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DISPUTE BOARDS IN CONTEXT

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Abstract

Cited causes for half of all UK construction projects finishing over budget are split 50/50 between the client and the supply chain. Internationally, FIDIC found that management and allocation of risk often governed the overall success or failure of the project.

The Construction Industry Institute found that people were the most significant driver of disputes.

While the principles governing construction contracts are long standing, construction contracts necessarily contain complex contractual machinery for keeping the contract in place and dealing with uncertainty. It follows that construction contract disputes are complex.

Recently, Dispute Boards comprising impartial industry professionals convened from the project start until substantial completion to assist the parties in avoiding and resolving disputes have successfully reduced recourse to litigation and gained international popularity. Dispute Boards are able to help the parties avoid disputes by encouraging dialogue between them and by advising them on the correct interpretation of the contract. Dispute Boards are able to quickly decide disputes that are referred because of their involvement with the project.

Dispute Boards are placed into their overall historical context in this dissertation by reference to legal principles and using mainly tunnelling and major projects as a background.

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Dispute Boards in Context

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Chapter 1

Introduction

The author first encountered a Dispute Resolution Board (DRB) in 1997 at Xiaolangdi Dam Project in the Peoples Republic of China (PRC).¹ Xiaolangdi is the largest rock-fill dam of its type in the PRC, costing over US\$4.2 billion. Diversion of the Yellow River was achieved on schedule in October 1997 despite many unforeseen events and problems by an acceleration programme which avoided a year's delay. All the disputes were resolved amicably by the completion date.

A simple description of a DRB is that it is a board of impartial professionals formed at the beginning of the project to follow construction progress, encourage dispute avoidance, and assist in the resolution of disputes for the duration of the project.²

The first use of a Dispute Board (DB) was on a tunnelling project in the USA in the 1960s. This dissertation investigates why DBs were needed, the legal basis for their operation and how their use on construction projects has spread.

It has been said that the construction industry and the contracts used ".....only make sense in the context of changing circumstances and in the wider context of how the industry provides a service to its clients and users."³ It follows then that the context of DBs is how the construction industry provides a service to its clients and users and the contracts used. A review of the construction industry demonstrates a dynamic industry undergoing changes in communications

¹ http://www.drb.org/manual/1A_Case_Studies.pdf visited on 04 August 2009.

² http://www.drb.org/manual/1.1_final_12-06.pdf visited on 07 August 2009.

³ J Murdoch & W Hughes *Construction Contracts Law and Management* (3rd edn Spon Press, London 2000) 2.

and management facilitated by developments in computing.⁴ The industry is presently responding to concerns about sustainability⁵ and climate change.⁶ These developments are part of a continuous process of change in the industry and in the contracts, legislation and courts which regulate it.

Standard forms of contract are often used for procurement. They have grown from a particular context and history and have often been revised and modified.⁷ As a result they are not interchangeable.⁸ Selection is based on considerations of how the risks are to be managed and allocated. Knowledge and understanding of these contract forms can only be obtained from training and experience.

The standard form contract produced by the Institution of Civil Engineers (ICE) was the basis for the first issue in 1957 of the Fédération Internationale des Ingénieurs-Conseils (FIDIC) contract which is now in common use internationally. The FIDIC form became known as the 'Red Book' because of the colour of its cover. The Red Book provided for arbitration of disputes under the Rules of Conciliation and Arbitration of the International Chamber of Commerce (ICC) in Paris. The Red Book was progressive since the international agreement on the recognition and enforcement of foreign arbitral awards which became known as the New York Convention was

⁴ MF Dallas, *Value & Risk Management: A guide to best practice* (Singapore, Blackwell 2008).

⁵ HM Government in Association with Strategic Forum for Construction, *Strategy for Sustainable Construction* (HMSO, London 2008).

<http://www.berr.gov.uk/files/file46535.pdf> visited on 28 December 2009.

⁶ The Callcutt Review, *The Callcutt Review into Housebuilding Delivery* (DCLG, London 2007).

⁷ NG Bunni, *The FIDIC form of Contract: The Fourth Edition of the Red Book* (Wiley-Blackwell Oxford 1991).

⁸ P Capper, *Exploring the Impact of the New Standard Forms in the Construction Industry: Changes, Choices, Risks*, 2004. http://www1.fidic.org/resources/contracts/ibc_feb2004/capper_feb04.asp visited on 15 July 2009.

only the following year.⁹ In common with the ICE form, a named engineer administered the FIDIC contract.

Although the concept was longstanding, Contractors had become dissatisfied regarding the independence and impartiality of the engineer, who was also the owner's agent, to act fairly to determine disputes.¹⁰ Another area of conflict was the perception by employers that contractors bid low and made inflated claims for additional payment. The costs of resolving disputes by arbitration or litigation increased such that cheaper methods of alternative dispute resolution (ADR) were sought. One such new method was the technical Joint Consulting Board at the Boundary Dam, Washington which agreed to a request from the parties to decide them.

The focus of the US National Committee on Tunnelling Technology paper *Better Contracting for Underground Construction*,¹¹ on the negative effects of claims, disputes and litigation, led to the establishment of a DB on the Eisenhower Tunnel in Colorado in 1975. The benefits were recognised and the approach was adopted throughout the USA. Following the success of their first use of a DB on the El Cajon Dam in the early 1980s the World Bank promoted DBs for projects they financed

There have since been numerous developments in ADR methods.¹² England and Wales have seen the *Arbitration Act 1996*. The *Housing Grants Construction and Regeneration Act*¹³ (HGCRA) through the *Scheme for Construction Contracts (England and Wales) Regulations*¹⁴ (*Construction Scheme*) and their Scottish equivalents introduced compulsory adjudication in the

⁹ http://www.uncitral.org/uncitral/en/uncitral_texts/arbitration/NYConvention.html visited on 07 August 2009.

¹⁰ Dr R Gaitskell QC, *Engineers' dispute resolution handbook* (Thomas Telford, London 2006).

¹¹ http://www.drb.org/manual/4.2_final_12-06.pdf visited on 16 December 2009.

¹² Dr R Gaitskell QC, 2006 (n 10).

¹³ Housing Grants, Construction and Regeneration Act 1996.

¹⁴ Scheme for Construction Contracts (England and Wales) Regulations 1998 SI 1998/649.

UK. Both the ICE¹⁵ and the International Chamber of Commerce¹⁶ (ICC) have produced DB rules and two books advocating DBs have recently been published.¹⁷

DBs have grown out of other methods of ADR in response to the needs of the industry and consequently have similarities with them. A fundamental principle of the *Arbitration Act 1996* for example is “.....to obtain the fair resolution of disputes by an impartial tribunal without unnecessary delay or expense.”¹⁸ Similarly, the *HGCRA* requires an adjudicator to act impartially¹⁹ and the *Scheme for Construction Contracts (England and Wales) Regulations* requires the adjudicator to avoid incurring unnecessary expense²⁰ when deciding the dispute within the time frame provided for.²¹ Rule 1.4(2)(e) of the *Civil Procedure Rules* (CPR) (1998), which came into force on 26 April 1999, defines active case management as including encouraging the parties to use ADR.²²

Contemporary FIDIC contracts require either an ad hoc DB for one off disputes or a standing DB set up at the start of a project which meets with the parties regularly and keeps abreast of developments. Unlike other dispute resolution methods the standing DB is able to assist in preventing disputes developing as well as deciding disputes that do develop. This dissertation focuses on standing DBs.

¹⁵ Institution of Civil Engineers, *ICE Dispute Resolution Board Procedure* (Thomas Telford, London 2005).

¹⁶ International Chamber of Commerce, *Dispute Board Rules* (ICC, Paris 2004).

¹⁷ Dr C Chern, *Chern on Dispute Boards Practice and Procedure* (1st edn Blackwell Publishing, Oxford 2007) and G Owen & B Totterdill, *Dispute Boards: Procedures and Practice* (1st edn Thomas Telford, London 2008).

¹⁸ Arbitration Act 1996 s 1(a).

¹⁹ HGCRA 1996 s. 108.

²⁰ Construction Scheme 1998 s 12 (b).

²¹ Construction Scheme 1998 s 19 (1).

²² Civil Procedure Rules 1998 s 1.4 (2) (e).

There are now Dispute Review Boards and Dispute Adjudication Boards and Combined Boards where the parties can decide whether a decision will be binding or not. Different rules apply such that the parties can decide how the decision will be dealt with.

Each construction project is a one off that takes time to complete.²³ The DB is able to assist in the success of that one off process.

Development of the construction industry since the early 19th Century is reviewed in Chapter 2. The focus is on conflict in construction. Parallel developments in construction law and construction contracts are placed into their historical context and considered further in Chapter 3, where the concepts of party autonomy and multi-tier dispute resolution are introduced. The focus is on the development of legal principles including construing and enforcing the intentions of the parties and the impartial nature of judicial decision making.

The causes of disputes and the Dispute Potential Index: an index which can be used to measure the potential for disputes on any project, are briefly reviewed in Chapter 4.

The systems which exist to improve project management and to resolve disputes if and when they occur are subject to continuous review and development. Contemporary developments are reviewed in the first part of Chapter 5. The philosophy behind DBs and how they can assist the parties in avoiding and resolving disputes are reviewed in the second part. While the focus is on DBs, the important parallel developments in time management, and the New Engineering Contract (NEC) are recognised. Computing technology has facilitated the analysis of the relationship between time and cost, value and risk on complex construction projects. These

²³ M Cohen & N Gould, 'ADR: appropriate dispute resolution in the UK construction industry' Civil Justice Quarterly November 1998 105.

developments are all geared towards more effective project management. Conclusions are presented at the end of each Chapter and summarised at Chapter 6.

Research

Research was based around a literature review. The DRBF Manual and books by Chern and Owen and Totterdill on DB practice and procedure led to research into construction management and the genesis and resolution of construction disputes. Standard forms of contract, the Official Referees, and the Technology and Construction Court are also part of the background to DBs.

Mediation provides the parties with more control of the dispute resolution process than they have with other forms of ADR but is not discussed because of limitations of space. Risk was discussed because most disputes arise at the interface between the contract requirements, design and construction. That is from the Employer's requirements and how they are priced and built.

Disputes can then be considered to relate to risk and responsibility. The result is that risk management is at the interface between disciplines of project management, contract law and relevant technical disciplines. These are, consequently, factors for consideration for managing disputes and the composition of DBs.

The author's background in engineering geology, tunnelling and major projects meant that researching the Thames tunnel and Great Western Railway was a natural choice.

Contemporary articles demonstrate that while complying with certain rules, the roles of the engineer and the courts, the resolution of technical disputes, standard forms of contract and construction, effective project management, dispute avoidance and dispute resolution are all continuously evolving.

John Uff recently said²⁴ there was no such thing as a straightforward simple construction dispute or arbitration and specialist legal and technical advice were needed from the start.

²⁴ J Uff 'Society of Construction Law (Gulf) Arbitration Conference', Westin Hotel, Dubai, 20 October 2009.

Chapter 2

The Construction Industry

Introduction

Contracts are used as tools within the framework of the construction industry to regulate the relationships at the interface between client and contractor and between contractor and sub-contractor.²⁵ DBs usually operate at the interface between client and contractor. Consequently, the historical development and wider context of construction contracts is fundamental to the introduction, implementation and understanding of DBs.

How the industry provides a service to its clients and users and how the industry has changed is introduced and summarised in this Chapter.

Construction Projects

Construction, unlike manufacturing, is not subject to years of refinement and there is no prototype prior to the purchasing of the final product. Each construction project takes time to complete and provides the parties with just one opportunity to get right.²⁶

²⁵ J Murdoch & W Hughes, 2000 (n 3).

²⁶ M Cohen & N Gould, 1998. (n 23) 105.

The Parties Involved in a Construction Project in Perspective

Introduction

Construction industry participants at project level can be broadly categorised as builders, regulators, purchasers and users.

Builders

Prior to industrialisation, according to Murdoch and Hughes,²⁷ the handful of building trades included bricklaying, carpentry, thatching and stonemasonry. Each craftsman knew his own trade and what to expect from the other workmen. Minor buildings evolved based on experience. Only important buildings could justify the employment of a master mason or an architect. Generally, tradesmen were directly employed.

The industrial revolution created new technologies and new ways of doing things which increased construction complexity and led to general contracting. A general contractor operating today under traditional contracting provides the necessary labour, plant and materials and builds according to the employer's design. Relatively recent changes include specialist sub-contractors and a move towards design and build contracting, partnering and more collaborative styles of working.²⁸

²⁷ J Murdoch & W Hughes, 2000 (n 3) 2.

²⁸ P Capper, *Why Use Standard Forms of Contract* (2004)
http://www1.fidic.org/resources/contracts/ibc_feb2004/capper_feb04.asp visited on 15 July 2009.

Designers

Further industrialisation led to the growth in the numbers of designers familiar with the new technologies and the formation of new professions including specialist engineers. Eventually, designers and builders became separate disciplines.

Regulators (and Regulations)

Structures can threaten the freedom, rights or privacy of individuals. Consequently, every stage of construction from inception through to completion and operation is now regulated. The requirements of the *Town and Country Planning Act 1990*²⁹ determine the appearance and type of structure that can be built in any area. *Building Controls*³⁰ cater for the safety of completed structures and the *Health and Safety at Work Act 1974*³¹ legislates for the safety of construction works. An occupier has a duty under the *Occupiers Liability Act*³² to take reasonable care that people entering land which is under their control will not suffer injuries or damages. *The Construction (Design and Management) Regulations (2007)*³³ introduced improvements in cooperation, coordination and safety.

²⁹ Town and Country Planning Act 1990.

³⁰ Building Regulations 2000

<http://www.planningportal.gov.uk/england/professionals/buildingregs/legislation/bccurrentlegislation/bcbuildingregulationssis/> visited on 19 December 2009.

³¹ Health and Safety at Work Act 1974

<http://www.hse.gov.uk/search/results.htm?q=health+and+safety+at+work+act&cof=FORID%3A11&cx=015848178315289032903%3Akous-jano68#1129> visited on 19 December 2009.

³² Occupiers Liability Act 1957

http://www.opsi.gov.uk/acts/acts1957/pdf/ukpga_19570031_en.pdf visited on 19 December 2009.

³³ Construction (Design and Management) Regulations 2007

<http://www.hse.gov.uk/construction/cdm.htm> visited on 19 December 2007

Legislation is developed and policed by government regulators. New branches of construction have developed devoted to Health and Safety Management. There is also a regulatory function involved with the duties of risk and quality management.

The Employer, Owner, Client or Purchaser

Regardless of the employer's title or status the contract is the governing legal requirement between the contractor and the employer.

Users

Everyone is affected by the structures around them. People are directly affected by the buildings where they work and the structures on which they travel or at which they arrive and depart. Users may include the party commissioning and purchasing the building and people who work in the building. Regulations focus on ensuring compliance with minimum requirements leaving the party commissioning construction with a variety of options for deciding the specific requirements for a building or structure.

The Participants in a Construction Project

The choice of procurement method determines the precise route taken from design through to construction. In design and build contracts the design might be by the contractor's designer according to the employer's requirements. Using more traditional contracting the employer's agent would probably provide the contractor with the design. The employer's agent is usually an architect on a building contract and a named engineer on a civil engineering contract. When

certifying the contractor's periodic entitlements to payment, extending the time for completion or issuing other certificates, the certifier has a duty to act fairly³⁴ between the parties.

The contractor, or the contractor's specialist sub-contractors, provides the engineer with proposed working methods for approval or notice of no objection. The proposals need to pay cognizance to statutory or other requirements and to any comments following review by suppliers and or sub-contractor(s). The contractor's proposals must be in accordance with the contract and specification requirements in order for compliant construction to take place.

