

Making Something of a Hole in the Ground

The Re-Use of Basalt Quarries in Melbourne’s Western Suburbs

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Quarrying is a noxious industrial activity necessary for the provision of stone and clay, utilised predominately in building activities as the city grows. In post-industrial Melbourne, the extraction of these materials has left a pock-marked landscape, reflecting the fact that the city was settled upon an oppor-tune juncture of sand-and-clay, basalt, and mudstone fields. Although quarry holes vary significantly in scale and depth, resolution of this complex land-scape is often found in their re-use as tips, and this is especially true for basalt quarries located in Melbourne’s western suburbs. The refuse of city-dwellers and industry returns the void to a planar or flattened state, with soil often un-stable due to decaying fill. Options for re-use of such sites are thus limited, and may warrant creative solutions. Large tracts of formerly industrial land are considered ‘brownfield’ sites, and quarrying creates particularly complex examples of these spaces. Their proliferation throughout specific geological areas such as Melbourne’s west underlies institutional desire, and in some in-stances public sentiment, to locate a new purpose for disused post-industrial land. As such, former quarry-tips have been historically remade as open space, and in one rare and unsuccessful instance, housing. This paper identifies two individual cases of quarry-and-tip re-use, and ex-plores their development: the Newport Lakes park, and Yarraville’s notorious ‘Sinking Village’. The historical narrative constructed by this paper makes use of newspaper publications, and reveals the processes by which the rem-nants of past industrial activity have become accommodated in the contempo-rary post-industrial city. This will also demonstrate the rationale for each pro-ject, in addition to public and institutional discourse surrounding the re-use of a quarry site, and its subsequent post-industrial iteration. These are linked to the present-day condition of the site, reinforcing the connection between his-toric land-use and what exists today.

Keywords — *quarrying; bluestone; brownfield development; Melbourne.*

INTRODUCTION

Quarrying is a form of industrial activity wherein the landscape functions as both the site of activity, as well as the material or product itself. Unlike other industrial activities, quarrying cannot simply take place anywhere: not only must the quarried material be of usable quality, but it must also sit within a broader site allowing for its unmitigated use and later expansion, particularly as quarrying produces dust, fly-rock, and noise. Further still, the weight of materials dictates that quarries are best established within close proximity to the site of use. Despite its disruptive nature, quarrying is necessary for the provision of a range of construction materials, ranging from infrastructure such as roads and drains through to buildings (Stanier 1985). Locating a suitable site is thus a challenge, and once established, many quarries are worked to the greatest

allowable extent prior to their closure, necessitating relocation of the operator to another site where applicable, and the subsequent re-use of the site. Disused and redundant remnant sites, once on the periphery, became firmly embedded within the middle-ring suburbia of Melbourne. In turn, they would become subject to the economic and political conditions of the city, manifesting as urban growth, and later rationalisation and urban densification, culminating in the re-use of these spaces.

A BLUESTONE CITY

The material subject of this work is often referred to as bluestone, but also known as a type of basalt, an extractive material made unique by its dark blue-grey hue and porous, yet hard, texture (Flannery 2010). It can be found in regions affected by lava flows, and is not specific to Victoria; it can be located globally, albeit with regional characteristics. However, bluestone is particularly concentrated within the western portion of Victoria, exceeded only in size by Deccan Plateau, India, and the Snake River Plain, between the American states of Ohio and Wyoming (DPCD 2013). Of these, Melbourne is the most populated city to sit atop this basaltic soil: in a sense typifying the material as ‘profoundly Melbourne’ (Cunningham 2012, p. 250). It can be located in many institutional buildings constructed prior to Federation, as well as laneways and kerbs (Leslie 1883).

