
Mono Pitch Roof Construction

Roof Framing Made Easy

Dictionary of Architecture and Building Construction

Building Construction and Superintendence: Trussed roofs and roof trusses

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Roofs and Roofing

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Marshall and Worthing's The Construction of Houses

FCS Construction Carpentry and Roof Work L2

The Design and Construction of Pitched Roofing

Guideline for sustainable, energy efficient architecture and construction

Trussed roofs and roof trusses (1920, c1910)

Roofing Ready Reckoner

Traditional Construction for a Sustainable Future

Construction Materials Manual
Simplified Design of Roof Trusses for Architects and Builders
Framing Roofs
Roof Construction and Loft Conversion
Foundation in Construction and Building Services Engineering: Core (Wales)
Roof Construction and Repair
Introduction to Photovoltaic System Design
The Scottish Building Regulations
Building Surveys
An Introduction to Timber Engineering
Carpentry & Building Construction
Fundamental Building Technology
Mitchell's Structure & Fabric
Barry's Introduction to Construction of Buildings
FCS Construction Carpentry and Roofwork L2
Roof Construction Manual
A Treatise on Design and Construction of Roofs
Design & Construction of Howe Or English Roof Truss
Simplified Roof Framing
Building with Straw Bales

Building Adaptation
Basics Roof Construction
Modern Construction Envelopes

*Mono Pitch Roof
Construction*

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Roof Framing Made Easy John Wiley & Sons

An updated, fully revised, full-colour edition of the definitive manual on building with straw bales, described by Grand Designs as an 'essential guide'. Straw-bale buildings are cost-effective, easy to build and highly energy efficient, enabling you to design and build beautiful, environmentally friendly buildings. Written with non-experts in mind, Barbara Jones uses her years of

experience in natural building methods to guide self-builders and architects building with straw as a sustainable material for a diverse range of comfortable and environmentally friendly buildings. Building with Straw Bales takes you through everything you need to know in an easy, accessible way. This includes design principles, the different types of foundations, how to raise and stabilise walls and protect them from the weather, including a detailed analysis of how straw performs with humidity and how straw bale buildings can easily meet building regulation requirements, as well as

detailed information on lime and clay plaster finishes. Now in full colour for the first time, the beautiful photographs throughout this practical guide illustrate the design and build techniques described and showcase the diverse possibilities of straw bale building. The fully revised text includes step-by-step illustrations of key techniques, and also looks at the full international context of building with straw bales. This book is ideal for anyone looking to build more sustainably and integrate straw bales into their design.

Dictionary of Architecture and Building Construction Jones & Bartlett Publishers
With more than 20,000 words and terms individually defined, the Dictionary offers huge coverage for anyone studying or working in architecture, construction or

any of the built environment fields. The innovative and detailed cross-referencing system allows readers to track down elusive definitions from general subject headings. Starting from only the vaguest idea of the word required, a reader can quickly track down precisely the term they are looking for. The book is illustrated with stunning drawings that provide a visual as well as a textual definition of both key concepts and subtle differences in meaning. Davies and Jokiniemi's work sets a new standard for reference books for all those interested in the buildings that surround us. To browse the book and to see how this title is an invaluable resource for both students and professionals alike, visit www.architectsdictionary.com.

Building Construction and Superintendence: Trussed roofs and roof trusses Pearson South Africa

Photovoltaic system design is both an art and a science. Good design requires the integration of many different forms of knowledge, including physics, aesthetics, business acumen, engineering, and architecture. It also requires a systems approach that combines and assimilates different technologies and structures. Good design is accomplished when art meets science to achieve higher-performance and more-efficient and effective systems. Introduction to Photovoltaic System Design provides readers with the knowledge they need to design high-performance PV systems. The text takes a systematic approach to designing PV, with emphasis on custom-

design approaches for every system. Readers will encounter the latest, real-world information regarding site evaluations, strings and wire sizing, designing to code, PV components, and monitoring and testing. About the Series: The Photovoltaics (PV) industry stands on the brink of a revolution. The appeal of a new and growing industry has brought an influx of new PV professionals to the market, but the availability of educational resources has not kept pace with market demands. This gap has led to serious quality and performance issues that the industry will need to face in the decades ahead. The Art and Science of Photovoltaics series was developed to fill this education gap. Each book in the series goes beyond simple systematic processes by tackling

performance challenges using a systems perspective. Readers do not learn PV design and installation steps in a vacuum; instead they gain the knowledge and expertise to understand interrelationships and discover new ways to improve their own systems and positively contribute to the industry. *Systems in Timber Engineering* John Wiley & Sons

