

# 18-19

ANNUAL ACHIEVEMENTS

MINISTER'S  
STONEMANSHIP  
PROGRAM





## EXECUTIVE DIRECTOR'S MESSAGE

Welcome to the 2018/19 Minister's Stonework Program (MSP) Annual Achievements Report, showcasing a program of high quality conservation outcomes for the state's significant heritage stone buildings, structures and monuments, and supported by the traditional trade and architectural skills required for realising this work.

In 2018/19 MSP continued to provide specialist expertise in strategically caring for our significant public buildings as they continue to serve their communities and the state well into the future.

This year saw strong working partnerships with the NSW Departments of Justice, Education and Health. Negotiated joint funding arrangements have facilitated the effective use of government resources and infrastructure ensuring holistic and efficient outcomes. Importantly, HAA worked with agencies at a strategic level across their portfolios to inform decision-making, MSP project priorities, forward planning and best practice heritage compliance.

New initiatives continue to place the MSP program approach at the forefront of the stonework conservation industry with continued sharing of expertise and guidance in the sector. This year's program achievements include the awarding of the third George Proudman Fellowship, updating the MSP technical specification for repairing heritage fabric and recording unique stone carvings as a valuable reference tool for future generations.

**Rebecca Fox**  
Executive Director  
Public Works Advisory



Newcastle TAFE, detail.

# MINISTER'S STONEMWORK PROGRAM DELIVERY STRUCTURE 2018 - 2019

# MSP PURPOSE



The State Government owns over 800 heritage significant sandstone buildings. As well as being culturally significant these are operational assets including schools, hospitals and court houses, which contribute to the civic life and pride of the community. The Minister's Stonework Program (MSP) is a Government Funded Program (GFP), established in 1991 to resource and coordinate the specialised catch-up maintenance these buildings require to sustain and extend their service.

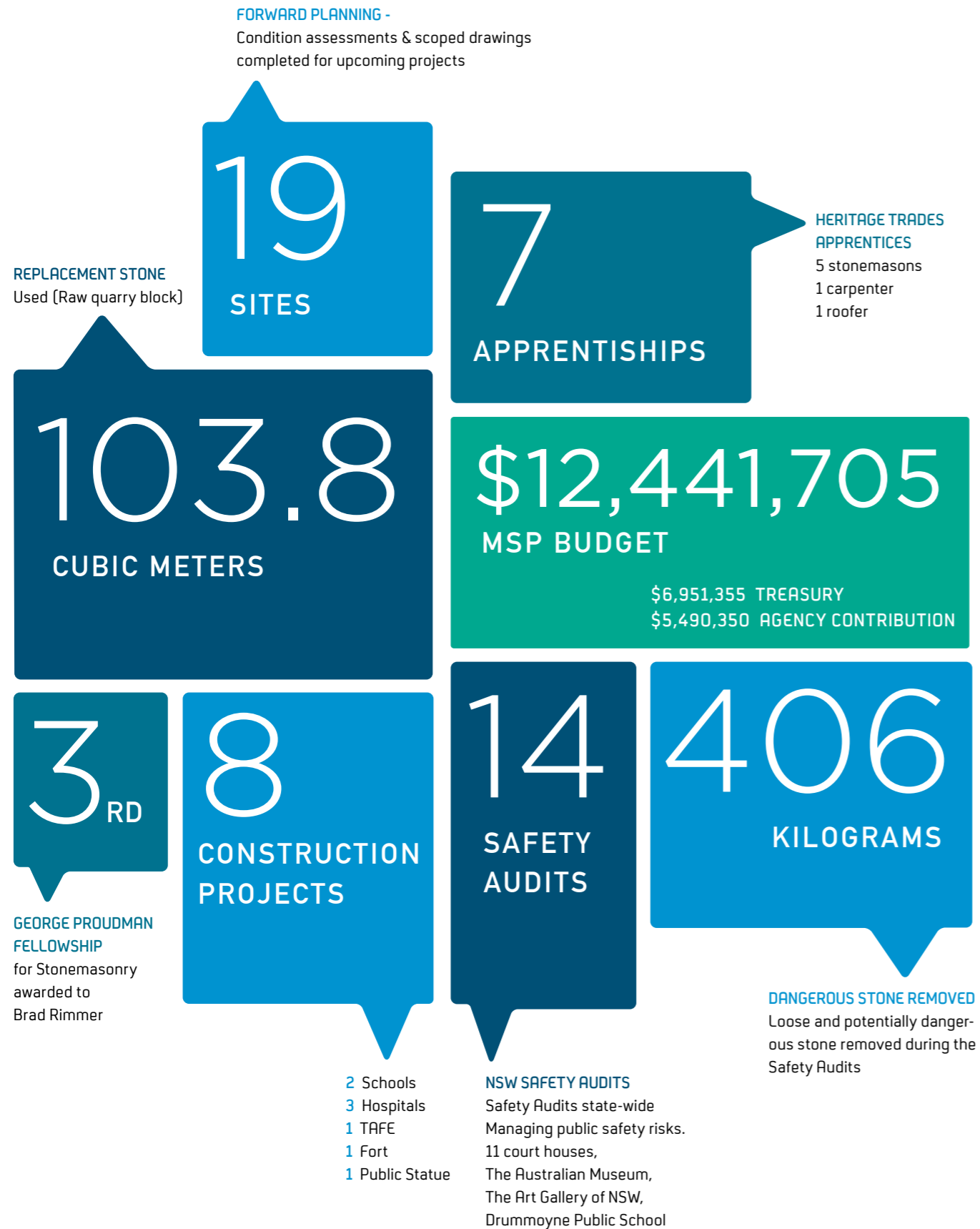
Administered and managed by Heritage Asset Advisory (HAA) within PWA, the Program assists agencies in managing their stone heritage assets, which is not their core business or expertise. The MSP provides a state-wide prioritised strategic approach with the key objective to provide long term cost effective solutions rather than repetitive and costly 'quick fixes'. HAA achieves this objective by:

