

Dry stone walls – spring edition



Point Fowler whale lookout

Unfortunately the SA walling expo flagged in the May edition of this journal has been postponed. The risk of foot and mouth disease being transmitted on many dirty boots etcetera is simply too great.

Let's hope it is only a postponement as there was a lot of early interest, both from wallers and from interested public. At this stage we are hoping for August 2023, but it is difficult to plan these days. If it's not Covid it's some other vile disease. I'm not sure if crossing fingers helps.

The Flag Stone – populated as usual with contributions from members working with stone, marvelling at what others have done with stone, and looking after historic stone things.

A highlight of the DSWAA annual general meeting last June was Colleen Lazenby's presentation: **Balancing development and heritage – accommodating dry stone walls in planning decisions**. Hardly surprising that this prompted plenty of discussion, more than could fit into a meeting agenda, so we asked Colleen to write an informed piece for this journal. The issue is one that has preoccupied the DSWAA committee for too long, but maybe Colleen's understanding of local and state government policies and first-hand experience at Whittlesea will be a catalyst for widespread action.

Peri urban development is happening at such a rate that historic but unlisted artefacts can vanish with the stroke of a pen. We need to know what dry stone assets we have, where they are, and what they mean for the national estate. Colleen's piece is a great introduction to this issue.

This issue of *TFS* only just meets its September deadline. A couple of late emails from the 'overseas bureau' explain:

Hi Bruce. I'm marooned in Orkney . The ferries are cancelled due to high winds. I can't get your files up on my phone but I did take a hard copy with me. The Caithness Flagstone one is fine. Good job ! (George Gunn)

Sorry for delay Bruce - I've just landed back from the enchanted Isle of Aran where I had no mobile service. I am still awake and working on the article now. (Emma Knowles)

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Local government's role protecting dry stone walls in Victoria

By **Colleen Lazenby**, Coordinator Heritage Strategy and Programs, Strategic Futures Department, Planning and Development Directorate, City of Whittlesea



*Full height wall
at Fenwick Stud
Whittlesea*

This article presents a short summary of the challenges and opportunities that local governments in Victoria face to identify and protect dry stone walls (DSW) across the state. It explains the use of innovative new methods for mapping and heritage assessments developed by the City of Whittlesea, a Growth Area Council north of Melbourne, where hundreds of dry stone walls can be found. The article also outlines elements of a new toolkit being compiled by the Whittlesea to assist other councils and landowners to protect and celebrate the heritage, landscape and aesthetic values of pre-1940s dry stone walls.

Legislation

In Victoria all DSW from the pre-1940 historic cultural period are protected as heritage assets by Clause 52.33 in the State Planning Framework. Every local council in Victorian can activate or 'turn on' Clause 52.33 when needed. The language in the clause does not make a discrimination for walls that are non-linear but we know from various municipal studies that there are other DSW features – such as irregularly-shaped cultivation paddocks around stony rises – that should be protected as well by the clause. *

The obligation to implement Clause 52.33 is the responsibility of local government except in cases where state-significant DSW are included on the Victorian Heritage Register. In that case Heritage Victoria is the planning authority. Some DSW are 'doubly' protected on the Heritage Overlay (HO) Clause 43.01 in the local planning scheme because they are within the curtilage of a listed heritage place; for example, DSW immediately surrounding farmstead buildings. But there may also be additional kilometres of dry stone boundary walls on the same farm that delineated expansive fields, or cordoned off a distant swampy area so cattle would not venture in. These walls are specifically protected by Clause 52.33. This provision is not intended to protect stone walls and features built by Aboriginal people which are instead covered by the *Aboriginal Heritage Act 2006*.

* A permit is required to demolish, remove or alter a dry stone wall constructed before 1940 but does not apply to:

- Dry stone structures other than walls and fences.
- The demolition or removal of a section of a dry stone wall to install a gate.
- The reconstruction of damaged or collapsing walls which are undertaken to the same specifications and using the same materials as the existing walls.

Before deciding on an application, in addition to the decision guidelines, the responsible authority must consider, as appropriate:

- The significance of the dry stone wall.
- Any applicable heritage study, statement of significance and conservation policy.
- Whether the proposal will adversely affect the significance of the dry stone wall.
- Whether the proposal will adversely affect the significance, character or appearance of the area.

Local government's role protecting dsw (cont.)

Heritage assessments



Wall under development pressure

Three Victorian local government councils have completed DSW studies: Melton, Whittlesea and Wyndham. The studies begin by summarising the history of DSW building in the area, with the aim of providing a broader historical framework to support heritage assessments. Assessments are the basis for including/nominating DSW on the Heritage Overlay (HO) in the local planning scheme, for individual or group protection.

DSW being considered for the HO must be mapped and assessed for their heritage significance using the nationally-accepted criteria of the [Burra Charter 2013](#). It takes time, money, knowledgeable local government officers and specialist consultants with the DSW experience and capabilities to undertake the assessments. Councils should also reference DSW protection in their heritage policy language. In most cases, permit applications that affect DSW will require that the landowner/developer submit a management plan that balances conservation of the walls with the development proposals.

Twenty-one municipalities in Victoria are known to be home to DSW. Many walls are found in the rural area of Victoria administered by small local government organisations (< 50,000 residents) with very large geographical size, low rate base, and high community needs. Justifying the costs of a broad regional study and all associated mapping and assessments of walls must be weighed against other community needs, e.g. a new kindergarten or swimming pool. For those who treasure DSW, it's sobering to think about how limited resourcing is for the necessary heritage work.