Roof structures are often treated in connection with masonry construction in the student's first designs. What are the different ways to create a protective canopy for a building, and what are the different forms such a structure may take? Themes: Types and function of roofs Frames Construction principles Coverings Building physics of roof construction

Basics Roof Construction Walter de Gruyter

Since the first edition was published in 1983, *Building Surveys* has been the core text in its field for students and professionals alike. Covering everything needed for initial inspections such as equipment, know-how and procedures to writing an accurate report, this book is a proven indispensable guide. It considers all the structural elements required when surveying a property for example, foundations, walls and roofs as well as what to look out for and how to deal with it. Legal considerations and recent cases are used to illustrate good working practice making this a comprehensive text to this important subject.

Roofs and Roofing Birkhäuser
Der Holzbau hat sich grundlegend

erneuert. Er hat gegenüber Konkurrenzbaustoffen deutlich an Marktanteilen gewonnen und wird von Systemen wie Rahmen-, Skelett- und Massivholzbau dominiert. Jeder Holzbau ist durch Struktur bestimmt. Dabei ist es wesentlich, die Zusammenhänge vom Entwurf bis zur Konstruktion zu kennen. "Holzbau mit System" geht dieses Thema auf völlig neue Weise an. Es ist eine analytische, visuell aufgebaute Gesamtdarstellung vom einfachen Einfamilienhaus bis zum mehrgeschossigen Grossbau. Einbezogen sind auch die für das Energiesparen so wichtige Gebäudehülle und die konstruktiv grundlegenden Systeme für Decken und innen liegende Trennwände. Dieses Werk zeigt mit Plänen, schematischen Zeichnungen und

Bildern den aktuellen und zukunftsweisenden Stand der Technik, konkretisiert am Beispiel der Schweiz, einem führenden Land im innovativen Holzbau.

Progressive Carpentry Taunton Press
Written by a traditional roofer during the Second World War, this reprint of the 1945 edition presents useful step by step guidance on the right techniques for laying and repairing roofs. It highlights the options for repairing damage rather than stripping and relaying the roof. The first four chapters describe the timber construction of roofs covering everything from basic joints through to the differences in the design of traditional and trussed roofs. It also provides extensive practical information of the design of pitched and flat roofs,

jointing around roof lanterns, fixing lay boards up the pitch of the roofs and the setting out of steps in horizontal gutters. The following chapters describe slates and slating, tiling, wood and asphalt shingles, diamond slating and fibre cement slating.

Construction Technology B. T.

Batsford Limited

Fundamental Building Technology introduces the technology, methods, and processes fundamental to construction by focussing on what is involved in building a typical low-rise house. Written with the novice in mind, this textbook is the ideal starting point for any construction student, as it fully supports the reader all the way to understanding the functional requirements of each element of the building, and how to take

these into account through the building process itself. This second edition is expanded to cover even more relevant topics, and is supported by more resources for use by the student and lecturer. Now included are: An introduction to the planning process and the building regulations How to incorporate a sustainable approach, in the selection of materials and elsewhere A companion site with lecturer's answers manual and illustrated lecture notes 150 labelled diagrams throughout the book, and multiple self-study questions in every chapter A students' section of the companion site with multiple choice quizzes and 250 full-colour photos linked to chapters of the book Concise, focussed and the most student-friendly guide to this topic available,

Fundamental Building Technology is the perfect textbook for those taking construction technology modules at undergraduate or HNC/HND level.

Self Build and Renovation for Dummies John Wiley & Sons

A roof over one's head is a basic need – it provides shelter from rain, wind and the cold. In addition to these requirements, the structure must be load bearing and stable. Out of traditional craftsmanship, roof shapes and typologies have developed that fulfill these tasks and endure to this day. Basics Roof Construction describes the different kinds of roofs and which advantages and disadvantages each of them has. It explains which tasks are performed by the structural elements and layers and how to account for these

in planning construction. The objective is to provide students with the principles, properties and technical terms of construction so that they can implement this knowledge in concrete design plans: from building, to insulation and sealing, all the way to the basics of drainage.