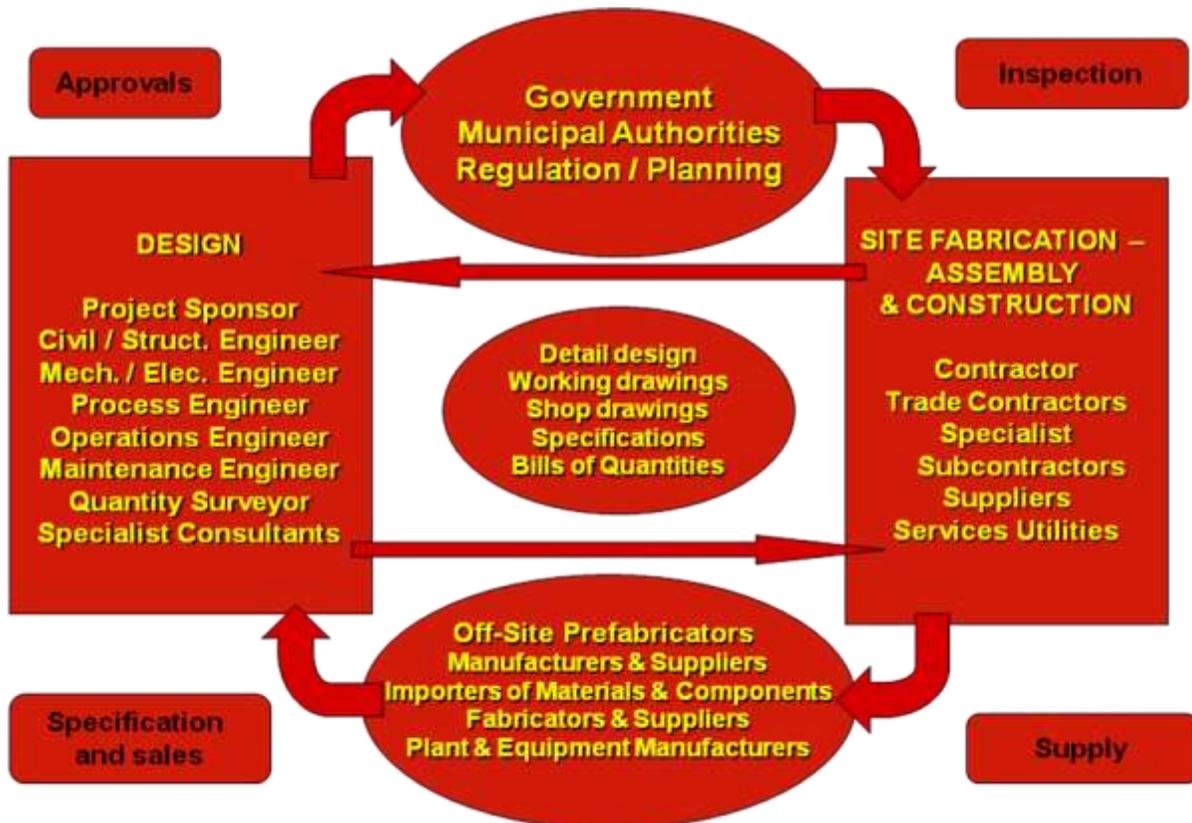
The parties whose lives will be affected by construction and/or impacted by the completed structure are also participants in the construction project. Good communications between them and the other project participants can improve relationships during construction, particularly if cognizance of their opinions is reflected in the design. Public consultations can be held to solicit opinions; and lessons learned from previous construction projects can identify and avoid potential problems which may become disputes. Such consultation can assist the cost effective provision of design and construction solutions. Initiatives are also undertaken at various levels; such as international and national governments and educational institutions, to identify and implement environmental improvements. Public consultations are valuable for all projects but particularly so for gauging the opinions of options for mass transit systems which affect millions of people. It is also crucial to keep communications open with the people affected by construction in order to maintain relationships. These measures can help to completely avoid protests and to prevent protests from escalating if and when they do arise.³⁵ Figure 1 illustrates

³⁴ *Sutcliffe v Thackrah* [1974] AC 727.

³⁵ MF Dallas, 2008 (n 4).

the iterative nature of the key communications on a construction project and the diverse range of professions and organisations who might be involved.

Figure 1: Engineering and Construction Contracts: Key Communications³⁶



³⁶ D Entwisle, 'Contract Management under the FIDIC International Standard Form of Contract' Presentation to Sinohydro on the FIDIC 1st Edition 1999 contract Merowe Dam 2005.

In 1998 the UK construction industry was the largest single national contributor of goods and services, accounting for 10% GDP.³⁷ The industry was recognised as diverse, being made up of around 200,000 small companies and self employed people with a few major contractors dominating the market. Competition was said to derive from the hierarchical way production was organised using traditional contracts. Awards of contracts were based on competitive tendering, often for a project which was not fully designed. Minds were focused on tender values rather than final costs, with some contractors relying on claims during the progress of the works in order to make a profit. Cohen and Gould highlighted that the high numbers of small companies and the usual practice of sub-contracting most of the physical production had also raised criticisms that the industry was an inefficient supplier of the built environment.

Construction Industry Reports

Cohen and Gould's remarks about industry inefficiency are confirmed by Sir John Egan's report *Rethinking Construction* the same year on "...the scope for improving the quality and efficiency of UK construction."³⁸ Similar concerns about inefficiencies have generated numerous reports on the construction industry over the years. Some of the findings of reports by Sir Harold Banwell in 1964³⁹ and Sir Michael Latham⁴⁰ in 1994 are discussed in Chapter 5.

³⁷ M Cohen & N Gould, 1998. (n 23) 108.

³⁸ Department of Trade and Industry, *Rethinking Construction: The Report of the Construction Task Force* (HMSO, London 1998).

³⁹ H Banwell, *The Placing and Management of Contracts for Building and Civil Engineering Work* (HMSO, London 1964).

⁴⁰ M Latham, *Constructing the Team: Final Report of the Government/Industry Review of Procurement and Contractual Arrangements in the UK Construction Industry* (HMSO, London 1994).

Constructing Excellence in the Built Environment

Recognition of the need for the construction industry to improve the service it provided following the publication of *Rethinking Construction* led to the formation of a number of industry bodies to drive change. In 2003 these various bodies were united to form an organisation called *Constructing Excellence in the Built Environment*. The intention was “.....to form a powerful, influential voice for improvement in the built environment sector”.⁴¹

Rethinking Construction established a number of industry key performance indicators (KPIs) which *Constructing Excellence* now publishes annually.⁴²

After Egan

Rethinking Construction has recently been re-visited. The review report confirms that the need for change in the industry is as relevant now as it was in 1964, 1994 and 1998.⁴³ According to the analysis of KPIs, projects were still only 50% likely to be completed on budget.⁴⁴ Half the recorded overspends were due to supply chain inefficiencies and the other half were caused by the employer. The inability of the employer to get the brief right before the delivery process started and the numerous trade bodies in the industry were highlighted.⁴⁵

While a thorough review of the report is beyond the scope of this dissertation it is instructive to consider the four key blockers to improved efficiencies.

⁴¹ <http://www.constructingexcellence.org.uk/aboutus/> visited on 28 December 2009

⁴² A Wolstenholme, *Never Waste a Good Crisis: A Review of Progress Since Rethinking Construction and Thoughts for Our Future* (Constructing Excellence, London 2009) 7.

⁴³ A Wolstenholme, 2009 (n 42) 5.

⁴⁴ A Wolstenholme, 2009 (n 42) 19.

⁴⁵ A Wolstenholme, 2009 (n 42) 22.

The first is the business and economic model. Major clients with repeat construction business had facilitated improvements by using integrated teams. Recession, however, resulted in a change from client driven initiatives to a need for initiatives from suppliers. The supply chain needed to innovate and deliver sustainable solutions. Realistically, the report states that Government needed to recognise the importance of the built environment to the economy and points out the following blockers to improved efficiency:

- Lack of a cohesive industry vision;
- Few business drivers to improve;
- (a perception that) Construction 'does not matter';
- No incentives for change;
- Construction is seen as a commodity purchase;
- Industry culture is driven by economic forces.

Attracting and retaining the right people to improve industry capability is the second key blocker. The following factors were perceived as creating a downward spiral preventing progress:

- Lack of visible leadership;
- Failure to attract new talent to the industry;
- Narrow degree courses preventing holistic thinking;
- Failure to develop talent within the industry;
- Lack of purpose.

The third key blocker is a lack of integration in the delivery process which impedes continuous improvement.

- Few clients demand a best value solution;
- Lack of an integrated process results in sub-optimal solutions;
- Contractor's would rather 'push' risk down the chain rather than 'pull' the opportunities back up.

The report confirmed:

.....a return to long tender lists, firms chasing work at unsustainable margins, cost and time overruns, jettisoning of quality or sustainable initiatives and more of a claims-oriented approach. One major contractor recently reported in private that their strategy was 'to bid low and provide in the budget for a claims consultant'. Other anecdotal evidence describes longer payment cycles, further fragmentation of supply chains and the practice of 'subbie-bashing' by retendering sub-contracts.

The fourth key blocker was the industry structure, where the following key problems were identified:

- The lack of a single coherent voice for the industry;
- The lack of joined up thinking by government and other key stakeholders;
- Too many industry bodies.

Conflict in Construction

The root cause of the inefficiency and conflict in construction has been cited as technical complexity.⁴⁶ The temporary nature of each project may contribute to conflict because the parties may not see the need for building long term relationships. Conflict may also result from the different backgrounds and disparate aims and desires of the numerous people or

⁴⁶ J Murdoch & W Hughes, 2000 (n 3) 14.

organisations in the industry.⁴⁷ Technical complexity requires the input of numerous specialists each with their own body of knowledge and their own aims and expectations. They each belong to their own institution and they each have their own agenda. Institution membership may even accentuate differences by polarizing their members rather than bringing different specializations together. The result is that technical complexity leads to organizational complexity. Amos and Dent provide support for this theory in their proposals for future research into the use of risk assessment and management in the construction industry:⁴⁸

.....Most of the professions within the construction industry are beginning to see where recent developments are leading and are vying for the management role. The next ten years will see a power struggle for these positions, which Peter Brandon back in 1990 saw as being between Accountants, Architects, Quantity Surveyors, General Practitioners, Contractors, Engineers and Lawyers. To this list can be added Project Managers, Value Engineers and Facilities Managers.

'Conditions of engagement' and other contracts are said to regulate the adversarial conflict and confrontations that everyone expects and provide a basis whereby one party can enforce the promise of another.⁴⁹ Construction brings together a team of professionals to garner a variety of views. Consequently, each person ought to have a separate basis for decision making. However, the tensions generated should precipitate debate and dialogue so that clear choices can be made. Murdoch and Hughes quote Tjosvold (1992) as follows:⁵⁰

The idea that conflict is destructive and causes misery is so self-evident that it is seldom debated. Employees fight about many issues, but the wisdom of avoiding conflict is too often not one of them. However, it is the failure to use conflict that causes the distress and low productivity associated with escalating conflict. Conflict

⁴⁷ J Tackaberry, 'Adjudication and Arbitration: The When and Why in Construction Disputes', *Arbitration* (2009) Vol.75.

⁴⁸ J Amos and P Dent, *Risk Analysis and Management for Major Construction Projects*. (RICS, London 1997).

⁴⁹ J Murdoch & W Hughes, 2000 (n 3) 14.

⁵⁰ J Murdoch & W Hughes, 2000 (n 3) 14. Tjosvold D, *The conflict positive organisation* (Addison-Wesley, Massachusetts 1992).

avoidance and the failure to develop an organization equipped to manage it, not conflict itself, disrupt. Open, skilful discussion is needed to turn differences into synergistic gains rather than squabbling losses.

How open skilful discussions can be facilitated is considered later.

Controlling the Costs of Conflict

When conflict arises many companies resort to power plays, rush to litigation or choose to ignore the problem. These options result in high costs that can “...often be avoided by establishing systems that promote collaboration and stop disagreements from becoming expensive disputes.”⁵¹

Conclusion

The construction industry comprises people from various technical specializations individually employed as contractors, consulting engineers and sub-contractors working for a variety of organisations, suppliers and service industries. They come together, usually on a temporary one off basis, to provide their services for the construction of a project on behalf of a client. A combination of these factors leads to a number of competing agenda and adversarial conflicts where self interest may predominate. Construction contracts are said to provide the rules of engagement and the means whereby one party can enforce the promise of another. A need for systems that promote collaboration and stop disagreements from becoming expensive disputes has been recognised.

⁵¹ KA Slaikeu & RH Hasson, *Controlling the Costs of Conflict: How to Design a System for Your Organisation* (Jossey-Bass, San Francisco, CA 1998).

Chapter 3

Construction Industry Disputes: Historical Perspective

Introduction

The concept that the contract is the law of the parties is introduced by describing the mechanisms for facilitating the uncertainties affecting construction projects while keeping the contract in place.

The Thames tunnel between Rotherhithe and Limehouse is then used to provide a contextual reference prior to a discussion of 19th Century, and later, English court decisions concerned with the role of the engineer. The parties on these construction projects were dissatisfied with the engineer's decisions and referred their disputes to the courts to decide them. In a number of cases the dispute was previously arbitrated upon or decided by an inferior tribunal and the parties were dissatisfied with the decision. Legal rules regarding the significance of interim payment certificates, certification and damages and multi-tier dispute resolution are discussed in these decisions.

The nature of decision making by construction industry dispute resolvers and the legal principles involved are considered. A particular aim was to investigate the veracity of the statement that public policy provides authority in most jurisdictions that parties should be encouraged so far as possible to settle their disputes without reference to litigation or arbitration.⁵² The statement was considered in relation to the decisions discussed and the legal framework provided by the contracts and courts.

⁵² G Owen & B Totterdill 2008 (n 17) Introduction.

Certification is a common theme because cash flow is considered the life blood of the industry. The fair resolution of disputes by an impartial tribunal is a fundamental requirement of dispute resolvers; impartiality is, therefore, discussed at length.

Construction Contracts

Construction projects are subject to the same principles of law as other fields of practice. However, they are complex and contain special challenges which Davis and Akenhead summarise as follows:⁵³

1. The long term nature of many projects requires mechanisms for interim or stage certification and payments.
2. The complex interrelationships of project participants including employer, contractors, sub-contractors, independently employed design professionals, funders and occupants and users of the finished project.
3. The need for flexibility to facilitate planned and unpredictable changes to the requirements such that the final cost of the work cannot be determined in advance. Mechanisms are required for dealing with the consequences of the variables that might affect the final contract price.

Construction contracts provide the employer with the right to make changes to the requirements and keep the contract in place while preserving the contractor's rights for additional compensation and to a time extension. Such mechanisms are designed to

⁵³ M Davis & R Akenhead QC, *Technology and Construction Court Practice and Procedure*, (OUP, New York 2006).

prevent the delays and difficulties which would result from entering into new negotiations every time the employer wanted to make changes. Nevertheless, variations and extensions of time are still fertile grounds for claims and disputes.

In English Law the right that the Contractor was exonerated from liability to pay liquidated damages if the delay to completion was caused by the Employer was already established by 1838.⁵⁴ *Dodd v Churton*⁵⁵ was a landmark case in 1897 where Lord Esher restated the principle which Lord Drummond Young confirmed in the Scottish case, *City Inn v Shepherd*.⁵⁶ Contractors were in a poor bargaining position and signed contracts containing onerous completion dates and large liquidated damages. Delays would occur, some of which were in the contractor's control and others which were the responsibility of the employer. In such circumstances, the contractor was required by the courts to complete within a reasonable time rather than by the fixed date.⁵⁷ The mechanism for the engineer to extend the time for completion as a consequence of employer delay was included in the contract to preserve the employer's right to deduct liquidated damages in case of contractor delay.