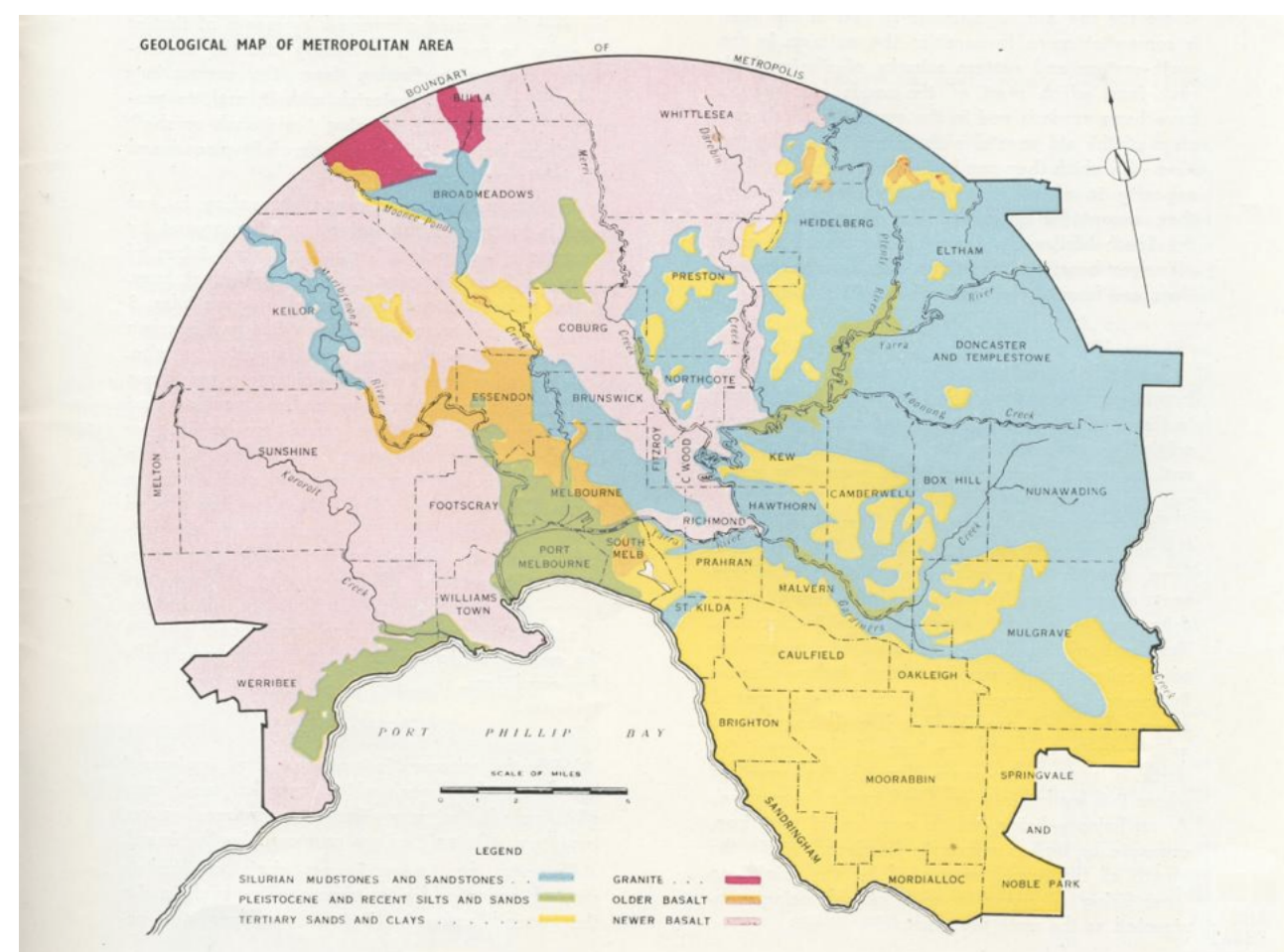


Figure 1: A coloured map produced by the Melbourne Metropolitan Board of Works illustrating the underlying geology of Melbourne (MMBW 1956).

Furthermore, it cannot be located throughout Melbourne, but is limited to the western volcanic plains, which stem from the western suburbs of Melbourne through to the South Australian border. Although common throughout the city, bluestone did not constitute the only workable material available [fig. 1]. Rather, the availability of bluestone early in the city’s settlement lent a unique flavour, much in the same sense that institutional buildings of Sydney are typically

constructed of sandstone (Cooper 2014). Holland (2000, p. 201) writes that ‘each city contained numerous examples of every kind of building method, from the most primitive as used in each colony’s beginnings, to the most sophisticated and fashionable that local and overseas sources could offer.’ In addition to bluestone, fired clay bricks ostensibly proved a viable material following the establishment of a brick-making industry. This took place predominantly in Melbourne’s immediate northern and eastern suburbs, where the river Yarra and its tributaries halted encroaching lava flows, resulting in high quality clay soils. In the latter half of the 19th century, ‘excellent bricks’ made of ‘superior brick earth’ could be located in Brunswick, Northcote, and Hawthorn (Mayes 1860, p. 382).

