing a favoured refuge for crayfish known to the local mariners and fishermen.

⁴¹ In Sharples' Appendix 1: Sandstone Source Data Sheets, p 263.

5 Methods of Working and Shipping the Stone

The probable method and sequencing of cutting and removal of stone blocks from the underground caverns is enigmatic. The dip angle of the bedding at around 15 degrees means the cut raw blocks could have been hauled by mechanical means of winch, rope and pulley system up an inclined plane to the portal, but at considerable effort. This 15-degree angle was probably near or at the 'cut off' for economic and safe quarrying. Any steeper inclination (beyond say a dip of 20 degrees) would render such a task even more difficult, costly and dangerous to perform⁴².

Aside from the impressive sandstone caverns, upon brief inspection of the promontory at Ventenat Point and its flanking Quarries Bay coastline, there is evidence of open cut quarry workings upwards of 20m high, a water filled pond, the remnants of stone jetty structures into Quarries Bay constructed from reject sandstone debris, and a few abandoned roughly finished stone blocks near the shoreline, right at the tip of the Point (e.g., Figure 8).

Figures 11 and 12 are of the extant open cut workings and water-filled pit looking south from near the tip of Ventenat Point. Mr Hopwood understood the water filled pond (Figure 11) formed from the open cut extraction of sandstone, may have provided the masons with a source of water for the further preparation of sandstone blocks prior to shipping.



Figure 11

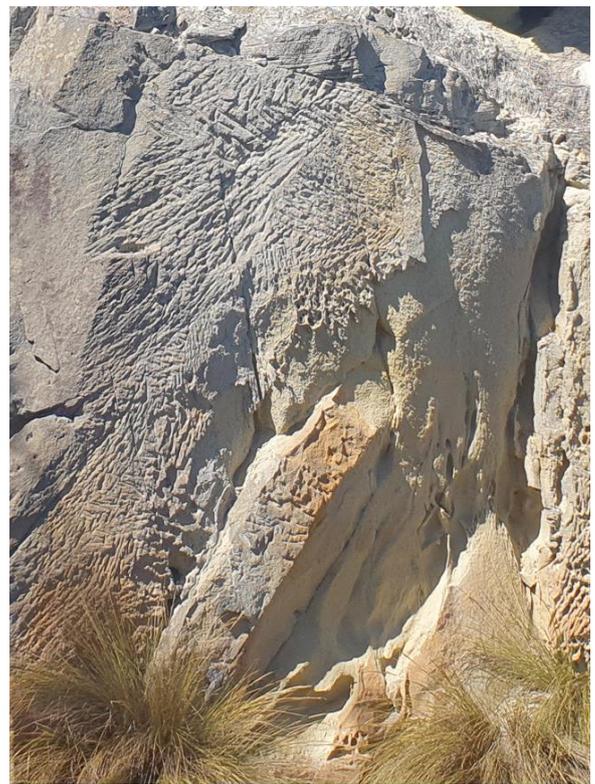


Figure 12

FIGURES 11 and 12: Ventenat Point - Open cut quarry and water filled pit, looking south (28 Nov 2021)

⁴² Sharples, C.E, *The Durability of Tasmanian Building Stone* 1990, Thesis, University of Tasmania, s 2.4.4., bedding dip, p 17

Figure 12 is a close-up of the small and limited open cut quarry face in Figure 11 showing what appears to be evidence of tool marks and some ‘honeycomb’ weathering from salt attack. Note the sandstone strata in Figures 11 and 12 are tilted to the right (west), consistent with the dip in the sandstone caverns, and the outcrop at Ventenat Point. Because of the stone’s initial accessibility, the open cut workings are likely to pre-date the underground quarrying.

With regards to the transport of stone to Melbourne, an historical newspaper article published in the Mercury, 7 November 1860, reports that *“The Barque Harriet Nathan, and schooner Victory will proceed to Little Taylor’s Bay today for the purpose of shipping stone for Melbourne from Mr. Glaister’s quarry”*⁴³.

Mr. Swift who succeeded Thomas Glaister and Co. as the quarries’ lessee and operator, and who developed additional quarries in Taylors Bay working a similar stone, receives mention in the 1867 Launceston Examiner (quoting The Mercury, Hobart) whereby: -

*“Nearly a ship load of stone has already been excavated [from a new quarry in Taylors Bay established Mr Swift] and arrangements have been entered into with the barges Tasman and Seymour for its conveyance to Melbourne as required from time to time”*⁴⁴.

This stone was used in the construction of the National Bank building in Melbourne in the latter 1860’s⁴⁵. The Tasmanian Times in Mar 1869 reports the “fine barge Tasman” skippered by Captain Lindsay was carrying a building stone cargo of 80 tons, and: -

*“Preparatory to taking in the stone she [the Tasman] is being fitted out [in Hobart] with the necessary appliances for lifting up heavy weights, such as blocks of stone, by Messrs. Cullen and Mackey, her builders. A large shoe has been placed amidships in to which a derrick will be fitted, and on the completion of these arrangements the Tasman will sail for the bay probably on Tuesday.”*⁴⁶ We can infer that, at least in the Tasman’s instance, an on-board derrick loaded the stone from the jetties in Quarries Bay⁴⁷.

However, the actual type and degree of sophistication of the plant and equipment employed at the quarries are not described in the historical record. We are advised by Mr John Young, a letter writer to the Sydney Morning Herald in 1902 that *“the Co-operative Company (Thomas Glaister and Co.) had spent a considerable sum of money in opening out quarries and in a plant at Point Ventenat”*⁴⁸.

We know that Thomas Glaister was an enthusiast of new technology, yet by what apparatus and quite how the quarried stone was hauled, dressed and despatched by ship to Melbourne is not known with any clarity from the historical records, nor from the IQA delegates site

⁴³ The shipping records published in The Mercury in the early 1860’s also report the schooners Scotia and Boomerang, and the barque Eucalyptus taking cargoes of stone from Taylor’s Bay to Melbourne.

⁴⁴ Appendix 2, Ref # 24, Launceston Examiner, 27 Feb 18697

⁴⁵ Probably won from quarries near Swift’s Point, at the southern end of Quarries Bay

⁴⁶ Appendix 2, Ref #26, The Tasmanian Times, 8 Mar 1869

⁴⁷ The Tasman, a steamship with sail

⁴⁸ Appendix 2: Ref #43, Sydney Morning Herald, 26 Nov 1902, Letter to the Editor

inspection. We can speculate that land-based derrick (crane) structures were employed to convey and manipulate the blocks at the site, prior to shipping⁴⁹. An example of a sandstone quarry derrick from late nineteenth century Sydney is shown in the painting in **Figure 13**.



Figure 13: Pymont sandstone quarry, Sydney, Tischbaeur 1893

(Source: <https://pyrmouthistory.net.au/sandstone>, from State Library NSW)

The transport overland of quarried sandstone was prohibitively expensive in the time of the horse and dray, and clearly at Ventenat Point, the proximity of the thick sandstone beds beside the deep water of the D'Entrecasteaux Channel made the site attractive for shipping: even to Melbourne. It was landed in Melbourne and sold at a price sufficiently competitive that in addition to its adornment of public buildings, it also found its way into the private buildings of organisations or people of means.

