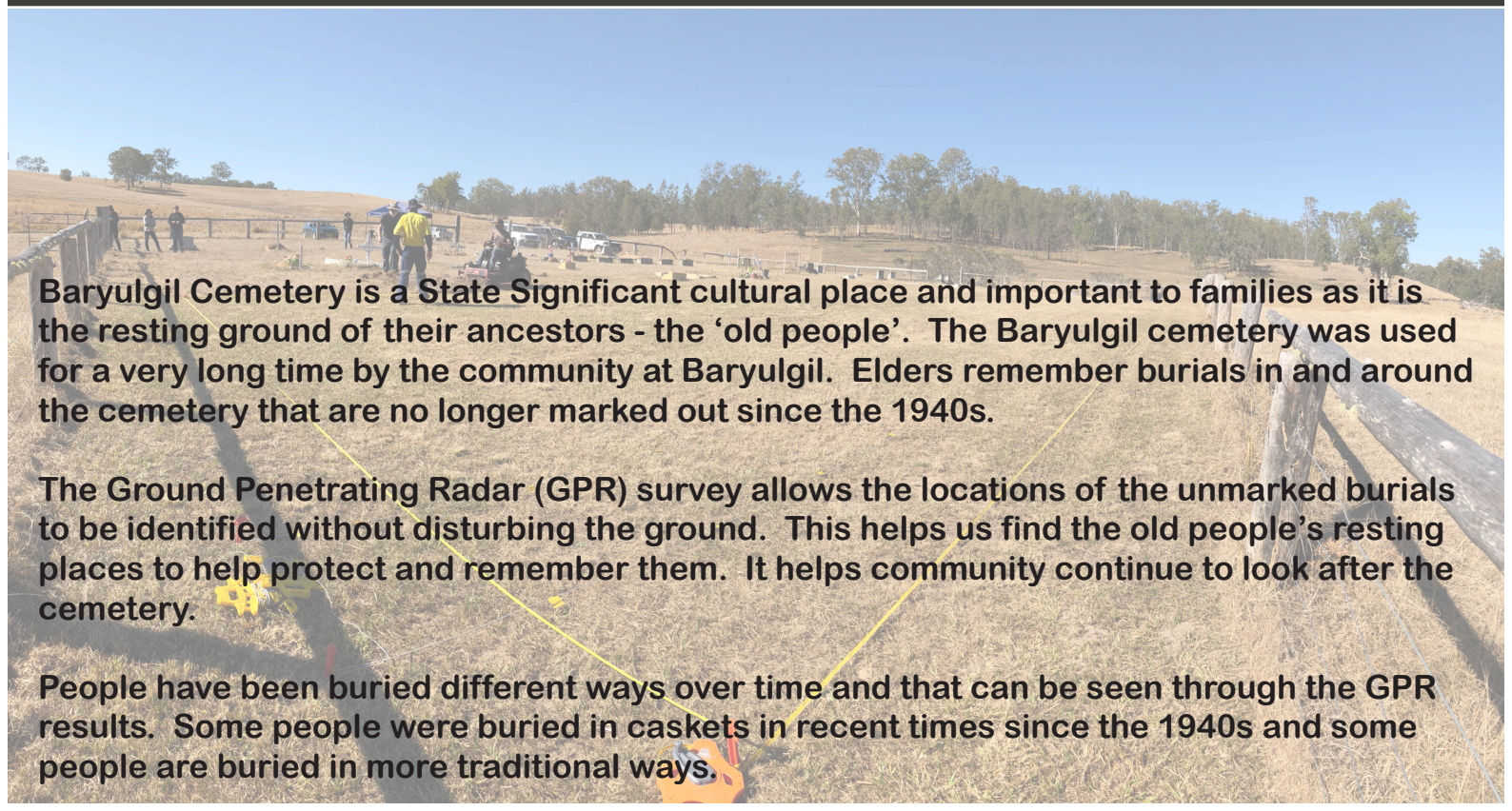
A landscape photograph showing a large, rectangular fenced-in area in a field, surrounded by dense green trees and blue mountains in the background. The ground appears to be a mix of dirt and sparse vegetation.

Baryulgil Cemetery Unmarked Graves

EDUCATIONAL TOOLKIT

BARYULGIL CEMETERY



Baryulgil Cemetery is a State Significant cultural place and important to families as it is the resting ground of their ancestors - the 'old people'. The Baryulgil cemetery was used for a very long time by the community at Baryulgil. Elders remember burials in and around the cemetery that are no longer marked out since the 1940s.

