

# def•i•ni•tion {n}

## CIOB'S PROFESSIONALISM: AN INCLUSIVE DEFINITION OF CONSTRUCTION MANAGEMENT



**def•i•ni•tion** {n}

A STATEMENT THAT EXPLAINS  
THE MEANING OF A WORD  
OR PHRASE

A DESCRIPTION OF THE FEATURES  
AND LIMITS OF SOMETHING



**ABOUT THE AUTHOR**  
JOHN BALE

John Bale worked in the construction industry before embarking on an academic career which included roles in the UK and elsewhere. He held an industry-sponsored professorship of Construction Management for many years, and is now an emeritus professor of Leeds Metropolitan University.

He has also served as an elected city councillor. He was President of CIOB in 2000-01, and is a member of the Board of Trustees. He describes his work on the definition of Construction Management as ‘the culmination of a long-term obsession.’

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**CIOB'S PROFESSIONALISM: AN INCLUSIVE DEFINITION OF CONSTRUCTION MANAGEMENT**

CONSTRUCTION MANAGEMENT IS:

1 THE CIOB'S FOOTPRINT

2 A HIERARCHY OF SYSTEMS

3 THE CONSTRUCTION VALUE STREAM

4 SPECIALIST SERVICES

5 OUR VALUE SYSTEM

6 CM AS AN ACADEMIC DISCIPLINE



## in • tro • duc • tion {n}

Before I became President of the Chartered Institute Of Building (CIOB), I had long been aware of the lack of understanding and confusion of what is Construction Management. Some countries had given Construction Management different meanings. In my own Chinese language I can translate Construction Management in at least six different ways. With the changes in society and new demands on the built environment Construction Management is also taking on new dimensions. I have personally been involved in Construction Management in industry, higher education and government and I have experienced the breadth and depth of this professional discipline. CIOB members work in a wide range of important roles all of which I would describe as Construction Management.

We urgently needed to produce an inclusive and internationally acceptable definition of Construction Management. I asked Professor John Bale, Past President of the CIOB, to lead this project. John's experience of the industry has been many faceted and he has drawn on this experience to successfully create this new definition.

I am delighted to endorse the forward-looking definition which John has produced, drawing upon wide consultation and debate within the CIOB. It accurately depicts the wide spectrum of professionalism practised by our members in every part of our world-wide Institute.

Despite the excellent feedback and support we have had, this definition is just the start. We now need to develop the work further with detailed analysis and description, and in particular by recording best practice experiences which exemplify the definition and validate it in the process.

**Professor Li Shirong**  
CIOB President 2009/2010

in • tro • duc • tion {n}  
THE FIRST PART OF  
SOMETHING

## Construction Management is:

1.

MANAGEMENT OF THE DEVELOPMENT, CONSERVATION AND IMPROVEMENT OF THE BUILT ENVIRONMENT;

2.

EXERCISED AT A VARIETY OF LEVELS FROM THE SITE AND PROJECT, THROUGH THE CORPORATE ORGANISATIONS OF THE INDUSTRY AND ITS CLIENTS, TO SOCIETY AS A WHOLE;

3.

EMBRACING THE ENTIRE CONSTRUCTION VALUE STREAM FROM INCEPTION TO RECYCLING, AND FOCUSING UPON A COMMITMENT TO SUSTAINABLE CONSTRUCTION;

4.

INCORPORATING A WIDE RANGE OF SPECIALIST SERVICES;

con • struc • tion {n}  
A BUILDING

THE PARTICULAR TYPE OF STRUCTURE, MATERIALS, ETC. THAT SOMETHING HAS

CONSTRUCTION MANAGEMENT IS:

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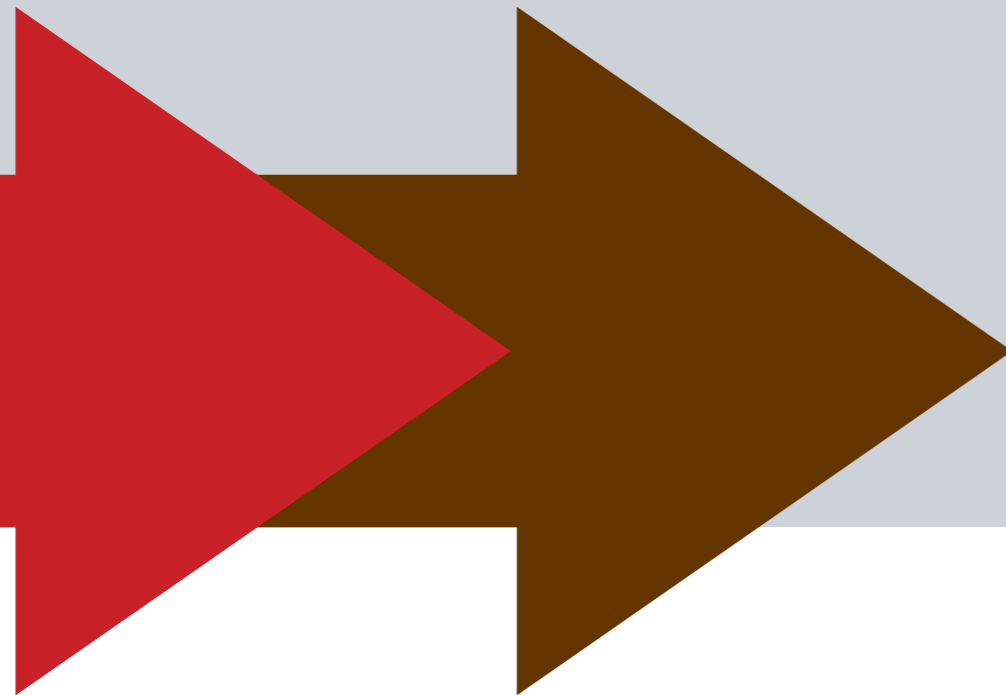
Construction Management is:

5.

**GUIDED BY A SYSTEM OF VALUES DEMONSTRATING RESPONSIBILITY TO HUMANITY AND TO THE FUTURE OF OUR PLANET;**

6.

**AND INFORMED, SUPPORTED AND CHALLENGED BY AN INDEPENDENT ACADEMIC DISCIPLINE.**



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## con • struc • tion {n} (continued)

### Construction Management is:

Construction Management (CM) is recognised throughout the world as one of a family of disciplines concerned with the complex phenomenon we know as the 'Built Environment' (BE). Its role in relation to the BE is defined within this publication, but it should be made clear at the outset that none of these disciplines has any monopoly of wisdom, nor any exclusive territory.

The planning, design, production, adaptation, maintenance, restoration, conservation, management, evaluation and recycling of the built environment requires interaction between disciplines, much as the promotion of health and the curing of disease require a multi-professional approach. In both these domains (BE and health) there is an increasing sharing of knowledge bases, but equally each profession brings to the table its own distinctive offering. CIOB's professionalism is based upon Construction Management, in the broadest sense of that term.

An inclusive definition of the character and content of CM may best be developed through examination of a series of 'models', each of which recognises an aspect of what we are able to see and touch in the work of Chartered Institute of Building (CIOB) members and those who identify with them around the notion of CM. From those models, our definition has been developed.

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## I The CIOB's Footprint

Since the CIOB was formed (as the Builders' Society in 1834), its mission has been concerned with management of and in the construction industry.

A huge body of evidence for this has been provided in the CIOB publication *Building Visionaries: the Unsung Heroes* (2009). Some of the biographies provided there are of true master builders – people concerned to initiate and deliver projects, including buildings and infrastructure, which demonstrated excellence of both process and product. Thomas and William Cubitt (two of our founder members) are clearly in that category, and the tradition of CIOB members as developers and constructors continues to the present day.