The remains of stone jetties in Quarries Bay, constructed from reject sandstone debris are evident opposite some of the caverns. **Figure 14** is an image (undated) from the Bruny Island Historical Society of a small boat with stone jetties (landing stages) visible in the background, and the sandstone cliffs behind them. The caverns themselves, at the base of the cliffs, are obscured in the photo (and today also) by vegetation.

⁴⁹ For the Melbourne markets, the white freestone is understood to have been shipped in blocks up to 5 tons from the quarries, the blocks then being cut into slabs and the various dimensions in Melbourne to suit the stonemasons' needs. Thomas Glaister appears to have been a keen adopter of new technology to improve productivity, including mechanized stone cutting.



Figure 14: Boat at Ventenat Point showing the historic landing stages for loading sandstone

Source: Bruny Island Historical Society, photo un-dated

For Thomas Glaister and Co.'s 1860 Melbourne Post Office contract, shipping records in The Mercury reported barques and schooners such as the Harriet Nathan, Victory, Scotia, Boomerang and Eucalyptus conveyed the white freestone blocks from the Taylors Bay quarry jetties to Melbourne's docks. The Mercury (Oct 1860) reports the barque Eucalyptus (**Figure 15**) taking on Taylor's Bay stone as part of her cargo to Melbourne.



Figure 15: Postcard of the 3 masted barque Eucalyptus (140 tons), in the 1860's

Source: Maritime Museum of Tasmania, postcard, from the O'May collection,
<https://ehive.com/collections/3906/objects/618069/eucalyptus>

The quantities of stone cargo shipped during the earlier 1860's for the Melbourne Post Office, where reported, were in the order of 40 to 70 tons. Price wise, in Nov 1860, Thomas Glaister and Co. advertised Point Ventenat white freestone to the public at 5s per cubic foot in sizes up to 60 cube feet, on the wharf, Melbourne.⁵⁰

The Point Ventenat and Taylors Bay quarry leases were taken up by Mr. A.H Swift, probably in the mid to late 1860's⁵¹, post the tenure of Thomas Glaister and Co.

Mr Swift opened up a new quarry (probably at Swifts Point, as previously noted) with at least 25 quarrymen, and we know that screw steamships, still with sails, such as the barge Tasman with her fitted derrick for stone lifting, shipped the freestone to Melbourne for public and commercial buildings in the late 1860's.

Schooners were also employed to freight the stone to Melbourne. The Grace Darling, an 82 foot two-masted schooner, was built in Hobart in 1869 by a Mr Hopwood and The Tasmanian Times, reporting in 1870, observes:

“By the arrival of Mr. Swift from Taylor’s Bay, we learn that the schooner, Grace Darling, Captain Hopwood, after taking on board about 66 tons of building stone from the quarry, sailed for Melbourne on Friday morning last”.



Figure 16: The schooner, Grace Darling, circa 1873, that succeeded the Tasman barge as a cargo vessel shipping Mr. Swift's Taylors Bay freestone to Melbourne in 1870
(Seen here at Port Adelaide in 1873; Source: State Library, South Australia)

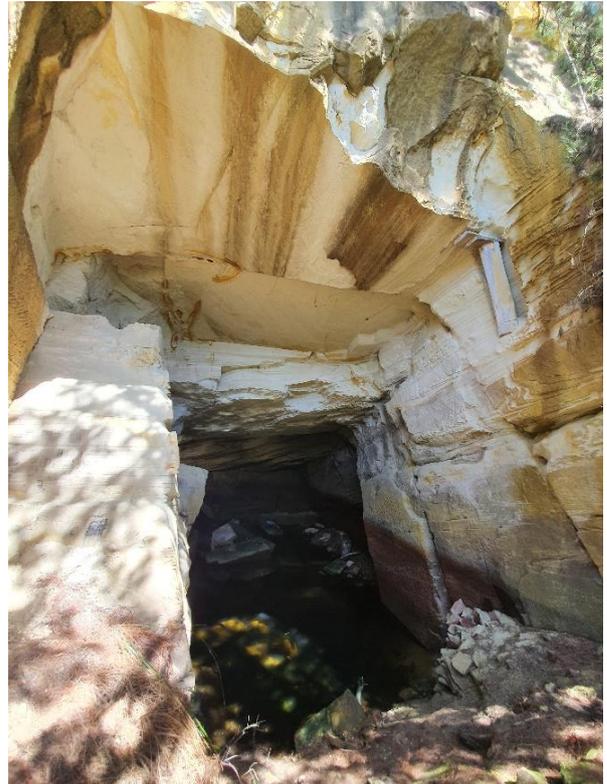
It is understood Captain Hopwood⁵², the master of the schooner Grace Darling, is a relative of Mr Rodney Hopwood, the current owner of the land in which the Ventenat Point quarries

⁵⁰ Appendix 2: Ref # 5, The Argus, 14 Nov 1860, Advertising

⁵¹ Mr. A.H. Swift seems to have been the petitioner that opposed the granting of the initial quarry leases at Taylors Bay to Thomas Glaister and Co. in 1860 (Refer Appendix 2, Ref # 1, 2, 3)

⁵² Probably Captain George William Hopwood

are located. If so, it is a poignant note and epitaph of a 150-year family connection with this remarkable piece of colonial Tasmanian and Victorian industrial history.



Photos: 28 November 2021; Clockwise from top left: A 10m high flat joint surface of freestone in the open cut workings near the tip of Ventenat Point; Another of the downward-sloping caverns or underground tunnels; View east from the quarries, over Little Taylors Bay

Acknowledgements

In enabling the site inspection of the Ventenat Point quarries, the IQA Tasmanian Branch gratefully acknowledges the permission, advice and assistance received from Mr Rodney Hopwood, landowner; Mr Dennis Fuller, neighbouring land owner to Mr Hopwood; Mr Ben Palmer, member of IQA; and Mr John Stanton (IQA and Tasmanian Branch committee member, Past President of the Institute of Quarrying Australia, and Tasmanian seminar chair). In providing historical reference material for this report, the contributions and assistances of Andrew McNeill, Chief Government Geologist, Mineral Resources Tasmania, and the Bruny Island Historical Society, are gratefully acknowledged .

Limitations of the Notes

These observations, notes and speculations ('the report') were prepared following a short 40-minute site inspection of the sandstone quarries and the surrounding land attended by approximately 20 of the delegates to the IQA's⁵³ annual Tasmanian seminar, held at Bruny Island in Nov 2021; and upon subsequent review and consideration by interested delegates of historical records accessible through the Trove website. Not all caverns and above-ground landforms and artefacts were inspected.

