# ARCHITECT IN practice 9TH EDITION

DAVID CHAPPELL & ANDREW WILLIS



# The Architect in Practice

Ninth Edition

David Chappell

**Andrew Willis** 



#### © 2005 by David Chappell & Andrew Willis

#### Blackwell Publishing Ltd Editorial offices:

Blackwell Publishing Ltd, 9600 Garsington Road, Oxford OX4 2DQ, UK Tel: +44 (0) 1865 776868

Blackwell Publishing Inc., 350 Main Street, Malden, MA 02148-5020, USA Tel: +1 781 388 8250

Blackwell Publishing Asia Pty Ltd, 550 Swanston Street, Carlton, Victoria 3053, Australia Tel: +61 (0)3 8359 1011

The right of the Author to be identified as the Author of this Work has been asserted in accordance with the UK Copyright, Designs, and Patents Act 1988.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, except as permitted by the UK Copyright, Designs, and Patents Act 1988, without the prior permission of the publisher.

First to fifth editions published by Crosby Lockwood, 1952–1974 Sixth edition published by Granada Publishing Ltd, 1985 Seventh edition published by Blackwell Scientific Publications, 1992 Eighth edition published by Blackwell Science Ltd, 2000 Ninth edition published by Blackwell Publishing Ltd, 2005

3 2007

ISBN: 978-1-4051-2467-6

Library of Congress Cataloging-in-Publication Data

Chappell, David.

The architect in practice / David Chappell Andrew Willis. — 9th ed.

p. cm.

Includes bibliographical references and index.

ISBN -10: 1-4051-2467-9 (pbk.: alk. paper)

ISBN-13: 978-1-4051-2467-6 (pbk.: alk. paper)

1. Architectural practice—United States. I. Willis, Andrew. II. Title.

NA1996.C47 2005 720'.68—dc22

2005004732

A catalogue record for this title is available from the British Library

Set in 10 / 12.5pt Minion by Graphicraft Limited, Hong Kong Printed and bound in Singapore by Markono Print Media Pte Ltd

The publisher's policy is to use permanent paper from mills that operate a sustainable forestry policy, and which has been manufactured from pulp processed using acid-free and elementary chlorine-free practices. Furthermore, the publisher ensures that the text paper and cover board used have met acceptable environmental accreditation standards.

For further information on Blackwell Publishing, visit our website: www.blackwellpublishing.com/construction

## The Inspiration

From a pseudonymous letter of a quantity surveyor to the *Builder*, 9 March 1951

'I have great admiration for an architect who does his job well, because he has one of the most difficult jobs in the world. He must be an artist but at the same time in his administration of a building contract be a business man, and in interpreting it even something of a lawyer.'

## The Dedication

To Arthur Willis, Christopher Willis and Bruce George and To the architectural profession in the hope that the book may encourage that co-operation of which its joint authorship is a symbol

## **Preface**

Architecture is undoubtedly one of the professions that can be enjoyed. It offers a wealth of interest in a variety of fields which few other professions can match, and provides an emotional satisfaction which only the other arts can stimulate. It exacts a high price for this enjoyment, however, and in order to derive the fullest pleasure from it architects must devote themselves completely to its study and practice. The more proficient they become and the greater mastery they can acquire, the more complete will be their enjoyment. In common with other professions architects owe a duty of care to their clients but they have a greater responsibility than most in that the buildings and environments they create may well have a profound effect on the population at large.

Ability to design and skill in draughtsmanship or in using computer-aided design (CAD) equipment will not on their own make an architect. The purpose of this book is to present to architectural students, and perhaps the less experienced practitioners, some indication of the practice and procedure with which they must be acquainted if they are to follow their profession with success. They must find clients to employ them, they must be able to manage an office and be responsible for a good deal of administrative work in connection with construction contracts, and they must know something of finance, law, the general structure of the construction industry and the organisation and requirements of those authorities who exercise so much control over their day-to-day work. Let the readers, therefore, leave their drawing boards or move away from their CAD equipment and settle down to their desk or armchair to study an aspect of their work which is essential to make them efficient architects.

