

ENGLISH HERITAGE
PRACTICAL BUILDING CONSERVATION

TIMBER

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THE PRACTICAL BUILDING CONSERVATION SERIES v

This series of *Practical Building Conservation* technical handbooks supersedes the original five volumes written by John and Nicola Ashurst, and published in 1988.

The series is aimed primarily at those who look after historic buildings, or who work on them. The ten volumes should be useful to architects, surveyors, engineers, conservators, contractors and conservation officers, but also of interest to owners, curators, students and researchers.

The contents reflect the work of the Building Conservation and Research Team, their colleagues at English Heritage, and their consultants and researchers, who together have many decades of accumulated experience in dealing with deteriorating building materials and systems of all types. The aim has been to provide practical advice by advocating a common approach of firstly understanding the material or building element and why it is deteriorating, and then dealing with the causes. The books do not include detailed specifications for remedial work, neither do they include a comprehensive coverage of each subject. They concentrate on those aspects which are significant in conservation terms, and reflect the requests for information received by English Heritage.

Building conservation draws on evidence and lessons from the past to help understand the building, its deterioration and potential remedies; this encourages a cautious approach. New techniques, materials and treatments often seem promising, but can prove disappointing and sometimes disastrous. It takes many years before there is sufficient experience of their use to be able to promote them confidently. Nonetheless, understanding increases with experience and building conservation is a progressive discipline, to which these books aim to contribute.

The volumes also establish continual care and maintenance as an integral part of any conservation programme. Maintenance of all buildings, even of those that have deteriorated, must be a priority: it is a means of maximising preservation and minimising costs.

Most of the examples shown in the books are from England: however, English Heritage maintains good relations with conservation bodies around the world, and even where materials and techniques differ, the approach is usually consistent. We therefore hope the series will have a wider appeal.

Dr Simon Thurley
Chief Executive, English Heritage

ABOUT THIS BOOK

Generations of builders and architects have used timber to meet practical needs and to express their ideas: whether a simple boarded door or an elaborately carved portico; a squatter's dwelling or a bishop's palace; a cruck frame or a grid-shell structure. This book is concerned with the practicalities of conserving the rich and diverse heritage of timberwork in historic buildings. It is divided into four sections. The reader may search these for any topic of particular interest, but the section order is designed as a guide through the conservation process.

Materials & History of Use discusses what wood is and how it has been used in buildings, but it also addresses less familiar topics. These include why a component may fail unexpectedly and the potential of timber surfaces to yield information that is of significant historical interest, but easily lost because the carpenter or specifier does not realise that it is there. The overview of historical construction is quite detailed because a knowledge of how a construction was assembled is necessary for an understanding of which parts are particularly vulnerable and how they might be repaired.

Deterioration & Damage takes the basic information on tree anatomy and wood properties, and shows how the deterioration of timber is mostly part of a natural decay cycle that can only be slowed or halted by an understanding of how and why it occurs. We may think of organisms like woodworm and dry rot as building problems, but they belong in a woodland, and only invade our buildings if their natural requirements are replicated. Most people would not neglect a valuable possession such as a car, yet they allow a gutter to remain blocked. The link between decay and poor maintenance is not appreciated.

Both **Assessment and Repair & Treatment** continue from the information contained in the two previous sections. Good conservation follows from a good basic understanding of construction and of how and why it deteriorates. **Assessment** contains information on non-destructive methods such as fibre optics and thermal imaging, which require expensive equipment and an experienced user, but there is also discussion on more modest instruments such as the moisture meter. If the limitations of an instrument are not understood then the wrong conclusions can result in unnecessary destruction or treatment. The section on repair and treatment is not proscriptive, but essentially provides information on a range of possible approaches and methods that have been used successfully by both the informed homeowner and the conservation professional. Treatments are described in principle to give an idea of what is involved and what may be achievable.

Essentially this is a book about problem solving. The range of potential problems is very broad and it is not possible to deal with every aspect in full detail. Rather, the aim is to provide the reader with guidance on the principles and practice of conserving architectural timber, along with an appreciation of the many factors that influence this process. Sources of more detailed information and guidance are listed. It is hoped that this book will enable the reader to look over other detailed references with a more critical eye.