- **coordinating a Safety Audit Program** to minimise exponential escalation in cost, public safety risk and impacts to heritage significance
- **ensuring heritage legislation compliance** is addressed as required under the NSW Heritage Act (1977) and the ICOMOS Burra Charter, the nationally accepted and adopted principles for heritage conservation practice
- **undertaking stonework conservation research and testing** to achieve best practice conservation industry standards
- **increasing industry and agency expertise** through workshops, tours and technical guidelines
- **preparing agency portfolio assessments** to develop state-wide prioritised maintenance strategies and establish agency partnership funding
- **collaborating with a multidisciplinary team** of government and private sector architects, historians, engineers, materials conservators, and traditional tradespeople to ensure diagnosis of issues and proposed solutions are well informed, considered, and achievable to result in high standards of built work
- **delivering built work through Heritage Stoneworks (HSW)** ensuring the fostering of traditional trades development including apprenticeships and career pathways so that a sustainable, skilled workforce for maintaining government owned stone heritage assets is available
- **advocating on behalf of the state's heritage assets** for a stockpile of suitable stone to match forecast need across the state

*the facades are rich with romanesque arches, polychrome ornate brickwork, carved sandstone and patterned terracotta tile spandrels*



2018/19 SNAPSHOT  
THE MSP YEAR IN NUMBERS



WORKING IN  
PARTNERSHIP

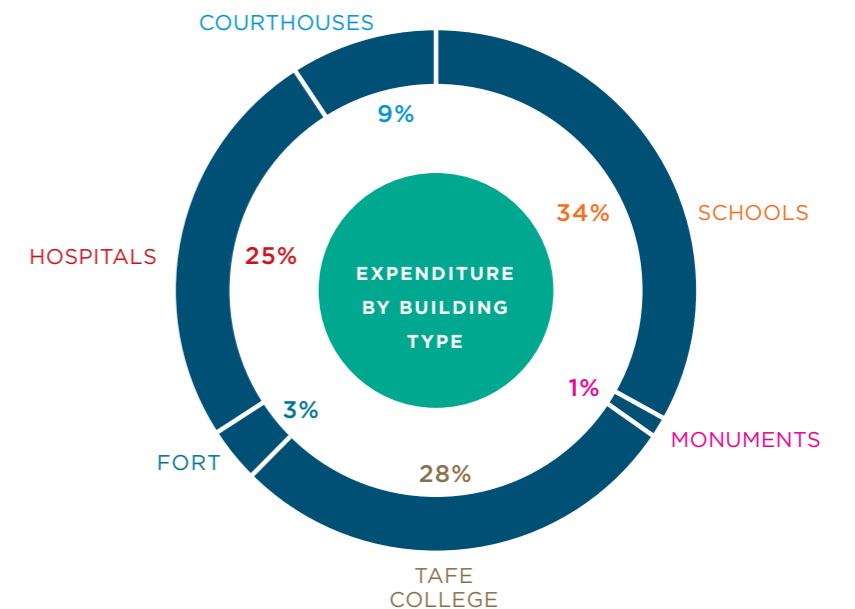
Managing the needs of Sandstone Heritage Architecture requires specialist expertise. Agencies rely on the reputable advice and ongoing relationship which the MSP provides for their assets. This collaboration allowed for essential associated external repairs such as roofing, timberwork, drainage upgrades, seismic stabilisation and painting. These strategic partnerships have resulted in cost and time efficiencies for government.



CO-FUNDING  
AGREEMENTS

Partnership funding agreements were in place with 6 state government agencies in 2018/19, working on 21 sites that included safety audits and conservation projects.

Due to the extent of catch-up maintenance required, rolling Stonework Maintenance Programs over several years have been established with NSW Department of Health and Education to efficiently and effectively facilitate forecasting for planned and staged projects on significant operational sites such as busy public hospitals and schools.



# MINISTER'S STONEMASON PROGRAM INITIATIVES

## DEVELOPING INDUSTRY TECHNICAL EXPERTISE

### GEORGE PROUDMAN FELLOWSHIP

The George Proudman Fellowship was established as part of the MSP in 2001 to honour the legacy of the late public works master stonemason George Proudman, who up until his death in 2000 was a passionate educator and instrumental in revitalising the craft of stonemasonry in NSW.

The fellowship aims to provide individual skills enhancement for the benefit of heritage stonemasonry in Australia. This year Brad Rimmer became the 3rd recipient of the fellowship, which provided him with the opportunity to travel overseas to gain experience that is not readily available in Australia.