The report represents the collaborative efforts and thoughts of individuals working as practitioners within or servicing the contemporary quarrying industry, and not experts of historical mining or quarrying methods. Nor do the notes represent the opinions or otherwise of the IQA, which is a facilitator of such enquires on behalf of its members, but not an author.

These notes have been in gratitude to Mr Rodney Hopwood, the landowner and modern 'custodian' of The Quarries, as kind acknowledgement of his invitation and hosting of the delegates to the Nov 2021 Bruny Island seminar. He asked of the delegates that perhaps we could provide him with some insights and informed interpretations of why and how the quarries were developed and worked. These notes represent our best endeavours. We trust they have unearthed and exposed some further detail into the rather unique story, purpose and historical interpretation (historiography) of 'The Quarries', and further encourage investigation and site interpretation in due course.

⁵³ The Institute of Quarrying Australia (IQA) is a not-for-profit professional organization, and the industry-leading body for people working in the extractive and associated processing and construction material industries sector in Australia. IQA membership is open to individuals rather than companies and members engage in professional development and networking within the quarrying and associated construction industries. The IQA is a leading Australasian provider of technical quarry training, specific quarry courses and quarry manager training for the extractive industry, and part of a global network of affiliated quarrying institutes that operate in the United Kingdom, New Zealand, South Africa, Malaysia and Hong Kong.

The Institute's origins lie in Britain, near the conclusion of World War 1, when the returning tunnellers, sappers and engineers from the theatres of war, were charged with the enormous responsibility of reanimating the quarrying industry to enable the development of post war Britain. From an Association of Quarry Managers, the Institute of Quarrying was formed in 1917 at Caernarvon in Wales with the purpose of sharing and advancing collective knowledge for the betterment of industry to meet society's need for stone and crushed aggregates. They became the Institute of Quarrying ('IQ') which over time expanded internationally.



Photos: 28 November 2021; Top: Sandstone cavern tapering towards the roof, excavated into the white freestone beds, and part water-filled; **Bottom:** View looking northeast of delegates assembled on the elevated sandstone plateau of the Ventenat Point headland. The Quarries are below and further to the right of frame in the cliff faces below

APPENDIX 1

(Ventenat Point) Sandstone Source Data Sheets

Extract from Appendix 1 at p 263 in:-

*'The Durability of Tasmanian Building Stone', Charles Sharples,
Thesis published in 1990, University of Tasmania*

No. 12 SOURCE: Ventenat Point Quarry

CURRENT STONE LEASE: Not current GRID REF. / LATITUDE; LONGITUDE: EN152002 / 43° 21'03"S; 147° 11'13"E
 LOCATION / LAND TENURE: South Bruny Island, at tip and east side of Ventenat Point. Private land and Crown shoreline reserve.
 KNOWN USAGE: Dimension stone.

DATE(S)	USE
1860 - 64	Operated by Thomas Glaister & Co. (Melbourne), stone shipped direct to Taylors Bay, Melbourne (3). Possible subsequent use of quarry by others.
?	Bank of Victoria, Melbourne (1). Later demolished due to poor condition.
1859 - 67	General Post Office, Melbourne: possible use of Ventenat stone plus Orford stone (source 15). (1)

QUARRY DESCRIPTION, ACCESSIBILITY, WORKABILITY: Worked faces up to 30m high on tip and east side of point. Access by sea or 4WD track.

SPECIMENS (DEPT. OF MINES No. / FIELD No.): G 400 006 / V1+ (shoreline outcrop 1km south of quarry); G 400 007 / V2+ (massive bed in quarry); G 400 008 / V3+ (cross-bed unit in quarry);

STRATIGRAPHY / GEOLOGICAL ENVIRONMENT: Early Triassic quartz arenite. No detailed local mapping available - regional mapping by Rigg (1970). Faulted contact with Permian mudstones adjacent. Nearest known dolerite approx. 3.0 km east.

JOINTING / FRACTURING: Quarry development was controlled by major joint set (joints dip 63° towards 84° True, approx. 3 metre spacing). Secondary joints dip 88° towards 344° True.

BEDDING: Dip 10° towards 254° True in quarry. Both massive and cross-bed units outcrop in quarry. Massive beds 2 - 4 metres thick. Oversteepening and slumping present in cross-bed units.

COLOUR (FRESH, DRY): Very light grey (N8) GRAINSIZE: medium SORTING: moderate

COHERENCE: moderate HOMOGENEITY: Generally uniform, but rare clay pellets (V1) and some irregular patches av. 10mm wide of coarser, more porous stone (V3) are present.

DIAGENETIC/WEATHERING COLOURATION/EFFECTS: Liesegang rings very rare. A few sparse irregular bedding - controlled yellowish orange (10 YR 8/6) iron-oxide stain patches occur.

OTHER CHARACTERISTICS: Stone may be affected by proximity of sea-salt.

PHYSICAL PROPERTIES**SPECIMENS**

		V1+ (@)	V2+	V3+
EFFECTIVE POROSITY (vol.%)		10.47	11.70	9.79
WATER ABSORPTION (wt.%)		4.85	5.15	4.38
DRY BULK ROCK DENSITY (t/cubic metre)		2.16	2.27	2.24
DRY POINT LOAD	Av. all directions	1.29	0.47	1.03
STRENGTH INDEX (MPa)	Av. normal to bedding	1.03	-	0.63
	Av. parallel to bedding	1.52	-	1.29
ULTRASONIC	Av. all directions	3296	2645	3008
PULSE VELOCITY (m/sec)	Av. normal to bedding	3159	-	2876
	Av. parallel to bedding	3433	-	3140

MINERALOGY

QUARTZ (vol.% of total mineral matter)	-	-	-
TOTAL CLAY (" " ")	13	17	8
CLAY TYPES (vol.% of total clay)			
SMECTITE or ILLITE/SMECTITE mixed layer	-	22	4
ILLITE	18	17	4
KAOLINITE	82	61	92
VERMICULITE	-	-	-
CHLORITE	-	-	-
HALITE	P	P	P
GYPSUM	-	-	-

SODIUM CHLORIDE SALT CRYSTALLISATION TEST

VOLUME % LOSS, 10 CYCLES (V):	3	8	-
CYCLE No. FIRST DAMAGE NOTED (F):	2	9	-

(@ = Shoreline natural outcrop; test results affected by salt-related case-hardening?)

OBSERVED DURABILITY OF STONE IN BUILDINGS: Not assessed, although bad salt attack noted in quarry faces.

GENERAL ASSESSMENT OF QUALITY, DURABILITY AND VARIABILITY: Probably moderate durability only, and susceptible to salt attack.

