Chapter One
Why?

Architects play a pivotal role in the delivery of value to their clients, building users and community alike. The unique value architects add to their clients' lives and businesses is grounded in an ability to deliver something that their competitors cannot: design vision. Design ability is, however, not enough in a highly competitive market as clients seek suppliers who can provide a professionally managed service, effectively and quickly. This means that architectural practices need to constantly monitor the business environment in which they operate and continually improve the way in which they approach the business of design. Design management plays a crucial role in this regard, helping professional design offices to deliver a consistent level of service, which in turn helps the business to secure a continual flow of finance, return a profit on its projects and provide a platform for creating great architecture. However, there may be some doubts in the minds of architects as to the true value of management to their profession. Therefore, this introductory chapter seeks to explain why management and design management is so important to the modern architectural business. This helps to provide some context to the chapters that follow.

Why management?

Architectural practice is a 'conversation' with projects and society – a process of testing, developing, applying and reflecting on design

knowledge. Architects learn from projects and from the work of others by developing ideas, propositions and ways of working to suit the culture of their office and the needs of their clients. We develop a way of working, a type of (architectural) language, which becomes ever richer over time. This informs the practice of architecture, which flexes and adapts to each new project. The way of working also informs the business of architecture, a parallel (commercial) language that underpins and nourishes the language of architecture.

Good design management should be one of the core values of a successful architectural practice, the controlling mechanisms that allow the chaotic creative process to be transformed into fee generating activities. Management is, however, often seen as a way of coping with the chaos of design rather than something that adds value to the business. Indeed, it is not uncommon for the business aspects to be viewed as a 'necessary evil', with the vast majority of professional designers preferring to concentrate on design rather than business. This could be interpreted as architects' reluctance to embrace management, although it is rarely so clear-cut given that elements of management are inherent to all projects. It is not easy to divorce the act of designing from the business of design, although this is rarely acknowledged in architectural education (which tends to ignore management issues); nor is it particularly well demonstrated in the architectural literature.

The stereotypical view, which architects' competitors like to promulgate, is that creative designers lie outside the bounds of managerial control. This is a convenient image for some designers to hide behind when it suits. It is true that creative people do not respond particularly well to tight control and the tick-box mentality of many management approaches. The challenge appears to be less with the concept of management *per se* and more with applying sensitive and appropriate managerial frameworks. Managerial principles and methods should place minimal demands on the designer and provide adequate space to accommodate the inherent uncertainties that come with design projects. At the same time the managerial frame should provide guidance to the individuals who work within the office and hence reassurance to the clients who commission the work. Good managerial frameworks tend to be relatively simple and largely invisible. Poor managerial frameworks tend to be unnecessarily

complicated and highly visible because they disrupt the way in which designers like to work.

According to many research reports and anecdotal feedback from clients, it is the managerial skills that architects need to improve. One indicator of the architect's lack of managerial acumen can be found in the reports issued by the Architects Registration Board (ARB). Their annual report of 2004/5 presented a list of the ten most common complaints it receives from clients. The ARB advises architects to adhere to the Architects Code as one way of avoiding the pitfalls that can result in an appearance before the Professional Conduct Committee. Following good management practices and procedures also helps, since all of the complaints listed by the ARB are concerned with management (and the failure to communicate). These complaints are listed below with a brief comment on how to avoid them.

1. Excessive delay in the project being completed.
The problem here is primarily related to poor predictions of project duration and the failure to discuss with clients the potential reasons for delay. Architects must make it clear to clients how the project duration has been calculated and by whom. They must also explain the measures put in place to try and ensure projects will be complete to the planned timeframe. If progress starts to suffer then the architect must be proactive and advise the client, and if appropriate take measures to get the project back on programme.

2. Client expectations were raised too high.
Raising client expectations too high can occur as the architects discuss design possibilities that are beyond the scope of the budget (and the brief). Having a good knowledge of realisation costs can help to mitigate unrealistic expectations. Similarly, bringing specialists early into the design phase can help with the realistic estimation of construction costs as the design matures.

3. The client was expected to pay for mistakes/errors made by the architect.
Architects must be open with clients and acknowledge when they have made a mistake. Using quality management systems and good design management practices will help to mitigate the number and extent of errors, although it is impossible to eliminate all

problems. Tracking the cause of design changes and variations will help to identify those that were a result of an error and those requested for other reasons. Adopting a collaborative approach may go some way to sharing responsibility for errors and the cost of rectifying them.

4. Contract papers were not clear.
There should be no excuse for failing to set out fees, roles and responsibilities clearly and concisely before work commences. This is required by the client and also for the smooth running of the office. A short meeting with the client to discuss contract papers before the project starts can help to avoid uncertainty and problems at a later date.