### TECHNICAL SPECIFICATION UPDATES

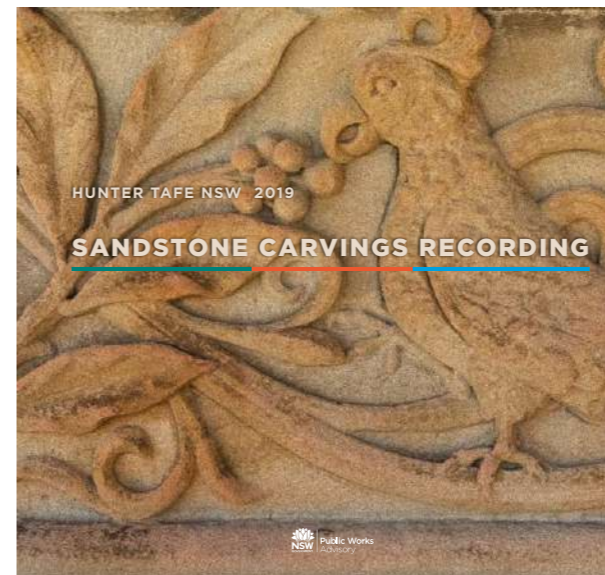
Technical specifications are a key document for construction tendering and delivery, guiding quality assurance throughout the project. MSP specifications are site and project specific, they describe the project scope, set the standards for materials and identify the appropriate processes and sign offs to be attained by the contractor from the heritage architect or specialist monitoring the work. This year HAA updated and streamlined the MSP specifications to nominate current best practice methods, identify suitable product and material characteristics, facilitate improved communication during projects and provide a detailed archival record of the scope and standard of the project. Thirteen 'trade sections' were updated including stonemasonry, lead weathering, mortar repointing and timberwork repairs.



### RECORDING NEWCASTLE CARVINGS

Recording significant stone carvings is an important aspect of stone conservation. During 2018/19 the carvings that adorn Newcastle TAFE were recorded using scaffold access provided for façade repairs. The carvings largely depict Australian flora and fauna motifs. Emus, lyrebirds and kangaroos are interspersed with waratahs and ferns.

The photographs provide an accurate record of their current condition and detail. This information enables the rate of deterioration to be monitored and will guide future generations to recarve these details if necessary. This record will be placed with the major libraries, providing public access to and appreciation of these skilfully executed and unique carvings.



Sydney Hospital

*a replacement cornice  
is lowered into position  
on North Block*

A selection of MSP 2018/19 projects  
are featured in the following project sheets:

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Brewongle Environmental Education Centre

Fort Denison

Gardener's Road Public School

Gladesville Hospital Building 38

Glebe Public School

Newcastle TAFE

RPA Albert Pavilion

Safety Audit Program

State Library Bronzes

Sydney Hospital



## BREWONGLE ENVIRONMENTAL EDUCATION CENTRE



**The Brewongle Environmental Education Center (EEC)** was originally named Sackville Reach Public School and built in 1878. The school was renamed Sackville North Public School in 1947 and was in operation until the school was closed in 1972 due to decreased student numbers. Brewongle EEC began operation in 1980 and offers visiting school groups an experience of a 19th century classroom.

The former Principal's residence was constructed in 1878 from locally quarried sandstone. The building is an exceptional example of the Victorian style of school architecture that was common during this period. It provides an excellent example of the work of Government Architect G.A. Mansfield and demonstrates the former patterns of rural settlement and education in the Hawkesbury area. The Brewongle EEC is listed as a locally significant item on the Hills Council Local Environment Plan.

The former Principal's residence was categorised as priority 1 in the 2013 Schools Stonework Program due to the very poor condition of the chimneys. Overall the sandstone was in good condition with minor salt attack and repointing needed. The chimneys were temporarily removed in 2014 as part of the MSP Safety Audit.

Repairs to the building in 2018/19 included reinstating the dismantled chimneys, seismic stabilisation, replacement of deteriorated sandstone, stone desalination of areas affected by salt attack, repointing of mortar joints, paint removal from stone and timber repair and repainting.

Agency | Department of Education

Location | 587 Chapel Hill Rd, Sackville North (Western Sydney Region)

2018/19 Expenditure | \$407,357 (\$57,357 MSP/ \$350,000 DoE)

Replacement Stone Source | Appin Sandstone, quartz rich (3.63m<sup>3</sup> gross)



**Top image:** Completed repairs on North façade Brewongle Environmental Education Centre

**Lower Image:** Deteriorated chimney stones.



## FORT DENISON



**Fort Denison** is of national and international significance as an exceptionally fine and intact example of a nineteenth century defence fortification that is unique within Australia. The Fort is associated with several phases of Australian history; as an impressive natural rock island it was visited regularly by local Aboriginal people, used by European settlers as a place for incarceration of convicts and then as a Fort which was completed in 1862. Later in a maritime role, the Fort became a tide gauge station and continues this use at the present time.

MSP commenced a 4 year program of catch-up maintenance works in 2007. During this time four rooms within the former Barracks block, known as B2/3, B4, B5 and B6, were occupied by an operating restaurant and access for conservation works was not possible. Following decommissioning of the former lessee's kitchen, storage and servery areas in early 2018, these spaces became available for repairs to be undertaken.