In this same time period, technological progress took place allowing bricks to be produced at a faster rate—2000 per hour—and this ‘dramatic increase in production also meant that brickmakers needed large metropolitan markets to absorb the quantities of bricks they produced’ (Lawrence & Davies 2010, p. 207). These factors culminated in brick being a far more commonly used material than bluestone, relegating the latter to a new purpose: road-making (Vines 1993). As such, bluestone quarries continued to be established throughout Melbourne’s western basaltic sub-region. Smaller quarries in the inner-suburbs closed as the surrounding land became used for housing, commercial, and manufacturing: voids in the earth did not sit comfortably alongside these uses, and their proximity to settlement proved not only a risk, but a clear obstacle to further expansion. Quarries also attracted mischievous children—some ill-fated—and those with criminal intent (‘Drowned in a quarry hole’, The Age 16 December 1904, p. 15; ‘Body Found in Quarry’, The Age 11 August 1944, p. 3). The proliferation of these sites throughout Melbourne was also exacerbated by the boom and decline which took place in the 1880s and 1890s, causing significant disruption to the brick-making sector (Stuart 1989). As a result, many of these clay quarries subsequently closed and were re-used as tips, taking the city’s refuse in a location convenient to areas of settlement. Once filled, they would be capped with a layer of clay and dirt, and remade as parklands. A large number of open spaces throughout inner-city Melbourne exist solely as a result of quarrying and tipping activity.

It should be noted that this phenomenon is not unique to the inner-city. As quarries could not grow in size, nor be harvested more intensively lest local residents disapprove of noise and dust, they were closed. New locations on the urban periphery would be found where isolation coincided with the availability and quality of material: namely in the western suburbs of Footscray, Yarraville, Sunshine, Newport, Maribyrnong, and Niddrie. Despite this, the suburban creep would come to impinge upon the activities of these quarries, leading to their closure. This same process would also necessitate newer and larger quarries beyond the urban fringe in semi-rural localities such as Rockbank and Wollert. This paper elects to focus on these middle-ring bluestone quarries established in the wake of quarry closure in Melbourne’s inner north and west, namely two sites in Yarraville, and Newport. These suburbs have also recently undergone significant gentrification: not only is the industrial history of the area increasingly distant and obscured, but so too is the process by which these areas came to accommodate less-intensive residential and commercial land uses.

A FRAMEWORK FOR HISTORICAL ANALYSIS

This also highlights the need to undertake a historical analysis of early brownfield site re-use in the area, an area of interest presently under-studied. The term ‘brownfield’ is applied to sites which have already been used for a specific purpose, which are now capable of being used for an alternative purpose, generally when the initial use is redundant or no longer required (Zukin 1991). Rather than opportunities for historical analysis, academic interests in the brownfield tend to concern the means by which these spaces are reused, providing technical solutions or strategic frameworks for planning and design interventions, often the realm of engineers, developers, and landscape architects (Bradshaw 1980). This work broaches the gap identified in the literature, analysing the brownfield site and its re-use through the lens of urban history. Compounding this is the focus of existing brownfield literature on relatively unproblematic sites, at their most complex suffering from chemical contamination (McManus et al. 1995; Grimski & Ferber 2001). In addition to this, it must be clarified that the method employed in constructing this historical narrative primarily utilises newspapers,

including the city-wide Age, and smaller local newspapers. Conflicting community and government interests saw the regular publication of updates on the re-use of both quarry sites. Although further archival material exists, the nature of this paper capitalises upon the public discourse and sentiment surrounding each quarry site.