REFERENCES: (1) Spry 1982, 1983 (2) Rigg 1970 (3) Morrison 1988

APPENDIX 2:

HISTORICAL REFERENCES FOR POINT VENTENAT / TAYLOR'S BAY SANDSTONE QUARRIES

Compiled from Trove Search enquiries for: - Point Ventenat; Taylor's Bay quarry; Tasmanian Freestone; Bruni Island freestone; Thomas Glaister; A.H. Swift;
 [] words in brackets have been inserted by us to help with context

#	Year	Date	Newspaper	Description
1	1860	22 Aug	Hobart Mercury, Pages 2 and 3	<p>HOUSE OF ASSEMBLY</p> <p>Petition</p> <p>MR. ADAMS presented a petition from Algernon Horatio Swifte as to some land proposed to be rented by him, and praying that the same might not be leased to Mr. Glaister. (In the petition, which consisted of two pages, were embodied nine pages of documents).</p> <p>MR. BALFE moved that the petition not be received as he believed it sprung out of something very like sharp practice. He was given to understand that Mr. Glaister had come over from Victoria having a contract for stone to be obtained at Kangaroo Point for 5s.6d. per foot. When he arrived, however, he found the price 6s.6d and consequently shifted to Taylor's Bay and obtained stone there fitted for his purpose. He brought this away with him, and Mr. Swifte the petitioner, happened to encounter the dray and observe the quality of stone. Having ascertained from the drayman whence the stone came he started for town. Mr. Glaister being then in bed he went straight to the Survey Office and selected 320 acres in Great Taylor's Bay and 320 in Little Taylor's Bay. A long and tedious discussion (as to rule 244) ensued which resulted in Mr. Adams, by permission, withdrawing the petition.</p>
2	1860	22 Aug	The Hobart Town Advertiser, Page 2	<p>HOUSE OF ASSEMBLY.</p> <p>BRUNI ISLAND STONE QUARRY</p> <p>Mr. ADAMS presented a petition from Algernon Horatio Swifte, against the granting of a lease to Mr. Glaister, of land including a quarry at Taylor's Bay, Bruni Island [A Mr. Balfe spoke in the House of Assembly opposing the petition]</p>
3	1860	23 Aug	The Mercury, Hobart, Page 3	<p>TAYLORS BAY STONE.</p> <p>To the Editor of the Mercury.</p> <p>Sir,- Perceiving in your paper of this morning some statements of Mr. Balfe's made in the House of Assembly last night, which are entirely at variance with the facts, I think it necessary to trouble you with a few remarks in order to contradict the same. Upwards of two years ago, and after spending £1500 in opening a quarry at the Huon, I visited Point Ventenat, and perceiving the excellent quality of the stone, I resolved to purchase</p>

				<p>the land there, but becoming engaged in the erection of the New Wharf, I deferred doing so until its completion.</p> <p>I had actually eighteen months ago engaged quarrymen to go to get stone there for the new Public Buildings in Macquarie-street. I caused a tracing of Point Ventenet (sic) to be made with the object of selecting the quarry there, days before I had even heard of Mr. Glaister, and I distinctly deny “encountering any dray, with stone and then starting to town,” (out of which I have not been for upwards of 8 months) “ and going to the Survey Office” in the manner mentioned by Mr. Balfe or our seeing and hearing of any sample of stone got by Mr. Glaister, or of knowing anything whatever of that gentleman’s operations or taking any advantage of the same. I think Mr. Balfe should be careful to ascertain facts before he states in the House of Assembly that which is entirely contrary, and I call upon him publicly from whom or in what manner he obtained his information, and to prove or withdraw his assertions.</p> <p>I am, Sir, Your obedient servant, A.H. Swift, Hobart Town, August 22, 1860.</p>
4	1860	7 Nov	The Mercury, Hobart, Page 2	<p>MICELLANEOUS SHIPPING</p> <p>The Barque Harriet Nathan, and schooner Victory will proceed to Little Taylor’s Bay, today, for the purpose of shipping stone for Melbourne from Mr. Glaister’s quarry.</p>
5	1860	14 Nov	The Argus, Melbourne, Page 8 Advertising	<p>FOR SALE, POINT VENTENAT WHITE FREESTONE. This stone is not surpassed in quality by any of the freestones of England, and is superior to any hitherto used in the colony. It is adopted by the Government in building the new General Post-office, where inspection is invited. Price, on the Wharf, Melbourne, 5s. per cubic foot, in sizes up to sixty cube feet. THOMAS GLAISTER and CO. Victoria-street west, New Post-office building.</p>
6	1861	11 Jan	The Argus, Melbourne, Page 8, Advertising	<p>FREESTONE – Point Ventenat, for SALE, landing ex Scotia. Apply Point Ventenat Freestone Company, Flinders Lane east.</p>
7	1861	8 Mar	The Mercury, Hobart, Page 2	<p>Good accounts continue to be received from Melbourne of the high estimation in which the STONE from BRUNI ISLAND, now being used in the erection of the New Post Office is held. This material has been scrutinised with the most critical eye, and subjected to the severest tests, and the result is all the more satisfactory.</p> <p>We have been favoured with an extract of a communication received by the Director of Public Works, and enclosed to him the analysis of the Bruni Island stone, made by the chemist charged by the Victorian Government with the duty of reporting on all the best known stones both of this Colony and Victoria, prior to the selection of a material for this important and magnificent work.</p>

				<p>... At Bruni Island, the fine pure stone, equal to the sample tested by Mr. JOHNSON is found in enormous masses, and in apparently inexhaustible quantities. So abundant indeed is the material, that the surface stone, to the depth of 20 feet or more, is thrown away in order that nothing may be taken for use but the very heart of the bed. The letter to Mr FALCONER states:-</p> <p>The Point Ventenat Freestone is universally admired in Melbourne for its excellent quality and uniformity of colour, and being of a pleasing and peculiar tint, is noticed for its extreme susceptibility to light and shade thereby producing a splendid effect on embellishments of any description.</p> <p>.... (Copy) St Kilda, January 5th, 1861</p> <p>T. GLAISTER, ESQ</p>
8	1861	12 Apr	The Mercury, Hobart	<p><i>(regarding the building of Melbourne Post Office)</i></p> <p>..The Ventenat freestone, which is being used in this building, while easy to work gives promise of great durability. A specimen 20 ft. long and only 2 ft. broad and 2 ft. deep is to be seen at the entrance of the yard, its strange proportions being pretty good evidence of the quality of the material.</p>
9	1861	12 Apr	Hobart Town Advertiser : Weekly Edt. Page 7	<p>TASMANIAN FREESTONE</p> <p><i>[as per the Mercury report of same date, and in addition): -</i></p> <p>The following description of a visit to the New General Post Office of Melbourne contains some very complimentary observations upon our freestone:- ...</p> <p>The freestone is, however, by far the most remarkable material, and the quarry from which it came seems to have almost been brought to light for the purpose, so timely was its discovery by Mr Glaister. We have already discussed the colour ('fine freestone of a beautiful French, grey tint') of this freestone and have only to add that its grain is so close and its substance so tough that a large block has been lifted by an ornament not more than an inch or so in size which had been cut in it. In quality it very closely resembles the splendid material of which St. Georges Hall, Liverpool, is composed. It is brought hither in large cubes, some of which, when used, have weighed as much as five tons. To these advantages has to be added another, viz, the ease with which it can be worked. Taking the working of bluestone at 6s per foot, that of the granite is 10s or 16s, while the freestone will only cost 2s and 6d. This is a valuable feature in its character, the effect of which is, that freestone can be procured at almost the same price, as worked bluestone, the cost of carriage being (?) by the saving in labour.</p>