The Ground Penetrating Radar (GPR) survey allows the locations of the unmarked burials to be identified without disturbing the ground. This helps us find the old people's resting places to help protect and remember them. It helps community continue to look after the cemetery.

People have been buried different ways over time and that can be seen through the GPR results. Some people were buried in caskets in recent times since the 1940s and some people are buried in more traditional ways.

WHAT IS ARCHAEOLOGY?

Archaeology is the study of past human cultures.

Although some of our ancestors are no longer with us, we can still learn from what they leave behind.

Archaeologists study how people lived using different scientific tools (including Ground Penetrating Radar) to understand what their lives were like.

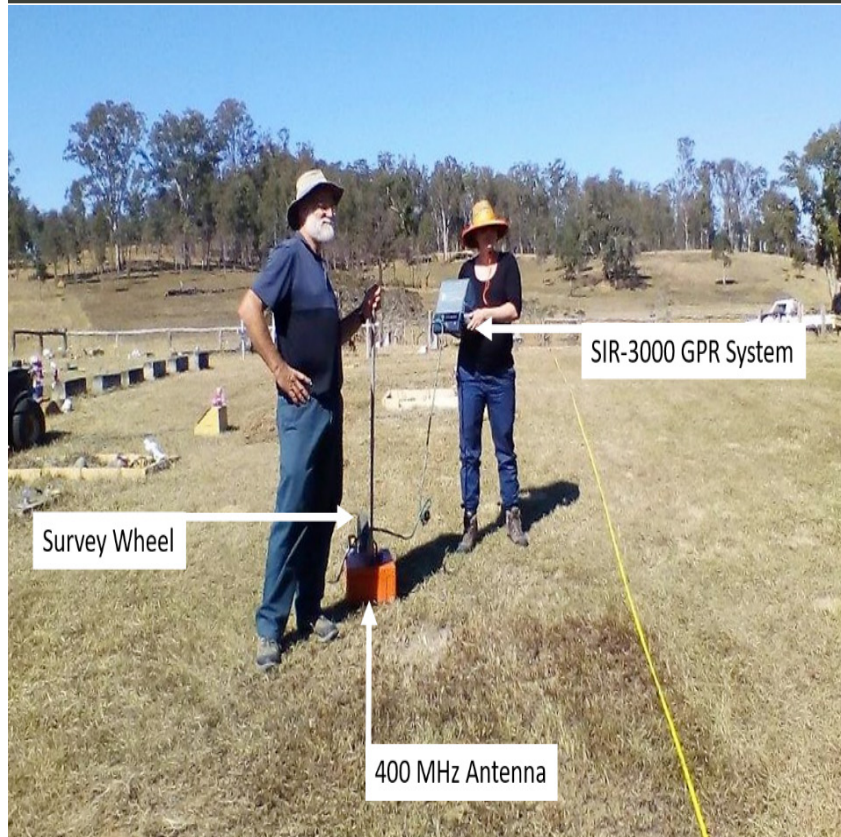


WHAT IS GROUND PENETRATING RADAR?

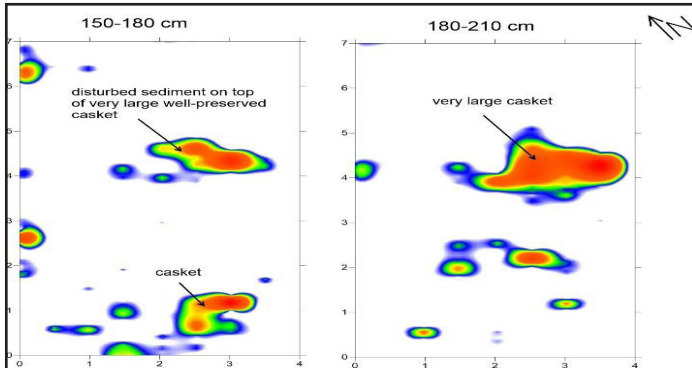
Ground Penetrating Radar - or GPR - is a machine which sends radar pulses into the ground to find things under the surface.

The GPR is pulled across the ground to collect data and this information is analysed by scientists to help discover what is in the ground, without having to dig it up.

The GPR makes “scans” or images of what is underneath the ground to help us find the graves of our old people, particularly those graves where headstones and markers no longer exist.