Other CIOB pioneers were reformers within the industry, concerned to develop and disseminate good practice, and to promote professionalism in CM. The work of Sir Peter Trench in the mid-20th century is one such example. Others still have been concerned with the stewardship of the built environment - with its conservation, and its adaptation and improvement. Our footprint is now visible in many different parts of the world, notably, as the CIOB publication *Building Modern China* (2009) demonstrates in that most rapidly growing part of the world construction industry. The footprint is large and ubiquitous, its edges are at times fuzzy, but it is clearly recognised as that of the species we define as CM.



def • i • ni • tion {n} one:

So in pursuit of an inclusive definition of CM, we can start with: management of the development, conservation and improvement of the built environment



**THOMAS CUBITT**  
FOUNDING  
MEMBER OF THE  
BUILDERS' SOCIETY

Thomas Cubitt left more of a mark on living London than almost any other, and today is commonly regarded as the greatest 19th century master builder. He was a pioneer who captured the imagination of his generation and whose actions led to fundamental reform in the treatment of workers.

## 2 A Hierarchy of Systems

It is part of most international definitions of construction that it is concerned with permanent structures, rooted in the ground.

Management of construction at site level has been and remains a vital part of the CIOB's mission and of any definition of CM. It is equally clear that site management is but one level in what may be described as a hierarchy of systems. What happens on site is influenced by decisions taken in the initiation, planning, pricing and procurement of projects. Projects, increasingly, are linked into programmes. In CIOB's Construction Manager of the Year Awards (initiated in 1979), the term construction manager embraces site and project management, and (while it is the performance of the individual manager that is recognised) it is clear the quality of the construction firms of which those managers are part is a major determinant of success.

Project management, in the sense of the integrated management of entire projects on behalf of a client, is a key aspect of CM as it is defined here. Such integrated management of complex projects was advocated in a report by (inter alia) three CIOB members as long ago as 1974 – probably one of the earliest calls for such an approach (Andrews, Bale, Hillebrandt and Smith: *Project management: proposals for change*; A study undertaken for the National Economic Development Office, London 1974). More recently the CIOB has exercised leadership in the codification of good practice in project management (*The Code of Practice for Project Management for Construction and Development*, first published in 1992, now in its fourth edition).

Organisations of various kinds are intimately involved in every project, so that the success of the project as temporary organisation is affected by the resources and effectiveness of the corporate organisations out of which it springs. And in every country, to a greater or lesser extent, the institutions of the construction industry as a whole, and of government, also influence industry performance, through research, information dissemination, training and the promotion of safe working practices.

Finally society as a whole is a stakeholder in the industry. The quality of life, in its economic, social, cultural and environmental dimensions, depends upon the existence of an efficient and innovative construction industry. This has always been true, if inadequately recognised. It is now of imperative importance, in the light of the demands of a zero-carbon future.

def•i•ni•tion /n/ two:

**CIOB members practise their construction management at all of these levels, so that the second stage of our definition of CM is: exercised at a variety of levels from the site and project, through the corporate organisations of the industry and its clients, to society as a whole**



**YI JUN**  
FCIOB, PRESIDENT,  
CHINA STATE  
CONSTRUCTION  
ENGINEERING  
CORPORATION

While still in his 40s Yi Jun found himself at the helm of China's biggest building contractor, tasked with steering a sprawling state-owned enterprise into the very top of the global big league.



### 3 The Construction Value Stream

The construction value stream begins with a perceived need for a new or improved structure, and flows on through stages that may be characterised as investigation, design, production, commissioning, facility management, maintenance, adaptation, conservation, restoration, dismantling and recycling. CIOB members, throughout the Institute's history, have operated at all of these stages – in partnership with other built environment professionals.

Clients have recognised, and official reports have exhorted, that the involvement of construction managers in the initiation of projects, and in design management aimed at integration of design and production, is vital to project success. And, in mature economies throughout the world, the need is increasingly recognised for construction to focus more on the improvement and reuse of existing structures, including in particular improvement of their carbon performance.

The future role of construction industries, and therefore of CM, is increasingly the stewardship of the built environment. The partnership between CIOB members across the globe is sharply focussed on our shared desire to realise the ideal of sustainable construction.