Conservation works during 2018/19 included careful removal of all hard cement mortar and repointing with lime based mortar. Stone deterioration caused by excessive salt contamination was addressed by desalination using the water captive rinsing system. In addition, underfloor areas were accessed and cleaned, stone walling was reinstated where previously removed to accommodate kitchen services and cracked fireplace stone lintels were stabilised. Conservation works include a system of small pins inserted to monitor rates of surface deterioration on internal walls.

Agency | National Parks and Wildlife Service

Location | Sydney Harbour

2018/19 Expenditure | \$357,876 (\$207,876 MSP/ \$150,000 NPWS)

Replacement Stone Source | Appin Sandstone, quartz rich (0.99m<sup>3</sup> gross)



**Top image:** Stonework revealed: cleaned, desalinated and repointed where required.

**Lower Image:** Fireplace following conservation works





## GARDENER'S ROAD PUBLIC SCHOOL



The main school building (Building A) at Gardeners Rd Public School was constructed in 1898, following an increase in the population when the Botany tram line opened in 1882. By the early 1920s enrolments had reached 1,700 students. Building A was designed by J. Wigram in the Federation Arts and Crafts style and additions were carried out in 1908 and 1924. Although simple in design, the building has an eclectic combination of detailing including Art Nouveau inspired timbered gable ends, horizontal sandstone dressings, prominent eaves with exposed rafters and roughcast/brick banded chimneys.

The school is listed as an item of local heritage significance on the Sydney Local Environmental Plan. It is historically significant as it represents the evolution of the area, in particular the growth of population, community facilities and institutional establishments.

The MSP carried out a Safety Audit on the building in 2017 where 50kg of loose and potentially dangerous stone was removed high on the façade overhanging public areas. Stage 1 exterior conservation works commenced in 2018/19 with repairs and replacement of deteriorated sandstone sills and stringcourses, repairs and repainting of original timber window joinery, reglazing cracked glass panes and removal of later galvanised covers to hardwood sills. Cracked concrete roof tiles were replaced and the roof plumbing was repaired to ensure effective disposal of roof water.

Agency | Department of Education

Location | 827 Botany Rd, Rosebery (Sydney Region)

2018/19 Expenditure | \$428,963 (\$ 78,963 MSP/ \$350,000 DoE)

Replacement Stone Source | Harris St Yellowblock Sandstone (6.36m<sup>3</sup> gross)



**Top image:** Heritage Architect Anita Krivickas and Site Controller Jordan West inspect the work to the windows  
**Lower Image:** deteriorated high level stone window sill



## GLADESVILLE HOSPITAL BUILDING 38



**Building 38** (Keepers House) is the earliest building within the original Tarban Creek Lunatic Asylum. This building was the first design by Mortimer Lewis as the Colonial Architect. The two-storey building, Georgian in style, was constructed in 1837 of locally quarried quartz rich sandstone, with a double-hipped slate roof. One of the distinguishing features of the building is Lewis's design of the southern entry portico columns, thought to be the earliest use of Ionic capitals carved in the colony.

Building 38 and the hospital precinct are of exceptional cultural significance as the first purpose built institution established on the mainland of Australia for the placement and care of the insane.

Works in 2018-19 included completion of essential, urgent remediation of the perimeter structure which commenced in 2017-18, by conserving, through repair and reconstruction, the internal rotten timber wall plates, lintels and joists at basement/ground floor level which support the stone walls above. The south side stormwater trench was repaired and diagnosis of the cause of severe water ingress to the basement undertaken. Once structural works were completed, veranda, window and door repair, painting and interpretation works on the north façade were substantially commenced prior to remediation of damaged stonework planned for later in 2019.

Agency | Ministry of Health

Location | Victoria Rd, Gladesville

2018/19 Expenditure | \$713,168 (\$413,168 MSP/ \$300,000 Health)

Replacement Stone Source | Appin Sandstone, quartz rich (1.61m<sup>3</sup> gross)



**Top image:** View from basement of original Level 1 floor joists, ends have been spliced with new timber notched into replacement timber window lintels and wall plates holding up the external stone walls.  
**Lower Image:** Rotten and collapsed timber substructure for external stone walls



## GLEBE PUBLIC SCHOOL BUILDING B



**Building B, Glebe Public School** is a two storey brick and sandstone building designed by William Kemp, the Department of Public Instruction Chief Architect, in the "Simple Classic Style". The building was constructed in 1884 and the School is listed as a heritage item on the City of Sydney Local Environmental Plan. The School is located in the Glebe Point Road Heritage Conservation Area. A Safety Audit was carried out in June 2017, where 30kg of deteriorated, loose and potentially dangerous stone was removed from high wall areas located over playgrounds and public areas.

Façade conservation works were completed on Building B over two financial years, commencing in 2017/18. Stage 2 works in 2018/19 included replacement of deteriorated high level stone façade elements such as the string course and decorative carvings. Following drainage repairs, lower stone units were replaced where they were extensively eroded by rising damp. To maximise the use of scaffold access, timberwork repairs were carried out on all windows, doors, gable bargeboards, eaves and soffits. Seismic stabilisation was undertaken on the gables. Additional works included stonework desalination, synthetic stone patching, installation of bird proofing and biocide treatment. The cement rich mortar was carefully removed and stone and brick walls were repointed with a more permeable mix to allow the joints to breathe and prolong the life of the stone and bricks.