Structure and Fabric Routledge

Lay the foundation for a career in the Construction and Building Services Engineering industries with this comprehensive textbook published in association with City & Guilds. With complete coverage of the Foundation qualification's six core units, this book will equip you with the skills you need to approach the next step in your career, as you prepare for assessment and choose your trade pathway. Topic coverage includes: an introduction to the

built environment, health and safety, employability, emerging technologies and the built environment lifecycle. - Break down complex topics with summary tables and more than 250 images and artworks. - Re-cap knowledge and understanding with 'Key terms' features and a detailed glossary. - Get ready for the workplace with 'Industry tips', 'Health and safety' reminders and 'Improve your maths/English' tasks. - Get to know your local built environment with engaging activities and historical examples. - Prepare for assessment with end-of-chapter multiple-choice questions and example guided discussion questions. - Hone core skills with expert author Mike Jones, who draws on his extensive teaching and industry experience.

Marshall and Worthing's The Construction of Houses Routledge the Roof Construction Manual is a comprehensive reference work on the construction of pitched roofs, containing over 1800 plans and 220 photographs. Thirteen fundamental roof types and the relevant materials including thatch, wood, slate, tile, concrete, fibrous cement, bitumen, glass, metal, membranes, and synthetic materials are documented in detail. Essential topics such as ventilation, vapour and wind seals, insulation and drainage, renovation and energy conservation are examined. As with all the Construction Manuals, some 38 built examples illustrate the theoretical details, paying particular attention to important features such as the ridge, hip, eaves, roof valley,

verge, and penetration. A compact presentation of the load-bearing physics and structures as well as current norms and standards make this volume an indispensable standard work for all architects and engineers.

FCS Construction Carpentry and Roof Work L2 Walter de Gruyter

Eine Übersicht für Architekten, die auch die Bedeutung der Baustoffwahl für die sinnliche Wahrnehmung von Architektur wie Haptik, Geruch, Farbe, Oberflächenstruktur berücksichtigt, gab es bisher nicht. Mit dem Baustoff Atlas wird diese Lücke nun geschlossen. Als ein auf die Interessen von Architekten und Bauingenieuren gleichermaßen abgestimmtes Grundlagenwerk wird er alle genannten Betrachtungsebenen vereinen. Dabei werden sowohl

grundsätzliche Nachhaltigkeitsfragen wie Lebensdauer, Umweltbelastung und Stoffkreisläufe erörtert als auch Materialinnovationen vorgestellt. Alle wesentlichen herkömmlichen und neuartigen Baustoffe werden hinsichtlich Herstellung, Verarbeitung, Oberflächen, Anschlüssen und Kenndaten umfassend dokumentiert. Internationale Beispiele, deren Erscheinungsbild sich häufig aus jeweils einem Material definiert, veranschaulichen die Anwendung in der Architektur. Der Baustoff Atlas unterstützt damit die tägliche Arbeit von Architekten und Ingenieuren bei der Baustoffauswahl auf eine umfassende, zugleich anschauliche und anregende Weise.

The Design and Construction of Pitched Roofing John Wiley & Sons

This new textbook provides a comprehensive introduction to every aspect of the technology of low-rise construction. It includes sub-structure (site work, setting out and foundations) and superstructure (flooring, roofs, finishes, fittings and fixtures). The material here covers the first year course requirement of all courses on which construction technology is taught - no matter what the ultimate qualification. It offers tried and tested solutions to a range of construction problems and is organised following the sequence of construction. It will show what has been done in the past, demonstrating good practice - what works and what doesn't - and common faults. There are summaries of the more important BSI documents and reference to the latest

building regulations. Lengthy explanations are avoided by relying heavily on hundreds of illustrations, pairing detail drawings with clear photographs to show real life construction situations. The supporting spreadsheet referred to in the book can be found at this

link http://www.blackwellpublishing.com/pdf/fleming/Fleming_spreadsheet.xls

Guideline for sustainable, energy efficient architecture and construction Elsevier

A new edition of the best selling title in the prestigious Mitchell's Building Series. This book is the first of a two volume set which provides a complete and thorough treatment of the principles and techniques used in the design and construction of a building. This new

edition has been thoroughly updated to bring it into line with recent changes in British Standards and developments in construction techniques while retaining the comprehensive approach for which it is renowned.