DSW management plans

A DSW management plan is an effective tool to assess the significance of walls and propose a mitigation plan to address the harms that may occur when a planning permit request is submitted to a local council. The plans are requested as a permit condition and the work is undertaken by a heritage advisor working for the applicant. In Victoria we have just a handful of heritage consultants who know how to assess DSW effectively. When reviewed by Council staff at Whittlesea, we have found that:

- a significant percentage of DSW management plans are not adequately researched and wall assessments do not meet acceptable standards
- unacceptable assessments use condition/intactness and technical qualities alone to judge cultural heritage significance, an approach rejected by the Victorian Civil and Administrative Tribunal in 2020 as the 'archaeological approach' because it treats DSW as sites rather than heritage places/assets
- the best approach applies the significance criteria of the *Burra Charter* to assess aesthetic, historic, scientific/technical, rarity, social or spiritual value for 'past, present or future generations', as part of a professional level DSW report
- frequently it is stated that the DSW do not suit the subdivision layout, indicating that commercial interests, not heritage conservation policies, are the drivers of the assessment/management plan
- heritage advisors have little or no experience integrating DSW into developments – in effect, the 'management' conditions are not well thought through to achieve maximum conservation and it is left to council officers to negotiate the heritage conservation outcomes with developers.

For councils charged with DSW protection, it is the norm that consultants are required to make changes before an inadequate DSW management plan will be accepted by council planners.

Local government's role protecting dsw (cont.)

DSW protection – City of Whittlesea

The City of Whittlesea is a Growth Area Council where new subdivisions spring up every year, to accommodate population growth and change. Over 8000 residents move into our City annually. In addition to homes, they need roads, parks, commercial town centres, neighbourhood community centres, schools and sports facilities. Council officers face competing challenges when aiming to manage the impacts of land development and subdivision on DSW. Our aims are always to maximise retention of walls and ensure they are treated with the same regard as other built heritage reminders of our past.

A lack of understanding about the heritage values of the walls means that the development industry tends to regard DSW as 'fencing', and old fencing at that. When presented with a requirement to retain or relocate historic DSW, there is little or no understanding about how to effectively and sympathetically integrate the walls into the developing urban environment and capitalise on their historic, aesthetic and landscape values.

There are compelling reasons why some DSW must be wholly or partially demolished/removed to make way for major arterial road widening, internal residential roads and driveway access points, or for the installation of services. In these cases, councils can negotiate or require that the stone material be reused to repair retained walls or reconstruct walls on a new alignment as landscape and urban design features.

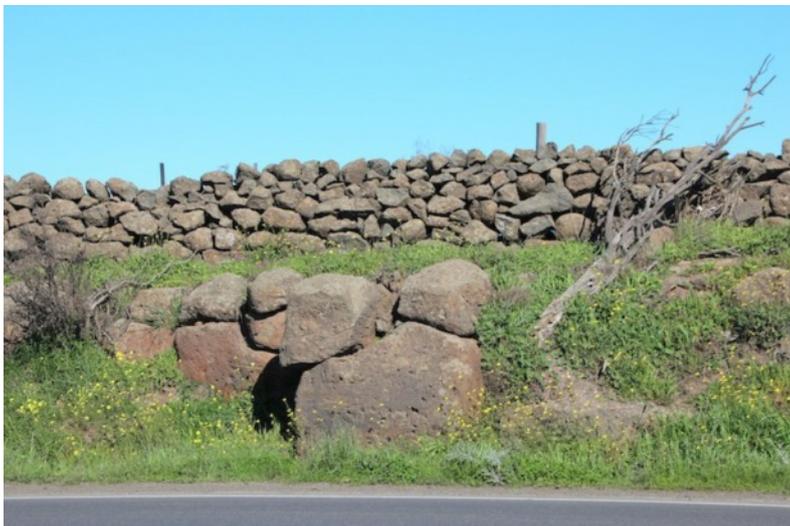
To protect the best examples, some councils are accepting DSW as part of open space/parks and conservation reserves. This means that councils also accept the ongoing asset liabilities and management requirements in perpetuity. A minimum clearance is needed on both sides of a wall for maintenance (2m is preferred). Council works orders and contracts must specify care for planting and mowing near DSW, and routine asset inspections. If there is a need to build/ relocate/restore/rebuild walls, councils use the services of certified professional wallers. Saving DSW offers opportunities to showcase and care for walls, ensure their heritage conservation, educate community about their values and appreciate their aesthetics and amenities as landscape features. There are also challenges. Community occupational health and safety risks must be managed and local governments must commit to repairing damage over time, or as a result of vandalism or accident.

Whittlesea DSW study

Since 2018 the City of Whittlesea has been building our database and our capabilities to protect DSW. A municipal-wide study is key to developing a thematic history about the types and extent of DSW building in the past. We commissioned the eminent historian **David Moloney** to complete our municipal study by 2020. The Moloney study identifies four DSW precincts and their historic cultural significance; describes types and construction techniques for walls in Whittlesea; provides a comparative analysis to other walls in Victoria, Australia and overseas; confirms uniqueness of some DSW in the municipality; and presents an overall Statement of Significance for our DSW. It is not an assessment of individual or groups of DSW ahead of inclusion on the Heritage Overlay. That work will be the next step. You can access the final study on the [DSWAA website](#).

Internal resources and training

To assist Council's statutory planners to review DSW management plans submitted with planning permits, Whittlesea provides resources on our internal SharePoint Heritage Portal. This includes Moloney's 2020 report; endorsed, past DSW examples of management plans and reports; links to the *Burra Charter 2013*; and guidelines for what to expect from a draft DSW management plan submitted for review. Through my role as Coordinator Heritage Strategy and Programs, I advise planners for complex management situations and, when needed, we access David Moloney as an expert consultant for advice to officers. In April 2022 David delivered DSW history and management training to over 40 staff members.