Jamal Al-Dine Nassar recently considered how the bargaining position of the parties changed during the currency of the Works and the mechanisms for instructing variations or changes. He noted that.⁵⁸

Article 147 of the Egyptian Civil Code, or equivalent, stipulates the following:

⁵⁴ *Holme v Guppy* [1838] 3 M & W 387.

⁵⁵ *Dodd v Churton* [1897] 1 QB 562 at 566.

⁵⁶ *City Inn Limited v Shepherd Construction Limited* [2007] CSOH 190.

⁵⁷ R Wilmot-Smith, *Construction Contracts Law and Practice* (OUP, New York 2006) Ch 11.

⁵⁸ Jamal Al-Dine Nassar. 'Claims, disputes and arbitration under the Red Book and the New Red Book (Part 1)' *Construction Law Journal* (2009).

“The contract is the law of the parties. It cannot be cancelled or amended except by their mutual consent or for reasons admitted by the law.” (Emphasis added)

“The contract is the law of the parties” is highlighted because the concept is fundamental to the choice of dispute resolution method for legal systems based on either civil or common law. The contract will be enforced so long as it accords with public policy.

The Thames Tunnel

The Thames Archway Company was formed in 1805 with the intention of driving a tunnel beneath the River Thames from Rotherhithe to Limehouse.⁵⁹ The tunnel was abandoned in 1807 after encountering quicksand and the company went into receivership. In 1818 Marc Brunel invented a tunnelling shield⁶⁰ and in 1824⁶¹ he was appointed engineer by the new Thames Tunnel Company. After numerous difficulties the tunnel was opened on 01 August 1842.⁶² From an early age, Marc’s son, IK Brunel worked with his father on the tunnel.

IK Brunel and the Great Western Railway

In 1833 IK Brunel persuaded the Great Western Railway (GWR) to employ him as the surveyor for the line. A number of authorities⁶³ have recognised IK Brunel’s contribution to the principles pertaining to dispute resolution stemming from the GWR built between Paddington and Bristol between 1836 and 1841. Brunel became surveyor, certifier, engineer and arbitrator. He starved

⁵⁹ http://www.brunel200.com/thames_tunnel.htm visited on 27 December 2009

⁶⁰ CJ Hung, J Monsees, N Munfah, & J Wisniewski, *Technical Manual for Design and Construction of Road Tunnels – Civil Elements* (US Department of Transportation Federal Highway Administration 2009) 6-7.

⁶¹ ‘Thames Tunnel Company’ *Jackson’s Oxford Journal* (Oxford Saturday 24 July 1824).

⁶² *Wednesday’s Post, The Ipswich Journal* (Ipswich, Saturday 15 October 1825).

⁶³ A Thornton, ‘Litigation reform - an impossibility?’ (1997) *Construction Law Journal*. 166-167; R Knutson, *Dispute Board Processes, Meeting Business Needs in the Middle East* (2004); V Ramsey, *Law and Engineering: Resolution of Technology Disputes*, The 20th Jenkin Lecture (2007).

the contractors of funds and generated two of the most important 19th century construction disputes between the GWR and their contractors Ranger and Mackintosh.

William Ranger v Great Western Railway

Ranger had four contracts near Bristol.⁶⁴ Brunel required a £5,000 bond at the outset. When Ranger could not finish the work due to the cost of the bond and under-certification the Company terminated the contracts and completed the work using Ranger's sequestered plant and materials.

Ranger is cited in nine places in the Eighth Edition of *Keating*⁶⁵ set out at 4-046, 5-037, 5-044, 5-045, 8-044, 8-046, 9-008, 9-012 and 10-009. They can be summarised as follows:

- With regards to payment for additional work; in the absence of written orders or other formalities, the contractor cannot recover either under the contract or under a fresh contract to pay a reasonable sum even though the employer has had the benefit of the extra work.
- Where the contract identifies the certifier by description such as "anyone whom from time to time the (employer) might choose to select as chief engineer", then the person who is the properly appointed engineer at the time when the certificate is required to be given has power to certify."
- The general proposition that the interests of the engineer known about at the time of entering into the contract are not grounds for disqualification. The engineer was not

⁶⁴ *William Ranger v Great Western Railway* [1854] House of Lords Cases [Clark's] 72 10 ER 824.

⁶⁵ S Furst & V Ramsey, *Keating on Construction Contracts* (8th edn Sweet & Maxwell London 2006).

disqualified even though he was a shareholder. Lord Brougham⁶⁶ said that the engineer represented the Company in all respects and could “...almost be taken for the Company.”

- If the employer repudiates the contract before any work is carried out, the damages recoverable are the amount of profit which the parties knew or must be taken to have assumed the contractor would have made if he been allowed to complete the works as intended.
- If the employer repudiates the contract after work has been partly completed the contractor is entitled to payment of the work done at the contract rates and prices. The contractor is also entitled to claim and recover the loss of profit on the remaining work. The contractor was not entitled “...to an account of work already done to be taken on terms different from those for which he had contracted.”
- In *Ranger*, even though the liquidated damages were referred to as penalties, it was held that they were in fact liquidated damages. It was noted that the sums stipulated in the contract increased every week. Keating references Lord Dunedin’s propositions in *Dunlop v New Garage Co.* when summarising the principles of defences against claims for liquidated damages.⁶⁷
- Keating refers at 9-008 to forfeiture claims as penalties. The Lord Chancellor concluded in *Ranger*⁶⁸ that there must be an account of the value of the stock⁶⁹ sequestered from

⁶⁶ *William Ranger* [1854] (n 54) 114-116 / 842-844.

⁶⁷ *Dunlop Ltd v New Garage Co. Ltd* [1915] AC 79 (HL) 86.

⁶⁸ *William Ranger* [1854] (n 54) 105-106 / 839-840.

⁶⁹ *William Ranger* [1854] (n 54) 121/845.

Ranger. Lord Cranworth said that the amount of the Company's damages was capable of exact adjustment and the Company was entitled to recoup their loss and no more from the property seized.

Mackintosh v The Great Western Railway -

If the engineer is to be considered as the mere organ of the employer, as a partisan and not an impartial judge-as one who had a right, as he had an absolute power, to make his measurements partial, and in such a way as to serve the interests of the employer whose organ he was - the whole scope and purpose of the contract is violated.

It now appears clearly enough that great injustice has been done to the Plaintiff in the matter of the certificates.

*Mackintosh v The Great Western Railway*⁷⁰ was first filed on 1847 and had been before the court repeatedly. The court referred the case to chambers in 1855 to enquire and certify whether anything remained due from the company to the plaintiff. A gross sum of nearly £200,000 was found due. The company appealed and wanted to vary the certificate in respect of more than 900 items. The plaintiffs then also wanted to vary the certificate.

The Vice-Chancellor, critical of the intolerable amount of expense and delay which would follow if such proceedings were allowed,⁷¹ quoted Lord Ellenborough in *Carstairs v Stein* (4 M. & Sel. 192, 200) who said.⁷²

The Court, in granting new trials, does not interfere unless to amend some manifest abuse, or to correct some manifest error in law or in fact.

⁷⁰ *Mackintosh v The Great Western Railway* [1865] 4 Giffard 683.

⁷¹ *Mackintosh* [1865] (n 70) 687.

⁷² *Mackintosh* [1865] (n 70) 689 – 691.

This fundamental principle is now enshrined in the Arbitration Act 1996⁷³. The Vice-Chancellor was discussing the sums in dispute in his explanation. Nevertheless, the principle rested on the necessity; when the nature of the question was such that there might be different amounts after each of a succession of investigations, of accepting the first decision after a fair investigation as final. The Vice-Chancellor said that justice demanded that the contractor should have a fair compensation. Regardless of how many methods of estimating that compensation, or the potential objections to any method of estimation, once fairly fixed on a fair and full investigation, there was no safe ground for an alteration unless manifest error could be shown.

The Vice-Chancellor said that if the certificates granted by the Defendants had been for the proper sums then both the sum and the timing of payment would have been certain. Interest was payable in order to settle the balance outstanding from the amounts due.

The Vice-Chancellor acknowledged that in order to give efficacy to the contract the engineer needed to act fairly when certifying completed work. The change was mirrored by a number of other court decisions over the same period during which legal principles pertinent to ADR were aired.

Alexander Scott v George Avery

It is a principle of law, that the parties cannot by contract oust the courts of their jurisdiction; but any person may covenant that no right of action shall accrue till a third person has decided on any difference that may arise between himself and the other party to the covenant.⁷⁴

⁷³ Arbitration Act 1996 s 24, s 68, s 69.

⁷⁴ *Alexander Scott v George Avery* [1856] House of Lords Cases (Clark's) 811.

Mr. Justice Crowder said⁷⁵ “.....the effect of such a contract is, that no action lies for the breach of it until the sum has been ascertained by arbitration.”

The court recognises the freedom of the parties to choose to have matters in dispute decided by a third party. Otherwise known as “Party Autonomy”; the freedom to “...choose the terms and conditions they like best and the types of disputes to be arbitrated upon...” is referred to by Egbedi as the will of the parties to arbitrate and is the cornerstone of arbitration.⁷⁶

Kemp v Rose

.....the existence of any circumstance calculated to bias the mind of an arbitrator unknown to either of the parties who have submitted to his decision is a sufficient ground for the interference of the Court.⁷⁷

Based on cartage being provided by the parishioners and the quantities he had scheduled, the architect advised the employer that the cost of renovating the village church would not exceed £2,500. Quantities were exceeded and the promised cartage never arrived. The contractor sought payment for the actual quantities of work.

In contrast to the decision in *Ranger*, the court interfered. The reason was that the circumstances calculated to bias the mind of the architect were unknown to the contractor at the time the contract was concluded.

Scott v The Corporation of Liverpool

.....every right to payment was conditional during the progress of the works upon obtaining the engineer's certificate.....”⁷⁸

⁷⁵ *Scott v George Avery* [1856] (n 74) 823.

⁷⁶ T Egbedi, ‘An Analysis of the Effect of Public Policy on Party Autonomy In International Arbitration’ (Dundee University 2008). <http://www.dundee.ac.uk/cepmlp/gateway/index.php?news=29275> visited on 30 October 2009.

⁷⁷ *Kemp v Rose* [1858] 1 Giffard 258.

“.....by the terms of the contract the Plaintiffs are precluded from all remedy at law till the certificate of the engineer has been obtained.....”⁷⁹

If the Court were to assume the jurisdiction which is prayed it would not be enforcing the contract of the parties but, acting in direct opposition to it.

The contractor agreed that, in the event that it failed to perform, the corporation could sequester its plant and equipment to complete the work.⁸⁰ In such circumstances, the contract prescribed for the Engineer to fix and determine the amount reasonably earned by the contractor after making various deductions.⁸¹ The contractor performed poorly so the corporation exercised the power set out in the contract and used the contractor's plant and equipment to complete the work. The contractor's argument that it had been prevented from performing because the employer was late providing possession was not considered material by the court.

The engineer requested the contractor's assistance in determining the amount the contractor reasonably earned. The contractor demurred and filed a bill in equity for relief. The Lord Chancellor explained that the role of the courts in construing a contract was to arrive at the meaning of the parties' agreement - which was that payment was conditional upon certification. The plaintiffs agreed to submit to the judgement of the engineer but until the engineer had spoken no rights could arise which could be enforced either at law or in equity.

Pawley v Turnbull

.....that the Plaintiff was not fairly treated; and, without imputing fraud to the defendants, it is proved by the evidence of at least five credible witnesses, whose

⁷⁸ *Kemp v Rose* [1858] (n 77) 345-346.

⁷⁹ *Kemp v Rose* [1858] (n 77) 359-360.

⁸⁰ *Scott v The Corporation of Liverpool* [1858] 3 De Gex & Jones 334.

⁸¹ *Scott v The Corporation of Liverpool* [1858] (n 80).

testimony cannot be impeached, that the conduct of the Defendant, Hey, **was not of that discreet, impartial and fair description which it ought to have been.**⁸²

Knutson⁸³ asserts that the development of the doctrine that in certain circumstances engineers exercising their decision making powers under a contract must act impartially was given a boost by the 1861 case of *Pawley v. Turnbull*.⁸⁴ The case concerned an architect who had made himself arbitrator under the contract and whose decision was to be final and binding. Without citing any particular authorities, the Vice-Chancellor said⁸⁵ that "The position of the architect, in order to be just to both parties, required the exercise of great discretion and great fairness."

The Plaintiff builder, Pawley, had completed work to the value of about £2,600 including extra work whereas the defendant, Hey, had only certified £1,240. Hey previously said to two independent witnesses who supplied materials to Pawley that only about £200 worth of work remained. Hey subsequently denied making this statement and asserted that £1,264 required to be paid in order to complete the work.

The Vice-Chancellor ignored the lack of a certificate from Hey to award the reasonable value of the work to the builder. The words discreet, impartial and fair are highlighted to emphasise a standard of conduct for the architect introduced by the Vice Chancellor.

Jones and Another v The President and Scholars of St. John's College, Oxford

.....having expressly agreed to do the entire works, if extra work were ordered by the clerk and bursar, within the time originally limited, unless they ordered an extension of the time, the plaintiff was bound by their decision, although it might involve an impossibility.

⁸² *Scott v The Corporation of Liverpool* [1858] (n 80) p. 84 – 85.

⁸³ R Knutson, *Dispute Board Processes, Meeting Business Needs in the Middle East* (2004).

⁸⁴ *Pawley v Turnbull* [1861] 3 Giffard 70.

⁸⁵ *Pawley v Turnbull* [1861] (n 84) 83.

*Jones and Another v The President and Scholars of St. John's College, Oxford*⁸⁶ concerns a case where a contractor constructed some farm buildings. The contractor agreed to complete the works, including any alterations and additions, by certain dates; failing which, liquidated damages of £3 per day became due.

The parties agreed the inspector would have the final say regarding quality, certification and time, including provision to extend the time for completion. The contractor completed the work and sought an extension of time consequential to the effects of various alterations and additions. The contractor said these “.....were so mixed up with the original works that it was impossible for plaintiff to complete them on the day named”. The inspector’s final certificate for payment was disputed because the inspector made deductions corresponding to the delay by the contractor completing the work.

The court appears to have construed the agreement according to the words of the contract. The case does not sit well with any contention, such as that in *Pawley v Turnbull*, that there was an implied obligation on the Engineer to act in a discreet, impartial or fair manner. Jones, however, submitted what is referred to nowadays as a global claim and does not appear to have demonstrated duty, breach, cause, effect and damage.⁸⁷ Such matters were not raised in the transcript.

The Official Referees

Section 83 of the *Judicature Act 1873*⁸⁸ provided that:

⁸⁶ *Jones v The President and Scholars of St. John's College, Oxford* [1870-71] LR 6 QB 115.

⁸⁷ RP Davison, *Evaluating Contract Claims* (Blackwell Publishing, Oxford 2003). Ch 6.

⁸⁸ *Judicature Act 1873* s 83.

.....there shall be attached to the Supreme Court permanent officers to be called official referees, for the trial of such questions as shall under the provision of this act be directed to be tried under such referees.

Arbitration as a means of resolving disputes increased during the mid 19th century. Businessmen lacked confidence in the ability of the judges and the masters when dealing with complex cases or those with technical facts and litigation was expensive and slow. A Judicature Commission chaired by Lord Cairns appointed as a result of the overall dissatisfaction led to the enactment of the *Judicature Act 1873*,⁸⁹ which reformed the courts. Prior to the Act there were seven courts: The Queen's Bench, Common Pleas, Exchequer, Chancery, Admiralty, Probate and Divorce. The courts were amalgamated into the High Court with the following divisions: Queen's Bench, Admiralty, Probate, and Divorce forming the Supreme Court.