NEWPORT LAKES

The suburb of Newport is located approximately eight kilometres south-west of the Melbourne central business district, on the western bank of the Yarra River. Newport sits south of the juncture of the Yarra and Maribyrnong Rivers, the latter of which was used for over a century primarily as a means to dispose of industrial effluent from the noxious industries established along its banks, including a piggery, tanneries, and a sugar beet distillery (Heritage Council Victoria 2000a; Meen, Nygaard & Meen 2012). The domination of industrial activity carried through to Newport, where the Newport Railway Workshops complex was built in 1888 to manufacture and maintain locomotives and carriages (Heritage Council Victoria 2006). A power station was also built in 1918, making use of river water for cooling the coal-fired plant (Hobsons Bay City Council 2012).

The presence of industry within the region no doubt normalised the intensity of an industrial activity as unpleasant as quarrying; advantageous, given the presence of quality bluestone material. Quarries were initially established in the area in approximately 1868, in an area known as ‘Goose Flats’ and Hall’s Paddock (Hobsons Bay City Council 2012; Hobsons Bay City Council 2010). Initial diggings of a small scale took place in this area, as stone was readily accessible and discernible from surface rubble. Such quarrying operations were generally of a private nature, operated by firms with a lease on the site, rather than direct ownership; these were also short-term activities. The site in question when discussing the Newport Lakes quarry is bounded by Margaret Street, Graham Street, Perry Street, and Bruce Street, encompassing the activities of Pavey and Company, Matthews and Son, and in the post-war era, Consolidated Quarries (Hobsons Bay City Council 2010) [fig. 2].



Figure 2: The location of the suburb of Newport, and the Newport Lakes Reserve.

Although the western suburbs of Melbourne were already characterised as an industrial and working-class region, quarrying remained a problematic land-use. This was not a response to the activity itself, but rather, poor management: one letter to the editor of *The Age* wrote of ‘the careless manner in which blasting operations are carried on in the quarries at Newport, there being no warning given when shots are fired’ (‘Blasting at the Newport Quarries’, *The Age* 29 September 1884, p. 5). The City of Williamstown established a small quarry on the site in 1925 in order to provide material for crushed metal and screenings for domestic use (‘Loss on Municipal Quarry’, *The Age* 13 November 1926, p. 18; *The Age*,

27 June 1945, p. 2). Over time, the municipal quarry grew in size as its products were consumed by the expanding locality, and it came to present a quandary: nearby homes were encroaching upon its borders, and it could no longer be worked. An engineer from the municipality proposed a tip, but stated that ‘it might be argued that it would be a nuisance if used in this way, but it had to be admitted that the quarry was a nuisance at the present time, and if it were filled the land could be put to good use’ (‘Use for Newport Quarry?’, *Williamstown Chronicle* 16 April 1938, p. 1). Private operations continued well into the post-war era, but not without discomfort. Local residents objected to the ongoing rock-blasting in what was known as Pavey’s Hole, forwarding a petition to the Mines department and local council on the basis of noise, dust, and damage from airborne rocks (‘Council Acts on Complaints of Noise, Damage of Quarry Blasts’, *The Age* 4 October 1960, p. 6). Children were also trespassing and exploring the site due to poorly-maintained fencing (‘Shooting Count: Man for Trial’, *The Age* 2 July 1964, p. 6). The cumulative impact of these factors, and the response from residents, made it clear that quarrying was no longer a welcome land-use in the area. In 1976, sixteen years after residents first banded together to create a petition, the City of Williamstown received a grant from the Whitlam government to purchase a portion of the quarry from its private owner, so that it could be re-used as a municipal tip (‘Lakes of Williamstown’, *The Western Times* 23 June 1982, p. 2). Tips operated by adjacent municipalities were in danger of becoming over-capacity, and suitable sites were few in number. Pavey’s Hole continued to function as a tip for the Cities of Altona, Williamstown, and Richmond, approaching capacity in the mid 1980s.