10	1861	24 Jun	The Sydney Morning Herald Page 5	<p>VICTORIA.</p> <p>Several large buildings, which add not a little to the advancement of the city, have lately been erected in Melbourne. Of these, the most important is the new Bank of Victoria, which is being erected on the site of the old Melbourne Clubhouse, in Collins-street. In the front of the new bank Mr. Smith, the architect, has contrived, with much skill to work up many of the prevailing characteristics of the Palazzo Carnaro of Venice, which, in many respects, he has avowedly adopted as his model....The entire front is to be composed of that beautiful white freestone of which the new Post-office is composed, and which is brought from Point Ventenat, a promontory of Bruny Island, in D'Entrecasteaux Channel, dividing Bruny Island from Southern Tasmania. Altogether, the new bank cannot fail to be a notable ornament of the city.</p>
11	1861	Sat 14 Dec	The Star, Ballarat, Vic., Page 2	<p>STONE-DRESSING BY MACHINERY</p> <p>..... The invention of stone-dressing by machinery, which is of American origin, has been introduced to Victoria by Messrs Rentsch and Reigg, who are the patentees for the Australian Colonies.</p> <p>.... A slab of the Point Ventenat stone used in the building of the new Post Office, some 4 feet long and 3 feet wide, was dressed to the extent of one inch in three and three quarter minutes [<i>by the new stone-dressing machine at Exhibition which a Mr Smith attested could dress three superficial square feet per minute</i>]...The same work, by hand labour, would occupy a man something like 8 hours.</p>
12	1861	21 Dec	The South Australian Register, Adelaide, p2	<p>VICTORIA</p> <p>The list of public buildings of Melbourne is just now receiving some notable additions. Already has the long-promised Treasury begun to assume a habitable aspect, but on that aspect we have sufficiently informed our readers. The Post Office has at last reared itself into notice, and in about six weeks the first portion of the work will be concluded.</p> <p>Messrs. Glaister and Co., the 'associate masons', who undertook the contract to erect the first storey, are on the eve of completing their undertaking, but enough has not been done to make any portion of the building ready for use.</p> <p>...The top of the entablature fronting the level of the first floor, is all that has been erected at present, and the work appears to have been about as perfect as could be expected by the most fastidious 'new arrival'.</p> <p>The clear white stone of Point Ventenat, of which the Post-Office front is mainly built, has amply vindicated its claims to be considered about the best building stone ever used in these colonies. With a proportion of 99.42 of silica, the rest being made up of aluminium and the usual concomitants, it has proved itself to be as pure grit sandstone as any to be found even in England. It has already stood the test of an Australian summer</p>

				and winter, and the crystals of sulphate of soda, which are ever the most destructive element in such material, have not yet shown in quantities worth noticing, though this climate is held to be very trying to all building material of this kind.
13	1862	Wed 8 Jan	The Argus Melbourne, Page 5	ST PATRICKS CATHEDRAL ... We have only to add that bluestone is the principal material used in the construction of the cathedral, but Point Ventenat freestone is employed for the windows, loopholes, and more delicate features of the structure.
14	1862	18 Jun	The Argus, Melbourne, Page 3, Advertising	FOR SALE by PRIVATE TENDER the LEASE for the POINT VENTENAT FEESTONE QUARRY, Tasmania, having 12 years to run. Tenders will be received until Jun 27 for the purchase of the above the lease, subject to supplying the freestone to complete the portion of the new Post-Office, Melbourne, now in progress. For information apply to Thomas Glaister and Co.
15	1863	16 Jan	The Argus Melbourne, Page 8, Advertising	CLEARING OUT SALE – Point Ventenat FREE-STONE, small sizes, excellent quality, 3s per cube foot... Company's Yard, Victoria St West.
16	1863	27 July	The Mercury, Hobart, Page 2	ROYAL SOCIETY ... Mr Gould also laid on the table the following statement of the value of several of our stones and marbles which were forwarded to the International Exhibition. ... Value of the stone and marble exhibited at the International Exhibition:- ... Drift (Little Taylor's Bay) 2s, per cubic foot, rough on the wharf, London Drift (Point Ventenat) 2s, ditto Glaister and Co. South Bruni, 2 s 2d, ditto
17	1863	27 Oct	Launceston Examiner Page 5	HOBART TOWN AND THE SOUTH. FATAL ACCIDENT AT TAYLORS BAY.- A man named William Goldie, a quarryman in the employ of Mr. Glaister, met his death some days since by the falling in of a tunnel which he and two mates had been engaged in driving. The two mates had gone a few yards away from the work for a minute or two when the accident happened, and thus they had a very narrow escape – <i>Advertiser</i>
18	1864	27 Aug	The Age, Melbourne Page 6	Cement v Tasmanian freestone

				<p>Letter to the Editor</p> <p>... [on the question of availability of suitable building stone in Victoria for public buildings and the suggested use by a Mr. Douglas of cement plaster / render over brick, as an alternative to freestone]</p> <p>.. We can in conclusion assure the public there is an inexhaustible of the finest freestone available, and that, comparatively, not dearer than the same article in London; and the very best class of British workmen having emigrated here, stonework can be executed, comparatively, as cheap as any other part of the building. Stone has always been a national material for building, wherever available; and all compositions are only an imitation of that material; and the secret to Mr. Douglas's misstatement to the prejudice of freestone buildings may be summed up by the old adage – " There is nothing like leather." We are, Sir, yours truly THOMAS GLAISTER AND CO.</p>
19	1866	9 Jul	The Mercury, Hobart, Page 2	<p>TASMANIAN FREESTONE.</p> <p>...In Melbourne where I am told most of the stores and houses are built of iron, or whinstone, as it is called, which gives a sombre appearance, freestone is so rare, that few houses are built of it, and their fortunate possessors like to dazzle their sight with its appearance. The quarry at Taylor's Bay has done its work in erecting the Melbourne Post- office, one of the finest buildings in the Southern Hemisphere, but it has (a?)voided the land, and sinking down into the earth has vainly challenged man to follow. The quarry is now abandoned as the consequence of the expense, so it is said, of continuing to work it.</p> <p>JOHN ABBOTT July 3rd 1866</p>
20	1867	10 Aug	The Herald Melbourne, Page 3	<p>CITY COUNCIL</p> <p>The council then proceeded to the consideration of the report of the Town-hall committee, recommending the architect be instructed to invite tenders for the building of the new town-hall, specifying a price for erecting the building with Oamaru stone (Kakanui quarry) and the price or prices for the erection with stone from Tasmania, of one or more of the stones from the following quarries, viz :- Swift's, Point Ventenat; Andrews', White Hestercomb; Glaister's, Spring Bay; Nicol's near Hobart Town; Young's, White Kangaroo Point.</p>
21	1867	1 Oct	The Age Melbourne, Page 6	<p>City Surveyors Department, Town Hall Melbourne, 30th September 1867.</p> <p>Memo Mr Chambers has since furnished me with the particulars of a similar trial of Point Ventenat stone (Tasmania) the results of which on one inch cubes were as follows:-</p> <p>"1st bore pressure of 2160 lb; cracked under load of 2240 lb;"</p> <p>"2nd Bore 2400lb; cracked under pressure of 2480lb." R. Adams, City Surveyor.</p>