5. Attempted work outside area of competence.
Architects must clearly state the extent of services that they are experienced and qualified to undertake. This varies considerably between architectural practices, and clients cannot be expected to know the scope and limitations of the services on offer. Open and frank discussions with the client can help to explore areas of uncertainty and identify the need for additional services from fellow consultants.

6. Failure to reply to the client's letters/emails and/or telephone calls.
According to ARB, communication problems are the cause of many complaints. One of the biggest complaints is the failure to advise clients about increased costs. All professionals should have a clear policy on how they respond to communications from clients and project participants, and this should be set out in the quality plan and/or office manual. Failure to reply is unprofessional and bad business practice. Good architectural practices tend to be proactive in tackling problems and taking the initiative to contact clients before they discover the problem from another source. This is about managing the client/architect relationship, which can be helped by bringing the client into the project at strategic intervals, for example at design reviews.

7. Failure to deal with post-completion issues.
The failure of architects to deal with problems that arise after completion of the project and the payment of fees is not a sensible policy. Quality of the 'after sales' service will be

instrumental in helping to retain and further develop a positive architect/client relationship, which will influence the possibility of future work from that client. The problem is usually that the fee has been spent and the resources are not always available to deal with the post-completion issues. Accurate estimation of design effort and the allocation of resources to post-completion issues are essential management functions, which allows the office to function efficiently and helps to ensure that enough time remains to maintain a professional service after project completion.

8. Clients given bad advice.
This tends to relate to architects advising the client on matters outside their scope of expertise, for example on engineering matters and financial/VAT issues. This can be avoided by clearly setting out the extent of the services provided and also defining areas that are not covered by the fee agreement. This is best done via face-to-face discussion and confirmed in writing.

9. Conflicts of interests.
All business relationships, for example with contractors, must be declared to clients early in the appointment process. Clients expect their professionals to be open about such matters and with many architectural practices working with formal and informal alliances, it is particularly important to be clear about how such relationships may influence the client's project.

10. Work delegated to juniors.
It is common for projects to be secured by partners and directors, and after some initial involvement by them, for the work to be delegated to design managers and the less senior members of the office. This is common practice in all professional service firms, but the failure to explain how the work will be handled within the office can cause problems with the client, who may be expecting the partner to work on the project, not a junior.

Adopting a professional and consistent approach to the management of the architectural practice and its projects may not eliminate all problems, but it will help architects to avoid the problems reported above and will go some way to keeping clients happy. Adopting a consistent approach to management will also help the business, as demonstrated in Vignette A.

Vignette A – why apply management?

By looking at the performance of two architectural practices it is possible to further address the question: why management? The architectural practices were both located in the same metropolitan area, were the same size and had similar mixed project portfolios. From the perspective of a client there appeared to be little to differentiate them. Indeed, a large client body decided to appoint each practice to work on a project. The projects were comparable in size, complexity and programme, and the outcome of the competitive tendering processes resulted in the same contractor being appointed for both projects. This allowed the possibility to make some comparisons between the two architectural practices in terms of their performance.

From the outset of the monitoring period one of the architectural practices appeared to be more efficient and effective than the other, that is it gave the impression of being well managed. Office A delivered information on time, responded rapidly to requests for information, dealt with design changes quickly and interfaced very well with the contractors and the client representative, resulting in a high quality project, delivered on time and to budget. Office B was consistently late in supplying information (which was often incomplete), was slow in responding to requests for information and dithered over design changes. The amount of communication between the architect and the contractor was considerably greater compared to that with Office A, mainly a result of trying to deal with issues that should have been right first time. This project was also completed on time and to a high quality, due mainly to the contractor's efforts, but it was slightly over the original budget. The final artefacts (the quality of the design) were not very different, although the effectiveness of the projects differed markedly, as did the profitability of the architects and the contractor.

On the first project, both Office A and the contractor reported a profit. On the second project, Office B claimed that the project had been a financial disaster, (unfairly) blaming the contractor and the client. On this project the contractor also claimed to have lost money, mainly because of the poor service delivered by Office B. The client and the contractor reported that they would welcome the opportunity to work with Office A again, but not Office B. Indeed, a few months after the projects were

completed the client commissioned Office A to work on two new projects, but not Office B, preferring to give a different architectural practice a chance to demonstrate their worth.

What made one office more successful than the other? Office A was well managed, employing appropriate management systems and the staff was happy using the office management protocols, which had been designed to help them do their job more effectively, efficiently and consistently. Office B also had a management system, but few of their staff used it because it was regarded as too cumbersome and time consuming, resulting in inefficient working practices and an inconsistent service for their clients. Although it was not possible to obtain any financial data from the owners of the architectural businesses, Office A claimed to be 'doing okay' in the middle of an economic recession, while Office B claimed that it was 'almost impossible to make a profit' on their projects, citing low fee levels as the problem. In conversations with the owners of the business it was clear that Office A understood the benefits of simple, yet well designed, management protocols: Office B did not. Office A regarded management of design (as a process and a product) as being essential to everything they did, that is it was integral to their daily activities; Office B saw management as something additional to the design of buildings, and hence had failed to integrate management and design. In addition to the financial implications for the businesses, the difference in managerial approaches was also evident in the morale and wellbeing of the staff. The staff in Office A appeared to be happy in their work, and when questioned reported that they were content and that the management procedures of the office helped them to do their job more effectively. The atmosphere in Office B was less positive, with the staff reporting high levels of stress and claiming to have to work very long hours to complete their tasks.