Whether a project is for new-build, or for refurbishment and adaptation, the services of various participants have to be procured and

managed, and a variety of approaches to such procurement and management have been developed and defined. Some approaches have been heavily promoted, fashionable for a time, and short-lived, but the essential demands of CM, in the context of the CIOB's role, pre-dated these fashions and will survive their passing.

It should be noted, however, that one structured approach to the procurement and management of construction has been known for some thirty years as 'construction management', and that the term, in this very specific context, has acquired substantial recognition, especially in North America.

The point is well-expressed by William F. Maloney of the University of Kentucky: "While 'construction management' is used in many countries to reflect a broad discipline within which procurement issues are embedded, in the United States the term is often associated with a specific procurement method" (*Building a Discipline: the story of construction management*, Association of Researchers in Construction Management (ARCOM) 2009).

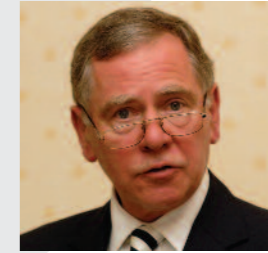
To the extent that CM in this specific sense involves the independent management of each of the participants in a project, it is not inconsistent with CM as we are using the term here – but it is more specific. Given, however, that the broader

definition is widely accepted throughout the world (for example in the names of university courses and departments) there can be no case for the CIOB conforming to, or being unduly influenced by, the narrower definition.

What is clear is that CM as we are defining it must reflect the entire value stream throughout which CIOB members operate – whether their work is in construction companies, consultant practice, client organisations, government or elsewhere. This spectrum includes facilities management, given the increasing importance of the stewardship and improvement of existing built assets in the work of the professional construction manager.

def•i•ni•tion {n} three:

**The third stage of our inclusive definition of CM is therefore: embracing the entire construction value stream from inception to recycling, and focussing upon a commitment to sustainable construction**



**HOWARD SHIPLEE**  
FCIOB, DIRECTOR OF CONSTRUCTION, OLYMPIC DELIVERY AUTHORITY

According to the British press, Howard Shiplee is 'the leading client project manager in the country, if not the world.'

Like many CIOB members, past and present, he has a proven track record in project delivery. Howard is now the Olympic Delivery Authority's director of construction and the man behind Britain's biggest ever sports project – London 2012.

val•ue {n}  
THE IMPORTANCE OR WORTH OF SOMETHING FOR SOMEONE  
HOW USEFUL OR IMPORTANT SOMETHING IS

## 4 Specialist Services

Over the lifespan of the CIOB, an increasing variety of specialist roles has developed within the construction companies where (historically) the majority of CIOB members have worked. Bodies of knowledge have been developed around these roles and the CIOB has played a major part in the definition of good practice and the development of research, education and training.

One such example is cost prediction, where the CIOB Code of Estimating Practice (now in its seventh edition) provides an industry standard.

Equally, CIOB members have found that their expertise allows them to offer specialist services in consultant practice, for example in the management of complete projects on behalf of clients – where again a CIOB publication has provided an authoritative and widely accepted definition of good practice (*The Code of Practice for Project Management for Construction and Development*, first published in 1992, now in its fourth edition).

Many other fields of specialist practice have arisen. Some have drawn naturally upon the expertise CIOB members have acquired in their training, and which they have subsequently developed to expert level – for example in building pathology, health and safety management, building standards and control or dispute resolution. In other cases, people trained in functional management fields (for example HR management or purchasing) have come to work in construction and wanted to become part of the construction culture and to deepen their expertise within it.

def•i•ni•tion {n} four:

Thus, the fourth stage of our inclusive definition of CM is: incorporating a wide range of specialist services



**ANDREW TOWNSEND**  
MCIQB, BRISTOL & REGIONAL  
ARCHAEOLOGICAL SERVICES

Andrew Townsend is just one example of the range of CIOB members working in specialist services. His present post primarily entails the preparation of archaeological and historic environmental assessments; advising on pre and post application archaeological issues in relation to construction projects.

## 5 Our Value System

Over its life the CIOB has developed a system of values which flows naturally from the work of our members.

