

<<测量学原理与方法>>

图书基本信息

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前言

Our aim of publishing such a book is mainly for Chinese undergraduates majoring in surveying and mapping, civil engineering, geography, geology, urban planning, and some other relevant studies. In addition, this book can be used as a reference by postgraduates, instructors and researchers of relevant communities. To give an up-to-date and concise treatment of the subject, some published papers and books that have been used in foreign universities are referenced~ additionally, a great deal of new material from internet has also been adopted. These references have been listed in the book, which may provide useful clues for readers who are interested in further research. The book is divided into two parts. The first part discusses conventional surveying principles and the second part discusses new surveying techniques and principles.

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内容概要

本书主要研究如何测定和记录地面点的位置、高程，以及如何确定地球的形状大小。

全书分为两部分：传统测量学原理和当代测量学原理。

第一部分论述运用传统仪器进行测量工作的技术和手段；第二部分论述地理信息系统、全球定位系统、摄影测量等的基本原理。

形式上，本书全文以英文撰写；内容上，尽量吸收国外同行先进的理念和方法，力求思想的“国际性”，但在具体方法的应用上又以我国的标准、规范为依据，以便国内读者的使用。

本书可供测绘、地理、遥感、土木工程、地质等专业的高年级本科学生使用，亦可作为相关专业研究生的教学参考用书，或供相关领域的科技工作者参阅。

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章节摘录

插图：（1）Every 20m.（2）Points at which the gradient changes, such as the top and bottom of banks.（3）Edges of natural features such as ditches and ponds.（4）In sections that cross roads~ at the back of the footpath, on the kerb, in the gutter, and on the centre of the road. In the example shown in Figure 2.37, the survey was closed acceptably to BM2. Had there been no benchmark at the end of the profile survey, the survey-or would have looped back and closed into the initial benchmark. The ISs in Table 2.7 are shown in a separate column, and elevations at the intermediate sights show the same number of decimals as are shown in the rod readings. Rod readings taken on intermediate points are usually taken to the closest 0.01m. The sections are usually plotted to a distorted scale, a common one for roadwork being 1/500 scale horizontal and 1/100 vertical. Works of narrow width such as sewers and pipelines require only one line of levels along the centre line of the proposed trench, because there will generally be little change of the ground surface level over the proposed width. Wider works, however, such as roads, railway, embankments and large tanks, will necessitate the use of ground on either side of the centre line, and information regarding relative ground levels is obtained by taking cross-section at right angles to the centre line. The width of these must be sufficient to cover the proposed works (15m either side of the centre line or a normal road, see Figure 2.39).

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