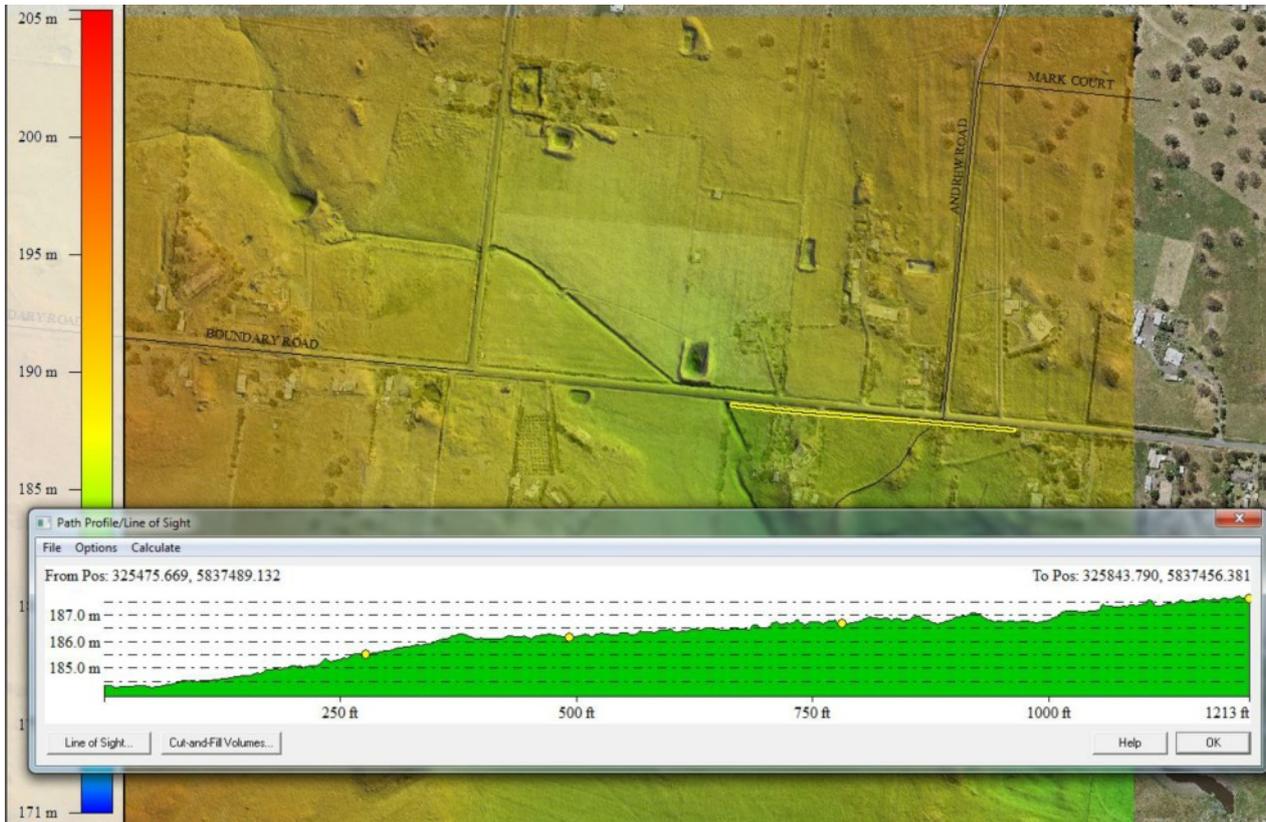


Typical Whittlesea dsw built over a stony rise

Local government's role protecting dsw (cont.)

LiDAR mapping of DSW

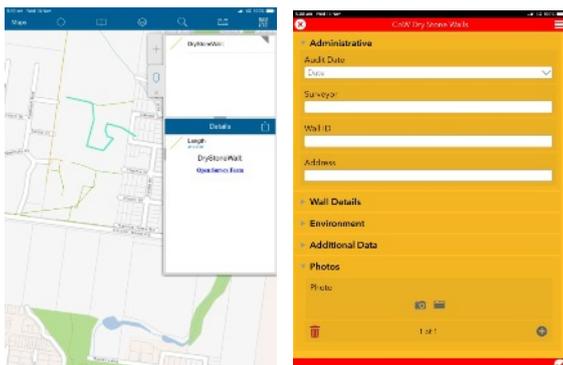
We have also completed mapping of all DSW in the City using LiDAR (light detection and ranging) data available on a user-pays basis from the state government. LiDAR data is updated every 10 years enabling users to look at change over time. LiDAR mapping produces an image similar to an aerial photo, but which is in fact a pictorial representation of elevations. LiDAR can discriminate very small changes in elevation – and DSW stand out clearly. Our sophisticated Geographic Information System (GIS) technicians have used LiDAR to map all DSW in the City. Field checks of the maps have shown them to be 99 per cent accurate. Any staff member can view the DSW map/overlay via our internal GIS whether they are assessing a permit application or planning a DSW maintenance schedule for Council-owned walls.



LiDAR image showing DSW as long linear features delineating roads and fields. The yellow-highlighted section of DSW is easily converted to a profile view – shown in green – using GIS tools.

Whittlesea's field mapping app

Whittlesea's GIS and Heritage departments also developed a prototype field mapping app in 2019 which can be downloaded to our laptops or tablets. The app is used in the field to record a data set for any wall – such as length, height, location – and to take photos. The app geolocates the user to a wall segment already mapped in our LIDAR files and, when completed, pressing the on-screen 'submit' button automatically uploads all data and images to our GIS database. The results can provide as many data points along a wall as are needed. A Data Dictionary has also been written as a guide to understanding, using and recording data for the cells in the app.



City of Whittlesea field recording app screens. On the left, the wall being surveyed appears highlighted in turquoise on the app screen. On the right, the first screen of the field record is shown, to be filled in by the user.

Local government's role protecting dsw (cont.)

What work is planned next at Whittlesea?

In my role as Coordinator Heritage Strategy and Programs I applied to the Victorian Planning Authority (VPA) for a grant under the 'Streamlining for Growth' program, to fund the next phase of work needed at the City of Whittlesea. We received funding to support a two-pronged approach for DSW protection.