It was quickly apparent, however, that not only was quarrying unwelcome, but tipping too. The council received an additional loan in May 1982 to fund development of the site, which incorporated not only a tip, but also the reservation of three groundwater lakes for alternative uses (‘Loan No. 89’, *The Age* 17 May 1982, p. 12). The re-use of a section of the quarry for recreational means was anticipated to offset the impact of having a tip so close to houses. By 1985, the municipality was beginning to reconsider its plans. Despite its significant investment in remediating the site, its potential as a tip also proved appealing, particularly as council efforts in establishing fish stocks and planting trees came to naught due to significant levels of alkalinity in the soil (Kizilos 1985, p. 17). Council trucks had begun dumping fill at the site by mid May of 1985, worrying residents who predicted that pollution would increase, and house values would decline. Further still, the unique qualities of the site—as a topographical anomaly in an otherwise unvaried, flat region—would be threatened. Civil engineer and landscape architect John Kirby, who had written a thesis about the site, mused in *The Age* that ‘the landscape around here is very flat, you don’t get a long view. But when you go into the lakes you see water and these red cliffs. The industrial landscape is obliterated...’ (Kizilos 1985, p. 17). With Pavey’s Hole on the verge of being filled entirely, the notion of creating yet another tip—with a significant life span—was very much a source of fear for local residents. Responding to the establishment of the active and vocal Friends of Newport Lakes group, it was eventually decided by the City that tipping would take place, albeit in a limited and highly regulated manner, contributing to a fund for remediation of the quarry lakes (Friends of Newport Lakes 2013).

A range of visions were developed for the site by consultant firms, primarily John Connell and Associates, and Scott and Furphy. The former saw potential for a ‘watery Disneyland’—including waterfalls, waterslides, a monorail, and restaurant—which was rejected by the council. The latter firm sought to create a space for passive recreation, with a picnic area, bike track, urban forest, and amphitheatre (‘Lakes of Williamstown’, *The Western Times* 23 June 1982, p. 2). This vision was the one which guided the development of Newport Lakes most strongly, and a sense of anticipation grew, with real estate advertisements for adjacent home sites referring to the proximity of the ‘exciting Newport lakes [sic] development’ (‘Newport’, *The Age* 27 May 1989, p. 111). Planting efforts were led by Maarten Hulzebosch, a horticulturalist of Dutch extraction, employed by the City of Williamstown in 1992 to coordinate the landscaping project; over three years, quarried rock faces were softened with soil and plants, dead trees placed in the lake to provide resting areas for water birds, and hydroseeding undertaken throughout the site. Following the success of these efforts, a new masterplan for the site went to tender in 1995 (*The Age*, 4 October 1995, p. 50). These final works were undertaken to provide picnic shelters and by 1996, the site was formally designated an ‘urban bushland park’ to be known as Newport Lakes Reserve [fig. 3]. Although what exists today did not follow the Scott and Furphy plan exactly, the present-day parkland carries on a similar sentiment of passive recreation in a natural bushland setting (*The Age*, 17 February 1996, p. 29).



Figure 3: Newport Lakes map showing distribution of plains and lakes (City of Hobsons Bay 2002).

What exists today is a sprawling complex of varied recreational spaces. The western portion of the site, where the previous land-use of tipping took place, has removed any semblance of quarrying. The landscape is rendered neutral, and less natural: playgrounds and dog walkers exist in the place of na-tive fauna and basalt cliffs. Although slight undulations in the terrain hint at a fascinating history, this half of the Newport Lakes Reserve is distinctly western suburban, with few trees upon a flattened ter-rain [fig. 4].

It is thus instantly evident where quarry holes remain, as groundwater-fed lakes occupy the eastern-most voids, bisected by a string of basalt boulders allowing visitors to cross. The steep escarpment has been softened through the use of soil and vegetation, although sections of cliff remain, providing a stark reminder of the impact of industrial activity upon the landscape. A smaller quarry hole in the centre of the park provides an amphitheatre-like environment; shallow ponds attract birdlife whilst a small clearing acts as a space for social activities, ranging from picnics to community gatherings. A



Figure 4: Newport Lakes as experienced during a site visit in July 2017. Clockwise: basalt wall; bluestone lake crossing; pond in amphitheatre; a former tip, now recreational space.

visitor to this part of the reserve may feel well removed from middle-ring suburbia, and perhaps distanced from its history entirely; it is difficult to comprehend that a site once marred by dust and explosions could prove so tranquil by way of community resistance to the commonly-applied land-use of tipping (Perkins 2012). This additionally demonstrates that although undesirable, tipping provided a financial means for remediation of the site, if only viable due to its large scale; this also fundamentally contributed to a greater variation in open space typologies, rather than simply limiting the reserve to a set of playing fields or simply bushland.