22	1867	12 Oct	The Maitland Mercury and Hunter River General Advertiser, page 4	<p>STONE FOR BUILDING PURPOSES</p> <p>... The Point Ventenat (stone) was employed in the lower half of the (Melbourne) Post-Office, and it and the Spring Bay (stone) of which the Bank of Victoria, the Australasian Insurance Office and the upper part of the Post office are the best stones which have yet been found.</p>
23	1867	16 Oct	Illustrated Sydney News Page 8 (and illustration page 5)	<p>THE NEW POST OFFICE, MELBOURNE.</p> <p>... The stone used in the front of the building is freestone from Tasmanian quarries, the greater proportion being from Point Ventenat, Taylors Bay, and the remainder from Spring Bay. Both these quarries have been opened up and worked by Messrs Glaister and Co. of Melbourne.</p>
24	1869	27 Feb	Launceston Examiner Page 5	<p>HOBART TOWN AND THE SOUTH.</p> <p>The <i>Mercury</i> says:- At Taylor's Bay Mr. Swift and his men have been most successful in opening up a fine quarry of freestone which they went down to procure for exportation to Melbourne, with a view to its being used in the erection of the new National Bank in that city. The samples of the material as yet obtained are of splendid quality, indeed they are said by an experienced contractor to be superior to any yet procured in Tasmania, but the truth of this statement we are not prepared to vouch for. Nearly a ship load of stone has already been excavated and arrangements have been entered into with the barges Tasman and Seymour for its conveyance to Melbourne as required from time to time.</p>
25	1869	6 Mar	The Tasmanian Times, Hobart Town, Page 2 .	<p>SHIPPING INTELLIGENCE</p> <p>The fine barge Tasman, Captain Lindsay, at present dischrnging in the dock, will proceed down the river on Tuesday, and put into Taylor's Bay. She will while there load with a cargo of stone, about 80 tons, for the National Bank in Melbourne. This stone will be the first shipment from the new quarry worked by Mr. Swift...</p> <p>The cutter Ripple ,, put into Taylor's Bay, where she took passengers to town Mr. Swift and eight of his men.</p>
26	1869	8 Mar	The Tasmanian Times, Hobart Town, Page 2	<p>SHIPPING INTELLIGENCE.</p> <p>The barge Tasman, now lying in the Constitution Dock, has discharged the whole of her cargo from Melbourne, and will proceed down the river to Taylors Bay on Tuesday for the purpose, already mentioned in the Tasmanian Times, of taking in a cargo of freestone from the quarry of Mr. Swift, to be shipped to Melbourne and there used in the construction of the National Bank. Preparatory to taking in the stone she is being fitted out with the necessary appliances for lifting up heavy weights, such as blocks of stone, by Messrs. Cullen and Mackey, her builders. A large shoe has been placed amidships in to which a derrick will be fitted, and on the completion of these arrangements the Tasman will sail for the bay probably on Tuesday.</p>

27	1869	18 Mar	The Mercury, Hobart, Page 2	<p>SHIPPING INTELLIGENCE.</p> <p>The Tasman, barge, came up from the new freestone quarries at Taylor's Bay yesterday morning for orders, some questions having arisen between Mr. Swift and Captain Lindsay as to the quantity of stone the vessel should carry to Melbourne. The quantity at present on board is 40 tons, and a survey was held upon the vessel by Captain Fisher and Bayley, when it was decided should take in five tons additional....</p> <p>In addition to the stone above mentioned, she has onboard 7,000 feet of timber, and 6,000 pailings, and as soon as her loading is completed, she will proceed on her voyage to Melbourne. There has been a jetty erected by Mr. Swift in connection with the quarry, to facilitate the putting of the stone on board the vessels.</p>
28	1870	7 Feb	The Tasmanian Times, Hobart Town, Page 2	<p>SHIPPING INTELLIGENCE.</p> <p>By the arrival of Mr. Swift from Taylor's Bay, we learn that the schooner, Grace Darling, Captain Hopwood, after taking on board about 66 tons of building stone from the quarry, sailed for Melbourne on Friday morning last.</p>
29	1870	25 Jun	The Cornwall Chronicle, Launceston, Page 3	<p>ABSTRACT OF GOVERNMENT NOTICES AND ADVERTISEMENTS.</p> <p>Sale of Freestone.- The freestone described in the Gazette of 24th May as having been seized by the police at Point Ventenat, South Bruny, and advertised for sale on the 8th instant, not being sold, will be sold by public auction, at the Police Office, Gordon, on Wednesday, the 22nd instant, at one o'clock in the afternoon.</p>
30	1870	11 Aug	The Argus, Melbourne, Page 6	<p>THE NATIONAL BANK.</p> <p>The façade of the building rises to height of 72 ft., and is constructed of Tasmanian freestone, resting on an unusually handsome and massive base of blue stone 7ft. in height</p> <p>The utmost care has been taken in the selection of the freestone used for the façade of the bank. So important did the directors consider this matter, that unwilling to be guided by the generally circulated reports as to the superiority of one type of stone over another, they commissioned the well-known analytical chemist, Mr. George Foord, and their own architect to proceed to Tasmania, there personally to examine the freestone quarries, with their own hands to select samples from the quarries, and to bring them back to Melbourne, and there to apply such tests and make such critical examination as might be necessary to enable them to arrive at a sound conclusion. The result of the joint labours of Messrs. Foord and Taylor was embodied in a most exhaustive report, and upon their recommendation it was resolved to use the stone brought from Bruny Island, in D'Entrecasteaux Channel, about 50 miles south from Hobart Town. This is the same kind of stone as that</p>