Agency | Department of Education

Location | 827 Botany Rd, Rosebery (Sydney Region)

2018/19 Expenditure | \$428,963 (\$ 78,963 MSP/ \$350,000 DoE)

Replacement Stone Source | Harris St Yellowblock Sandstone (6.36m<sup>3</sup> gross)



**Top image:** Completed façade

**Lower Image:** Loose stone removed during the safety audit



## NEWCASTLE TAFE HUNTER STREET CAMPUS



Both the former **Newcastle Technical College (1894)** and **Trades Hall (1895)** form the present TAFE NSW Hunter Street Campus. The buildings have been internally connected to form a series of exhibition, lecture and studio spaces to serve the Faculty of Arts and Media. Together they create a landmark site, of high aesthetic significance, in the Newcastle CBD streetscape.

William Kemp designed the Technical College, in the Federation Romanesque style similar to Sydney Technical College, employing Romanesque arches, polychrome brickwork, carved Australian flora and fauna, finials and copings; patterned terracotta tile panels and gable apices and ornate brickwork.

The former Trades Hall was designed by Ernest Yeomans, adopting a free interpretation of classical composition and decoration. Its red-brick and cement rendered façade is richly moulded. There are relatively few surviving examples of this style in Australia.

Decay of sandstone due to moisture and salt attack has resulted in loss of detailing and associated damage to other façade elements. Conservation works are staged over three years, commencing in 2017/18. This year's scope of works included replacement of deteriorated sandstone, installation of protective lead weatherings, repairs to rotten timber joinery, restoration of the decorative terracotta tile panels and repointing of stone and brick mortar joints. The historical colour scheme was also reinstated.

Agency | TAFE NSW

Location | Hunter St, Newcastle

2018/19 Expenditure | \$3,158,699 (\$ 2,293,699 MSP/ \$865,000 TAFE)

Replacement Stone Source | Harris St Yellowblock Sandstone (47.51m<sup>3</sup> gross)



**Top image:** Hunter TAFE main façade

**Lower Image:** Loose and potentially dangerous stone before repairs commenced



## ROYAL PRINCE ALFRED HOSPITAL ALBERT PAVILION



The **Victoria and Albert Pavilions** form part of the Royal Prince Alfred (RPA) Hospital Precinct. Constructed to commemorate the royal visit of Prince Alfred, these three-storey buildings were designed by the Government Architect Walter Liberty Vernon in the Federation Free Classical style. Listed on the State Heritage Register and the City of Sydney LEP, the Pavilions are of high historical and architectural significance and have high streetscape value. Both pavilions have a projecting bay with tall sandstone pediments surmounted by a copper clad statue of Queen Victoria (southern pavilion) and Prince Albert (northern pavilion). Constructed 1901-1904 of load bearing red brick walls with sandstone dressings, the elevations are punctuated by regular banks of timber louvred windows.

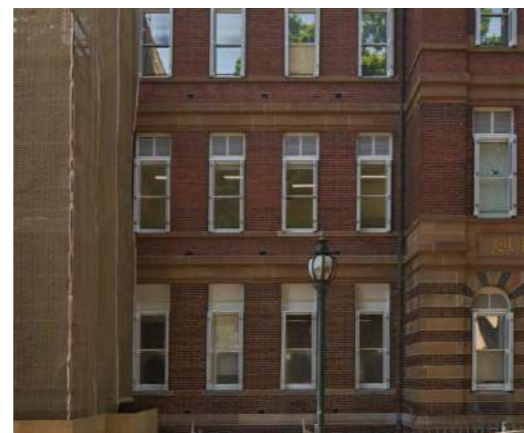
Conservation works on the Albert Pavilion North Wing are to be staged over two years and commenced in 2018/19. Works included sandstone replacement, stone and brick repointing of eroded mortar joints, synthetic stone repairs, installation of bird proofing and extensive repairs to the timber window louvres. The masonry was heavily stained with biological growth and bird droppings and was carefully cleaned using the JOS system.

Agency | Ministry of Health

Location | Missenden Rd, Camperdown

2018/19 Expenditure | \$451,667  
(\$ 1,667 MSP/ \$450,000 Health)

Replacement Stone Source | Macaffrey's  
Yellowblock sandstone (0.28m<sup>3</sup> gross)



**Top image:** Completed repairs

**Lower image:** Completed repairs over the three substantial levels of the facade



## STATE LIBRARY OF NSW BRONZE CONSERVATION



The **Sir Richard Bourke statue**, Australia's first public sculpture, and the bronze north and south entry doors to the Mitchell Building of the State Library NSW were conserved in 2018/19 as part of the MSP Monuments Program.

The Bourke statue was originally located in the Royal Botanic Gardens and unveiled in 1842 by Governor Gipps. So significant was the event, a public holiday was made for the occasion. As there were no foundries in the colony, the statue was designed and cast in England by Edward Hodges Baily. The statue was relocated in front of the Mitchell Building in 1923.