YARRAVILLE'S SINKING VILLAGE

This is the sinking Yarraville village. We desperately need help. If you feel you can help us in any way we would be pleased to take you on a conducted tour to see how bad the situation real-ly is. (Hills 1973, p. 8)

The series of events leading to Yarraville's 'Sinking Village' saga took place in a basalt quarry on the corner of Anderson Street and Williamstown Road [fig. 5]. The suburb of Yarraville occupied a strategic position where the Maribyrnong

River would meet the Yarra River, facilitating the establishment of various industries to the east of Hyde Street, where they would make use of wharves for the movement of goods (Dunstone 2010). One firm occupying this space was the Colonial Sugar Refin-ery Company, established in 1872, where sugar was processed locally for the city of Melbourne. The riverside position of the factory, with its wharves, facilitated the delivery of raw product from the Northern Queensland sugar cane farms, circumventing spoilage issues experienced when transporting refined sugar products across long distances (Heritage Council Victoria 2000b). The quarry in ques-tion was first dug in the 1890s for ship ballast, given the position of Yarraville on the river’s edge, and was approximately 27 feet deep over two acres (Hills 1973, p. 8). It was then filled at an unspecified date by the owners E. Murphy and Sons, with dissolving carbonated mud used in the purification of sugar as this was locally available (Harris 1979, p. 5). It is presently unclear as to why more typical forms of fill, such as household refuse, were not utilised. Quarries elsewhere in the locality, such as those which became the Yarraville



Figure 5: The location of the suburb of Yarraville, and the Sinking Village site.

Gardens, were filled with night soil, a process disallowed in 1887 (Maribyrnong City Council 2000).

In the years leading up to 1971, the site underwent significant transformation. It had been filled and topped with clay and soil in the late 1950s, and was used as a transport depot (Hills 1973, p. 8). A decade later, in April 1970, it was purchased by Mr. Janko Klismanic of Beaumaris. Klismanic sought permits to develop the site for residential use, culminating in council approval for thirty units by late 1971 (Hills 1973, p. 8). These permits had been approved by Mr. Kenneth Meekoms, an em-ployee of the Footscray City Council, who demonstrated a lack of experience in grappling with such complex sites. He stated that he was not aware that it had previously been used as a quarry and tip:

If we’d known there was anything wrong with the land we would have asked for a soil report. But there was nothing you could have any suspicion about so we went ahead and issued the permits. ...It looks no different from the white soil you get every now and again through Foot-scray. I don’t know what it’s called. I’m not very well up in geology. Apparently it’s a type of gypsum that in itself is a very good foundation for a building. That’s what this stuff looked like. It took a chemical test to find out what it really was. (Hills 1973, p. 8)

Other members of the council, however, were acutely aware, demonstrating an inconsistency in the municipality’s approach to the site. Councillor George Cruickshank stated that ‘It came up when we got the first application for flats — they wanted to build double-storey flats on the site. We knocked them back, and one of the reasons was because it was a filled site.’ Despite this, the development pro-ceeded, and a total of forty brick veneer units were built upon the quarry-tip site.

Residents begun to move into the units in late 1972 and early 1973. One couple, the Barbers, noticed a crack in their

kitchen wall when being shown around their ‘dream home’, but assumed it was a ‘se-ting-down crack’ (Hills 1973, p. 8). Within weeks, the rear of their unit had sunk almost a foot into the earth, and pipes for water and sewerage fell apart. The Barbers had heard a rumour that the flats had been built on unstable soil, but stated that the Footscray Council assured them their flat would be fine. Heavy rain in February 1973 exacerbated the issue further, with sunken foundations, exposed electrical wiring, open sinkholes, and loose bricks all symptomatic of ‘galloping subsidence’ un-derfoot (Hills 1973, p. 8).

