

The Practical Building Conservation Series	v
About This Book	vii
Using These Books	viii
INTRODUCTION.....	1
The Building Environment.....	3
The Building Itself.....	11
The Building Envelope.....	13
Failure of the Envelope.....	14
BUILDING SCIENCE	17
Conservation of Energy	19
Understanding Failures.....	32
Failure Under Load.....	32
Thermal Behaviour.....	35
Moisture in Building Materials	37
INTERACTIONS WITH THE ENVIRONMENT.....	51
The Building Envelope	53
Functions of the Building Envelope.....	54
Interior Parts of the Envelope	99
How the Envelope Modifies the Interior Conditions.....	103
The Effect of Building Occupation	109
CONTROLLING THE INTERIOR ENVIRONMENT	113
Environments for Users	115
Ventilation.....	117
Heating	121
Cooling	128
Lighting	131
Service Supplies	139

DETERIORATION & DAMAGE	145
Environmental Deterioration.....	147
Deterioration of Materials.....	149
Deterioration of the Envelope.....	161
ASSESSING THE BUILDING ENVIRONMENT	211
Environmental Assessment.....	213
Background Research.....	218
Building Performance Surveys.....	221
Specialist Investigations.....	256
DIAGNOSIS.....	309
CARE & REPAIR.....	325
Day-to-Day Care	327
Treatment & Repair	350
Dealing with Persistent Issues.....	351
Planning Interventions	354
Interventions on the Envelope	362
Modifying the Interior Environment.....	408
Assessing Interventions	443
SPECIAL TOPICS.....	445
Buildings & Human Health.....	447
Dealing with Disasters.....	461
Improving Energy & Carbon Performance	503
GLOSSARY.....	601
INDEX	629
ACKNOWLEDGEMENTS & PICTURE CREDITS.....	647