DSW assessments for the Heritage Overlay

First, we plan to assess a priority group of DSW in our City – across our growth areas in the north, central and east where walls are under the greatest pressure from development and subdivision of former agricultural land. A priority list of DSW has already been compiled. Individual walls and related groups of walls will be assessed by a qualified DSW specialist and historian for their cultural heritage significance, applying the criteria of the *Burra Charter*. The heritage assessments are the initial step in a planning scheme amendment process that will afford local level protection for specified walls, a step up from the blanket protection that all walls receive via Clause 52.33. We may determine that a small number of walls are significant enough to be considered for the Victoria Heritage Register, and we will make those nominations to Heritage Victoria if appropriate.

We will confirm all links to our GIS mapping and the Schedule (list) for the Heritage Overlay, and finalise Statements of Significance for each nomination. Draft planning policy language will be developed for a planning scheme amendment. A planning scheme amendment is a formal step in what can be a long process. In the interim, any DSW that may be affected by development will continue to receive the protection of Clause 52.33 and a DSW management plan will still be required from the developer/landowner seeking a permit.

DSW toolkit for local government

Mapping, assessing and protecting DSW is known to be a lengthy and expensive process. At Whittlesea we have had the opportunity to develop tools that streamline a number of elements of that process. We require and endorse the best possible DSW management plans as a tool to support officer decision-making and negotiations to conserve as many walls as possible as the character of the City grows and changes from its rural, agrarian base.

With the VPA funding, we will develop a DSW toolkit for the local government sector in Victoria. The toolkit will also assist developers and landowners to understand the requirements for DSW protection, and the level of documentation that local governments need to deliver on our obligations to protect DSW. Because key tools developed at City of Whittlesea aim to systematise mapping, it is anticipated that some smaller rural councils will be able to identify, map and possibly assess their DSW more easily and with greater cost effectiveness.

Elements of the toolkit

1. A guide to what councils should expect in a DSW management plan.

Consultants writing DSW management plans, developers and landowners commissioning the work, and council officers reviewing the documents should expect assessments and recommendations in detailed, well written reports.

Assessments

- How are terms used – are they defined and applied correctly?
- Has appropriate historical research been done?
- How was significance of the DSW assessed – were the criteria in the *Burra Charter* effectively used by the heritage consultants?
- Is there a statement of significance for the wall/walls that follows Heritage Victoria guidelines; is it judged to be significant?
- What is the rationale/justification for final assessment of significance and how does that link through to the management recommendations?
- Are management conditions set out in detail by the heritage consultant or is there a vague recommendation that discussions will be had 'with Council officers'?

Mapping and recording

- Does the mapping show existing DSW and proposed retention/relocation/demolition?
- Is the scale too small to be useful? Are agreed management outcomes reflected on Functional Layout Plans required for subdivisions?
- Have all walls been recorded with photographs and measured drawings? This is especially important as the sole surviving record for walls that Council agrees will be demolished.

Local government's role protecting dsw (cont.)

- Have the records been included in the DSW management plan documentation/report or will they be transmitted to Council in another format? And when?
- Will a DSW accredited builder be employed to repair wall ends and/or supervise refurbishment or relocation?

The aims of a critical review of a DSW management plan are to ensure that the best possible documentation is available to support recommendations and Council decision-making, and to maximise DSW retention *in situ* wherever possible.

2. Mapping with LiDAR and the Whittlesea app

We will develop instructions on how LiDAR can be used to locate and map walls. There will be a guide to use of the Whittlesea field recording app, accompanied by the Data Dictionary which provides detail about each cell in the app. To make the app generic and usable by other local governments we will decouple the function that uploads data to the Whittlesea GIS.

3. Technical notes and Urban Design Guidelines for dry stone walls

City of Whittlesea has formed a working group with the cities of Melton and Wyndham to produce design guidelines focused on model responses to integrate DSW into urban environments. The document will be helpful for council officers, landscape architects, open space planners, landowners and developers. The project will benefit from Melton's existing internal design guidelines and Whittlesea's draft neighbourhood design guide as starting points.

Technical notes will be written that demonstrate and define the structural elements of a DSW and describe construction technique dos and don'ts.

4. Peer review and promotion

The City of Whittlesea will work with our local government colleagues at Melton and Wyndham for critical review of the DSW toolkit. We will also approach private sector urban planning consultants to seek their critical comments on the usability and applicability of the toolkit for their development work.

When the toolkit is in its final form, a promotion and training plan will aim to raise awareness and offer training to local government officers and consultants. And all elements of the toolkit will be available for download from the Victorian Planning Authority website at a later date.



Conclusion

In our professional practice as local government officers, many of us find DSW protection challenging at times and outright discouraging on occasion. This is where the advocacy of DSWAA, promoting the heritage value of dry stone walls, can be so supportive. Lack of understanding about the heritage and important landscape values of the walls permeates the development industry. Poor compliance and inadequate DSW management plans and recommendations are experiences shared by councils charged with acquitting Clause 52.33 and Clause 43.01. And smaller rural councils are not necessarily in a position to advance DSW protection because of the time and costs involved to build their database to inform decisions by planning officers.

The City of Whittlesea hopes and anticipates that we will be able to provide support and resources for all officers in local government, and for the development sector, that reinforce and offer certainty about the protection regime, and cost-effective tools and techniques to enhance DSW protection. By developing design guidelines that encourage integration of the surviving walls into urban environments we hope to see many more of these beautiful expressions of our shared history become elements of our future spaces and places.

City of Whittlesea, Transport Engineering, Findon Road extension – 200 m of dry stone wall relocated in 2021 – DSW work by Kyneton DSW Centre

Dsw at old mine site – Andrew Garner (DSWAA)



Dry stone wall amongst 1800s mining relics, Linda Valley, Tasmania

Several years ago whilst exploring the hills behind Linda; (a mining ghost town near Queenstown, Tasmania), I came across substantial stone ruins. Perched on the side of a steep slope, the dry stone foundations are surrounded by discarded timber and scattered rusting relics from an era of mining long past.