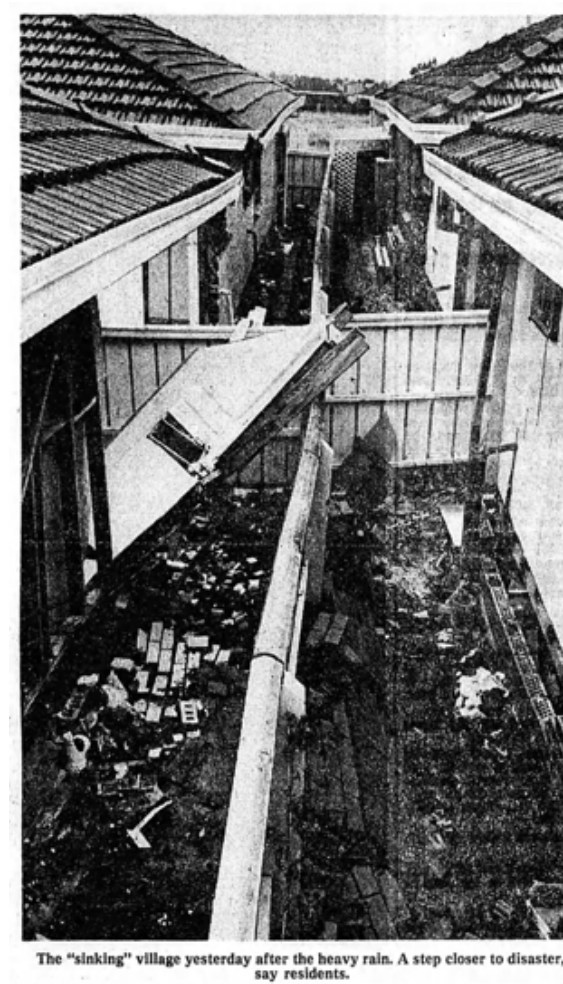


Figure 6: Destruction in the Sinking Village following a rain storm and further land subsidence. (‘Storm hits houses’, The Age, 5 January 1974, p. 2).

As many of the residents were elderly, widowed, or retired – that is, did not have the means to ad-dress their situation – they remained in their homes in spite of the danger. When a wall in the court-yard of Mrs. Bobbi Martin collapsed without warning, Martin purchased a helmet to keep on her bed-side table. Residents begun to band together, pursuing compensation from the City of Footscray, as well as State and Federal Governments, for allowing the development to proceed despite the site’s history. These attempts went unanswered. Klismanic claimed no fault as the development had been is-sued a permit, and he had worked within the bounds of council regulations (English, Arkley & Hills 1973, p. 7). Residents informally elected homeowner Les Brooks as their spokesperson, who pleaded to the media: ‘[s]omeone must help us before it’s too late’ (Patterson 1973, p. 11). The requested assistance came as a promise from Premier Hamer who, in September 1973, assured the residents that financial assistance would be provided; the Housing Commission would also create a technical report on the Sinking Village. This may have occurred in response to a parliamentary speech made in Sep-tember by the member for Sunshine, William Fogarty (1973, p. 418), who advocated for ‘legislation to prevent a recurrence of this situation.’ Financial compensation would be the primary concern of res-idents, however, as insurance coverage for the units did not include events of land subsidence (English, Arkley & Hills 1973, p. 7). Spokesperson Brooks soon ‘collapsed from the strain’ and ceased his position, and out-of-pocket costs for repairs, geological testing, and legal fees continued to mount.

In early 1974, a rain storm soaked the site, leaving the earth dried and cracked, and more unstable than before [fig. 6] (Patterson 1974, p. 2). One resident, Mrs. Isabella Brooks, observed the damage and stated: ‘It happens every time we have rain like that ... It just brings us a little closer to disaster, but no one seems to care.’