				used in the lower story of the Post-office, which has for several years been exposed to a southern and western exposure – the most trying in this climate – without showing signs of decay....
31	1870	8 Sep	Tasmanian Times Hobart Town, p2, CUSTOMS RETURNS	<p>TASMANIAN STONE</p> <p>Mr. A.H. Swift has returned to Tasmania from Victoria after having successfully completed his contract for the supply of freestone for the erection of the new National Bank, Melbourne and another large building. The stone was supplied by Mr. Swift from quarries leased by him at Pt. Ventenat, Bruny Island and so successfully has the contract been fulfilled that out of some hundred of tons supplied not more than three of the blocks were rejected. The stone was so highly thought of in Victoria that Mr. Swift has obtained the contract for supplying stone for the new Town Hall, Ballarat, and the new Congregational Chapel, in Melbourne, and has come over to make the necessary arrangements. [Tasmanian Times 20th August 1870 p2.]</p>
32	1870	19 Oct	The Mercury, Hobart, page 2	<p>WHITE FREESTONE</p> <p>To the Editor of The Mercury</p> <p>Sir, in reading your article of the 5th inst., relative to the non-supply of stone from Mr. Swift's quarry for the new Town Hall, Ballarat, I beg leave to draw attention to a sample of stone lying now at the Director of Public Works office lettered "Company's Quarry from Spring Bay."... Robert Robinson, Contractor</p>
33	1878	24 Jan	The Age Melbourne, Page 4	<p>Advertising</p> <p>... VALUABLE FREEHOLD PROPERTY, Comprising 320 acres, Forming the Celebrated POINT VENTENAT FREESTONE QUARRY [by auction]</p> <p>.. The stone has been proved by practical men to be unequalled for quality in the island. It has been selected by the Victorian Government for the principal public buildings and for other important works. ..The quantity is unlimited, easy of quarrying, and of export, the loading place being a harbor perfectly safe and easy of access, and to an enterprising party a very large return may be assured if judiciously managed. Title, Crown grant, Terms liberal.</p>
34	1878	30 Jan	The Herald, Melbourne Page 2	<p>NEWS OF THE DAY.</p> <p>[Auction sales] ...</p>

				The Point Ventenat Freestone quarry in Tasmania was also offered, but there were no buyers. The auctioneers and others present freely commented upon the slackness of business, which they were unanimous in ascribing to the political crisis.
35	1880	13 Mar	The Cornwall Chronicle, Launceston, Page 2	... From the Taylor's Bay quarry, South Bruni, for samples were sent by Mr. G. Green. Two of them are bright white stones of different qualities; the others are of a duller colour. The stone from this quarry is also well known, having been used in the building of the Post Offices in Melbourne some years ago.
36	1880	5 Nov	The Argus, Melbourne, Page 38	<p>APPARATUS AND PROCESSES OF BUILDING.</p> <p>[Exhibition of the colonies in Melbourne, THE TASMANIAN STONE TROPHY]</p> <p>... we first arrive at the building stones, exhibits of which will be found in all the exhibits of the Australian colonies, Tasmania taking the lead in virtue not only of having supplied the freestone with which our most important public buildings have been erected; but also in virtue of the most important exhibit of the class, viz., the stone trophy standing in the grounds at the back of the fernery. This consists of a sort of stepped cross, having three arms, or walls, radiating from a centre, each of the six courses of which go to form its height being shorter than the one immediately below it, whilst from two of the steps of the termination of each arm, and from the apex as a whole, stand finials set upright, but all on their natural beds. The stone in this trophy, classified by localities as follows, are:-</p> <p>....</p> <p>from Taylor's Bay, at Bruni Island, we have a white stone...</p> <p>Many of these stones have been used in Melbourne.... the Taylor's Bay stone [having been used] in the lower storey of the Post Office, and the National Bank....</p> <p>All these stones used in Melbourne ... are white, and the prevailing taste here demanding a white stone, no other colour is likely to be as much in demand, although in Tasmania very effective fronts are produced by the artistic combination of two or more colours. The choice is thus left between the Taylor's Bay, the Okehampton and the Spring Bay stones. The first is now virtually unprocurable, and, indeed, it is doubtful whether the exhibit in the trophy is from the same quarry which turned out of the Post-office, The stone from this building was obtained from the base of a high cliff, the bed dipping inwards, and when the building was about up to the level of the first cornice, the line was reached at which the stone had either to be followed by quarrying, or to be laid bare by stripping, to borrow the technical term, the whole of the earth and rock overlying the white bed of stone, and as the expense in either case would have outweighed any compensating advantage to be obtained, the quarry was abandoned and the remaining contracts for the building were let in Spring Bay stone.</p>

				The National Bank was, however, erected afterwards with stone obtained from the same locality, but it is understood that the difficulties in the way of obtaining further supply in quantity and at a reasonable rate are insurmountable.
37	1880	23 Dec	Hamilton Spectator Vic. Page 4	<p>MOUNT ABRUPT FREESTONE VERSUS TASMANIAN</p> <p>The <i>Hobart Town Mercury</i> contains the following remarks on what is called in Tasmania the “stone controversy”:- “ an entirely new phase has come over the stone controversy Victoria v Tasmania, and one, we must confess, which we did not expect. The Victorians have, to all appearances, refused to compete with us...”</p> <p>[refers to a challenge between the merits of a Victorian sandstone at Mt Abrupt and Tasmanian freestone – in stone ‘trophies’ exhibited at Exhibition].</p>
38	1881	28 March	The Mercury Hobart Page 2	<p>TASMANIAN FREESTONE.</p> <p>The Chief Secretary of Victoria has acknowledged that he has been misinformed about the stone question, and that the Government of that Colony have been acting under a misapprehension in dealing with the choice of a stone for the façade of the Melbourne Parliament Houses.</p> <p>Re; Treasury building .. (it) cost the Victorian Government a sum bordering on £20,000 with Tasmanian stone replacing the parts of the building that were decaying and composed of Bacchus Marsh stone.... Tasmania has in the past been made too much the scapegoat, for other sins in this style, and other buildings in Melbourne which are found to be crumbling away are alleged to have been constructed of Tasmanian stone, whereas it was actually Victorian.....</p> <p>Let comparisons be drawn between Stawell Court-House, and the Melbourne Post Office, Town Hall, Library, Law Courts, Banks in Collins street, Savings Bank, Customs House, and, in fact, all the public buildings constructed by imported Tasmanian stone. Tasmania has little to fear from the impartial verdict of such a tribunal, and it is no more than justice that it should be accorded.</p>
39	1884	2 Jun	South Australian Register Page 3	<p>THE PARLIAMENT BUILDINGS</p> <p>[letter to the Editor of response by Thomas Glaister to criticism by a Mr Freer, in relation to stone for South Australia’s Parliament Buildings?]</p> <p>... Allow me to give Mr Freer two pieces of advice. In the first place, when he airs his eloquence in the future, and has exhausted his facts, to sit down; and in the second place, although he may be opposed to the policy of the Ministry, manliness and good sense should prevent him from interfering in private affairs and perverting</p>