The architect's work is here looked at mainly from the angle of the private practitioner dealing with the JCT forms of contract, though references are made where appropriate to public service practice and to the Government and other forms of contract. Architects in private practice are often commissioned to act for public authorities and they must therefore be able to adapt to the differing conditions which this type of work involves.

The chapters have been arranged in the natural sequence of the progress of a construction contract. Part I opens with an introduction to the construction industry and is followed by some basic principles of practice, sources of information, legal and administrative matters. Part 2 follows the running of a construction project, the chapters being based on the work stages of the RIBA Plan of Work. Part 3 ends the book with what can best be described as management matters, covering finance, insurance, obtaining work and employing staff. Each chapter includes some illustrations, and ends with notes of law cases together with a selected bibliography.

The Architect in Practice was first published over 50 years ago in 1952. It was written by a quantity surveyor and an architect, both of whom had a flair for writing and who, after working together for some years, came to the conclusion that a textbook on architectural practice was needed. Since then, through eight editions, it has remained a leading textbook used in the education of architects worldwide. It is of some note that the mantle of quantity surveying author has passed down through three generations of the Willis family.

After much heart-searching and after taking soundings in the profession and from the schools of architecture throughout the UK, it was decided to radically change the format for the seventh edition. To the relief of the authors, the revised format was well received and has been continued. While the format changed, the message and philosophy remain the same: here is a book which tries to present to the reader some of the elementary duties that architects owe to clients and contractors alike, and to endorse the adage that of the many responsibilities that are borne by the architect, the greatest is the duty of care.

Not only has practice changed; in many ways it has become more complicated. For instance, there is now a plethora of forms of building contract to choose from and it is not possible to write in any detail on such a wide subject; it warrants a set of textbooks on its own. The most helpful thing that we can do is to point the reader to relevant sources for this and other allied subjects.

This edition has been thoroughly revised to bring it up to date. Among other things, it takes a detailed account of changes to education of architects in the UK, substantial changes in Planning, including the Planning and Compulsory Purchase Act 2004, the Building Regulations 2000 (as amended), the Building (Approved Inspectors etc.) Act 2000, the new RIBA Code of Conduct which came into force on 1 January 2005, the Limited Liability Partnership Act 2000 and the April 2004 update of the Standard Form for the Appointment of an Architect 1999 (SFA/99). From May 2005, the Joint Contracts Tribunal commenced the issue of a new suite of main and sub-contracts to take the place of existing contracts. The new contracts have been substantially revised in both structure and detail. All references to JCT contracts in this book have been updated, where appropriate, to refer to the new contracts. At the time of writing, the RIBA and RICS have not issued revised contract administration forms, therefore the contract administration forms reproduced in this book are still referable to the old (1998) contract editions. In most cases, the old forms will still be useable with the new contracts, or useable if minor changes are made.

Finally, we hope that our efforts will assist future generations of architects in the way that Arthur Willis and Bruce George assisted our generation.

David Chappell Andrew Willis June 2005

## Acknowledgements

We are grateful to Allan Ashworth MSc, MRICS, and Keith Hogg BSc, MRICS, for their agreement to use in this book parts of the text of *Practice and Procedure for the Quantity Surveyor*. We are also grateful to the following for assistance:

Richard Cobb BA(Econ)(Hons), DipTP, MRTPI, Chartered Town Planner, for substantially revising planning legislation and practice in Chapter 9.

Bob Cooper BEng(Hons), MSc, FBEng, FRICS, Professional and Technical Executive of The Association of Building Engineers for updating the Building Regulations in Chapter 10.

Crease Strickland Parkins, Architects of York, for redrawing the setting out plan in Figure 15.1.

Caroline M. Dalziel LLB(Hons), solicitor, for commenting on company law in Chapter 4 and on employment law in Chapter 18.

Lawrence J.G. Johnston BSc, MSc, MCIArb, RIBA, for rewriting Chapter 2.

The RIBA Contract Administration Forms are reproduced by kind permission of the copyright owners, the RIBA, and the publishers, RIBA Enterprises. Copies of the forms are available from RIBA Bookshops on 020 7256 7222 or at www.ribabookshops.com

The ARB Standards of Conduct and Practice are reproduced by kind permission of the Architects Registration Board.