Under s 56 and 57,⁹⁰ in any case where the parties agreed, a case or issues within a case could be referred to the *Official Referee* by order of a judge – hence the title. Where the case or issue required “any prolonged examination of documents or accounts, or any scientific or local investigation” which in the opinion of the judge could not conveniently be made before a jury party agreement was not necessary for referral. An Official Referee's report on a trial was equivalent to a jury verdict. The report was submitted to the trial court following the Official Referee's deliberations.

Under s 14 of *the Arbitration Act 1889*⁹¹ an entire case could be referred to an Official Referee. The Official Referees subsequently introduced and promulgated more efficient and innovative case management procedures.⁹²

⁸⁹ Judicature Act 1873.

⁹⁰ Judicature Act 1873 s 56 and s 57.

⁹¹ The Arbitration Act 1889 s 14.

The Introduction of Standard Forms of Contract

Hibberd, explains that there were frequent disputes during the 19th Century between clients wanting building work done and their numerous trade contractors.⁹³ Competitive tendering for entire projects was perceived as cheaper and facilitating better control of final costs. Standard forms of contract were developed to deal with the complexities of construction and to allocate the rights, risks and responsibilities of the parties in a recognisable way. The benefits of standardisation were reduced transaction costs and a basis for comparing tenders. The first standard contract form produced by the Royal Institution of British Architects (RIBA) was in 1870.⁹⁴ The first national standard form was produced under the sanction of the RIBA in 1903 “.....in agreement with the Institute of Builders and the National Federation of Building Trades Employers of Great Britain and Northern Ireland.” The form was revised due to differences of opinion and re-issued in 1909.

Chambers v Goldthorpe

In issue in *Chambers v Goldthorpe*⁹⁵ was whether or not an architect was acting in a judicial capacity when certifying building work. Lord Romer dissenting was of the opinion that the architect was not acting judicially.⁹⁶ He was particularly concerned that if it was held that the architect was acting judicially the architect would be immune from liability for any damages to the employer caused by the architect's negligence.

⁹² J Newey, 'The Official Referees' courts today and tomorrow' *Construction Law Journal*, 1994 20, 25 – 27.

⁹³ P Hibberd, *The Place of Standard Forms of Contract in the 21st Century* (Society of Construction Law 2004). www.scl.org.uk.

⁹⁴ JC Broome & JG Perry, 'Experiences of the Use of the NEC', *Engineering, Construction and Architectural Management* 1995 Vol 2/4 <http://lexinter.net/WEB7/ks-constr.htm> visited on 02 March 2010.

⁹⁵ *Chambers v Goldthorpe* [1901] 1QB 624.

⁹⁶ *Chambers* [1901] (n 95) 642.

It was, nevertheless, held by the majority that:⁹⁷

.....the architect, in ascertaining the amount due to the contractor and certifying for the same under the contract, occupied the position of an arbitrator, and therefore was not liable to an action by the building owner for negligence in the exercise of those functions.

The majority decision was overturned in *Sutcliffe v Thackrah and Others*.⁹⁸ It was held that:

1. on the evidence, the defendants were not in the position of arbitrators, for e.g. **there was no reference of any dispute to them, there was no agreement to abide by their decision as to the value of the work done, and the builders, if dissatisfied, could have requested an arbitration before an independent person....** (Emphasis added)
2. accordingly, the defendants could not plead the immunity from an action for negligence accorded to an arbitrator.....

The words highlighted above illustrate two of the principle requirements of arbitration. These are:

1. that there must be a dispute and
2. there must be an agreement to abide by the decision of the arbitrator.

There is also reference to arbitration before an independent person.

Robins v Goddard

*Robins v Goddard*⁹⁹ was an appeal on a contract sanctioned by the RIBA in connection with other bodies concerning certification by an architect of building work. The builder sought payment of certified sums and the defendant counter claimed that the work done and materials

⁹⁷ *Chambers* [1901] (n 95) 624.

⁹⁸ *Sutcliffe v Thackrah* [1974] 1 Lloyd's Rep 318.

⁹⁹ *Robins v Goddard* [1905] 1 K.B. 294.

supplied were defective and not in accordance with the contract. It was held at the trial that the certificates were conclusive and judgement was given for the builder. There was a clause in the contract regarding the referral of disputes to an arbitrator stating that such reference:¹⁰⁰

.....except on the question of certificate, shall not be opened until after the completion, or alleged completion, of the works, unless with the written consent of the employer or architect and the contractor. The arbitrator shall have power to open up, review, and revise any certificate, opinion, decision, requisition, or notice, save in regard to the said matters expressly excepted above, and to determine all matters in dispute which shall be submitted to him, and of which notice shall have been given as aforesaid, in the same manner as if no such certificate, opinion, decision, requisition, or notice had been given.

It was held at Appeal that:¹⁰¹

..... the arbitration clause destroyed the finality of the certificates, and that consequently the defendant was entitled to set up the defence and counter-claim to the action:

Held, further, by Stirling L.J., that the provision that no certificate should be considered conclusive evidence as to the sufficiency of work or materials to which it referred was general, and that the clause could not be read as applying only to the liability of the contractor to make good defects.

Robins v Goddard was not considered in a case having similar facts heard almost 80 years later.¹⁰² It was held in *Northern RHA v Derek Crouch Construction Co Ltd*, amongst other things, that:

.....the official referee did not have the powers to open up, review or revise the architect's certificates, opinions, requirements or notices which were given to the arbitrator by cl.35(3) of the main contract.....

Soon after, Wallace¹⁰³ explained that in carrying out administrative work on behalf of the employer, the engineer was acting in the role of the employer's agent.¹⁰⁴ He explained that the

¹⁰⁰ *Robins v Goddard* [1905] (n 99) 298-299.

¹⁰¹ *Robins v Goddard* [1905] (n 99) 295-296.

¹⁰² *Northern RHA v Derek Crouch Construction Co Ltd* [1984] QB 644.

engineer would need to apply skill and judgement to various functions but without any connotation of judicial or quasi-judicial responsibilities, or finality. He rejected the notion that only an arbitrator could open up, review, and revise any certificate, opinion, decision, requisition, or notice of the architect. He explained that the decision meant that parties using the arbitration agreement in the standard forms had been unknowingly signing *Scott v Avery* agreements. The decision was, therefore, plainly wrong.

Northern RHA v Derek Crouch Construction Co Ltd was subsequently overruled by the decision in *Beaufort Developments (NI) Ltd v Gilbert-Ash NI Ltd & Ors.*¹⁰⁵ It was held amongst other things that such certificates were not binding and were open to review by any tribunal called upon to determine the rights of the parties.

Lord Lloyd of Berwick said that:¹⁰⁶

Standard forms of building contract have often been criticised by the courts for being unnecessarily obscure and verbose. But in fairness one should add that it is sometimes the courts themselves who have added to the difficulty by treating building contracts as if they were subject to special rules of their own.

The *HGCRA* through the *Scheme* did make UK construction contracts subject to certain special rules of their own with respect to payment and adjudication in 1998.¹⁰⁷

Lord Lloyd explained that the appeal courts had also recently made another decision which surprised the official referees who had been opening up and revising certificates for many

¹⁰³ J Tackaberry, *Ian Norman Duncan Wallace QC: An obituary*, *Construction Law Journal* 2007.

¹⁰⁴ IN Duncan Wallace, *Construction contracts: the architect, the arbitrator and the courts* *Construction Law Journal* 1986 18.

¹⁰⁵ *Beaufort Developments (NI) Ltd v Gilbert-Ash NI Ltd* [1998] CLC 830.

¹⁰⁶ *Beaufort Developments (NI) Ltd* [1998] (n 105) 831.

¹⁰⁷ J Murdoch & W Hughes 2000 (n 3) 109.

years. This other decision was in “Dawneys’ Case”¹⁰⁸ where it was held that when a sum is certified by an architect as due under a building contract (in that case the RIBA form) the employer has no right of set-off. The justification for the decision was said to be that “.....cash flow is the life blood of the building trade.”¹⁰⁹

It was overruled in 1974 when *Modern Engineering* reached the House of Lords. Lord Diplock said at p. 718D:¹¹⁰

It is not to be supposed that so elementary an economic proposition as the need for cash flow in business enterprises escaped the attention of judges throughout the 130 years which had lapsed between *Mondel v Steel* [1841] 8 M & W 858 and *Dawneys’ case* in 1971.....

Lord Hoffman refers to the importance of *Robins v Goddard* in the following way:¹¹¹

.....The court clearly took the view that the draftsman had seen no need to confer an express power on the court in the same terms as the arbitration clause. The court’s jurisdiction was unlimited. It was an arbitrator’s powers which need to be spelled out.

On page 840 Lord Hoffman refers to Multi-Tier dispute resolution by reference to the second tier revision of the architect’s decision by an arbitrator.

Multi-Tier Dispute Resolution

The first edition of the ICE construction contract was in 1947. In 1957, the International Federation of Consulting Engineers¹¹² published the First Edition of their contract. The FIDIC contract, which became known as the Red Book, was based on the current ICE form.

¹⁰⁸ *Dawnays Ltd v F G Minter Ltd Trollope & Colls Ltd* [1971] 1 WLR 1205.

¹⁰⁹ *Modern Engineering (Bristol) Ltd v Gilbert Ash (Northern) Ltd* [1973] 71 LGR 162 (Lord Denning at 167).

¹¹⁰ *Modern Engineering (Bristol) Ltd v* [1974] (n 109).

¹¹¹ *Beaufort Developments (NI) Ltd* [1998] (n 105) 838.

¹¹² Fédération Internationale des Ingénieurs-Conseils (FIDIC)

Arbitration clauses were included in English construction contracts during and since the nineteenth century. The first tier for resolving disputes was referral by either party of the dispute or difference to the engineer for a decision. The engineer's decision was final and binding until the completion of the work. Nevertheless, a party could notify the engineer within 90 days of receipt of the decision that the party wished to refer the matter to arbitration. Following a valid notice, the matter could be referred to arbitration after completion of the work. Baker discusses the development of multi-tiered dispute resolution clauses in international contracts.¹¹³

FIDIC subsequently introduced the use of DBs and the concept of a negotiated amicable settlement into their contract. The first DB in England was on the channel tunnel project.

The Channel Tunnel

On 13 August 1986¹¹⁴ a modified version of the FIDIC third edition contract was concluded for construction of the channel tunnel between England and France. Clause 67 provided for the first tier settlement of disputes by their written referral to a three member panel acting as independent experts, not as arbitrators. The Contractor and the Employer were required to give effect forthwith to every panel decision, unless and until revised by arbitration. A party contemplating arbitration needed to notify the panel within 90 days of receipt of the decision that the party was dissatisfied with it. Arbitration could subsequently be initiated at any time.

The employer had not considered that a cooling system would be necessary for the first construction contract but subsequently introduced the requirement. Stage payments applied for by the contractor for implementing the change were initially certified and paid. The parties then

¹¹³ E Baker, *Is it all necessary? Who benefits? Provision for Multi-Tier dispute resolution in international construction contracts* (2009) www.scl.org.uk visited on 01 November 2009

¹¹⁴ *Channel Tunnel Group Ltd. and Others v Balfour Beatty Construction Ltd.* [1993] 1 Lloyd's Rep 291.

disputed the cost and the employer withheld payments. The contractor threatened to stop work and the employer applied for an injunction requiring the contractor to continue working. A judgement relating to the use of the court's powers to stay proceedings to allow arbitration to proceed went to the House of Lords, who held, amongst other things, that:

.....it was surely legitimate to use the same powers to enforce a dispute-resolution agreement.....

And that:

.....to order an injunction would be to act contrary both to the general tenor of the construction contract and to the spirit of international arbitration; the appeal would be dismissed.....

Lord Mustill said:

I consider that the action can and should be stayed pursuant to the inherent jurisdiction of the Court to inhibit proceedings brought in breach of an agreed method of resolving disputes.

And

.....I would endorse the powerful warnings against encroachment on the parties' agreement to have their commercial differences decided by their chosen tribunals.....

Impartiality

The Departmental Advisory Committee on Arbitration Law (DAC) included impartiality of the arbitrator in the 1996 Arbitration Act as a requirement but not independence. Independence of the arbitrator is included in the UNCITRAL and other arbitration rules.¹¹⁵ It was considered by

¹¹⁵ D St John Sutton, J Kendall and J Gill, *Russell on Arbitration* (21st edn Sweet & Maxwell London 1997) 4-036; Departmental Advisory Committee on Arbitration Law, 1996. *Report on the Arbitration Bill*, Clause

the DAC that an arbitrator who was not independent could not meet the requirements of impartiality. Impartiality is a fundamental requirement of DB members. The tests for impartiality considered by the English courts in relation to judges and arbitrators are reviewed below. In *Rustal Trading v Gill & Duffus* the Claimant applied to have the arbitration award set aside for bias. The common law test for bias was stated in the judgment as:¹¹⁶

.....whether, in all the circumstances of the case, there appeared to be a real danger of bias, concerning the member of the tribunal in question so that justice required that the decision should not stand.

Rustal contended that the arbitrator's involvement in a recent and acrimonious dispute raised doubts as to his impartiality. Gill & Duffus contended that Rustal had continued to take part in the proceedings and was precluded by section 73 (1) of the Arbitration Act 1996 from challenging the decision. The application was refused. It was held that the existence and circumstances of the earlier dispute, which had occurred two years previously, were not alone sufficient to raise doubts about the arbitrator's impartiality. Rustal had written to the tribunal in general terms asking the tribunal to consider the arbitrator's propriety but had, nevertheless, continued to participate in the proceedings following the arbitrator's appointment. This was considered as a positive step in the proceedings and it subsequently precluded Rustal from raising objections as to irregularities.

Moore-Bick said:

.....the court must make its judgment on the basis of the circumstances as it finds them to exist and is not concerned with whether the arbitrator did or did not in fact allow his mind to be affected by them; secondly, the circumstances must be such as objectively to justify doubts as to the arbitrator's impartiality.

24. Power of court to remove arbitrator. In: R Merkin & L Flannery *Arbitration Act 1996* (4th edn Informa Law, London 2008) Appendix 8.

¹¹⁶ *Rustal Trading Ltd v Gill & Duffus SA* [2000] 1 Lloyd's Rep 14.

The same appearance of a 'real danger' of bias test was also referred to in decisions in *Laker v FLS Aerospace*¹¹⁷ and *R. v Pinochet*.¹¹⁸

The test for apparent bias was subsequently changed from 'real danger' to 'real possibility' in *Medicaments and Related Classes of goods (No. 2)*.¹¹⁹ A hypothetical fair minded and informed observer having considered the facts was introduced into the test to bring it into line with Strasbourg jurisprudence. In *Porter v Magill*¹²⁰ Lord Hope said:

.....The question is whether the fair minded and informed observer, having considered the facts, would conclude that there was a real possibility that the tribunal was biased.

Allegations that the arbitrator failed to properly conduct proceedings were made in *Norbrook Laboratories Ltd v Tank*¹²¹ because the arbitrator had contacted witnesses directly without informing the parties. It was held that the arbitrator's actions constituted a failure to conduct the proceedings properly and caused substantial injustice to the parties. From these actions the fair minded observer would have considered the real possibility of bias. For that reason the decisions had to be set aside under section 68. An antagonistic attitude to the solicitor and the arbitrator's use of an employer of the respondent company as an expert witness were not considered sufficient grounds for removal. According to the court, the arbitrator's use of unilateral telephone conversations to one party constituted a failure to properly conduct proceedings. It was not, however, considered that the unilateral telephone conversations

¹¹⁷ *Laker Airways Inc. v FLS Aerospace Ltd. and Burnton; FLS Aerospace Ltd. v Laker Airways Inc.* [1999] 2 Lloyd's Rep 45.

