

Unbelievably, Murujuga is threatened by industry and pollution.



Background

In 1868, the Yaburara people, the Traditional Owners of Murujuga and its art, were all but exterminated in the 'Flying Foam Massacre'. This has allowed successive governments to sanction and encourage development of a huge industrial complex amongst the rock art.

- 1964 – establishment of a port of export iron ore
- 1968 – large scale salt production and export facility
- 1980s – natural gas processing facilities
- 1995 – two liquefied natural gas production plants
- 2006 – ammonium fertiliser plant
- 2016 – ammonium nitrate, explosives production facility, now being commissioned.

Protecting the art and cultural heritage

In 2002, after strong pressure from archaeologists and the public for more research into the impact of industrial emissions on the rock art, the state government established the Burrup Rock Art Monitoring Management Committee to commission scientific research to determine whether industrial emissions would have long-term effects on the rock art.

However, the reports to date contain poor statistical analyses of data, and the Committee has subsequently been disbanded.

There have been a number of reportable incidents over the past years of gas and acid leaks, but some industry reports to government showed demonstrably poor monitoring of emissions.

The true impact of any leaks and emissions on rock art and the broader environment are unknown because appropriate monitoring is not being done.

The emissions

Greenhouse gases

Pollutants include nitrogen dioxide, nitrous oxide, carbon monoxide, methane, ammonia, dust-sized ammonium nitrate particles and greenhouse gas equivalents.



Acid rain

High emissions have been proven around the world to produce acid rain, which degrades rock surfaces and affects human health. Impacts for rock art are cumulative and increase with every year of emissions.

Nitrogen

Murujuga rocks and soils are extremely low in nitrogen. The nitrogen deposits from industrial emissions will exponentially increase the local growth of microbes and plants, and this poses a massive threat to the rock art.



Graffiti

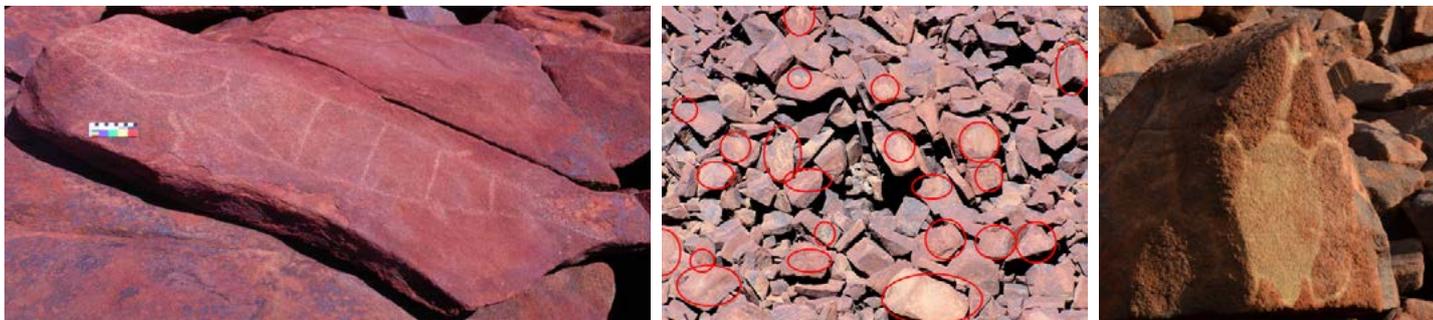
Graffiti is another serious issue impacting on the rock art.



Time for Action

For these reasons, the **Murujuga Aboriginal Corporation**, the **Friends of Australian Rock Art** and **The University of Western Australia's Centre for Rock Art Research and Management**, in partnership with the **Western Australian Museum** and the **Conservation Council of WA** are establishing an **independent scientific project** to monitor industrial pollution on Murujuga and changes to rock art, to model the future effects of identified pollution, and to recommend measures to mitigate damage.

The project brings together an **international, interdisciplinary team** including Traditional Owners, Indigenous Rangers, archaeologists, concerned public, rock art specialists, geologists, geochemists, geomicrobiologists, atmospheric chemists, climatologists and earth systems modellers.



The research team will measure:

- concentrations of pollutants in the air and on rock surfaces at numerous rock art sites
- changes in rock colour, chemistry and surface structure of background rock and engravings
- air temperature, humidity, wind speed and direction
- rock surface temperature and humidity gradients on exposed rock
- microbial growth on background rock and engravings
- rainfall, acid load and acidity of rain, mineral leaching from rocks and soils
- soil and stream mineral content and acidity
- changes in plant species and growth patterns.

This project, which will continue for at least 5 years, will be built around the values of openness and transparency, with data from real-time atmospheric monitoring available through a dedicated website.

A detailed project plan is being developed with each activity and time lines specified.

The project is expected to cost approximately \$500,000/year.

We are seeking funding from philanthropic organisations and individuals around the world – all donations will help us to gain matched governmental grants.



Donate now

For tax-deductible donations, please contact

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Brought to you by the **Friends of Australian Rock Art.**

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