Construction is a labour-intensive industry. More than that it is truly a 'people business' because virtually every construction project is a prototype, requiring the creation of a team, and sensitive attention to complex human interactions in conditions of partial uncertainty. More importantly, construction is a business for people, for communities, for societies in a way that makes it different from any manufacturing industry. Buildings frequently outlive people; they help to shape societies, and they reflect society and culture.

It is clear from the published histories of the CIOB and its members that this concern for human values has consistently transcended more instrumental concerns for construction technology and management technique.

There is however, no room for complacency. Construction is also an industry which, worldwide, has appeared prone to corruption – for reasons related, inter alia, to the attractive value of developed land, and the nature of contracting processes. And it is also an industry, worldwide, but certainly not excluding the most developed countries, whose own workforce has often been disgracefully neglected, where women have been inadequately represented, and where discrimination against ethnic and other minorities has been too often unchecked.

A system of values related to concern for the environment in all its aspects (carbon reduction, biodiversity, local communities), and for the industry's own workforce, is a vital aspect of what the CM discipline must stand for; indeed it is the paramount reason why construction as industrial practice must be shaped and guided by CM as a discipline.

def • i • ni • tion /n/ five:

Therefore the fifth stage of our inclusive definition is: guided by a system of values demonstrating responsibility to humanity and to the future of our planet



**BRIDGETTE GASA**  
FCIOB, THE ELILOX  
PTY LTD

Bridgette Gasa works on initiatives that consider sustainability and social upliftment above profit-making.

Her portfolio as a developer of infrastructure is centred on creating sustainable jobs for contractors through the awarding of construction contracts.

Many of these construction businesses are run by women – with various levels of built environment skills.

Bridget has recently been appointed by the President of South Africa to the National Planning Commission.

## 6 CM as an Academic Discipline

The Association of Researchers in Construction Management (ARCOM) celebrated its 25th anniversary in 2009, with a conference attended by 222 delegates from 17 countries. To mark the anniversary, a book was published *Building a Discipline: the story of Construction Management*, edited by David Langford and Will Hughes.

From that history, and from the range and quality of papers delivered at the conference, the existence is clear of a lively, international and liberal academic discipline. The academic discipline is not necessarily coterminous with CM as a field of professional practice; it is right that it should both probe critically within professional and industrial practice, extend beyond it, and stand outside it as an independent observer. It is right too that it should reflect upon not only on how things are now, but how they might be: in a proper sense, every academic discipline must be idealistic.

The development of knowledge and understanding is important its own right – and that must be true of CM as of any other discipline. The fact that it springs out of an industry does not, must not, make it subservient to industry. The existence of a lively CM research culture has, throughout the world, informed higher education courses, producing graduates who are intellectually able to challenge the status quo and to move the practice of CM forward. Indeed the extent to which the practice of CM in the UK has been influenced by the expansion of higher education generated by the *Lighthill Report (1986)* is probably under-recognised in both industry and academe.

Development of the discipline must continue, and be intensified if the practice of CM is to meet the challenges indicated earlier. Practice is insufficiently founded upon knowledge (discovered or confirmed through research) and evidence (identified and evaluated by intellectually equipped practitioners). Our ability to make accurate predictions about industrial performance is limited by available research, and by what are still inadequate links between practice and academe.

def • i • ni • tion {n} six:

**In terms of the field of practice identified as CM in this paper, construction throughout the world still falls well short of any reasonable definition of a knowledge-based industry – which is why the sixth and final stage of our inclusive definition must be: informed, supported and challenged by an independent academic discipline.**



**PROFESSOR ROGER FLANAGAN**  
PPCIOB, THE UNIVERSITY OF READING, UK

Roger Flanagan is Professor of Construction Management at the University of Reading and a visiting professor at a number of universities across the globe.

Setting professional standards, Professor Flanagan has always been active as a researcher and author, as well as reporting for major institutions such as the World Bank and teaching tomorrow's leaders.

He has authored/co-authored 11 books and over 100 technical papers.