Trussed roofs and roof trusses (1920, c1910) Bloomsbury Publishing

The book provides a practical guide, with worked examples, to the Scottish Building Regulations. The new edition takes account of substantial revisions to the Regulations on fire and means of escape, structural stability, conservation of fuel and power, and drainage.

Roofing Ready Reckoner Routledge
Creating your dream home is an exciting idea, but it's also a major project. This title takes you through every step of the process, from choosing and buying a plot

of land, through to the building's design and on to the actual build - plus all the financial and legal aspects.

Traditional Construction for a Sustainable Future Pearson South Africa

Pergamon Series of Monographs on Furniture and Timber, Volume 10: An Introduction to Timber Engineering presents in readable form an understanding of timber engineering, which covers important aspects of the building industry particularly in the field of prefabrication. The chapters of this book present a good understanding of the many integrated divisions of the industry involved in timber engineering. The examples provided on design indicate the method of adapting normal structural analysis for use with timber

and joint forms. Most of the information specified in this volume are British practices, but reference to other European and North American developments are also included to provide a fuller understanding of the industry as a whole and need for local variations to suit climatic conditions and raw material supplies. Some of the topics discussed include the timber engineering developments in Europe and North America; timber as a structural material; structural timber forms; mechanical joints; design of columns and struts; and preservation of timber from decay. This publication is a useful reference to building and engineering students.

Construction Materials Manual Walter de Gruyter

Nowadays there is an ever growing awareness regarding inevitable importance of sustainable development and its sub topics such as environment protection, ecology, resource saving, energy efficiency, etc. Due to massive and rapid development in recent years, this topic is getting more crucial in developing countries for instance Iran. It is getting more obvious that most of the development activities in absence of precise analysis of current conditions, as well as consequences of such activities, will lead to devastation of natural resources. The resources that is essential for further development of the country. Therefore, It is necessary to deal with sustainable development and environmental issues from the broader perspective, where includes items

underlying immediate causes of environmental impact and at the same time tries to improve them. Sustainability or sustainable development is an umbrella covering many issues and aspects, among them energy, which is the key item, because energy consumption of buildings could have an impact on environment more than other aspects. Considering the huge portion of energy consumption in construction industry and housing sector, paying special attention to improvements in this sector is essential. Following this goal, the aim of this publication is to highlight procedures and practices which promote sustainable construction that is about creating a better quality of building and more healthy places to live in. Procedure of

sustainable design includes various approaches and methods to develop energy efficient and environmentally sensitive buildings. Such approaches and methods demonstrate how to design, develop and construct all buildings in general and residential buildings in particular. Among various approaches towards sustainability, "Passive solar strategies" are well-known thanks to their cost efficiency and context friendliness of its principals and measures. The approach of passive design (architectural) strategies could be considered as the most applicable approach for resource saving and sustainability, thinking about special situation of Iran in particular and the Mena region in general. Such an approach requires paying special

attention to climate, social characteristics of current or prospective inhabitants, topographical-physical characteristics as well as architectural characteristics of the understudied area. The relationships and interactions among society, building and its architecture and climate is “Site-specific” and dynamic. Therefore, they should be studied and properly analyzed throughout a specific project process for each certain place. The most expecting outcomes are precise definitions of passive design strategies, generally for buildings in MENA Region and especially for Iran. This publication is prepared in the young cities project framework, as the reasonable outcome of the developed pilot projects. The book starts with introducing the target group,

related definitions and a brief overview on a conventional approach and its impact on environment. This chapter ends up with a brief review on benefits of applying sustainable guidelines. As the next step, after analyzing the climate and its relationship with thermal comfort and building, the main principals of passive solar design are introduced. The selected principles are: orientation, day-lighting, shading, thermal mass, insulation and ventilation. After a brief introduction of the principals, each one is explained in detail through its general principles and design strategies. Sustainable construction is examined based on its main pillars: construction systems, building elements, ecological building materials, and applicable measures for building physic.