The ruins are high in the catchment of Idaho Creek, one of the main tributaries that drain the eastern side of the ridge hosting one of the largest copper, silver and gold ore bodies in Australia: Mt Lyell.

The stone ruins are a remnant of the 1880s mining rush to the area, with alluvial gold and native copper found in abundance at surface. Later mining focused on the massive primary ore that would yield a staggering one million tonnes of copper, 450 tonnes of silver and 45 tonnes of gold over a century of mining.

The pyritic ore however produces acid mine drainage which is an ongoing environmental problem, with no easy solution.

View NW upstream along Idaho Creek towards Mt Lyell.

Note the steep terrain and boulder-strewn creek typical of West Coast Tasmania, annual rainfall ~4000mm



Despite the harsh environment, craftsmanship is still evident 140 years on: crisp, even batter, horizontal coursing, corner stone selection. Much of the stone is siliceous conglomerate that caps the hill tops – very hard and difficult to shape. The yellow staining is from iron oxides, released from nearby pyritic ore reacting with rainwater and air.

An enigmatic wall – Bruce Munday



Lady Buxton wall following the ridge-top (bottom left) then winding its way back along the hillside in what seems to be a haphazard manner.

Functional or just recreational walling!

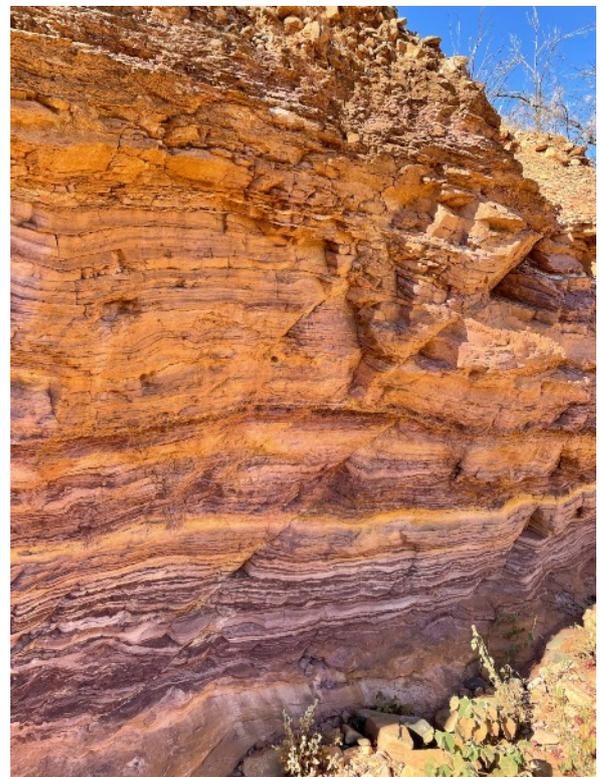
Just a glance at a geological map of [Arkaroola Wilderness Sanctuary](#) (SA) and you will understand that there is probably nothing quite like it on the planet. Earth's exertions have squeezed, twisted, buckled and inverted this part of the planet and then left the surface a paradise for nature lovers, walkers, 4WDers and, of course, geologists. Only about 650 kilometres north of Adelaide, it is somewhat insulated from hordes of day-trippers by a couple of hundred kilometres of gravel road and by its sensitive development as an experience rather than a theme park.

Sir Douglas Mawson described Arkaroola as the world's greatest open-air museum of geological history, and encouraged his then-student Reg Sprigg to do all he could to protect it. Unable to persuade the SA Government to purchase the Arkaroola lease and declare it a National Park, Reg and his wife Griselda bought it in 1968. Destocked of sheep and largely relieved of feral plants and animals it is now a model of outstanding development.

Arkaroola is certainly about rocks, but surprisingly there is little evidence of dry-stone construction. Possibly the one exception is Lady Buxton wall, a now somewhat dilapidated artefact near the abandoned copper mine (c. 1880–1910) of the same name and out near the northern boundary of the property. Apparently these were named for Lady Victoria Buxton, wife of the one-time Governor of SA, although what either of them had to do with Arkaroola, mining or dry-stone walling is obscure.

The wall, or what is left of it, runs about a kilometre along a ridgetop and then in a rather haphazard manner across

hillsides. It does not mark a property boundary nor appear to have been part of an animal containment. Even the late Reg Sprigg, who knew more of the region than any other European, referred to them as 'the enigmatic dry-stone walls'. So today its point of interest seems to be the mystery around it and a rather incongruous name.



A rather more impressive natural ochre wall en route to Lady Buxton

Whale watchers' stone lookout



Dry stone look-out on Point Fowler

Europeans were aware that whales were to be found off the coast of Australia from at least 1699. That was when maritime explorer/naturalist/buccaneer [William Dampier](#) (1652-1715) sailed along the coast of Western Australia. There, he reported, 'the sea is plentifully stocked with the largest whales that I ever saw.'

Whaling and sealing predate European settlement in South Australia but given the nature of the industry (largely unlicensed) and the workforce (uneducated) it is not well documented. What we do know is that Fowlers Bay, a couple of hundred kilometres west of Ceduna, has always been a nursery for southern right whales. In 1840 the American whaling ship *Amazon* killed 41 whales in 80 days. We also know that Fowlers Bay (along with Streaky Bay and Sleaford Bay) became a site for shore-based whaling activity (i.e. butchering) prior to 1850. Indeed,



Edward John Eyre reported in 1840: 'Upon walking round the shores of Fowlers Bay, I found them literally strewn in all directions with the bones and carcasses of whales, which had been taken here by the American ship I saw at Port Lincoln'.