¹¹⁸ *R. v Bow Street Metropolitan Stipendiary Magistrate Ex p Pinochet Ugarte (No.2)* [2000] 1 AC 119.

¹¹⁹ *Medicaments and Related Classes of Goods (No.2), Re* [2001] 1 WLR 700

¹²⁰ *Porter v Magill* [2001] UKHL 67, [2002] 2 AC 357.

¹²¹ *Norbrook Laboratories Ltd v Tank* [2006] Lloyd's Rep 485

caused a substantial injustice because the conversations were brought to the attention of the parties.

A number of legal principles pertinent to apparent bias are illustrated by the cases associated with the dispute between ASM of India and TTMI of England. Principally: the test for apparent bias, the requirement that challenges against an arbitrator regarding bias must be made forthwith and the requirement for the courts to respect the method of dispute resolution agreed by the parties.

In *ASM Shipping Ltd of India v TTMI Ltd of England [2006]*¹²² the applicant ship owners challenged an arbitration award. The reasons were: allegations of potential bias directed at one of the arbitrators and allegations of actual bias because the arbitrators refused the applicant's request to adjourn a hearing. The court also had to decide whether, by continuing with the arbitration, the applicant, through conduct, waived the right to object to the arbitrator.

There were initially two arbitrators who made a number of awards in 2001 and 2002. A dispute then arose as to whether the owners had properly complied with their obligations for disclosure. In July 2004 the tribunal awarded the charterers their costs relating to an application for disclosure of owner's files. The two arbitrators then appointed a third arbitrator, referred to as XQC in the case notes. Just over a week before a hearing of preliminary matters fixed for early October 2004 the applicants requested an adjournment when their lead counsel became unavailable due to a family bereavement. The tribunal rejected the request and the owners arranged a replacement QC. The owners later alleged that the arbitrators' rejection of their request to adjourn the hearing represented actual bias.

¹²² *ASM Shipping Ltd of India v TTMI Ltd of England [2006]* 1 Lloyd's Rep 375.

At the hearing, Mr Moustakas, the owner's principal witness, recognised that the third arbitrator (XQC) had recently acted in arbitration for the charterer's solicitors. Allegations were also made in the previous arbitration that the owners had not complied with their obligations for disclosure. Serious allegations made against the propriety of Mr Moustakas in the previous arbitration were later found to be totally unfounded. The same solicitors were acting for the charterers in the instant arbitration. Mr Moustakas told the owner's solicitor that XQC had close connections with the charterer's solicitor before the hearing but details could not be discussed because the start was imminent.

After taking evidence from Mr Moustakas, XQC advised the parties that he had been involved in the previous arbitration and requested the parties to consider his involvement, which XQC said had been minor and did not warrant his recusal.

The owner's representative instructed the owner's solicitor to object to XQC but the replacement counsel requested the hearing to continue because he had not had time or opportunity to consult with his clients. An objection was made but the parties continued with the hearing. It was not until January 2005 that the owners challenged the award under section 68. By then an award, which was largely in the charterer's favour, had been made on 23 December 2004 and taken up by the owners. The charterers denied any irregularity. They asserted that the owners had waived their right to object by failing to provide the notice required by section 73 forthwith.

Morison J used the words Moore-Bick J had used in *Rustal Trading* at page 19 col. 2 emphasising that pursuant to section 73:¹²³

.....a party to an arbitration must act promptly if he considers that there are grounds on which he could challenge the effectiveness of the proceedings. If he fails to do so and continues to take part in the proceedings, he will be precluded from making a challenge at a later date.

In the decision on the question of apparent bias, Morison J emphasised that the court was thinking in terms of possible rather than probable bias. He said: ¹²⁴

The new test, using the words 'real possibility' as opposed to 'real danger', was not significantly different in that respect; although the imposition of a fair minded observer (to bring the test into line with Strasbourg jurisprudence) was different. The threshold is 'a real possibility of unconscious bias'.

He went on to say that a right to a fair hearing by an impartial tribunal was fundamental. In respect of the allegations of apparent bias he found as fact the immediacy of the concern expressed by Mr Moustakas on learning the identity of the third arbitrator. After further discussion, he expressed the opinion that the independent observer would share the feeling of discomfort expressed by Mr Moustakas and concluded that there was a real possibility that the tribunal was biased. Morison J said that an argument that the two arbitrators would have reached the same decision as that reached by the three man tribunal was irrelevant to the issue that the objective observer must decide: ¹²⁵

The question is whether XQC should have recused himself at the beginning of the third day, by which time the arbitration had not been completed and the other two arbitrators would have retained an open mind as to the result.

¹²³ *ASM Shipping Ltd of India* [2006] (n 122) 385.

¹²⁴ *ASM Shipping Ltd of India* [2006] (n 122) 387.

¹²⁵ *ASM Shipping Ltd of India* [2006] (n 122) 388.

It was held that an objective and independent observer considering the facts would have shared the feeling of discomfort expressed by the witness about the arbitrator's impartiality and would have concluded that there was a real possibility of bias. The refusal of the adjournment, however, was not evidence of bias because the decision seemed to be the right decision in the circumstances. Nevertheless, it was held that the owners had waived their rights to object to XQC. The owners were not criticised for letting Mr Moustakas start his evidence. Morison J held that:

Owners were faced with a straight choice: come to the court and complain and seek his removal as a decision maker or let the matter drop.....The threat of objection could not be held over the head of the tribunal until they made their decision, and could be seen as an attempt to put unfair and undue pressure upon them.

Morison J, on 19 October 2005, concluded by advising that he had not heard arguments about the other two arbitrators continuing with the arbitration and expressing the hope that they could continue.

The owners subsequently applied for removal of the other two arbitrators¹²⁶. Whether or not the two remaining arbitrators should continue to act was discussed at a further hearing before Morison J on 17 November 2005, where:¹²⁷

The owners' counsel indicated that an application might be made under section 24 of the Arbitration Act 1996 to remove the remaining arbitrators on the basis that they were tainted with M's apparent bias, but counsel did not at that time make any formal objection to H and S continuing as arbitrators.

At the 17 – 18 November 2005 hearing Morison J said his previous comments about H and S continuing were based on the court's perception that the arbitration should be concluded as quickly as possible. He then said that from what he had heard on 17 November the objective of

¹²⁶ *ASM Shipping Ltd of India v TTMI Ltd of England (no 2)* [2007] 2 Lloyd's Rep 155.

¹²⁷ *ASM Shipping Ltd v Harris* [2008] 1 Lloyd's Rep 61.

concluding the arbitration as quickly as possible might be best achieved by the appointment of a wholly new panel. Nevertheless, he expressed no firm view either way.¹²⁸

XQC resigned on 24 November 2005 and on 29 December 2005 the owners asked H and S to stand down. The basis of the request was that they were tainted by XQC's apparent bias. H and S refused to stand down. The parties then continued with the arbitration to the extent that correspondence was exchanged. H and S said on 16 March 2006 that they would stand down if the charterers agreed that they should resign. Concerning the owners, Smith J subsequently said:¹²⁹

On 16 May 2006 the owners made this application to remove the arbitrators. (They sought to make it by issuing an application notice and issued a claim form only on 25 April 2007, but that is not relevant to anything I have to decide.) It was agreed by the owners, the charterers and the arbitrators that no steps be taken in relation to the application until after the Court of Appeal had decided the application for permission to appeal.

The owner's appeal argued that Morison J's decision on waiver was so obviously wrong that there was no decision under section 68 at all; alternatively, that the decision contravened the guarantee of a fair hearing before an impartial tribunal accorded by article 6 of the European Convention of Human Rights. It was held on 16 October 2006 that the application would be dismissed.¹³⁰ Article 6 of the *European Convention on Human Rights*¹³¹ confers the right to a public hearing. The parties waive the right to a public hearing by agreement to arbitrate their dispute. It is, therefore, imperative that the tribunal is impartial to ensure that a substantial

¹²⁸ *ASM Shipping Ltd* [2008] (n 127) Paras 15 – 16.

¹²⁹ *ASM Shipping Ltd* [2008] (n 127) Para 27.

¹³⁰ *ASM Shipping Ltd of India v TTMI Ltd of England*, [2007] 1 Lloyd's Rep 136.

¹³¹ Human Rights Act 1998 Sch1 Pt I Art 6.

http://www.opsi.gov.uk/acts/acts1998/ukpga_19980042_en_3#sch1 visited on 19 December 2009.

injustice is not done to either party and/or that a serious irregularity is not committed. Similar considerations apply to members of DBs.

The owner's solicitors wrote to the arbitrators on 27 October 2006, following dismissal of the appeal, asking H and S if they still considered that they did not have to stand down whether they would consider appointing a retired High Court or Court of Appeal Judge as third arbitrator. Smith J in paragraph 28 says that, if H and S were minded to agree to the request, the owner's solicitors said they would recommend to the owners that the section 24 notice was unnecessary.

In the meantime, in April 2007¹³², the owner's application for an order under section 24 removing the two arbitrators was heard by Clarke J. The owners claimed that the charterers should be debarred from resisting the application because the charterers were in wilful contempt of court by failing to comply with an order of 7 September 2006 which gave them permission to enforce an earlier freight award. Clarke J held that the debarring applications would be dismissed because, even if the charterers were in contempt, there were a number of reasons why they should still be heard. These were stated as:

.....the application made by the owners was adverse to the charterer's interests, and it was unjust and unsatisfactory for the court to hear only what the owners had to say about the removal of the arbitrators; the application for permission to enforce the freight award and the section 24 application were sufficiently different proceedings to make it inappropriate to refuse to hear the charterers in relation to the latter because of a failure to comply with an order made in respect of the former; and debarring the charterers from defending the section 24 application would be disproportionate....

¹³² *ASM Shipping Ltd of India (no 2)* [2007] (n 126) 155.

Clarke J explained that it would be unjust and unsatisfactory to only hear what the owners had to say and shutting the charterers out would impede rather than promote justice. At paragraph 54 he said:

So far as debaring the charterers from advancing their claims in the arbitration is concerned, I do not accept that I have any power to do so. The jurisdiction of the arbitrators derives from the agreement of the parties. Under the Act the tribunal enjoys certain powers in the event of non-compliance with its orders: see section 41(7). Under section 44 the court has certain powers in relation to the evidence of witnesses, the preservation of property, the sale of goods, the subject of the proceedings, the granting of injunctions and the appointment of a receiver. These are only available - see section 44(5) - to the extent that the arbitrators do not possess these powers or are unable to act. But the Act confers on the court no power to debar a party from appearing in arbitral proceedings, in which the arbitrators' jurisdiction is founded upon the agreement of the parties.

A third arbitrator was not appointed by the 28 June 2007 date of Smith J's judgement.

Smith J at paragraph 33 said the essential questions requiring consideration were:

- (i) Do circumstances exist that give rise to justifiable doubts as to the impartiality of the two arbitrators?
- (ii) Are the owners precluded from raising complaints about the two arbitrators continuing or from having the two arbitrators removed because they took part in the proceedings or continued to do so without making their objection timeously?

Smith J explained that the proceedings continued until they reached their conclusion, normally in the publication of a final award, and reiterated Morison J's quote by Moore-Bick J from *Rustal Trading*.¹³³ It was not sufficient for the purposes of section 73 that a party indicates that an objection might be made. He must make his objection and that the objection must be made forthwith.¹³⁴

¹³³ *ASM Shipping Ltd* [2008] (n 127) Para 51.

¹³⁴ *ASM Shipping Ltd* [2008] (n 127) Para 62.

In *Annie Fox and Others v PG Wellfair Ltd*¹³⁵ the claimants were the owners of flats built by Wellfair subject to various defects and still under a NHBC Warranty. The claim for recovery of the costs of putting the defects right and for loss of amenity was unopposed. The arbitrator made his own assessment. Without giving the owners any details of the case he had made against them, he awarded about 10% of the amount claimed. It was held that he had mis-conducted the proceedings within section 23 of the Arbitration Act 1950. In the appeal by the claimants Lord Denning said of the respondents:

By not coming to the arbitration they virtually admitted that it was a genuine claim which was not exaggerated but only needed assessment. They ought not to leave it to the arbitrator to pull the irons out of the fire for them: or to take up cudgels on their behalf. For thereby they expose him to the charge of being partial to their side and not impartial as he ought to be.

In respect of the omission of the requirement for independence from the 1996 Arbitration Act; the DAC gives the example of barristers who may not be wholly independent in the sense that they work in the same chambers, but they are nevertheless impartial. Such a question arose in *Laker v FLS Aerospace*¹³⁶. Mr. Burnton was appointed by FLS as their arbitrator on 23 September 1998 but Mr Sullivan, who shared the same chambers, had already been instructed by Lakers. Mr Burnton was requested to resign by Lakers because another member of the same chambers had already been instructed by the other party in the arbitration.¹³⁷

In the affidavit of Mr. Bolkenhol, Laker's president, it was stated inter alia that Laker strongly doubted Mr. Burnton's impartiality. He argued that Laker was a U.S. company and in the U.S. it would be impermissible and unthinkable for two lawyers from the same firm to assume roles in the same matter where an actual or potential conflict of interest arose.

¹³⁵ *Annie Fox and Others v P. G. Wellfair Ltd* [1981] 2 Lloyd's Rep 514.

¹³⁶ *Laker Airways Inc.* [1999] (n 117).

¹³⁷ *Laker Airways Inc.* [1999] (n 117).

It was held amongst other things that the test under section 24 of the Arbitration Act 1996 “was an objective one - whether circumstances existed that gave rise to justifiable doubts as to an arbitrator's impartiality; an unjustifiable or perhaps unreasonable doubt was not sufficient”. Rix J explained:

.....barristers were all self-employed; practicing barristers were prohibited by the rules of their profession from entering partnerships or accepting employment precisely in order to maintain the position where they could appear against or in front of another; if it were otherwise public access to the bar would be severely limited; each time a member of a set of chambers accepted instruction he would debar any other member of those chambers from accepting instructions from any other party with a different interest in the dispute; nor would he be able to appear before a Recorder, Deputy Judge or arbitrator in the same proceedings.....

Conclusion

The conclusions drawn from the above narrative and discussion are focussed on those which are considered most important for construction projects in general and DBs in particular. A common thread in a number of the cases referenced is that the courts give effect to the parties' agreement. Powerful endorsements of ADR by the English courts are provided, particularly by Lord Mustill in the Channel Tunnel case and Clarke J in *ASM Shipping*. The concept that the contract is the law of the parties is fundamental to the success and enforcement of ADR methods.

Construction contracts are subject to the same principles of law as other fields of practice. They are complex due to the machinery for making stage payments and facilitating changes, while keeping the contract working. Construction disputes are also demonstrably complex. The discussion demonstrates that dispute resolution requires objective consideration of all the surrounding circumstances and decisions are based on certain rules which must be followed.

A point commented on by Knutson is that the Vice Chancellor in Mackintosh and in Pawley v Turnbull recognised that the engineer must act fairly between the parties for the contract to work. If either party perceives injustice has been done the contract or law may provide the necessary mechanism to redress the balance via multi-tier dispute resolution. It is, consequently, crucial for the parties to agree the dispute resolution procedures in the contract.

In general, the court does not interfere with decisions made by the parties' chosen dispute resolver unless there has been manifest abuse or manifest error in law or fact. Impartiality was a fundamental requirement for an individual or tribunal acting in a judicial capacity so as to maintain the confidence of the parties in the credulity of the decision making. With this point in mind, the existence of any circumstances calculated to bias the mind of an arbitrator unknown to either of the parties who had submitted to his decision would be sufficient grounds for the court's interference. The test for bias is whether the fair minded and informed observer, having considered the facts, would conclude that there was a real possibility of bias. It is also crucial that if either party has any concerns about bias by any tribunal member that those concerns are raised immediately and dealt with appropriately.