				<p>facts for the purposes of injuring the Government. Mr Freer should rest himself content that when we require his valuable advice and assistance for carrying out this contract we will send for him.</p> <p>I am, Sir, and c., THOMAS GLAISTER, Manager, Kapunda Marble and Building Co.</p>
40	1884	?	?	<p>Point Ventenat whence stone was obtained for the Melbourne Post Office, and Taylor's Bay, another quarry in the same vicinity. The immediate work for which the stone is required is the completion of the Melbourne Public Library, the new portion of which is to be in white stone, the portico being from Orford. Then will follow the completion of the Melbourne Post Office, which is a mixture of Ventenat and Orford, and there are plenty of other large works to follow, so the demand will be great. [Daily Telegraph 20th November 1884 p2]</p>
41	1884	24 Nov	The Mercury, Hobart, Page 2	<p>TASMANIAN STONE FOR VICTORIA.-</p> <p>Mr. Cosmo Newbery, the Superintendent of the Melbourne Technological Museum, has continued and completed his work of inspecting the freestone quarries of Southern Tasmania, which he was deputed to perform by the Victorian Government. On Wednesday last he went down the river to D'Entrecasteaux Channel in the steamer Pinafore, which had been courteously placed at his disposal, by the Government, accompanied by Mr. Robt. Robinson, District Inspector, who had been instructed by the Minister of Lands to render any assistance within his power. Mr. Newbury inspected the Point Ventinat (sic) Quarry, which is owned by Mr. Lloyd of Melbourne, and is not now at work. The stone was found to dip at a very sharp angle, and it had been mined for in a way that would almost destroy the possibility of almost ever getting any more out except at enormous cost. Those who have quarried have apparently cut what they wanted for their own use and left the quarry in a very dilapidated state.</p>
42	1900	5 Jan	The Mercury, Hobart	<p>Obituary The Late H.R. McCracken</p> <p>...He took up land at Taylor's Bay....It was during his residence at Taylor's Bay that the Victorian Government decided to build the Melbourne General Post Office of Tasmanian freestone, and he pointed out to Mr Glaister, one of the contractors, some stone on his property. This stone was actually used up to the top of the first columns, the remainder being obtained from Spring Bay [<i>nr Maria Island</i>]</p>
43	1902	26 Dec	Sydney Morning Herald, page 7	<p>DAY LABOUR V CONTRACT WORK (Operative Stonemasons)</p> <p>LETTER (by John Young) TO THE EDITOR</p> <p>Sir, - the Operative Stonemasons' Society of Sydney, recently at the Trades Hall passed the following motion:-</p>

			<p>That the contract system should be superseded by day labour in all Federal, State and Municipal works ..</p> <p>.. whilst we can commend a society of artisans being impartial and treating all its members on an equal footing</p> <p>... but while men are equal in the eye of the law, are they equal in ability?</p> <p><i>[The writer regales an example from the building of the Melbourne Post-Office 30 to 40 years ago]</i></p> <p>There was then a great outcry of the unemployed and the Operative Stonemasons led in the demonstrations that took place, and the Government of the day did what they could to give employment, and as foundations had been made for the Post Office building the stonemasons originated it themselves (or had it suggested to them) that they should form a a co-operative building company and take contracts for the erection of the Post-Office and other works</p> <p>..... and a company was formed composed of a large number of the members of the Operative Stonemason's Society. Mr Glaister, a mason, was appointed manager, and the firm was called Messrs Glaister and Co. The government let the contract of the Post Office to this co-operative firm and favoured it in every way they could.</p> <p>... the works proceeded and the first thing to do was obtain suitable stone, for no stone suitable was at that time discovered in Victoria, and as white stone was required Messrs. Glaister and Co, with the superintendent went to Tasmania and found what they considered a suitable quarry of good white sandstone, situated at Taylor's Bay, Bruni Island in D'Entrecasteaux Channel. I may state that at that time and for some years previously a white sandstone from Kangaroo Point, near Hobart, was generally used in Melbourne, and I was then using all they quarried.</p> <p>Messrs Glaister and Co commenced quarrying at Taylor's Bay, and delivered the stone to Melbourne for the Post-Office and the works proceeded for some time</p> <p>By the time the Melbourne Post Office was erected up to about the level of the first floor, the Kangaroo Point stone quarry gave out, and as it was necessary for me to obtain white stone I visited Messer's Glaister and Co's stone quarry at Taylors Bay, and after examination and from indications noticed by me, I came to the conclusion it would not last long.</p> <p>[when this news was relayed, by the author, John Young, to Melbourne]..a great hubbub was raised, and the superintendent and Glaister, with others went over to examine the quarry, and on their return reported there was sufficient stone at Taylor's Bay to build three Melbournes.</p>
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44	1920	12 June	Building : the magazine for the architect, builder, property owner and merchant. Vol. 26, No. 154	<p>Re: Victorian Parliament House</p> <p>... At the building of the structure the question of a suitable material was a contentious and difficult matter to settle. Numerous experts, and Boards which did not consist of experts, were at various times appointed to determine and make a selection of a suitable material. In the first place it was kept in the forefront of discussion that the material must be purely of Victorian origin, and sandstones from Bacchus Marsh, Bulleen, Barabool Hills, Kyneton, Kilmore and Plenty were examined and debated upon. The Bacchus Marsh sandstone seems to have been the most favoured. The qualification was therefore made by an expert Board in 1858 that should this stone be used it should only be so with great caution in the high tower, across wide openings, and in fact in any position where great compressive stress was likely to be met with.... The predilection for Victorian stone proved most disastrous as the decision to use the Bacchus Marsh sandstone revealed a characteristic that seems not to have been discovered, for it was not very long after external stones had been placed in position that disintegration had commenced and to such an extent that much of the work had to be replaced and there occurred then the difficulty of matching the stone in colour and texture and eventually freestone had to be obtained from Tasmania.</p> <p>Fortunately at this stage, little of the actual exterior of the building had been involved, so that it was competent for a reconsideration of the question and a Royal Commission was appointed to report upon the whole of the building and the problem of finding a suitable stone.</p> <p>In January 1877, after nearly ten years of earnest deliberation, the problem of a suitable stone was still chaotic and another special board was appointed to deal with the matter. The amount of work this sub-committee or board carried out in its search for stone reads like a gold miner's tragedy and it is safe to say the precious metal has never been so assiduously and persistently sought after as a "suitable stone" for the six good men of that board.</p> <p>It reminds one of the difficulties that were encountered in the selection of a building stone for the Houses of Parliament, London, when after much expert investigation a magnesium limestone was selected from Auston in Yorkshire, because it had been daily tested by exposure in buildings for upwards of 500 years, but when used in the Houses of Parliament it was found that chemical action of London's atmosphere on the stones soon disintegrated the particles and "crumbling" set in almost immediately, in fact, it has since taken quite an army of workers to be forever replacing the wasted stones with new material, as well as using preservatives.</p> <p>In carrying out the (1877) instructions of the Victorian Parliament, the board [favourably] examined stones used in the public buildings of Melbourne</p>

				<p>These included:</p> <p>Post Office: Spring Bay and Point Ventenat, Tasmania Bank of Victoria: Point Ventenat, Tasmania National Bank: Bruni Island, Tasmania</p>
45	1923	20 Nov	The Mercury, Hobart, Page 5	<p>MR. GEORGE DAVIS. (NONAGENARIAN).</p> <p>... Operations were in progress at the noted freestone quarries opened up at Taylor's Bay during the years 1858 to 1869, the stone from which was used in the construction of the Melbourne post office, and a considerable quantity of good stone was obtained from these quarries before operations ceased.</p>