The northern grand scale Beaux-Arts style entrance porch was constructed in 1942 and features unique bronze entrance doors, undertaken by seven sculptors including Queensland sculptor Daphne Mayo, Ralph Walker, Frank Lynch and E. Lenegan. The doors contain bas reliefs of aboriginal figures and European explorers. The doors were cast by Wunderlich Ltd.

Bronze conservation works included careful removal of corrosive products and application of protective wax coating to prolong the lives of these significant public items.

Agency | State Library NSW,  
Department of Premier and Cabinet

Location | Shakespeare Place, Sydney

2018/19 Expenditure | \$99,570  
(MSP funded)



**Top image:** Bronze entrance doors depicting Australian Explorers and individuals from different Aboriginal Nations.

**Lower image:** Statue of Sir Richard Bourke in front of the State Library



## SYDNEY HOSPITAL



**Sydney Hospital**, constructed in two stages between 1879 and 1894 to designs by architects Thomas Rowe and John Kirkpatrick, is of exceptional significance as a very fine representative example of late 19th century hospital design. A rolling program of external conservation works has been underway over several years at Sydney Hospital, in funding partnership with the Ministry of Health.

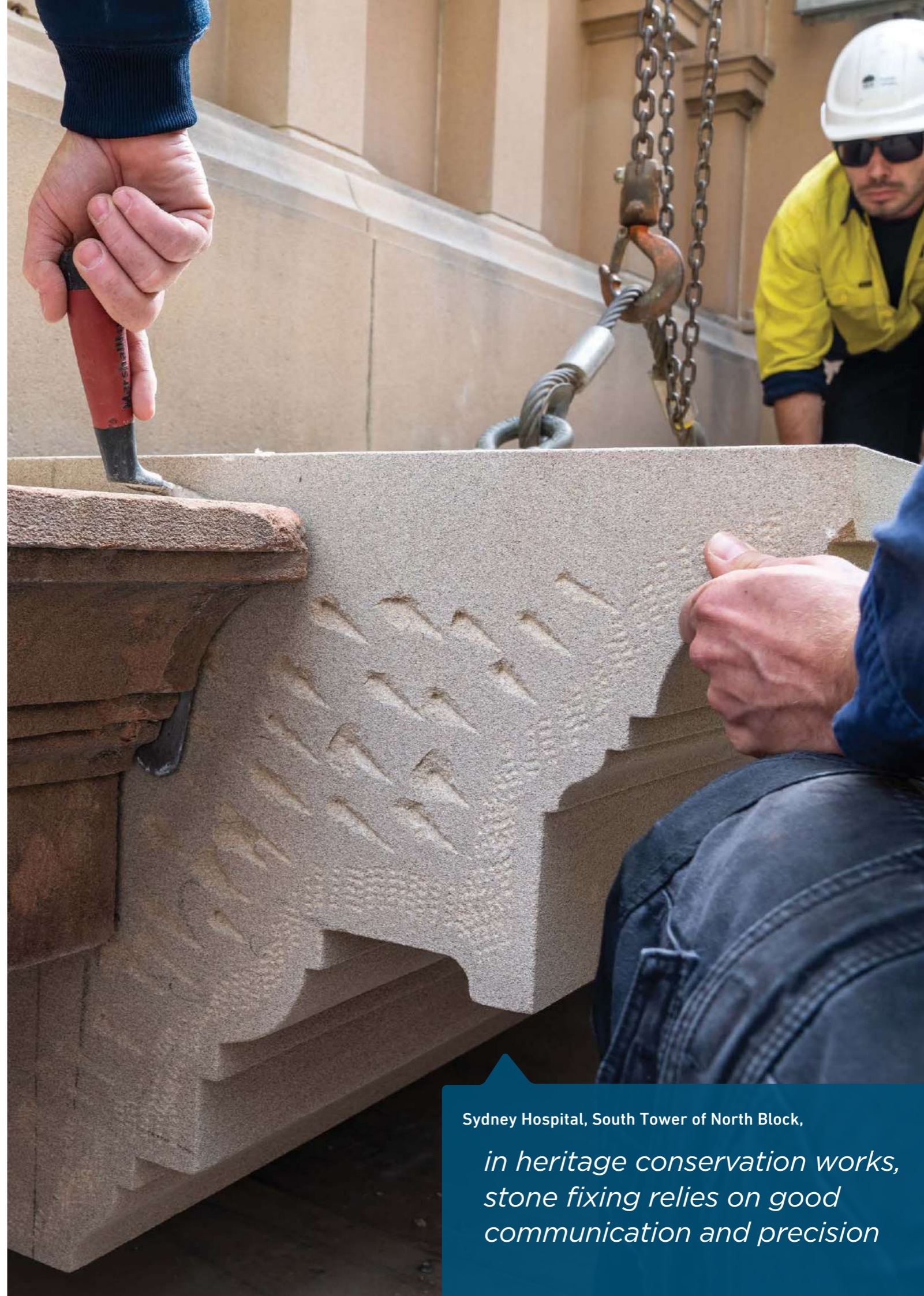
Previous stages of conservation work carried out by MSP have included the Macquarie Street elevation of the Administration Building (WA 11), the courtyard elevations of the North and Centre Block (WA 7 and WA 5), south elevation of the South Block (WA 1a) and the south kiosk on Macquarie Street.