Concern about the developing complexity and the high costs of litigating construction disputes led to the establishment of the Official Referees Court in 1873. Such concerns are not new. Over the same period coordinating and organising bodies improved contractor's bargaining power leading to the introduction of standard forms of contract in London in 1870 and their subsequent spread.

Chapter 4

The Causes of Disputes

Introduction

The findings of research into the causes of disputes on construction projects by a number of construction industry commentators and organisations are discussed in this Chapter. The focus is on the Construction Industry Institute's (CII) studies and their questionnaire for deriving the project Dispute Potential Index (DPI). The DPI can be used to predict the potential for disputes on a proposed project or to identify areas of weakness in the project teams. Performance improvement measures can then be considered and developed.

Causes of Disputes

According to Thompson, adversity and disputes arise primarily in both the UK and US construction industries: ".....due to a lack of communication, distrust, misinterpretations of contracts, uncertainties of roles and responsibilities, and 'us v. them' attitudes due to an imbalance of risks allocations." ¹³⁸

Similar reasons are cited by the CII¹³⁹ who cite the following three basic factors as the causes of disputes:

1. **Uncertainty and complexity arising from pre-existing conditions**: causing changes beyond the parties' expectations; and

¹³⁸ RM Thompson, 'Efforts to manage disputes in the construction industry: a comparison of the NEC and the dispute review board' (MSc Virginia Polytechnic Institute and State University 1998).

¹³⁹ MC Vorster, *Dispute Prevention and Resolution*. (Construction Industry Institute, Dispute Prevention and Resolution Task Force, Virginia Polytechnic Institute and State University 1993).

2. **Problems in the contracting process**: such as imperfect contracts drafted by people who are un-anticipatory and unwilling to reason or communicate, incomplete scope definition, unrealistic expectations in respect of cost or time for construction and poor construction performance; and
3. **Issues and problems arising between people**: as a result of poor interpersonal skills, poor communication, lack of responsiveness and unethical or opportunistic behaviour.

A factor relating to incomplete scope definition causing disputes is the late provision of design information or changes to a design previously provided which causes disruption and contractor inefficiency on site. Schwartzkopf¹⁴⁰ states that:

Craft labour performing work can perform that work productively only when the inputs necessary for that work are available in the required place at the required time with prior knowledge of its availability being communicated to the field workforce.

These inputs include:

- Materials;
- Tools;
- Equipment;
- Design Drawings;
- Precedent Work;
- Required Inspections;
- Proper scheduling of other work (precedent, concurrent and successor)

¹⁴⁰ W Schwartzkopf *Calculating Lost Labour Productivity in Construction Claims* (2nd edn Aspen Publishers New York) Ch. 8.

In traditional contracting particularly, the contractor depends on the employer's engineer for many of these inputs – especially design provision. Schwartzkopf confirms that the field craft labour has direct control of the man-hours required to perform the work once the inputs are in place. Until those inputs are in place, however, the ability of the craft labour to perform work productively is limited and restricted. Schwartzkopf references studies demonstrating that availability of materials was the most frequent cause of inefficiency. Tool availability and re-doing work were also of high importance. It was noted that:

.....(T)he poor engineering that causes the work to be re-done may be directly related to the material and tool/equipment problems also cited by the workers. If the craft supervision is diverted to deal with problems relating to poor drawings, it is not planning ahead to make sure that the necessary materials, tools, and equipment are available.

A further study referenced identified the relationship between project definition and level of cost growth dependent upon the level of process development. The study concluded that planning for significant degrees of overlap between engineering and construction, which is an employer risk under traditional contracting, appeared to hold significant risk for schedule slippage and increased costs. Similarly, provision of basic design or changes to it in design and build contracts are employer risks.

Reported root causes of disputes according to the National Research Council report on *Uses of Best Dispute Resolution Practices by Project Owners* are:¹⁴¹

1. Inequitable allocation of risk between owners, contractors and sub-contractors
2. Inappropriate contracting strategies

¹⁴¹ *Reducing Construction Costs: Uses of Best Dispute Resolution Practices by Project Owners*, National Research Council Federal Facilities Council Technical Report No. 149 (2007). <http://www.nap.edu/catalog/11846.html> visited on 19 December 2009.

3. The low bid process
4. Lack of alignment of owner's, contractor's and sub-contractor's objectives
5. Inadequate owner involvement
6. Poorly developed and executed contracts
7. Poor communication
8. Lack of project management procedures
9. Fast track scheduling

Put more succinctly, the theme of the FIDIC first Experts Workshop on the 1999 First Edition series of contracts was:¹⁴²

.....the origin of many a dispute can be traced back to acts or omissions that occurred before or at the signing of the contract.....

The importance of the high risk of construction projects together with the need for the industry to understand the risks and manage them was recognised. So too was the need for the parties to understand the basic factors in choice of contract and procurement methods. It was said that:

Management of the risks involved and their allocation between the parties, can be said to have an overriding importance in any construction project, and to govern the conditions under which work is executed, the cost of the work, and often the overall success or failure of the project.....

¹⁴² L Ndekugri, N Smith & W Hughes, *A Network of Experts / Users of the FIDIC Contracts 1st Workshop – Contract Formation* (Blackhorse House, University of Reading 2005).

According to the workshop, the employer needs to develop a contract strategy. Options such as: who will do the design; the cost, the source of finance, the construction duration and the means of operation of the completed facility require consideration at the outset. The strategy will determine the contract type: traditional employer design or contractor design and build or turnkey.

Risk and Price

There is no reason, according to Abrahamson, preventing the employer from asking the contractor to act as insurer as well as builder for certain risks.¹⁴³ A premium is included in the contract price for each risk transferred by the employer to the contractor in case a risk materialises. By pooling the risks and the premiums for dealing with them over a number of projects the contractor makes a profit. If the risk (or hazard) was expected to occur on every project it would be a certainty and should be priced as such every time.

When the owner assumes the risk, the contractor no longer needs to include the premium. Murdoch and Hughes assert:¹⁴⁴

.....(r)ecognition of the essential relationship between risk and price has another important effect. It renders unnecessary any discussion of such emotive (but misleading) issues as whether the passing of the risk to one party or the other contractor is 'unfair' or 'immoral'. As Wallace (1986) points out, *any discussion about whether or not a particular risk should be so included in the price is a discussion of policy, and not of 'fairness', 'morality' or 'justice'*.

Abrahamson, however, confirms that even the law was coming to recognise that some contracts were genuinely freely negotiated whereas others were not. Murdoch and Hughes also noted

¹⁴³ M Abrahamson, 'Contractual risks in tunnelling: How they should be shared', (November 1973) *Tunnels and Tunnelling*.

¹⁴⁴ J Murdoch & W Hughes, 2000 (n 3) 8.

later that general contracting may be the default position because no one planned the procurement method. They also recognised that contractors may only price for their costs and the market position and pointed out that:¹⁴⁵

.....the way that risks are apportioned under a general contract, while fair to all of the parties, is not well understood by many who use the forms.....

.....Every person who engages in the construction process should seek to understand the contracts that they are using, especially when they are using amended or unilaterally drafted contracts. The aim is not to become litigious, but to understand better the positions from which adversarial conflicts develop. A good understanding of each other's positions would enable adversaries to resolve their disputes quickly and cheaply, without recourse to the law. As always, in the final analysis, it is not what the contract says that matters, but how the people in the team interact.....

FIDIC emphasise that, assuming competent contractors are selected; the most important factor in avoiding disputes is the allocation of risks between the parties.

Dispute Potential Index

Based on a literature review and their own experience the Construction Industry Institute (CII) formulated a list of predictors of construction disputes. The predictors and the relationships between actual construction disputes and project characteristics were then studied and evaluated on 159 actual projects. From the results, a model dispute potential index¹⁴⁶ (DPI) was derived. The model was tested against a further 25 projects, which verified the DPI.

There are 8 main input variables:

1. Owner's management and organisation

¹⁴⁵ J Murdoch & W Hughes, 2000 (n 3) 40.

¹⁴⁶ Construction Industry Institute Dispute Prevention and Resolution Research Team, *Disputes Potential Index* (CII Special Publication 23-3 1995).

2. Contractor's management and organisation
3. Project complexity
4. Project size
5. Financial planning
6. Project scope definition
7. Risk allocation
8. Contract obligations

From the answers to 21 questions the DPI programme calculates a model score which represents the percentage probability of the dispute performance of the project. A high DPI predicts a good project with few disputes whereas a low DPI indicates a "poor" project which is likely to suffer from disputes.

The questions forming the basis of the model are grouped into 3 main categories: people, process and project.

The DPI focus on the category "people" recognises that the interrelationships between the people involved with any construction project are fundamental to its success. It emphasises the importance of the number of organisations, roles, responsibilities, personalities and different expectations involved. The CII notes that a combination of a teamwork approach with qualified technical management improves the overall success rate of construction projects.

The process category relates to carrying out the design, contracting and construction process. It includes the scope definition and planning of the project; selection of contracting and payment

strategies, how risk is allocated and managed and contract administration procedures. The quality of the construction documents, specifications and dispute resolution measures fall into the process category.

The project category refers to the technical nature and complexity of the project and limitations of the site which cannot be changed once they are decided.

Each category is then further sub-divided into a number of factors fundamental to the success or otherwise of a construction project. These factors comprise the following:

People Factors

1. Management capability of both the owner and the contractor, which includes the skill of each organisation's upper management, their long term business concerns and attitude towards customer satisfaction.
2. Effective responsibility structure of both the owner and the contractor, which requires clear lines of responsibility and the authority of people to make decisions about matters within their control.
3. Contracting firm's project experience with the specific type of project.
4. Success of past projects for both parties, which includes meeting schedules, meeting budgets and level of disputes encountered.
5. Individual experience and competence of the contractor's staff as distinct from the overall experience of the organisation.
6. Interpersonal skills of the staff of both the owner and the contractor.

7. History together on previous projects as owner and contractor.

Process Factors

1. Quality input, which is based on the level of pre-contract pre-construction planning, efforts towards determining constructability, value engineering initiatives and other quality reviews.
2. Financial planning and possibility of changes, the adequacy of funding for the project, the financial condition of the parties and the experience and effort of the planners.
3. Scope is defined appropriately according to the type of project and contract. Definition is required of both the physical facility to be built and the services expected from the contractor.
4. Realistic obligations concern the attainability of the requirements for the schedule, budget and quality of the work.
5. Risk identification / allocation concern the definition and understanding of the potential problems and risks involved in the project and their assignment to the party best able to manage the risk.
6. Adequacy of technical plans and specifications involve development, review, completeness, clarity and organisation of the contract documents.
7. Operating procedures concern the contract requirements for communications, particularly for payments, scheduling and submittals and whether or not these are clearly spelled out and reasonable.

Project Factors

1. Design complexity of the project.
2. Construction complexity, including the requirements for materials, methods, techniques and site specific factors.
3. Project size is important if the project is unusually large for either party.

Summary of the Results

The people group were identified as having the most effect on the prediction, then the process and finally the project group. People make the difference between a good and a poorly performing project in terms of disputes. It was also found that the contractor's people factors affected the potential for disputes more than the owner's people factors.

Complex projects and project variables did not have a great deal of effect on the dispute potential of a project. People resolve or foment disputes; therefore, the people category had the greatest impact on the DPI. Pre-construction planning and contractual relationships can help to prevent disputes but people remain the most important factor determining the potential for disputes.

Project scores only affected the outcome of a project when the people and process scores were average. The CII found that the ".....potential for disputes is definitely more sensitive to Process than Project factors. This would indicate that disputes depend more on how something is done rather than on what is accomplished."

The results can be used to indicate potential project problems or areas of weakness which can be addressed in order to improve the overall likelihood of success.¹⁴⁷

Conclusion

The Construction Industry Institute identified disputes as arising out of three main areas, designated: people, process and project. The study found that the ability of organisations or individuals to work together was a greater determination of a project's dispute performance than any other type of project variable.

¹⁴⁷ JP Groton, *Converting the construction industry's 'disputes potential index' into a 'success potential index' for any kind of business relationship*, <http://www.iaccm.com/contractingexcellence.php?storyid=512> visited on 16 November 2009

Chapter 5

Dispute Boards

Introduction

Contemporary construction industry developments are reviewed and discussed in the first part of this chapter followed by a discussion of the philosophy behind DBs.

Industry developments include using computing technology for more effective project management and the introduction of the NEC as well as ADR methods.

History of DBs and Contemporary Events

After World War II the complexity of construction contracts continued to increase in line with new technical developments and increased health, safety and environmental legislation. Contractors were burdened with what were effectively additional overhead costs and had to cut margins to get work. Relationships between employers and contractors deteriorated due to a combination of factors: aggressive contractual management was needed by contractors to protect their margins, and public utility companies were starting to reduce the independence of the engineer.¹⁴⁸ Arbitration or litigation was expensive and time consuming. Abrahamson pointed out that the facts tended to get so confused by the time they reached the arbitrator or judge that it was chance whether justice or injustice was the result.¹⁴⁹ Sensible solutions were sought. One solution, out of which DBs developed, arose from the technical Joint Consulting

¹⁴⁸ J King, *A Century of Tunnelling and Where We Go Now* The 2000 Harding Lecture. http://www.tunnelonline.info/Journals/Tunnels/Tunnels_and_Tunnelling/July_2007/attachments/00%20Harding%20Lecture%20_JKing.pdf visited on 10 April 2010.

¹⁴⁹ M Abrahamson, November 1973 (n 143).

Board at the Boundary Dam, Washington, which, in the 1960s agreed to party requests for it to decide conflicts and other matters.¹⁵⁰

Another solution stemmed from the set of basic principles on which modern contracts could be based recommended by the Banwell Report in 1964, which led to the development of the NEC.¹⁵¹

According to the DRBF Manual, in 1974 the National Committee on Tunnelling Technology in the USA paper on *Better Contracting for Underground Construction* focussed on the undesirable consequences of claims, disputes and litigation.¹⁵² A DB was established on the Eisenhower Tunnel project in 1975. Following the parties' perception of the benefits the board brought to the project the approach was subsequently adopted throughout the USA.

El Cajon was the tallest concrete arch dam in Latin America in the early 1980s. The contractor was Italian and the engineer was Swiss. The Honduras Electric Company had never carried out a large project or one with international contractors before. Due to these reasons, Al Mathews, an American with DB experience, convinced the World Bank to use a DB.¹⁵³ All disputes were resolved amicably by completion of construction. The World Bank¹⁵⁴ subsequently encouraged the international spread of DBs by suggesting their use on projects they financed. In 1986 the Channel Tunnel successfully used a three party panel to decide disputes and the House of Lords supported the method of dispute resolution chosen by the parties.¹⁵⁵

¹⁵⁰ C Chern 2007 (n 17) 8.

¹⁵¹ RM Thompson & N Shaw 'NEC One Size Fits All', (2007) EPMF Seminar.

¹⁵² http://www.drb.org/manual/4.2_final_12-06.pdf visited on 16 December 2009.

¹⁵³ C Chern 2007 (n 17) 8.

¹⁵⁴ <http://www.drb.org/manual> visited on 07 August 2009

¹⁵⁵ *Channel Tunnel Group* [1993] (n 114).

DBs were first introduced in the World Bank's *Sample Bidding Documents for Procurement of Works* in the December 1991 edition.¹⁵⁶ Within the procedures for settling disputes developers of major projects were "...encouraged to consider..." a DB.