Recently **Christine Cholewa** (DSWAA's admin assistant), while holidaying, discovered the ruins of an old dry stone shelter on Point Fowler, a rocky promontory that protects the bay from the westerlies. Roughly a D shape with a doorway and measuring about 6 m x 6 m and 1.1 m high it is built from the local limestone. There is no evidence linking this cliff-top structure to the daily bay whaling activities, however lookout points were always an advantage when siting land based whaling stations. Local folklore has it that smoke signals would be sent from this shelter to the station when a killed whale was to be brought in.

A long way from anywhere this could be one of the oldest dry stone structures in SA. Today Fowlers attracts many tourists through the winter months, but as spectators, not hunters. And today the tour operator sends a radio signal to the pop-up pizza maker when the hungry whale spotters are about to return to shore.



Anne Lister Monument – Emma Knowles (DSWAA & WISA)



Readers of *The Flag Stone* were introduced to the [Women's International Stone Alliance](#) (WISA) in January 2021 (#50): an international network of women keen to work with and support other women involved or interested in traditional stone trades.

Since it was established in 2020 WISA has been working with Master Craftsman and accomplished designer, David Griffiths, to create a portfolio of edifice designs, incorporating intimate spaces, challenging perspectives and celebrating the strengths and capabilities of women in a culturally specific way. These edifices will be built around the world by skilled WISA teams, initially in England, Australia, Ireland, the US and Italy, giving women a rare opportunity to travel and work with other skilled women.

So, to Edifice One: In late August this year a team of WISA founding members from around the world gathered in Halifax, West Yorkshire, to collaborate on a monument to diarist Anne Lister (1791-1840) of Shibden Hall - made famous by the internationally successful TV series about her life, *Gentleman Jack*.

The monument was built within the existing world class dry stone exhibit directly behind Shibden Hall. The team charged with the responsibility consisted of project manager [Emma Knowles](#) (Australian dry stone waller and DSWAA president), Serena Cattaneo (Italian dry stone waller), [Antonella Tiozzo](#) (Italian carver), [Hilary Dees](#) (USA dry stone waller, trail builder and Stone Trust board member) and [Louise Price](#) (Irish dry stone waller). Also dropping in for a day was Tracey Blackwell (Advanced

waller and Dry Stone Forum host), well known to some of the Australian DSW community.

The monument is framed by three sandstone monoliths donated by natural stone supplier Traditional Stone. then linked by dry gritstone walls, the ten tonnes donated by Simon Lumb.

The monoliths were sawn to give a sheer face for engraving, as were the seats, however the sandstone copes were all chiselled – an amazing feat of endurance combined with skill.

Throughout the construction period the team hosted numerous well attended stone carving and DSW workshops for women to come and give it a try.



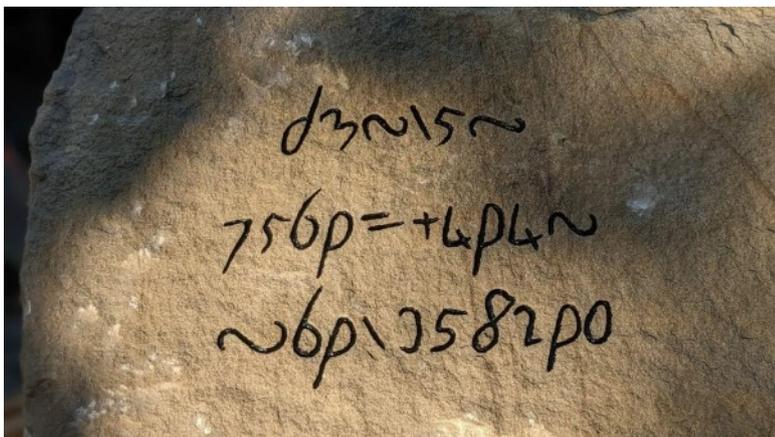
Louise, Antonella, Serena, Emma, Hilary

Anne Lister Monument (cont.)

Within the monument, the monoliths signify strength, the coal rockery and alpine plants a nod to Lister's industry and conquering of European mountains. The many carvings capture elements of Shibden Hall, the landscape, Anne's obsession with time, weather and travel, as well as her diaries, secrecy and love of women.



Carving workshop within the sheep fold



Anne Lister Monument (cont.)



Helena Whitbread, the decoder of the diaries, unveiled the monument on 11 September. The WISA team then headed to Inis Oirr, Ireland to take part in the [Feile na gCloch stone festival](#). To find out more about WISA and all the events and opportunities in the pipeline, readers should head [here](#).



Dry stone setting of Moulin de Jerusalem - *Jim Holdsworth (DSWAA)*



The village of Goult nestles in the hills of the Petit Luberon, the range of hills along the north side of a fertile valley within Provence in south-east France. Famous for its millennia of history this part of France attracts holiday makers to its photogenic villages, market towns, sweeping vistas and Provencal food and wine.

The main street of Goult, Rue de la Republique, wends its way past a curious Romanesque/Gothic church, past the renowned Café de la Poste and to the top of the village where the view towards the Grand Luberon opens up over the valley of vines and orchards below. This commanding site explains why the village boasts a seventeenth-century defensive castle.

Dominating the edge of the plateau is a heritage-listed windmill, the Moulin de Jerusalem, first constructed in 1750 and since restored but not operational. Curiously, early records promulgated by the archbishop of Arles mention a windmill in Goult between 1162 and 1180. It's not clear if any parts of that ancient structure are present in the current one.

This site and the mill's setting are enhanced by structures and walls of dry stone and built of the local material.

Goult is about 12 kilometres south-east of the village of Gordes, near which is the 'Village des Bories', a collection of stone buildings; huts, stables, barns and walls; all constructed in dry stone. This restored village is an extraordinary example of corbelled stonework, as the

roofs are formed by the curving in of side and end walls. Andrew Miller wrote about this village in his articles in *The Flag Stone* #30 (Feb 2014) and #38 (Feb 2017) accompanied by several photos of these wonderful structures.