By mid-1974, ten units were deemed beyond repair, and thirty-seven in total damaged by the subsid-ing land. The continued protests of residents eventually proved successful, and in this same time peri-od the State Government agreed to pay for legal costs incurred by residents (Hills 1974, p. 5). The Footscray City Council offered to settle the matter out-of-court, with no admission of liability on its part (‘Council acts on sinking village’, The Age 10 July 1974, p. 3). The cumulative progress seen in June and July of 1974 was quickly marred, however, by the insistence of Footscray City Council that residents ‘make their homes safe within 14 days’ (Goodwin 1975, p. 4). To do so would involve significant expenditure beyond the means of marginal residents, and a failure to adhere to this order would result in fines given on a daily basis. Another resident appointed as spokesperson, Mr. Red Ballenger, questioned this approach—‘We’re told to

make our walls safe from falling down... But how can you do it?’—highlighting a stark inconsistency in the approach of municipal government to such an unprecedented circumstance.

Following a prolonged legal challenge, residents of the Sinking Village were awarded compensation in March 1976, each receiving a sum of \$28,000; the Victorian Government, Footscray City Council, Klismanic, and various insurers contributed to this fund (‘Villagers win legal battle’, The Canberra Times 20 March 1976, p. 6). Two years later, a committee was established by the State Government to investigate the protection of those who had purchased defective property, particularly where home-owners were unaware of a prior use, or titles or land-use records failed to sufficiently inform decision-makers of what had taken place there (Harris 1978, p. 6). By 1979, the Village was completely demolished, and plans made for a sprawling complex including 150 units in four buildings between four and six storeys in height, as well as a library, milk bar, bank, and doctors clinic (Harris 1979, p. 5). A precedent would be taken from Highpoint and Altona Gate Shopping Centres, the quarry negating the need to excavate rock for underground parking, allowing the main structure to stand upon reinforced steel pylons. It is presently unknown as to why this development did not proceed, and exploring this is beyond the scope of this paper. However, the two figures involved—Trevor Vaughan and John Hyslop—were both implicated in various issues concerning the Housing Commission, perhaps leading to the abandonment of the project (‘Ex-commission man bids for Yarra land’, The Age 5 March 1979, p. 5).

Following this, the site was owned by the Maribyrnong Council and served as a car-park for a nearby football club. The Council later sought to develop the site for commercial use, but following community consultation, outlined ten lots for sale on Williamstown Road which could be used for residential development: a row of brick townhouses were built upon this land in 2003 (Gough 2012). Through-out the following decade, the western edge of the site attracted proposals for a childcare centre and aged care facility, neither of which took place (Rossiter 2009). In 2012, the Council decreed that the site would become a public park (Maribyrnong and Hobsons Bay Star Weekly 2012). It is now known as the M. Zacour park [fig. 7]—who this is named for is unclear—and is landscaped with pathways, playground, and a small number of trees. There is no indication of the tumultuous events which had previously transpired. It is, however, clear from the surrounding urban form that, had an enterprising quarry-owner chosen a more stable form of fill, there would be no park; a connection between the past and present worth reinforcing.



Figure 7: M. Zacour park looking north, and from above (Google Maps 2017).

CONCLUSION

The impact of bluestone quarrying upon the western suburbs of Melbourne is significant, creating spaces ripe for re-use, albeit necessitating a considered and informed approach to development. Tips were historically utilised as a method of regaining the previous topography, but increasingly became undesirable facets of the landscape, with residents in opposition to their ongoing presence. Newport Lakes demonstrates an instance in which the redevelopment of a quarry site as a tip has provided

the financial means for a more holistic, nature-oriented remediation of the site’s remaining quarry holes; this also demonstrates that such a site can come to accommodate numerous types of recreation, ranging from the provision of bushland in an otherwise urban landscape, through to large, flat, and grassy fields. The development of Yarraville’s Sinking Village presents an alternative circumstance wherein poor governance and planning resulted in the mis-use of a site for residential means, failing to note that all forms of fill are not equal, and that the use of industrial waste for this purpose can lead to undesirable outcomes. The poor suitability for the site for structures, however, leads to its eventual re-use as open space, something of particular importance in an area of Yarraville predominately residential in nature. The broader historical narrative explored details the process by which a land-use—in this instance, quarrying—may become redundant, before its eventual re-use in line with the desires of government, community, and private interests. What presently exists in Yarraville and Newport could not without the decision to quarry, and the subsequent discomfort experienced where industrial and residential land-uses intersect; in essence, it is this relationship between past and present that creates the urban form visible today.

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