The Joint Code of Practice for Risk Management of Tunnel Works in the UK was prepared by the Association of British Insurers and the British Tunnelling Society in 1993.¹⁵⁷ The objective of the code was to secure best practice for the minimisation and management of risks associated with the design and construction of tunnels and underground structures. The code was intended to apply to contractors all risk insurance and third party liability insurance for tunnel works. Risk registers were required identifying ownership of risk at each stage of the project. Clear and concise details of how the risks were allocated, controlled, mitigated and managed at every stage of the project were required.

The NEC developed by Dr Martin Barnes and others was published in 1993.

Sir Michael Latham's report *Constructing the Team* on procurement and contractual arrangements in the UK construction industry published in 1994 recommended Adjudication for resolving disputes.¹⁵⁸ The first of five recommendations was that there should be no restrictions on the issues capable of being referred for a decision. The second was for an immediate implementation of the adjudicator's award. The third was that appeals should not delay the implementation of the award and that appeals should be after practical completion unless an immediate and exceptional issue arose. The fourth recommendation was for the courts to support adjudication by agreeing expedited interim payment procedures. The final

¹⁵⁶ http://www.drb.org/manual/Section_4_QuickPrint_12-06.pdf visited on 05 January 2010.

¹⁵⁷ The Association of British Insurers and the British Tunnelling Society, *The Joint Code of Practice for Risk Management of Tunnel Works in the UK*. (The British Tunnelling Society, London 1993).

¹⁵⁸ M Latham 1994 (n 40).

recommendation was for the implementation of training procedures and a code of practice for adjudicators. In the executive summary it was also noted that the common practice of endlessly refining existing conditions of contract would not solve adversarial problems.

Latham recognised the NEC fulfilled many of the requirements but said that changes to it were needed and the matrix was not yet complete. Latham said that a complete family of interlocking documents was required. Amending the Standard JCT and ICE forms to take account of the principles was also mooted. The development of the NEC, adjudication and DBs has since proceeded concurrently. Unprecedented developments in computing have promoted the development and use of more effective scheduling techniques and earned value management on construction projects.

The hope at the time of the Latham report was that arbitration after the completion of the contract would become much rarer following the implementation of the proposed compulsory adjudication. Footnote 87 of *Constructing the Team* refers to comments by Lord Justice Lawton¹⁵⁹ that:

The Courts are aware of what happens in these building disputes; cases go either to arbitration or before an Official Referee; they drag on and on; the cash flow is held up....that sort of result is to be avoided if possible....

At the time of the Latham enquiry Lord Woolf was reviewing the legal system of England and Wales because of the high cost and time taken by the courts to dispense justice. Mr Justice

¹⁵⁹ *Ellis Mechanical Services v Wates Construction Limited* [1976] 2BLR 57.

Jackson¹⁶⁰ referred to the reforms as whirlwinds hitting both existing systems and confirmed the comments in *Constructing the Team*:

Trials and hearings were taking too long. The delays and cost of civil litigation were inhibiting access to justice. Furthermore, although mediation and other forms of dispute resolution were emerging as respectable and effective techniques, they were not being sufficiently used.

The first UK civil case where all the documents were on a computer disc was heard in the Official Referees Court, St Dunstan's House in 1994.¹⁶¹

Internationally, in January 1995 the World Bank published a new edition of one of its standard bidding documents entitled *Procurement of Works*. It continued to use the *FIDIC, Conditions of Contract (International) for Works of Civil Engineering Construction* but the usual provision for the Engineer to decide disputes was deleted and a DB was substituted instead.¹⁶² The new provisions required the appointment of a DB following conclusion of the contract. All disputes required submission to the DB for a written report and recommendation. If neither party objected in writing within 14 days of receipt of the report and recommendation it became final and binding. If a notice of objection was made, the recommendation did not become binding and the parties were required to continue with negotiations.

Other multilateral development banks, such as the Asian Development Bank, subsequently recommended the World Bank provisions.

¹⁶⁰ Mr. Justice Jackson, 'Denning Lecture 2006 - The Tower of Babel: what happens when a building project goes wrong?' (2008), *Construction Law Journal*.

¹⁶¹ Editorial 'Courts; Official Referees; procedure' (1998), *Construction Law Journal*.

¹⁶² P Chapman, 'Dispute Boards – A new force to be reckoned with in international construction', 6/7th May 2006, Dispute Resolution Board Foundation, 6th International Conference, Budapest. www.drb.org/articles/undf03-04.htm visited on 06 January 2010.

The second edition of the NEC was published in November 1995.¹⁶³

In England, *The Arbitration Act 1996* came into force on 31 January 1997. A fundamental principle of the Act is¹⁶⁴ “.....to obtain the fair resolution of disputes by an impartial tribunal without unnecessary delay or expense.” Although the *HGCRA* had not yet come into force an adjudicator is similarly required to act impartially¹⁶⁵ and avoid incurring unnecessary expense when deciding the dispute within the time frame provided for.

The *HGCRA* and the *Scheme for Construction Contracts (England and Wales) Regulations* came into force on 01 May 1998. The *CPR*¹⁶⁶ 1998 came into force on 26 April 1999. The relevant statutory provisions of the *HGCRA* are sections 104 to 117. A pre-requisite for adjudication according to section 107 is that there must be a construction contract which is evidenced in writing. Evidenced in writing can mean oral reference to a written contract. According to section 104 a construction contract must provide for the carrying out of construction operations. Section 105 defines and describes what comprises construction operations. Section 106 states that the *HGCRA* does not apply to construction contracts with a residential occupier.

Section 108 (1) confirms the right of a party to refer a dispute arising under a construction contract to adjudication under a procedure complying with section 108. The main provisions in Section 108 (2) demonstrate the pace of the process.

¹⁶³ B Eggleston, *The NEC3 Engineering and Construction Contract A Commentary*, (2nd edn, Blackwell Publishing, Oxford, 2006).

¹⁶⁴ Arbitration Act 1996 s 1 (a).

¹⁶⁵ Construction Scheme 1998 s 12 (b).

¹⁶⁶ Civil Procedure Rules 1998.

Section 108 (2) (a) enables a party to give notice of his intention to refer a dispute to adjudication at any time. Section 108 (2) (b) requires a timetable with the object of appointing the adjudicator and referring the dispute **within 7 days**. Section 108 (2) (c) requires the adjudicator **to reach a decision within 28 days of referral** and allows the adjudicator to extend the period available for a decision with the consent of the parties. Section 108 (2) (d) allows the adjudicator to extend the 28 day period by 14 days with the consent of the party by whom the dispute was referred. Sections 108 (2) (e) and (f) impose a duty on the adjudicator to act impartially and enable the adjudicator to take the initiative in ascertaining the facts and the law. The requirements of the Scheme for Construction Contracts impose similar duties on the adjudicator to those in sections 108 (2) (e) and (f) of the *HGCRA*. The emphasis has been added above to highlight that the process takes a matter of weeks.¹⁶⁷

Section 108 (3) requires that the contract provides that the decision of the adjudicator is binding until finally determined by legal proceedings; or by arbitration if provided for, or by agreement. Section 108 (4) indemnifies the adjudicator against anything done or omitted....unless the adjudicator acted in bad faith. Section 108 (5) provides that; if the contract does not comply with the requirements of subsections (1) – (4), the adjudication provisions of the Scheme for Construction Contracts apply. Sections 109 to 117 deal with payment and supplementary provisions.

The first time the courts had to consider the *HGCRA* adjudication provisions was an application by a subcontractor seeking to enforce the award of an adjudicator.¹⁶⁸ The defendant wanted

¹⁶⁷ T Bingham, 'An Occasional Commentary for the Adjudication Society Blue Standards for Adjudicators', April 2004. http://www.adjudication.org/sites/default/files/BLUE_STANDARDS.pdf visited on 18 December 2009.

¹⁶⁸ *Macob Civil Engineering Ltd. v. Morrison Construction Ltd* [1999] CLC 739, 739 – 740.

“...the decision to be referred to arbitration under the contract and accordingly sought a stay of proceedings under s. 9 of the Arbitration Act 1996.”

The contract contained a clause by which the parties agreed to refer disputes about an adjudicator's decision to arbitration. One of the questions raised was whether or not an adjudicator's decision was enforceable in such circumstances. The plaintiff's position was that the existence of such a clause did not affect the enforceability of the adjudicator's decision. The defendant's position was that the adjudicator's decision was not enforceable unless and/or until (and to the extent) confirmed by the arbitrator following the reference to arbitration. Dyson J considered the position stated by the defendant – “...would drive a coach and horses through the scheme.” He held that the Scheme was to: introduce a speedy mechanism for settling disputes in construction contracts on a provisional interim basis, and **require the decisions of adjudicators to be enforced pending the final determination of disputes**. Emphasis added because the adjudicator's decision was, therefore, “...binding on MC until the dispute was finally determined by arbitration, litigation or agreement.”

Lord Wolfe's reforms which changed the civil procedures that had been in existence for 120 years also played their part in promoting adjudication. Mr Justice Jackson¹⁶⁹ explained that one of the benefits was the end of the process whereby civil litigation was allowed to drag on for years before being struck out for want of prosecution. The pre-action protocol¹⁷⁰ encouraged the parties to meet for a full and frank early exchange of information to identify the main issues and the root causes of the disagreement. It was considered that tabling the issues might lead to a settlement and assist in the effective management of the proceedings. Mediation was also

¹⁶⁹ Mr. Justice Jackson, 2006 (n 160).

¹⁷⁰ *The Technology and Construction Court Guide*, Second Edition (3 October 2005).
http://www.hmcourts-service.gov.uk/docs/tcc_guide.htm visited on 18 December 2009.

encouraged. The measures often lead to earlier settlements because focussing on the main issues facilitated crystallisation of the dispute. Consequently, the civil cases which were pursued proceeded from issue to trial much more quickly than before.

Internationally, FIDIC published three new sets of conditions in 1999. Each form of contract provided for using DBs. The Red Book was given the new title, *Conditions of Contract for Construction*. Another set of conditions originally published for use in electrical and mechanical works (the Yellow Book) contracts became *Conditions for Plant and Design-Build*. The third set was the Silver Book for engineer, procure and construct; *Conditions for EPC Turnkey*. The Silver Book in particular was recognised as a move by FIDIC towards placing more risk onto the contractor.¹⁷¹ Knutson noted that the disputes procedure on the Channel Tunnel was adapted by the drafters of FIDIC for the first FIDIC procedures of this type, with the change in the description of the Panel to a DAB.¹⁷² Knutson directed the reader to the phrase indicating that the parties should “give effect” to the decision of the Panel until it is revised by arbitration. An important change by FIDIC was the introduction at Sub-Clause 20.1 of a cut off period for notifying the engineer (or employer’s representative in the Silver Book) of an event or circumstance generating a claim. If the contractor considered he was entitled to additional time or payment the contractor was required to make the notice as soon as practicable, and not later than 28 days after the contractor became aware or should have become aware of the event or circumstance generating the claim. If the contractor failed to make the appropriate notice the contractor lost the entitlement and the employer was exonerated from liability. A number of

¹⁷¹ E Corbett, ‘FIDIC’s New Rainbow – An Overview of the Red, Yellow, Silver and Green Test Editions’, (1999) *International Construction Law Review*, 16 Pt1 39-46.

¹⁷² Knutson, R. 2004. P. 12.

commentators have reviewed the potential consequences of these time bar provisions.¹⁷³ DBs can address concerns about upsetting the client and perceptions of aggressive claims management by reminding the parties that the notice provisions are a contract requirement.

In May 2000 the World Bank published a new edition of *Procurement of Works* and modified the DB procedure to follow the FIDIC procedure. Immediate compliance with the DB recommendation was mandatory, unless and until modified by arbitration.

In October 2002 *The Society of Construction Law Delay and Disruption Protocol*¹⁷⁴ was published in order to introduce a “...transparent and unified approach to the understanding of programmed works, their expression in records, and identifying the consequences of delay and disruption.” The initiative was taken in an attempt to promote good practice because all the standard forms of contract deal with scheduling matters differently.

The ICE in the first edition of the *ICE Dispute Resolution Board Procedure* published in February 2005¹⁷⁵ acknowledged the assistance of FIDIC in their preparation. In their introduction to the procedures the ICE confirmed that the *HGCRA* 1996 provides an adjudication regime that is to apply to construction contracts as defined by the Act. Accordingly, two alternative sets of procedural rules were provided. One set had been derived for use on international projects and on UK contracts which were not subject to the provisions of the Act. The other set was in full compliance with the Act. The ICE advised the potential user that the procedures and rules may need modification according to any statutory requirements in the

¹⁷³ R Champion, ‘Variations, time limits and unanticipated consequences’, (2008) *Construction Law Journal*; P Cullinan, ‘28 Days Later’, (2007), *Tunnels and Tunnelling International*.

¹⁷⁴ The Society of Construction Law. *The Society of Construction Law Delay and Disruption Protocol*. (The Society of Construction Law, Wantage 2002).
<http://www.eotprotocol.com/> visited on 18 December 2009.

¹⁷⁵ Institution of Civil Engineers. *ICE Dispute Resolution Board Procedure*, (Thomas Telford, London 2005).

applicable jurisdiction. The ICE maintains a list of suitably trained DRB members for party selection. Upon application, the ICE would appoint DRB members who were qualified, experienced and capable of acting on DRBs in the UK and/or overseas.

In May, 2005, a group of multilateral development banks and international financial institutions reached agreement on a new document *Procurement of Works and User's Guide*. A new set of Conditions of Contract developed in collaboration with FIDIC was adopted in lieu of the old FIDIC 4th Edition contracts. The new *MDB Harmonized Conditions for Construction* are a modification of the FIDIC 1999 Conditions for Construction designed to simplify joint financing of contracts by two or more development lenders. The result is that shorter and less complex documents have been created for use by borrowers in contracting for construction work financed by the development lenders. Under the new conditions, regardless of the contract value, a DB is required for every contract for which any of the development lenders provide any funding. The borrower is required to indicate in the invitation to bid whether a three person or a one person board is selected.

The third edition of the NEC was published in 2005. Commenting on these conditions, Eggleston discusses how risks are assessed, allocated and managed by the parties under each of the six main options.¹⁷⁶ The flexibility of the NEC3 forms in particular, and the shortcomings in the previous ECC edition, were emphasised. The requirement for the risk register and regular risk management meetings were reported as particular strengths of the NEC3 contracts.

¹⁷⁶ B Eggleston, 2006 (n 163).

Reporting in 2005 on a review of the construction act, Sir Michael Latham said that construction needed trust and cash flow¹⁷⁷. He explained that *Constructing the Team* was not just about main contractors and subcontractors; it was about paying the correct amount on time. Wilcox J's comments in *Skanska v Egger*¹⁷⁸ in 2005 are instructive when considering the perception of the positive impact of the CPR and adjudication on construction disputes. The case concerned a chipboard factory which had a guaranteed maximum price of £12,000,000. The defendants subsequently proudly proclaimed that £33,000,000 of equipment had been installed therein producing a factory worth £55,000,000. The defendants had "...no concept of the difference between changes under the contract giving rise to an entitlement to additional monies and design development which did not."

Wilcox J said the litigation in the case exhibited many of the features that the CPR regime sought to cure. He said it was

"...not a case to which the Construction and Engineering Protocol applied, neither did the provisions of the Housing Grants Construction and Regeneration Act 1996.

32. Had they done so the posturing and failure of each party to co-operate at various stages would have been frustrated.

33. The imperative of proper contract administration by the Defendants would have been reinforced had swift references to adjudication been available during the currency of the contract. Mr Gardner and Mr Dent would have been unable to bury their heads in the sand by refusing to promptly consider RODs or EOTs or to properly use the professional resource of Turner & Townsend. SCL's claims would have been contemporaneously examined and investigated and then paid, or rejected in a reasoned way."