The collection of dry stone walls and other structures around the old windmill of Goult is reminiscent of the Village des Bories, and reveals how extensively dry stone was the construction method of choice – or necessity or practicality - in this part of France for rural structures in centuries gone by. Goult and Gordes would reward a visitor interested in the history of the Luberon and the creativity of craftspeople in the use of local stone.

Caithness flagstone



Fine carbonate laminites of the Sandwich Fish Bed – Old Red Sandstone

A few weeks ago a DSWAA member texted me: 'Take a look at World's Most Scenic Railway Journeys on SBS. Some amazing dry stone walling – starts at about 35 minutes mark.' So I did and it was.

Far north-east Scotland is where we find the coastal flagstone cliffs of Caithness, the fine sandstone formed from silt and mud under the gigantic Lake Orcadie some 370 million years ago. It was the natural splitting along bedding planes that rendered flagstone suitable for the very earliest buildings, evidenced today through the remains of brochs (*below*), hut circles, cairns and standing stones.



It wasn't until the 1790s that quarrying and export of flagstone became a minor commercial enterprise, an unintended consequence of the Highland Clearances. Then in 1825 it became a serious industry thanks to the

innovative James Traill, Sheriff of Caithness. Previously, quarried stones were 'lightered' in small craft to larger ships off-shore, a short but often perilous journey. Traill's foresight was to have James Bremmer build a small harbour at Castlehill, in dry stone of course, to enable safe and efficient loading of stone for export.

The cut stone was taken to the harbour from the cutting yards by pony and cart or on a horse drawn bogie pulled along a track, then loaded by hand on board small schooners.



Flag stone workers

Caithness flagstone (cont.)



*Detail from dry flagstone
harbour*

As the trade prospered other quarries were opened at nearby towns so that by 1902 annual output reached some 35,000 tons, exported to Europe, the Americas and even to Sydney. As the name suggests, most stone was used as paving, valued for its strength, durability, impermeability and non-slip character. However it was also a valuable building stone, particularly where massive walls were needed.

Like many quarries, this was a boom or bust venture, the 'bust' coming in the 1920s in the form of concrete pavers and synthetic decorative stone.

Extraction and dressing

In the early days the raw blocks were cut across the bedding plane into rectangles with a heavy iron saw slung from a gantry and operated by the **Dresser**, the **Sand Boy** feeding in coarse sand as an abrasive. In due course manpower gave way to water, then steam, and eventually electricity and diesel. Cutting is now done with a diamond tipped circular saw. However the wonder of the



craft was preserved where thinner slices of stone were split from a larger piece. There the **Splitter** would select a line and position his chisel to be whacked by the **Hammerman**, the duo then following the line around the slab. When the cleavage registered the chisel was left in the stone, the splitter moving along with a fresh chisel to further expose the plane of weakness. Water was then poured onto the stone, left overnight, and the flags separated the following day.

Quarry workers mostly lived near to their workplace, many building humble houses with free offcuts of partially dressed stone. The regularity of the stone made conventional building relatively straight forward, but floors and walls, both interior and exterior, could also be built from flags some 2.5 metres long by a metre wide. Even roofs were often covered with stone shingles or flags.

Across the landscape there are still many miles of flagstones set vertically in the ground, often overlapping, to form boundary fences. This is dry stone walling in its simplest form, requiring not much building skill but an abundant resource.



Northstone 58⁰ Stonefest – Christine Gunn



Dry stone seat built at Thurso – 2016 Stonefest

Northstone Stonefest is a rock festival with a difference, and one with a lot of potential to keep Caithness buzzing with pride. It is organised, managed and led by Drystone Walling Association Master Craftsman and Instructor George Gunn – Caithness's very own 'rock star'.

Staycations and heritage tourism are beginning to replace beach holidays on the Costa del Sol, and in the interests of climate change and the cost-of-living crisis people are beginning to recognise the value of keeping traditional skills alive. Let's hope [*Northstone Stonefest*](#) can continue as a permanent annual event, supported by locals and tourists alike.

The festival is a not-for-profit event, organised by a Constituted Voluntary Group. Its aims are to bring people together to enjoy participating in the ancient craft of Dry Stone Walling under qualified Instructors. Activities are available for people of all ages and abilities.

Over the five years we have built artistic and functional stone features based on the heritage of Caithness which are left as a benefit to and use of the community.



There have also been repairs carried out to the beautiful old walls at Dunnet Head by the lighthouse, the most Northerly point in mainland UK with breathtaking views across to The Orkney Isles.



Repairing wall at Dunnet Head

The event is always about more than just assembling Caithness stone. It also features presentations by accomplished stoneworkers and the inevitable discussion that these generate. It is a popular festival with many returning participants who love the beautiful scenery, friendly atmosphere and Craic in the pub.

Shaping stone –*The Stone Trust*

The Flag Stone occasionally publishes relevant information ‘borrowed’ from [The Stone Trust](#), based in Vermont USA. For instance, issue 51 (May 2021) carried a piece on chisels – the various shapes and sizes along with the situations where a waller might need them.

The August edition of *The Stone Trust* monthly newsletter goes a step further, linking to a six-page article in [Mother Earth News](#) magazine where **Brian Post**, DSWA Master Craftsman and ST Education and Training Director, outlines the basic techniques for shaping stone. Post starts by explaining the difference between level bedded and irregular stone. He then details the tools and techniques used for various types of shaping: splitting, high spot removal, dressing, bending, tracing a line, etc. using different hammers and chisels.

We always appreciate Stone Trust’s willingness to share, in this case a snapshot from the main article.

Splitting stone



Strike in multiple places along your intended splitting line. This split was done with a tracing chisel and hand hammer

Brian Post notes that for the purposes of shaping there are two main types of stones: level bedded (including sandstone, slate and some limestone) and irregular (such as granite and basalt). Level bedded stone will tend to split easily into relatively flat sheets or plates. Sedimentary stones will almost always be level bedded, as are many metamorphic stones.