In 2018/19 works continued on Area 9 (9C, 9D, 9E, 9F), located on the Macquarie Street elevation of the North Wing. The scope of works included replacement of deteriorated overhanging stone elements, installation of protective lead weatherings, synthetic stone patching and repointing of stone mortar joints. Associated façade works included repairs to the metalwork balustrades, repainting window timberwork and anti-corrosion treatment to the steel verandah beams.

Agency | Department of Health  
Location | Macquarie St, Sydney  
2018/19 Expenditure | \$1,662,450  
(\$1,412,450 MSP/ \$250,000 Health)  
Replacement Stone Source | Harris St  
Yellowblock sandstone (24.94m<sup>3</sup> gross)



**Top image:** North side of South Tower on North Block  
**Lower Image:** inspection of Area 10A deterioration



Sydney Hospital, South Tower of North Block,  
*in heritage conservation works,  
stone fixing relies on good  
communication and precision*

# FORWARD PLANNING SAFETY AUDIT PROGRAM

MSP's Forward Planning success lies in the multiple benefits which springboard off the annual Safety Audit Program:

## STEP 1 MITIGATE PUBLIC SAFETY RISK

As its primary goal the Safety Audit Program addresses immediate public safety risks posed by unsafe, high level deteriorated stone which is overhanging, or in danger of falling onto, public areas from state owned, stone heritage assets. The Audit is a fully funded, proactive and/or reactive onsite response to an agency request for assistance.

*Right page : Left, Australian Museum night time Safety Audit Right, Dangerous stone removed from Maitland courthouse*



## STEP 2 CLOSE DIAGNOSIS

The Audit also provides the access opportunity to diagnose the issues up close, and to document the prescribed scope of work with the multidisciplinary team on hand (engineer, architect, stonemason) to workshop the site specific conservation approach.

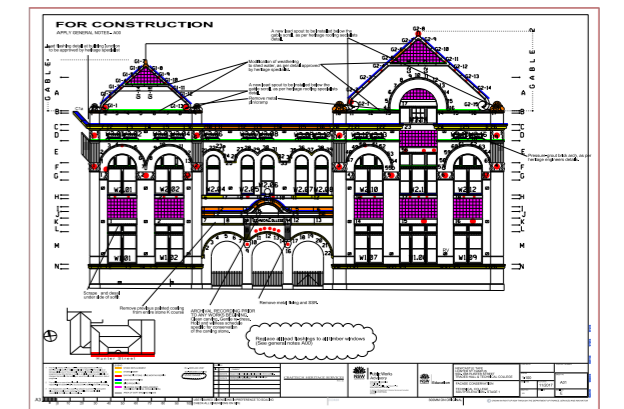
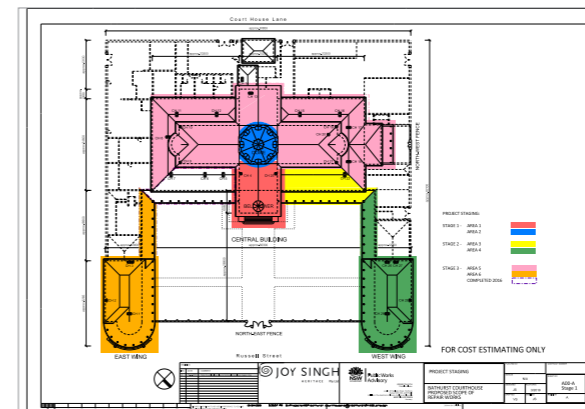
*Right page : Left, Senior Heritage Architect Kate Napier and Senior Stone Mason Craig Miller inspect the Australian Museum Right, Engineer Sumeer Gohil and Heritage Mason Katie Hicks inspect Wagga Wagga Courthouse*



## STEP 3 SCOPED & STAGED DRAWINGS

The resulting scoped and staged construction documents provide a basis for costing necessary repairs. This assists agencies across their portfolios with prioritised work strategies to fit financial year budget cycles i.e. the prioritised, proactive forward plan provides the documents for agencies to substantiate a Treasury funding request.

*Right page : Left, Bathurst Courthouse staging drawing Right, Scoped drawings for façade conservation at Newcastle TAFE, Hunter Street Campus.*



## STEP 4 FORECAST STONE NEEDED

All this documentation enables the forecast of stone use requirements over the next 10 years so as to better manage the procurement of suitable stone types to the stockpile for future projects. In 2019 we completed the procurement of 1400 cubic metres of high quality Sydney Yellow-block sandstone from Harris Street Pyrmont.

*Right page : Left, Completion of stone Harvesting at Harris Street, Pyrmont Right, Harris Street 'yellow block' at the Government Stockpile.*



## MSP TEAM EFFORT

The MSP team comprising Heritage Asset Advisory and Heritage Stoneworks is recognised nationally for its joint skill, experience and success in the specialised conservation of public stone heritage buildings.

The Program management team within Heritage Asset Advisory consists of heritage architects, heritage advisors, planners and engineers as well as materials, project management and compliance specialists. They decide the eligibility and priorities for use of the government stone stockpile, and determine the required replenishment volumes for conservation use. They coordinate the program for projects, research, publications, portfolio strategies and audits, and undertake the diagnosis, scope design, contract documentation, planning, approvals, co-funding partnership arrangements, advice to agencies and quality assurance throughout construction and beyond.