Construction systems are sorted out in six main groups as: block work- brick infill, block work- lightweight block infill, conventional panels, light weight steel frame, tunnel form structural system and precast modular. All selected systems are introduced based on following factors: brief description of the building concept, factory production, insulation, wastage, finishes, labor, installation, transport- lifting, services, hydronic cooling/ heating and safety. Then main building elements are examined. Here the elements are limited to: foundations, walls, floors, roofs, doors and windows. After a short description, different types of each element are introduced. Ecological building materials are investigated in chapter four. To find a base to compare, several common

criteria are selected such as: embodied energy, pollution and waste, local production, reusability and recyclability, durability and interdependency. Applicable measures for building physics are examined in chapter five. The selected main measures are as follows: insulation, glazing, thermal mass, daylighting, shading, ventilation and airtightness. After describing the general principles of each measure, several recommendations in frame of design considerations are provided. Die enorme Bedeutung nachhaltiger Projekte wie Umweltschutz, Ökologie, sparsamer Umgang mit Rohstoffen, Energieeffizienz usw. dringt immer stärker in unser Bewusstsein. Aufgrund der massiven und rasanten Entwicklung in den Schwellenländern, z. B. Iran, gewinnen

Umweltschutz und Nachhaltigkeit immer mehr an Relevanz. Ein einseitiges Wirtschaftswachstum, ohne Berücksichtigung ökologischer und klimatischer Bedingungen, verursacht die Zerstörung der Umwelt und Rohstoffe, Ressourcen, die für die weitere Entwicklung der Länder unverzichtbar sind. Es ist unumgänglich, sich umfassend mit nachhaltiger Entwicklung und ökologischen Aspekten auseinanderzusetzen, die unmittelbaren Auswirkungen auf die Umwelt zu erfassen und gleichzeitig Möglichkeiten einer Optimierung aufzuzeigen. Nachhaltigkeit und Umweltschutz erfassen eine Vielzahl von Themen und Aspekten, u. a. den Energieverbrauch; ein wesentlicher Faktor, da der Energieverbrauch in Gebäuden den

größten Einfluss auf die Umweltbilanz hat. In Anbetracht des enormen Energieverbrauchs in Bauwirtschaft und Wohnungsbau ist es unerlässlich, gerade in diesem Bereich eine Optimierung in der weiteren Entwicklung zu verfolgen. Diesem Ziel folgend, werden in dieser Publikation Verfahren und Methoden, für nachhaltige Bauweisen, unter Berücksichtigung einer besseren Bauqualität und gesundheitlicher Aspekte, erläutert. Die Maßnahmen nachhaltigen Designs beinhalten verschiedene Ansätze und Methoden, energieeffiziente und umweltfreundliche Gebäude zu entwickeln. Sie zeigen Entwurf, Konstruktion und bauliche Ausführung von Gebäuden im Allgemeinen und Wohngebäuden im speziellen. Neben den verschiedenen

Ansätzen sind die „passive solar strategies“ die wohl namhaftesten Methoden, da diese sehr rentabel und daher für Bauherren attraktiv sind. Angesichts der speziellen Situation im Iran im Besonderen und der MENA-Region im Allgemeinen, könnten die passiven Design- (Architektur-) Strategien als eine der am besten anzuwendenden Methoden für Rohstoffeffizienz und Nachhaltigkeit betrachtet werden. Dies setzt eine besondere Berücksichtigung des dortigen Klimas, der sozialen Charakteristiken derzeitiger oder zukünftiger Einwohner als auch der topographisch-physischen und architektonischen Charakteristiken der betroffenen Region voraus. Beeinflussung und Beziehungen

zwischen Gesellschaft, Gebäuden, Architektur und Klima sind „lokal spezifisch“ und dynamisch. Deshalb sollten diese Faktoren für jeden Standort neu geprüft und analysiert werden. Die Resultate dieser Analysen, allgemein für Gebäude in der MENA-Region und im Besonderen im Iran, zeigen deutlich die Überlegenheit von passiven Designstrategien. Diese Publikation ist das Resultat der entwickelten Pilotprojekte im Rahmen des Young Cities-Projektes. Sie beginnt mit der Vorstellung der Zielgruppe, relevanten Definitionen und einem kurzem Überblick des konventionellen Ansatzes und dessen Einfluss auf die Umwelt. Das Kapitel endet mit einem kurzen Rückblick über den Nutzen nachhaltiger Bauweise. Nach Analyse des Klimas und