Igneous stones, formed through the cooling of lava, are irregular because they don’t naturally form flat sheets, but they may still have a grain that affects how they break.

Removing high spots



Start removing a high spot by working around it from different angles. After removing the bulk of the material finish with light taps on remaining bumps. Note how the point is held at about 80 degrees to the stone.

Removing high spots is critical for fitting stacked stones together, but it can be difficult. A point chisel concentrates the force causing chips to break off. A directional point at the correct angle makes it possible to split off larger pieces.

Controlled breaking



Several strikes along a line will define the desired break

First trace a line around the whole stone, starting with light taps then increasing the force. The broken faces will often need trimming by first undercutting the break and then nibbling away with a light hammer.

Floating stone – *The Stone Trust*



And a bit more from The Stone Trust – their September newsletter featured Vermont waller Seth Harris who has created this wonderful illusion. Seth rebuilt the stone dock in a neighbour's pond with the help of TJ Mora. They used quarried stone from Chester, Vermont, granite from Barre, Vermont, and boulders from the owners' property.

Seems you would want a spring-fed dam to keep water at the optimal level. Makes me wish I had done something similar when still on the farm!



Work in progress



The Association's vision is that dry stone walls and dry stone structures (dsw&dss) are widely accepted for their unique place in the history, and culture of the nation and for the legacy they represent.

Our goals are:

- To inform and educate the nation about the cultural significance of dry stone walls and structures (dsw&dss) in Australia and their associations and meanings for past, present and future generations.*
- To document dsw&dss and draw on historical records in order to encourage appreciation, conservation, maintenance, repair and interpretation of those of cultural significance.*
- To establish disciplines and certification systems that can contribute to the care and construction of dsw&dss.*
- To assist in ensuring that new construction, demolition, intrusions and other changes do not adversely affect the cultural significance of dsw&dss and that modern uses of them are compatible.*
- To respect Indigenous heritage places and cultural values, and, in particular, to assist in the conservation of those associated with dsw&dss.*

Vale Alistair Bidmead – Jim Kilsby (DSWAA & Kyneton DSW Centre)

On Monday morning 8 August 2022 we learned that Alistair Bidmead was involved in a workplace accident in Sydney in which he unfortunately did not survive. This high achieving young man left us when only 35 years old and his exceptional talent will be sorely missed both in Australia and the UK.

Alistair was reportedly on scaffolding fixing stone to the third level of a new extension for the Petersham School when the facade came loose, tipped the scaffolding and then several tons of concrete and stone fell on him.

I can tell you that Alistair was an exceptional tradesman - both in walling and stonemasonry. He started his trade journey at the Cotswolds in the UK. After many years he emigrated to Australia and settled into Sydney.

Alistair was also one of the finest men that anyone could want to meet. I connected with him when I was President of the Dry Stone Walls Association of Australia. Like all craftsmen at the top of their game, he was extremely particular and concentrated on the finest points of detail and executing them with precision. I learnt that he was a Level 3 Certified Waller and had been so since his mid to late 20's after working with his mentor and master waller in the Cotswolds since he was 16. He also had won a number of Grand Prix walling competitions in the UK



which are extremely competitive and represented by only the best wallers in the country. Here you see Princess Anne presenting him (in his mid 20s, in 2012) with one of his awards in the UK after such a weekend competition.

In Australia, he was second in level and experience behind our only Master Waller (Geoff Duggan). On the stonemason side of things he again excelled. He ran his own Stonemason and Conservatory business (Bidmead and Co) for over 16 years in both the UK and the north shores of Sydney.



Alistair became an Instructor at Kyneton Dry Stone Walling Centre and taught two courses with us (see above). His style and knowledge were exceptional and the way he approached problems and his application of skills and communication were the best we have seen. It was very clear early just how good he was in front of a group. I remember one time when we were talking about through-stones. Alistair said that there were multiple methods that could be used to comply with the principles and then demonstrated three approaches on the training wall at hand and did so in what seemed to be just minutes. Everyone watching (including certified wallers) were in awe of his talent and skills.

On behalf of all associated with Kyneton Dry Stone Walling Centre - you have gone too soon Alistair. True leadership comes from any position within a community and you were a giant amongst leaders that I have known.

You have been a great mate and an inspiration to us all - you have been what we would like to be and your example will guide us on our own path.

Rest In Peace mate - we all miss you already.

The Dry Stone Walls Association of Australia joins Jim Kilsby in mourning the loss of such a capable craftsman and wonderful human being.

We extend our condolences to his grieving family and friends

Editor's snippets

In a letter to the *Adelaide Observer* (15 Sept 1877) a correspondent pleaded:

Besides the burrows there are two other shelters for the rabbit which the Inspector must have power to remove, or the Bill will be useless – brush fences and dry stone walls. In some parts of the colony there are hundreds of miles of brush fences which must be burned to get at the rabbit-holes beneath them, and all dry stone walls must be pulled down and the stones spread separately on the land, for we know that wherever two or three stones are gathered together there is bunny in the midst of them.



Letters always welcome



Who's who in DSWAA

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Membership

Annual membership fee

Single \$30 (\$80 for 3 years)

Couple \$50 (\$130 for 3 years)

Cheque: DSWAA Inc. and posted to DSWAA Membership, 87 Esplanade West, Port Melbourne 3207; **or**

Bank Deposit at any branch of the ANZ Bank **or EFT:** BSB 013 373, Ac. no. 4997 47356

Clearly indicate membership identity of payer

New members

Complete the online membership form on our [website](#): Alternatively email or post name, address, phone number/s, and area of interest (eg waller, farmer, heritage, etc) to the membership secretary (above).

Renewals

Annual fees are due May 31 after the first full year of membership. We send renewal notices prior to this.

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