The construction delivery team within Heritage Stoneworks comprises heritage stone masons, heritage roofers, heritage carpenters, scaffolders, project and construction managers as well as support and WHS staff. Heritage Stoneworks is responsible for providing estimates, tendering, managing construction programs and contracts, programming stone production, undertaking testing and procurement of stone and maintaining the government stockpile and inventory. Training is a key focus for HSW.

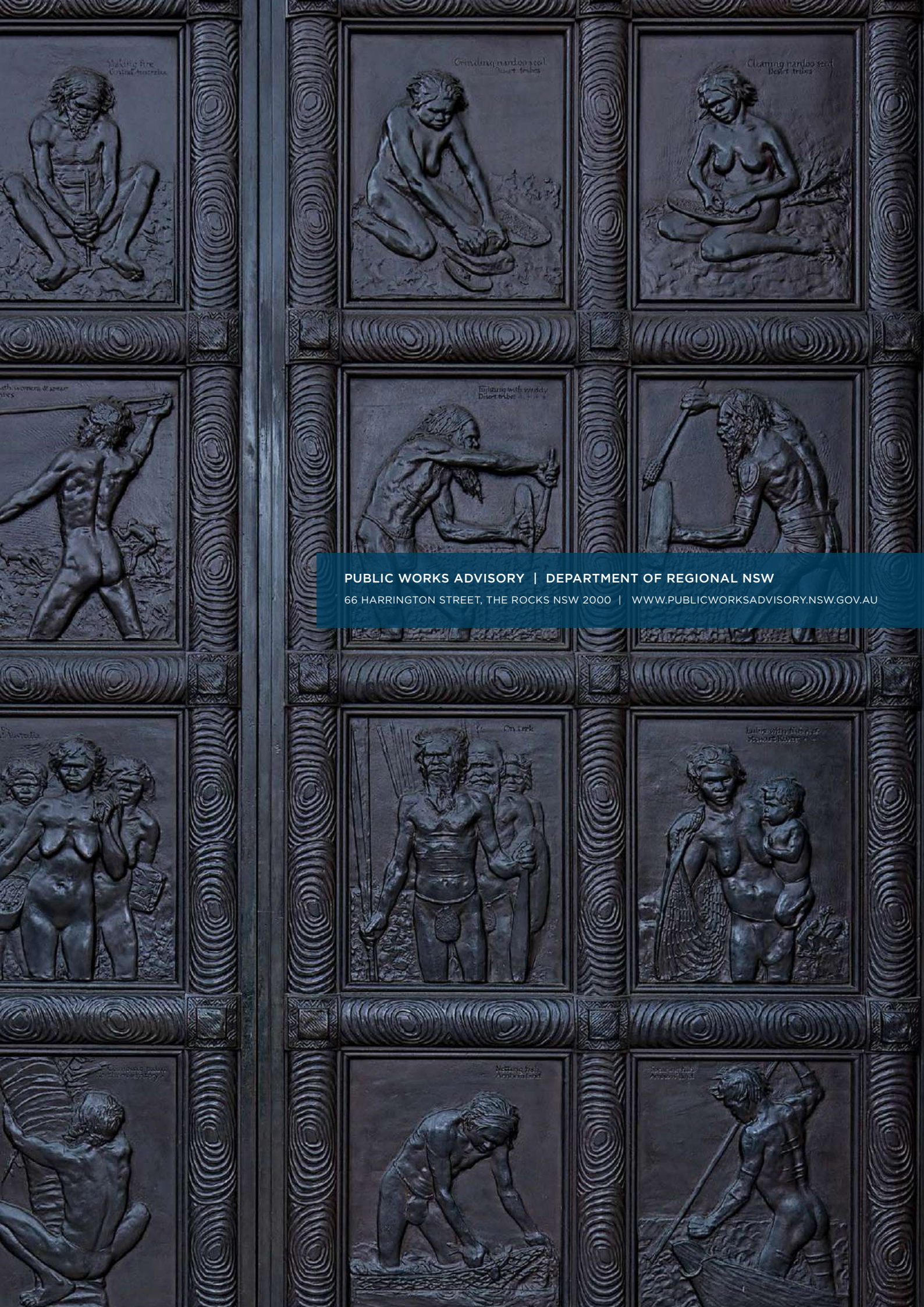
Training, knowledge sharing and secession planning are a key focus for the MSP team.



*Top: Heritage Asset Advisory staff with consultants and colleagues from Public Works Advisory outside the Art Gallery of New South Wales*

*Bottom: Heritage Stoneworks staff at their home base in 'The Yard' Burrows Road Alexandria*





Making fire  
Grimal, Australia

Grinding hard seed  
Daint, tribes

Cleaning hard seed  
Daint, tribes

With a corner of a spear  
tribes

Enlarging with wooden  
Daint, tribes

**PUBLIC WORKS ADVISORY | DEPARTMENT OF REGIONAL NSW**

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tribes

On a bark  
tribes

Using a net  
tribes

Making fish  
Archie, island

Making fish  
Archie, island

Making fish  
Archie, island