Contemporary events demonstrate the grinding detail of the approach to dispute resolution existing prior to the *HGCRA*. A speedy mechanism for settling construction disputes on a

¹⁷⁷ ConstructionActReview_7Feb05_SirMichael, 'A PowerPoint Presentation by Sir Michael Latham on the Construction Act Review', (2005), CI Arb, London.

¹⁷⁸ *Skanska Construction UK Limited v Egger (Barony) Limited* [2005] EWHC 284 (TCC).

provisional interim basis was needed. Paraphrasing Mr Justice Jackson¹⁷⁹, it was also crucial that there was a court which resolved construction disputes correctly and swiftly. Such a court was needed not only for those disputes which were litigated, but also for a much wider purpose. If the construction industry and building users knew that such a court existed, they were more likely to perform their obligations or, failing that, at least settle meritorious claims promptly. The Technology and Construction Court is fulfilling that role.

Mirabelli confirmed that the HGCR had “.....proved decisive in giving rise to a culture of dispute resolution during the progress of construction and helping to avoid the pitfalls of litigating in relation to complex events which took place several years earlier.”¹⁸⁰

In September 2008, the Chartered Institute of Building (CIOB) published a *Draft Guide to Good Practice in the Management of Time in Complex Projects*.¹⁸¹ More recently, the CIOB has published a document reviewing the legal and practical aspects of time and the proposed CIOB reforms entitled *Time for Change*.¹⁸² The general tenor of the documents is that the industry during the last 30 years has experienced increasing demand for design and build, guaranteed maximum price and engineer, procure and construct contracts which put more risk onto the contractor. More efficient and technologically complex solutions with accurate completion dates are required in shorter timescales and specially incorporated companies set up to manage such

¹⁷⁹ Mr. Justice Jackson, 'Denning Lecture 2006 (n 160).

¹⁸⁰ P Mirabelli, 'Why there will always be the globally pleaded claim', 2004, *Construction Law Journal* 435.

¹⁸¹ CIOB. *Draft Guide to Good Practice in the Management of Time in Complex Projects* 2009. <http://www.ciob.org.uk/resources/research/timemanagementdocs> visited on 29 November 2009; CIOB, *Architect becomes President of the Chartered Institute of Building*, Wednesday, June 25, 2008. <http://dev.ciob.netxtra.net/news/view/1799> visited on 19 December 2009.

¹⁸² M Lloyd-Williams, *Time for Change PART 1 The legal aspects of time* & K Pickavance, *Time for Change PART 2 The practical aspects of time and the CIOB reforms*, 30 September 2009 <http://www.herbertsmith.com/NR/rdonlyres/93542B14-2650-4F98-B80F-ECCBC59AAF6/12844/7608CIOBbookd9.pdf> visited on 19 December 2009.

projects have limited access to additional funds. A greater understanding of the risks inherent in each specific project together with appropriate and detailed planning and scheduling techniques should such risks mature was advocated for effective time management by the authors. From the legal perspective it was said that:

The most successful 'new' approaches seem to some extent to be a reprise of some of the old ones – fundamentally, treating all the participants in the programme with respect, and ensuring that conditions of contract allocate risk 'fairly' (to use an old fashioned term), with an emphasis on commercially aware project administration and on communication.

Philosophy

The extent of the NEC's departure from the standard forms in use is reflected in the philosophy that the contract is administered in a spirit of mutual trust and cooperation. While the NEC has generally been very successful by encouraging dialogue, Bowcott said:¹⁸³

Indeed it could be argued that the need for the amendments introduced into NEC3 have stemmed from the lack of "mutual trust and cooperation" adopted by the parties when using ECC2. The ECC was never meant to be a prescriptive contract, but rather a framework around which the parties could work together to develop workable, practical solutions. Although use of the ECC has brought many successes, there have also been some significant failures which reflect that it is generally not the contract that is at fault but the attitude of those managing the works.

Similarly, while technological development has facilitated the CIOB initiatives for effective time management their efficacy depends on the provision of appropriate education and training and for members of the industry to work together.

In respect of the contracts used, Hoek said in 1982 that:¹⁸⁴

¹⁸³ JR Bowcott, 'Time for a dose of realism', February 2008, NEC News: Issue No. 13, Reprinted from the Construction Law Review 2007.
http://www.neccontract.com/news/article.asp?NEWS_ID=649&Type=News visited on 15 December 2009.

Operating a multi-boom jumbo in a drill and blast tunnel or a high speed tunnelling machine under these conditions is rather like flying a modern jet under the air traffic control system of the 1940's - when things go well they go very well but when problems are encountered there is no reserve capacity in the system to deal with them.

Brunel's shield used to construct the first Thames Tunnel relied on doors in the face which could be opened and closed individually to hand excavate the face. The shield was then jacked forwards. By contrast, construction of the Jubilee Line tunnels commencing in 1993 was by circular closed face tunnel boring machines¹⁸⁵ (TBMs) and the New Austrian Tunnelling Method (NATM). The TBMs in the water bearing sands south of the River Thames had rotating full face cutting heads. Behind the cutting head was a small factory installed inside a tubular steel shield. The factory was equipped with machinery and electronics for steering the machine. Equipment was provided facilitating rotation of the cutting head, removal of excavated soil and transport of segmental steel and concrete tunnel linings. These segmental tunnel linings were erected inside the shield behind the TBM cutting head as the TBM advanced. The tunnels were slightly overcut from the planned diameter to allow the shield to turn. The thickness of overcut had to be balanced between the radius of the turn and the risk of settlement of the ground above. Bentonite slurry was pumped into the tunnel face and around the tunnel annulus to maintain excavation stability. The TBM pushed itself forwards using either grippers extending hydraulically from the sides of the TBM against the surrounding soil or hydraulic rams braced against the previously installed segments. NATM construction in London Clay was by road header performing multiple excavations supported by sprayed concrete lining and a combination of steel mesh, bolts, rings and props.

¹⁸⁴ E Hoek, 'Geotechnical Considerations in Tunnel Design and Contract Preparation', Sir Julius Wernher Memorial Lecture. 1982, Transactions Inst, Min, Metallurgy 91, A101-A109, <http://www.rocscience.com/hoek/references/H1982.pdf> visited on 15 December 2009.

¹⁸⁵ The British Tunnelling Society, *Closed-Face Tunnelling Machines and Ground Stability: A Guideline for Best Practice*, (Thomas Telford, London 2005).

Construction of the first Thames Tunnel which started in 1805 was facilitated by what was then contemporary new technology.¹⁸⁶ Almost two hundred years later construction of the Jubilee Line Tunnels south and east of London was also facilitated by contemporary new technology. Commenting on geotechnical considerations in tunnel design and contract preparation Hoek emphasised that:¹⁸⁷

Tunnelling has always been and will continue to be an engineering activity which is associated with uncertainty and with consequent risk of cost over-runs, litigation and public indignation. There are no simple answers to these problems since, however thorough a site investigation, the rock ahead of a tunnel is unknown until it has been exposed in the face.

In most other forms of engineering, the contractor bids on clear and complete plans and, in general, relatively few surprises will be encountered during construction. Consequently, traditional forms of contract involving turnkey, lump sum or fixed price bids are appropriate. In the case of tunnels, the information available prior to construction is seldom adequate for the use of these types of contract without the inclusion of changed-conditions clauses and other forms of protection for all parties involved. In some cases, the use of completely different types of contract, for example, target or cost-reimbursable, may be a better solution than the use of traditional contracts.

Flexibility in both contract negotiations and in dealing with on site problems is the key to successful tunnelling. If one or more of the parties involved approaches the contract negotiations with preconceived and rigidly held attitudes, it is unlikely that the project will be completed without disputes, claims and perhaps long and costly litigation. Worse still, these preconceived views and rigidly held attitudes can extend to technical matters and can result in the lack of on-site technical cooperation and even the use of incorrect remedial measures when technical problems arise.

Hoek quoted the US Academy of Sciences Executive Presentation on Contracting for Underground Construction in 1976 as having said that the:

Contract drawn between the owner and contractor seeks to define the requirements of the underground project, to assign the responsibility for its accomplishment, and

¹⁸⁶ <http://www.britishtunnelling.org.uk/legal.php> visited on 14 November 2009

¹⁸⁷ E Hoek, 1982 (n 184).

to establish its cost. A good contract does not merely divide the responsibilities of the project; it is a unifying force, an agreement committing both parties to a single common objective. Every provision in the contract must be an acknowledgement not only of the legitimate interests of the individual parties but their common goal.

The system works best when the engineer, contractor and owner establish the attitude through their organisations that each party is knowledgeable, fair minded, co-operative, competent and willing to see equitable payment made for the work.

Although Tjosvold's words referenced in Chapter 2 did not come until later, open, skilful discussions are needed to turn differences into synergistic gains rather than squabbling losses. DBs can facilitate these discussions. DBs work because they are usually of a standing nature appointed soon after the commencement of the Works. They are provided with copies of the contract documentation by the parties and familiarize themselves with the requirements. The DB visits the site from time to time, usually three or four times a year. It is also regularly provided by the parties with progress and other information pertinent to construction. In this way the DB is kept apprised of developments.

The first visit is of key importance as it sets the precedent for future visits. The parties are requested to provide the DB with a presentation of the main features of the project and to highlight any concerns. Such presentations may be provided by each party separately or jointly. Joint submissions facilitate teamwork between the parties. Subsequent visits by the DB allow the Board members to keep abreast of the work and to build relationships with the parties. By questioning the parties about concerns regarding contractual and progress matters the DB encourages a dialogue between them. The DB can provide a forum for open synergistic discussions and have been acknowledged as preventing the contractual posturing that can take place on some projects. The members of the DB are able to agree simple and straightforward procedures with the parties to provide them with advice on matters which might otherwise escalate into disputes.

There are differences of approach between the DBs in use in the United States and the DBs supported by FIDIC and the Investment Banks. The DRBF does not recommend binding recommendations. The reason is that a Dispute Review Board is a consensual arrangement. The Dispute Review Board makes a recommendation. The parties remain in control of the process and may be able to negotiate an agreement taking that recommendation into consideration.

The DRBF advise that when a binding recommendation is made the hearing can change from a discussion among peers to contentious win-lose proceedings. By contrast, the multinational contract forms used by FIDIC and the Investment Banks require Dispute Adjudication Boards (DAB) providing binding decisions. The reason is that the legal systems in the countries using these forms of contract may not be well developed. Binding decisions preclude difficulties with enforcement and provide reassurance to foreign contractors that their contractual rights will be protected.

A Dispute Review Board makes a recommendation which may be implemented at the option of the party who must take action or it may become final and binding if neither party raises an objection within a stated period. In contrast, a Dispute Adjudication Board (DAB) decision must be implemented. Nevertheless, the dispute can still be referred to arbitration or the courts. It will, however, become final and binding if neither party raises an objection to it within the period stated in the contract.

DBs should be able to establish procedures suitable for each case taking into consideration that they have a duty to be independent, impartial and act within the confines of natural justice and reach a conclusion without undue delay and expense.¹⁸⁸

A DB is a tribunal which is established to endeavour to avoid or resolve any disputes which may arise between the parties to a particular contract. DB members are adjudicators and not arbitrators. The DB members are not, therefore, subject to the privileges of arbitrators.

DB members must be independent, impartial and proactive. Party nominated DB members are not party representatives and any existing or prior connections with either party must be disclosed. Impartiality means that when providing advice or considering any dispute the member is required to do so based on the facts and demonstrably free of preconceived ideas or bias. In order to avoid any accusations of bias the member must not have any connections or dealings with either party in isolation. This includes meetings, telephone conversations, or exchanges of emails or correspondence. When using personal experience in making conclusions the member must provide the parties with the opportunity to comment on those conclusions to avoid any possibility of the appearance of bias.

The DB has to be proactive so as to prevent claims from becoming disputes.

Armstrong and Davis recently reviewed the way the tunnelling industry manages risk with particular reference to the proposed contracts for the Crossrail and Thames Tideway Projects in London.¹⁸⁹ Despite their origins in tunnelling projects, DBs were not referred to in the article.

¹⁸⁸ G Owen and B Totterdill 2008 (n 17) 3.

¹⁸⁹ G Anderson and C Davis, 'Tunnel Vision', 2008, Construction Law Journal; G Anderson and C Davis, C. 'Winning the Risk Game', 2008, World Tunnelling. <http://www.dlapiper.com/files/Publication/27441044->

Referring to the Hong Kong Airport Project, Gould et al describe the multi-tier nature of the process and note that there were very few referrals to the DRB.¹⁹⁰ The explanation is that the DRB encouraged settlement without third party intervention. From the UK perspective Gould et al note that:

.....London Olympics 2012 has also chosen a multi-tiered dispute resolution system. In 2008 the ODA set up an Independent Dispute Avoidance Panel (IDAP) of ten construction professionals under the chairmanship of Dr Martin Barnes. Those disputes not resolved by the IDAP will then be referred to an Adjudication Panel, comprising eleven adjudicators under the chairmanship of Peter Chapman.

Peter Chapman provided the following answer to the rhetorical question “DBs – do they work?”¹⁹¹

- 98% of referred disputes end with the DB
- Of the 2% remaining, half of the ‘appeals’ uphold the DB decision.
- Of the 1% of decisions upset by arbitration/courts, almost always due to procedural irregularity, not on the substance of the decision
- PLUS dispute avoidance value

Conclusion

DBs are a relatively recent initiative whereby a tribunal of one or three industry neutrals is appointed at the commencement of a construction project or on an ad hoc basis to decide disputes between the parties. By agreement between the parties the DB may give its opinion on matters referred. The early successes of DBs in terms of improved project management and

[a86e-4b86-acc4-7e36d4d80452/Presentation/PublicationAttachment/c4ac2a70-358b-4fc6-8ea2-8145e794aa54/DLAPiper-WT.pdf](https://www.kcl.ac.uk/law-and-justice/staff/n-gould/papers/2010/04/08/0804080452/Presentation/PublicationAttachment/c4ac2a70-358b-4fc6-8ea2-8145e794aa54/DLAPiper-WT.pdf) visited on 17 April 2010.

¹⁹⁰ N Gould, C King & P Britton, *Mediating Construction Disputes: An Evaluation of Existing Practice*, (Kings College London, Centre of Construction Law & Dispute Resolution, London 2010).

¹⁹¹ P Chapman, ‘Dispute Boards’ 2007, A presentation at the Sixth Annual Conference of the Adjudication Society.

avoidance and/or resolution of disputes facilitated their spread internationally. The use of DBs continues to increase. Other initiatives for improving project management and reducing the potential for disputes such as the NEC and developments in computing facilitating more effective time management are proceeding in parallel.

Chapter 6

Conclusions

Construction disputes may be caused by a combination of uncertainty and complexity arising from pre-existing conditions, problems in the contracting process or issues and problems arising between people.

Machinery for resolving issues with the potential to cause disputes is set out in the contract agreed between the parties. Administration by an architect or engineer acting in a discreet, impartial and fair manner was longstanding. During the 1970s, however, the increasing demands of employers, legislation and technical developments increased contractor's risks and costs at the same time as employers were eroding the engineer's independence.

The aggressive contractual management needed to protect tight margins in these circumstances led to disputes which required long and costly litigation for their resolution.

Dissatisfaction with this situation led to the establishment of DBs comprising one or three experienced industry professionals convened at the start of the project and meeting regularly, which proved effective in avoiding disputes.

DBs have grown in popularity because they avoid or resolve disputes at project level without recourse to litigation and have demonstrably improved construction efficiency. The spread of DBs internationally has been aided by support from FIDIC, the international investment banks and public policy. DBs are now being adopted by other industries that have seen their success on construction projects.

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