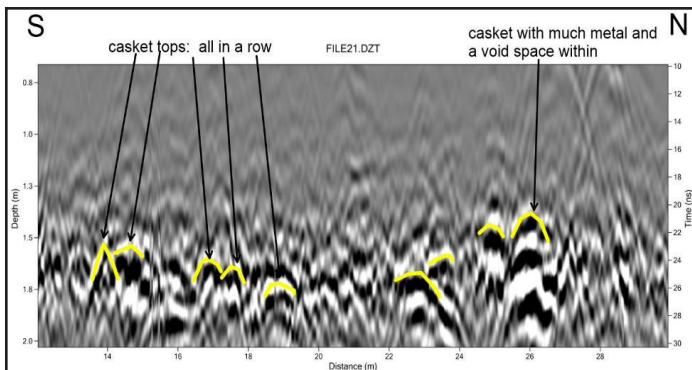
WHAT IS GROUND PENETRATING RADAR?



Radar is a wave of electromagnetic energy which is sent into the ground. GPR is a machine which sends radar pulses into the ground to find things underneath the surface. These changes can be used to find how deep and where something is in the landscape.

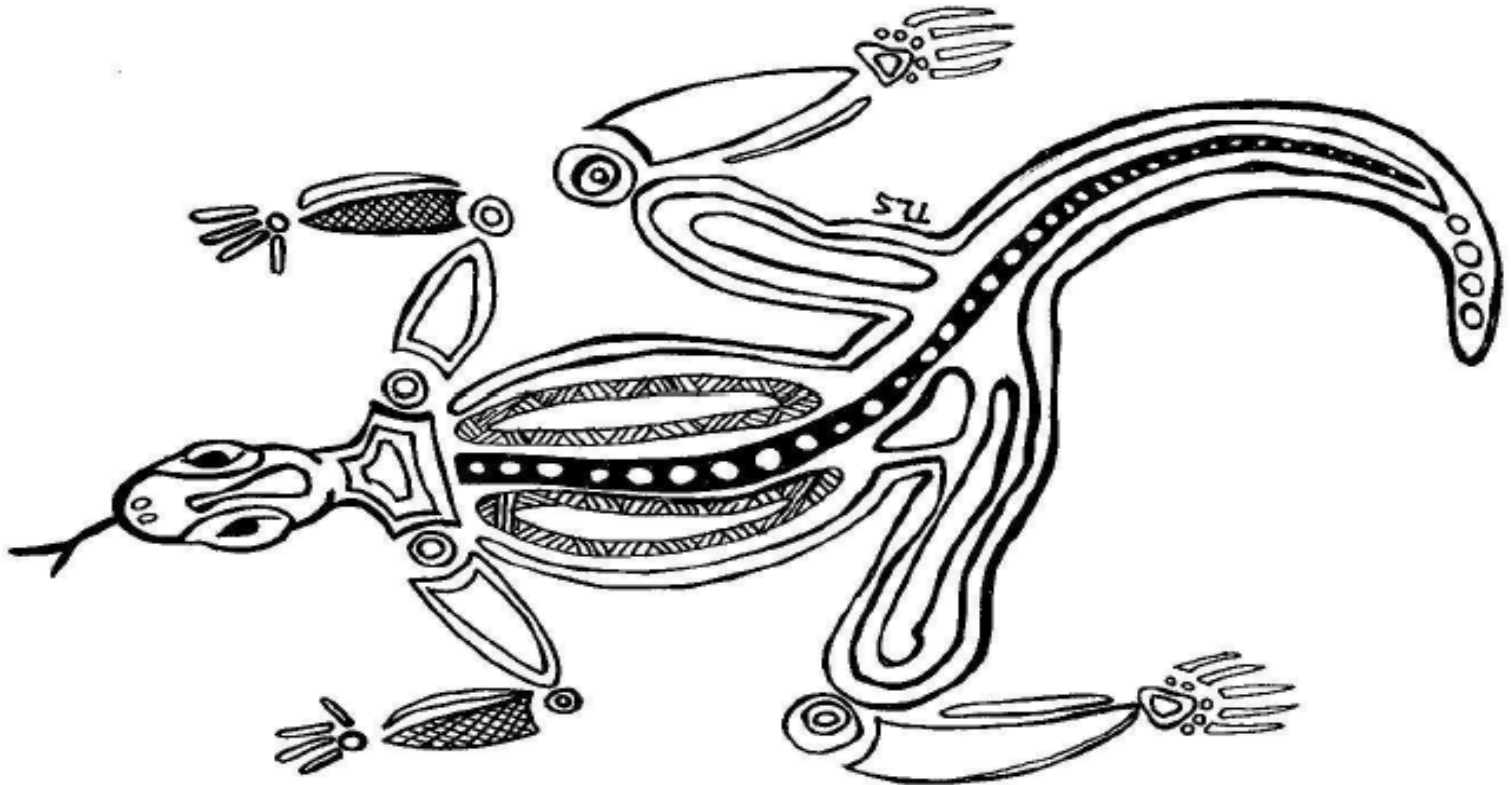
GPR was used in the Baryulgil Cemetery to identify unmarked burials. It can also identify:

- the remains of buildings under the ground - including the base of walls and floors;
- old roads embankments and trenches;
- areas of burning, including past camp fires or ground ovens.