The RICS forms 'RICS Statement of Retention and Nominated Sub-contractors' Values' and 'RICS Valuation', reproduced on pages 245 and 248, can be purchased by contacting RICS books on 0870 33316000 option 3.

## Abbreviations and Acronyms

AA Architectural Association

ABE Association of Building Engineers

AC Appeal case

ACA Association of Consultant Architects

ACAS Advisory, Conciliation and Arbitration Service

ACE Architects Council of Europe, Arts Council of Europe, Associa-

tion of Consulting Engineers

All ER All England Law Reports

APM Association for Project Management

ARB Architects Registration Board

ARCHOAS National Architecture Student Association

ARCUK Architects Registration Council of the United Kingdom

ASI Architects and Surveyors Institute

BBA British Board of Agrément

BCIS Building Cost Information Service BEC Building Employers Confederation

BLR Building Law Reports

BPF British Property Federation
BRE Building Research Establishment

BSI British Standards Institution

BSRIA Building Services Research and Information Association

BUILD Building users insurance against latent defects

CABE Commission for Architecture and the Built Environment

CAD Computer-aided design

CAS Clients Advisory Service (RIBA)

CAWS Common Arrangement of Work Sections

CBI Confederation of British Industry

CC Construction Confederation

CCPI Co-ordinating Committee for Project Information

CDM Construction (Design and Management)

ClArb Chartered Institute of Arbitrators

CIB Construction Industry Board

CIBSE Chartered Institution of Building Services Engineers

CIC Construction Industry Council

CIJC Construction Industry Joint Council
CILL Construction Industry Law Letter

CIOB Chartered Institute of Building

CIRIA Construction Industry Research and Information Association Construction Information/Samarbetskommitten for CI/SfB Byggnadsfragor Construction Industry Training Board CITB CLD Construction Law Digest Certificate of lawfulness of existing use or development **CLEUD** Certificate of lawfulness of proposed use or development. **CLOPUD** ConLR Construction Law Reports Construction Law Journal ConstLI **CPA** Construction Products Association CPD Continuing professional development CPI Co-ordinated project information **CPIC** Construction Project Information Committee Department of Culture, Media and Sport **DCMS** DOE Department of the Environment DLP District Local Plan **EAAE** European Association for Architectural Education **ECTS** European Credits Transfer Scheme EDC European Development Council **EEA** European Economic Area **ENHSA** European Network of Heads of Schools of Architecture Electronic Product Information Co-operation **EPIC** EU European Union **FCEC** Federation of Civil Engineering Contractors **FSoS** First Secretary of State GDP Gross domestic product **GPDO** Town and Country Planning (General Permitted Development) Order 1995 IAAS Incorporated Association of Architects and Surveyors IC JCT Intermediate Building Contract 2005 series **ICE** Institution of Civil Engineers Institute of Clerks of Works of Great Britain Incorporated **ICW** IEE Institution of Electrical Engineers JCT Intermediate Form of Contract 1998 edition IFC 98 ILA Institute of Landscape Architects **IMechE** Institution of Mechanical Engineers International Standards Organisation ISO **IStructE** Institution of Structural Engineers ICT **Joint Contracts Tribunal** ICT 98 JCT Standard Form of Building Contract 1998 edition **JVP** Joint validation panel Liquidated and ascertained damages LADs Local Development Document LDD

Local Development Framework

LDF

LI Landscape Institute

LLP Limited Liability Partnership

MW JCT Minor Works Building Contract 2005 series

MW 98 JCT Agreement for Minor Building Works

NBS National Building Specification

NEDO National Economic Development Office

NJCBI National Joint Committee for the Building Industry
NJCC National Joint Consultative Committee for Building
NSC/A Standard Form of Nominated Sub-contract Agreement
NSC/C Standard Form of Nominated Sub-contract Conditions
NSC/N Standard Form of Nominated Sub-contract Nomination
NSC/T Standard Form of Nominated Sub-contract Tender
NSC/W Standard Form of Nominated Sub-contract Warranty

