

The evolution of survey books 'monuments over measurements'

"As the field-notes are the primary record of survey, are accepted as evidence in a Court of Law, and are for Departmental reference for all time, it is importance that they should be precise and complete, indexed for purposes of ready reference, and kept in a neat and professional manner."

Epitome of circular instructions relating to survey, 19 June 1896, Department of Lands.

From traversing unexplored land on the back of a horse to using the latest Global Positioning System (GPS) equipment, the Surveyor General's Field Books have been recording survey information from the early days of European settlement up until the present day.

The Surveyor General Field Book is a valuable record as it is the primary evidence of the survey work undertaken, much like the field book used by a police officer or a botanist.

The books contain a wealth of information including details of interest about the topography and environment, bearing and distances, astronomical and sun observations, and information about the surveyors providing a tangible insight into eras gone by.

The books also record weather conditions at the time of survey such as the temperature. This was important with surveying practices in the past as it would affect the length of the steel chain used to measure distances. Based on the temperature, corrections to distances would at times need to be applied. One surveyor remembers starting the day surveying around Broken Hill at a comfortable 26 degrees with the temperature reaching up to 50 degrees through the course of the day. The high temperature expands the length of the chain.

Surveyors often worked in harsh and remote countryside with the bare minimum of shelter and equipment. It is in this environment that the surveyors opened up NSW with field books providing a permanent record of its development.

The first field book was issued by the Surveyor General in 1794 to Charles Grime. Charles was the Deputy Surveyor General at the time and undertook much of the early survey work.

The original field books were of different sizes and came from various suppliers; the majority produced by W F Smith of Hickson Road Sydney.

Despite the primitive equipment, lack of bullocks, horses and manpower, and the rough, unexplored terrain, the field books exhibit the high level of accuracy and skill that was deployed by the pioneer surveyors.

The notes themselves in the early field books were very basic, included many abbreviations and were considered as more of a personal document for the surveyor, draftsman and the Department. Over time, the field books undertook a gradual development.

With the expansion of the colony, the importance of keeping efficient, precise, neat and standardised field notes became more readily adopted with detailed instructions to Licensed Surveyors from the Surveyor General.

By the 1830s Sir Thomas Mitchell was well and truly in charge of ensuring field books became more legible and a comprehensive record what the surveyor did.

Just over thirty years later, the introduction of Torrens Title in 1863 brought with it state guarantee of land title. It became even more important to accurately capture land boundaries and keep efficient field books. In many instances, in the court of law, precedence would be given to monuments over measurements. Rather than a bearing and distance, marks such as on a fence post would be what was accepted for the position of a boundary. These marks were recorded in field books.

Blazing new pathways in the growing colony was thirsty work as shown by a hotel account from Licensed Surveyor George Montague, dated 30 July 1878, which was found folded in one of the field books. The account records the purchase of lunches, dinners, ales and accommodation at the Cambridge Club Hotel in Oxford Street at Hyde Park. It is thought that George must have come to Sydney for a while because he had been surveying north of present day Crookwell during that period.

Later, in 1886, the field books became a standard size and were bounded by hard red covers with the inscription 'Surveyor Generals Department' embossed on the front in gold lettering.

In 1893 the 'Surveyor Generals Department' on the cover of the books was replaced with the 'Department of Lands'. The issue of field books was controlled from the Lands Department's central stores branch. Instructions were issued that all field books were to be returned to the Chief Surveyor.

Reinforcing the importance of maintaining adequate field books was the instruction that 'field notes of surveys must be produced for inspection when required by the Registrar General' (Instructions to Surveyors 1915).

By 1925 the Surveyor General decided, after consulting the District Surveyors, the surveyors employed by the Department of Lands should have their own series of field books. These books were to be issued under the control of each district surveyor - the 'X' and 'Y' series. In 1933 this series was replaced by the 'LD' field books which existed up until 1974.

By the mid 1970s the New Series field books replaced the LD books. These books were given the same book number for each land board office. The field book is still in use today as a permanent record of how a survey is determined.

How the books are used

As well as providing a tangible insight into the heritage of NSW and its land, field books are of immense value to the survey profession as it is a primary source of information.

Before a survey plan can be drawn the land needs to be surveyed. The field books are a record of the survey from which the plan is drawn. The field book will contain a lot of useful information which may not be included on the plan and become invaluable for subsequent surveys.

For example, if a new survey is undertaken from another direction and a discrepancy occurs the field book becomes vital in establishing original marks used to survey the parcel of land and is key to re-establishing the cadastral fabric.

The field books are also vital if a plan is ambiguous, is missing or defaced, or if the original marking is gone or not expected to be found.

Hallmann explains that rather than a reliance on coordinates, in many instances it is the marks a surveyor establishes "which determine the extremities of the property lines for the owner, the engineer, the builder, the fencer and the retracement surveyor". It is these objects and marks that the courts will consider more favourably in settling boundary disputes. It is these marks that can be found in a surveyor's field book.

Field book categories

1. Ordinary

These books were forwarded to the Surveyor General from licenced surveyors. There are about 10,000 books covering the years 1798 to 1947.

2. X and Y

These books were issued to staff surveyors between 1925 to 1933. There are 1600 books.

3. Lands Department

These books were issued to staff surveyors between the years 1933 to 1974. There are 8,700 of these books issued.

4. New Series

These books commenced in 1974 and are numbered by year and region, each office using the same numbers.

"Great care must be taken that the field notes show everything the surveyor does, or finds to exist on the ground, angles, bearings, distances, old marks tied on to or replaced, offsets to natural features, descriptions of soil and timber, and as much topographic information as possible." Regulation for the guidance of surveyors 1902.

Disclaimer

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