seine Beziehung zu thermischem Komfort und Gebäuden werden die wichtigsten Prinzipien passiver Solarenergie vorgestellt: Orientierung, Tageslicht, Schatten, thermale Masse, Isolierung und Ventilierung; ihre Grundlagen und Designstrategien detailliert erläutert. Nachhaltige Konstruktion und deren Hauptpfeiler, Bausysteme, Bauelemente, ökologische Bauelemente und anwendbare Maßnahmen für die Bauphysik, werden anschließend beleuchtet. Dabei wurden die Konstruktionssysteme in sechs Hauptgruppen gegliedert: Ziegeleinfüllung, leichtgewichtige Ziegeleinfüllung, klassische Füllwände, leichtgewichtige Stahlrahmen, tunnelförmige Struktursysteme und vorgefertigte Modelle. Anhand folgender

Faktoren werden diese eingehend dargestellt: Baukonzepts, Fabrikproduktion, Isolierung, Abnutzung, Verarbeitung, Arbeitsaufwand, Installation, Transport-Beförderung, Services, hydronische Kühlung/Heizung und Sicherheit. Die Hauptbauelemente wie Unterbau, Wände, Boden, Dächer, Türen und Fenster werden beschrieben und verschiedene Baureihen dieser vorgestellt. Das vierte Kapitel befasst sich mit ökologischen Baumaterialien. Um hierbei eine vergleichbare Basis zu finden, wurden gemeinsame Kriterien ausgewählt: graue Energie, Verschmutzung und Abfall, lokale Produktion, Wiederverwendung und Recycling, Nachhaltigkeit und Interdependenzen. Im fünften Kapitel werden anwendbare Maßnahmen für die

Bauphysik, wie Isolierung, Lasur, Wärmemasse, Tageslicht, Schatten, Ventilation und Luftdichte, untersucht, deren Grundlagen beschrieben und Empfehlungen bezüglich der Gestaltung präsentiert

Simplified Design of Roof Trusses for Architects and Builders Sterling Publishing Company, Inc.

The sixth edition of *The Construction of Houses* builds on the success of the previous five editions. The book provides a comprehensive introduction to the principles and processes of the construction of houses and their services. As such it is aimed at providing a broad understanding of domestic building construction for students as part of their academic studies and as a useful information source for practitioners. The

existing chapters have all been updated and most of them expanded to take account of changes to dwelling house construction since the last edition and there are new chapters on 'Modern Methods of Construction' and 'Regulatory controls and building standards'. Additionally, many new and/or updated photographs and diagrams have been added. As with the previous editions, the authors have concentrated on presenting current mainstream approaches to the construction of houses. The detailed, yet accessible, text that is supported by hundreds of coloured photographs and diagrams provides clear explanations of the many complex processes that go into the building of a house. A deeper insight into modern construction is also

given by the book's consideration of historical building techniques from the 18th century onwards in order to illustrate how and why we build houses in the way we do now.

Framing Roofs Routledge

The Design and Construction of Pitched Roofing is the definitive guide to obtaining successful results in pitched roofing construction. Written by a team of experts from the NFRC and the RTA, the representative groups in industry for roofing construction. This guide is fully in line with the latest best site practice, innovations and British and European Standards, to ensure readers are receiving the most up-to-date and accurate information available in the field. Based on actual teaching practice, the book is highly illustrated throughout

to increase accessibility of the text for the reader in its exploration of the practical aspects of roofing. It also includes an extensive glossary of roofing terms for ease of reference. This first edition contains material detailing recent innovations in roofing, in the areas of roof components and envelope performance requirements. It brings together a comprehensive collection of the design, materials specification, and workmanship requirements to construct a successful pitched roof. Including: Up to date design, product and workmanship standards Current best site practice Advances in Health and Safety Current typical scope of works for a Roofing Contractor Broad knowledge of the overall building envelope performance. Specifically, the increasing

insulation and air tightness requirements. Students following Diploma (Foundation, Intermediate and Advanced level) and apprenticeship routes, will find this book to be an invaluable reference source of

information which will accompany them throughout their studies. Building professionals concerned with the design, detailing and specification of roofing will also find this book to be an essential reference.