ODPM Office of the Deputy Prime Minister

PAYE Pay as you earn PC Prime cost

PCC Professional Conduct Committee

PD Permitted Development

PERT Performance Evaluation and Review Technique

PFI Private Finance Initiative

PII Professional indemnity insurance

PPG Planning Policy Guidance
PPP Public Private Partnership
PPS Planning Policy Statement
PSA Property Services Agency

QA Quality assurance

RIAI Royal Institute of the Architects of Ireland RIAS Royal Incorporation of Architects in Scotland

RIBA Royal Institute of British Architects
RICS Royal Institution of Chartered Surveyors

RPB Regional Planning Body RSS Regional Spatial Strategy

RSAW Royal Society of Architects in Wales RSUA Royal Society of Ulster Architects RTPI Royal Town Planning Institute

SBC JCT Standard Building Contract 2005 series

SFA Standard Form of Agreement

SMM Standard Method of Measurement for Building Works

SPV Special Purpose Vehicle

UCAS Universities and Colleges Admissions Service UCO Town and Country (Use Classes) Order 1987

UDP Unitary Development Plans

VO Variation order

WLR Weekly Law Reports

## Contents

Prej	ace		X
Ack	nowledg	gements	xii
Abb	reviatio	ons and acronyms	xiv
Par	+1 Ra	ckground to Practice	,
ıaı	ti Da	exground to Fractice	,
1	The C	onstruction Industry	1
	1.1	Introduction	3
	1.2	Importance of the construction industry	3
	1.3	Characteristics of the construction industry	4
	1.4	The people	4
	1.5	Organisations	11
	1.6	The future of the construction industry	16
2	Basics		18
2	Dasics	•	10
	2.1	From education to registration and beyond	18
	2.2	Routes to architectural education and	
		professional qualification	18
	2.3	Schools of architecture, validation and prescription	19
	2.4	Duration of programmes, fees, costs and	
		financial assistance	24
	2.5	Practising architecture in the UK system	24
	2.6	Practising in other member states of Europe	25
	2.7	Erasmus-Socrates student exchange programmes	27
	2.8	Registering with ARB	29
	2.9	The ARB Code: Standards of Conduct and Practice	30
	2.10	RIBA Code of Conduct	38
	2.11	Protection for the consumer	4
	2.12	Continuing professional development (CPD)	40
3	Emple	oyment	49
	3.1	Introduction	49
	3.2	Private practice	49
	3.3	Local authority	5
	3.4	Other public organisations	5.
	3.4	Other public digallisations	Э.

	3.5	Large companies	53
	3.6	Contractors	54
	3.7	Manufacturers	55
	3.8	Teaching	55
	3.9	Other specialisation	56
	3.10	Adjudicator, arbitrator or expert witness	56
4	Type	s of Practice	59
**			
	4.1	Sole principal	59
	4.2	Partnership	60
	4.3	Unlimited liability	64
	4.4	Limited liability	65
	4.5	Public company	67
	4.6	Limited partnership	68
	4.7	Limited liability partnerships	68
	4.8	Co-operative	69
	4.9	Group practice	69
	4.10	Developer/architect/contractor	71
5	Sour	ces of Information	72
	5.1	Basic library	72
	5.2	Classification and proprietary systems	73
	5.3	Information technology	75
	5.4	Selected project records and feedback	75
	5.5	Legal/administrative	76
	5.6	RIBA information line	81
Par	t2 R	unning a Project	83
6	Stage	A: Architect's Services	85
	6.1	Enquiries	85
	6.2	Extent of services	85
	6.3	Fee negotiation or tendering	95
	6.4	Terms of appointment	101
	6.5	Duty of care agreements (collateral warranties)	117
7	Stage	A: Appraisal	124
	7.1	Feasibility studies	124
	7.2	Consultants	129
	7.3	Project managers	130
	7.4	Dragurament noths and implications for the nucleasional	122