COLOUR ME

ACTIVITY

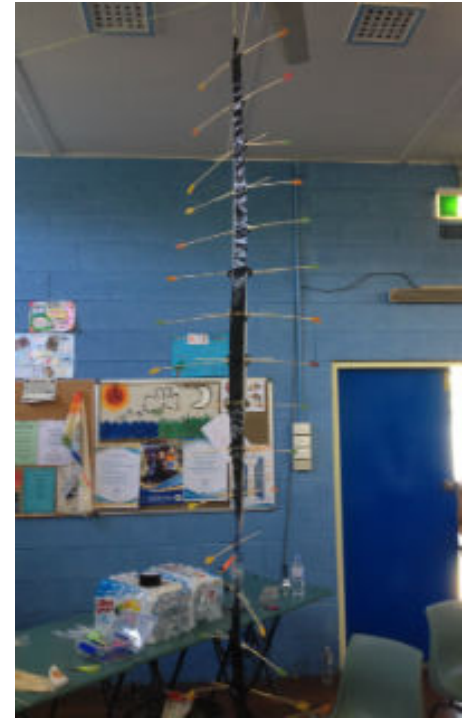


(Source: http://plconnect.siq.qld.gov.au/_data/assets/pdf_file/0019/202951/ATSI_Colour_in_Book_by_Tania_Schafer.pdf)

MAKE A WAVE DEMONSTRATOR

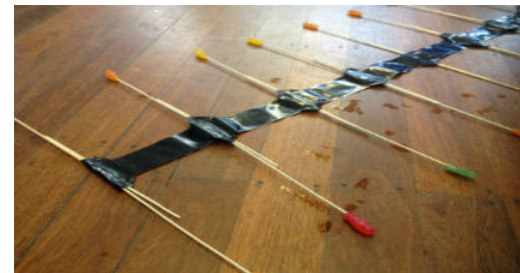
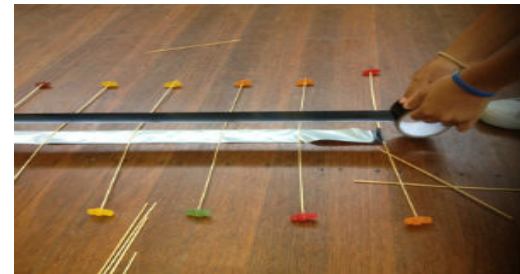
WHAT YOU NEED:

- Kebab Sticks
- String
- Tape
- Jelly Babies!!
- Somewhere to safely hang the wave demonstrator (out of the wind)



INSTRUCTIONS:

1. Roll out at least 3 metres of tape on the floor.
2. Place kebab sticks at even lengths along the tape.
3. Spike the jelly babies onto the ends of the kebab sticks.
4. Roll out another 3 metres of tape and cover the first length to secure the kebab sticks as well as to stop the wave demonstrator becoming sticky.
5. Carefully hang the wave demonstrator so that it dangles downward without touching or hitting anything.
6. Give the wave demonstrator a 360 degrees twist at the bottom of the tape, let go and watch the waves travel up and down.



The wave demonstrator really takes advantage of momentum, leverage and energy.

By twisting the tape at the bottom of the demonstrator you are storing potential energy within the tape. This potential energy is released as the tape unwinds, transferring the energy into kinetic energy outwards toward the jelly babies on the end of the stick.

Once moving, the jelly babies have considerable momentum and so continue to spiral around the tape, transferring most of that energy back into the tape. The tape can't help but twist up again, which causes the tape to then subsequently release the energy as it unravels yet again...transferring that energy onwards to the next row of kebab sticks. The process continues until the energy dissipates out of the system.

Just like GPR, this is a great demonstration of energy and not matter travelling through a system, which is essentially what happens in waves and also how the GPR device sends radar pulses deep into the ground.

This toolkit was produced as part of Virtus Heritage's report on the GPR Investigations of Baryulgil Cemetery - October 2018 - a project assisted by the NSW Government through the Heritage Near Me Program. For more information about GPR, visit us at www.virtusheritage.com.au or contact:

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