AUSTRALASIAN INSTITUTE
OF MARINE SURVEYORS

Shipshape

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YEAR'S END A TIME TO REFLECT

A day in the life of a land surveyor

EVERY surveyor's day is different. Some are spent pegging neat suburban boundaries, others setting out buildings or control points on construction sites. But, for me, there's one aspect of surveying that I'm truly passionate about – finding old survey marks.

If I could be paid just to search for, uncover and document those marks, I'd do it full-time.

There's nothing quite like standing in the same spot another surveyor stood 100 or even 150 years ago, uncovering old rock marks, blazed reference trees, digging up galvanised iron pipes and the occasional old timber peg, while reconnecting that history with modern measurements.

A recent project of mine in Galston, New South Wales captured that feeling perfectly. It was a boundary adjustment survey for two brothers who owned side-by-side properties and wanted to realign the boundaries into more practical shapes.

On paper, it sounded straightforward. In reality, it turned into a rugged journey through cliffs, thick scrub and more than a century of surveying heritage.

1. Piecing together the past

Before I could begin any fieldwork, I had to research the survey history of the area. The most "recent" survey was from the 1970s – if you can call 50 years ago "recent" – and before that time, original Crown plans dating back to the 1880s. That was enough to excite my curiosity.

I armed myself with a collection of old survey plans, some faded and hand-drawn, and began piecing them together like a puzzle. Each plan told part of the story – where previous boundaries lay, who the surveyors were and where the marks might still be hidden.

That's what I love most about surveying. It's detective work mixed with exploration. The instruments and software have changed but the goal remains still the same and that is find the truth on the ground.

2. Into the bush

With my Leica GS18 GPS and plenty of determination, I headed out to the Galston site. The terrain was steep and heavily vegetated – a mix of dense bush and rocky outcrops that made every step an effort. It wasn't long before I found myself climbing along narrow ledges, crawling under thick shrubs and navigating cliffs in search of elusive marks from long ago.

And then, one by one, they began to appear. Chiselled rock marks from the 1880s, faint but unmistakable. Some were perched on cliff edges, others buried under soil and leaf litter. Each one was a small triumph – a link back to the original survey that first defined these boundaries.

Standing beside those marks, I couldn't help but imagine the surveyors who placed them. They had no GPS or robotic total stations, only a vernier theodolite, chain, compass and sheer perseverance. Yet their work still stands the test of time. For me, rediscovering their marks isn't just part of the job – it's the most rewarding part of being a surveyor.

3. Bridging old and new

Once I'd located as many of the old marks as possible, the next step was to connect the survey to state control. I used my Leica GS18 to measure to nearby Permanent Survey Marks, then established a local control network across the site.

The GS18 performed exceptionally well under the thick canopy – even when GPS reception was unreliable it still allowed me to cover ground quickly. Rather than traversing all day and potentially finding nothing, the GS18 helped me identify which marks were still in their original positions and which areas were worth a closer look. It was an efficient way to plan what needed to be measured precisely with the total station and what

simply needed to be marked or referenced.

Some setups were tough – there were places where I could barely find a level patch for the tripod – but that's surveying in the bush. The terrain demands flexibility. The GS18 gives me speed and the TS16 provides precision.

The conditions made each day an adventure. At times, I battled pouring rain that turned the scrub into a slippery, treacherous obstacle course, while other days brought scorching heat above 40 degrees Celsius. The combination of extreme weather and rugged terrain tested every part of the survey process and tested every part of me!

This is where history truly meets technology. The rock marks from the 1880s, the galvanized iron pipes from the 1970s and my modern GPS control all tie together – one continuous story of measurement through time.

4. From Field to Final Plan

After marking the final boundaries and reference marks, the next stage moved from the field to the office. This involved preparing the new plan of survey, arranging for the local council's signatures, obtaining the clients' signatures and, finally, lodging the plan with NSW Land Registry Services (LRS).

Because this was a boundary adjustment between two adjoining properties, new certificates of title had to be issued. The two brothers were effectively swapping portions of land, so a transfer had to be prepared and lodged along with the plan. It's a process that combines fieldwork, legal precision and coordination with multiple parties – the final step in turning survey data into a registered change of ownership.

5. A moment of reflection

There was one quiet afternoon during the Galston job that summed it all up. I was standing

on the edge of a cliff, looking down at a rock mark carved in the 1880s. The light was fading, the GPS still logging. I realised that another surveyor had stood in that exact same spot more than 140 years ago, defining the very same point with tools that seem primitive by today's standards – yet their work was spot-on.

That's when you realise what a privilege it is to be a land surveyor. We don't just measure property – we measure time. Every mark we uncover connects us to the surveyors who came before and every mark we place will one day guide those who follow.

6. Sharing the journey

Because this Galston project was such a rich mix of history, adventure and problem-solving, I decided to document it on my YouTube channel *The Global Surveyor* - https://www.youtube.com/@globalsurveyor

Across three videos, I show the entire process, unscripted, raw and spontaneous – from researching old plans and hunting rock marks in the bush to connecting control with GPS and marking the new boundaries.

Video links to this project are below:

- https://www.youtube.com/watch?v=ZTTkhEXT-iY
- https://www.youtube.com/watch?v=y5eS2cKV9io
- https://www.youtube.com/watch?v=kVTc6lcJf-8

The goal of my channel is simple. I wish to show the public and future surveyors what our work really involves. Surveying is incredibly broad – from civil and construction to mining, mapping and hydrographic work – but my personal focus is, and always has been, land surveying.

I love marking boundaries, interpreting evidence and especially finding those old marks that hold stories from generations past – thus the reason why my channel has an adventurous edge!

7. The modern surveyor

Today, technology allows us to work faster and more accurately than ever before but the essence of the profession hasn't changed. It's still about precision, judgment and evidence.

Surveying stands at the intersection of heritage and innovation – where satellites meet chiselled rock marks. For me, that's what makes it endlessly fascinating.

If you'd like to see this project and others like it, you can watch them on my YouTube channel *The Global Surveyor*, where I share the challenges and discoveries from real field surveys, unscripted, raw and unpredictable outcomes.

Because, at the end of the day, while surveying is a broad and technical profession, my true passion will always remain the same – finding old survey marks and keeping the legacy of our predecessors alive, one mark at a time.

Scott Taylor
Registered Land Surveyor NSW
Taylor Surveying (aka The Global Surveyor)