		Contents	vii	
	7.5	PFI contracts	142	
	7.6	Partnering	144	
8	Stage	B: Strategic Briefing	147	
	8.1	Sequential framework and plan of work	147	
	8.2	Site and building acquisition	148	
	8.3	Surveys	150	
	8.4	The brief	156	
	8.5	Reporting	157	
9	Stages C and D: Outline and Detailed Proposals			
	9.1	Design data	158	
	9.2	Outline proposals and development	159	
	9.3	Cost estimates and planning	161	
	9.4	Town planning applications and approvals	162	
	9.5	Other approvals	176	
	9.6	Property	176	
	9.7	Contract selection and implications	184	
10	Stages E and F: Final Proposals and Production Information			
	10.1	Final design proposals	189	
	10.2	Building Regulations 2000 (as amended)	191	
	10.3	Production information	202	
11	Stages G and H: Tender Documentation and Tender Action			
	11.1	Introduction	206	
	11.2	Co-ordinated project information	206	
	11.3	Bills of quantities	207	
	11.4	Specifications	213	
	11.5	Schedules of work	216	
	11.6	Activity schedules	216	
	11.7	Tendering	217	
	11.8	Preparing the contract documents	225	
12	Stages J and K: Mobilisation and Construction to			
	Practi	cal Completion	227	
	12.1	Contractor's programme	227	
	12.2	Meetings	228	
	12.3	Site inspections	232	
	12.4	Safety	233	
	12.5	Architect's instructions and variations	234	
	12.6	Variations and their valuation	237	

	12.7 12.8 12.9 12.10 12.11	Controlling costs Workmanship and materials Certificates and payments Delays and extensions of time Financial claims	240 241 244 252 255
13	Stage L	: After Practical Completion	258
	13.1 13.2 13.3 13.4 13.5 13.6	Termination Practical completion Rectification period Adjustment of contract sum Final certificate Feedback	258 261 265 266 269 272
Par	t 3 Ge	neral Office Matters	277
14	Manag	gement Principles	279
	14.1	Objectives	279
	14.2	Leadership	280
	14.3	Communication	281
	14.4	Delegation	282
	14.5	Motivation	283
15	Gener	al Office Practice	285
	15.1	Introduction	285
	15.2	Telephone, facsimile (fax) and e-mail	285
	15.3	Information technology	287
	15.4	Letter writing	288
	15.5	Reports	289
	15.6	Filing	290
	15.7	Office-based meetings	292
	15.8	Drawing office practice	292
	15.9	Computer-aided design	296
	15.10	Presentation	297
	15.11	Reproduction	298
	15.12	Work programming	298
16	Finan	ce and Accounts	300
	16.1	Introduction	300
	16.2	The accounts	300
	16.3	Profit and loss account	300

			Contents	IX
	16.	p.l		201
	16.4	Balance sheet		301
	16.5	Assets		302
	16.6	Lidofficies		303
	16.7	Capital		303
	16.8	Finance		303
	16.9	Cash forecasting and budgeting		304
	16.10	Books of account		305
	16.11	Fee invoicing		305
	16.12	VAT		305
	16.13	Computerisation		306
	16.14	Annual accounts/auditing		306
	16.15	Staff time records		306
17	Insura	ance		309
	17.1	Introduction		309
	17.2	Premises and contents		310
	17.3	Public liability		310
	17.4	Employer's liability		311
	17.5	Professional indemnity		311
	17.6	BUILD insurance		312
	17.7	Other insurances		313
18	The A	rchitect as Employee		314
	18.1	Finding employment		314
	18.2	Acceptable job titles		330
	18.3	Employment		331
	18.4	Job description		335
	18.5	Hours of work		337
	18.6	Overtime		337
	18.7	Salary		338
	18.8	Perks		339
	18.9	Professional activities		340
	18.10	Expenses		341
	18.11	Leave		342
	18.12	Disciplinary and grievance procedure		346
	18.13			346
	18.14	Spare-time practice		347
	18.15			349
19	Attra	cting Work		351
	19.1	Active marketing		351
	19.2	Practice brochure		353

### x Contents

19.3	Advertising	353
19.4	Contacts	354
19.5	Competitions	354
19.6	Keeping clients	355
Table of Ca	ases	356
Index		359

# Part 1 Background to Practice