Why design management?

It is not necessary for every member of an architectural practice to be a business executive, or for that matter passionate about management, but it is important that architects understand the commercial environment in which they work and the value of

managing design consistently and efficiently. The challenge for the business owners is not to impose restrictive managerial and administrative constraints on creative individuals; rather it is to provide better, more appropriate, management that both supports the creative process and facilitates the delivery of an excellent service. To do this it is necessary to understand the value of good design management and the role of the design manager, the rationale behind this work.

In many small and medium sized architectural offices it is the owners (directors, partners and associates) who manage and oversee design quality, which is often performed in a 'hands on' manner. Close proximity of staff within an intimate environment allows informal exchange of knowledge and relatively consistent standards of work. There may be little in the way of formal procedures and reporting, but because the office is small all staff should know what is required from them. In medium to large offices it is more likely that one or more individuals will be designated 'design manager', overseeing design quality on behalf of the business owners, acting as the interface between the owners and the staff working on the projects. Because of the size of the offices it is less easy for staff to interact on such an intimate level and so it is necessary to state what is expected of the staff (and the design manager) in the office handbook or via quality management documentation. These expectations will be reinforced via daily interaction, and more formally in office meetings. In Vignette A neither of the architectural offices employed a design manager, although the role was performed implicitly by the owners of the more successful business (Office A).

The design manager role first appeared in the 1960s, although it has not been particularly common for architectural practices to employ design managers. Instead it has been the contractors who have embraced the design manager role, with construction design managers now a common sight in the majority of the large to medium sized contracting organisations. Together with changes in procurement routes and the uptake of technologies such as BIM this has resulted in contractors taking on greater responsibility for design, often pushing the architects out of the decision making process. This may have implications for the overall quality of the building design as well as implications for the architect's business. More recently architectural practices have started to respond to the changing market and have started to employ design managers and/or to explicitly promote their design management services.

The role of the design manager

At a strategic level, design managers are responsible for all aspects of design. Although the role encompasses many project management skills, a passion for design quality makes the role unique. It is the design manager who is employed to oversee (manage) all design activity within the office and to ensure a consistent and coordinated approach to every project in the project portfolio. This relieves the designers and engineers of unnecessary administrative and managerial burden, allowing them to concentrate on what they do best: design and engineer. To be effective in the role design managers need to understand how designers, engineers and contractors work. This requires a broad understanding of a wide range of discipline-specific knowledge. He or she should also be able to communicate effectively across a broad spectrum of organisations and levels and demonstrate consistent leadership. This calls for a collaborative approach, excellent interpersonal ('soft') skills and the ability to make informed decisions on a strategic and operational level.

♦ *Strategic decision making.* Strategic decisions are concerned with the long-term direction of a project or an organisation. It is the strategic decisions that set the agenda for the effectiveness and profitability of each project (and hence profitability for the business). At a strategic level the design manager will be working closely with the business owners to ensure that project and business deliverables are met.
♦ *Operational decision making.* Operational decisions concern day-to-day problem solving in the workplace. Operational decisions are about getting tasks completed and are concerned with the flow of resources (information, people and materials) and the adherence to processes. At the operational level the design manager will be liaising with a wide range of designers and forming the interface between the designer team and the contractors. It is the architectural design manager who will interface with the contractor's (and subcontractors') construction design manager(s).

Tension between the decisions made within the office and those made at the individual project level makes design management a fascinating, challenging and rewarding activity. Creative tension can help to stimulate innovation in product and process and fuel a proactive approach to producing great architecture. In simple

terms, the design manager is tasked with the management of people, technologies, information and resources:

- ♦ *People.* Design as an activity involves interaction with a wide range of 'designers' and supporting technical staff. Design is carried out primarily within professional design offices and collaboratively within projects through the use of collaborative information technologies. The design manager needs to provide the right physical and virtual environment in which individuals can share knowledge and work together to create designs that respond to the client brief. The output of the design process is design information.
- ♦ *Technologies.* People need technologies that enhance their working lives; thus computer software and hardware have to be carefully selected to match the requirements of the office, as do information communication technologies (ICTs) and building information models (BIMs). Establishing a good fit between the available (and affordable) technologies and those who use them will enhance performance.
- ♦ *Information.* Design involves interaction to create, review and coordinate a vast quantity of information. The design manager's role is to ensure that the information leaving the office is consistent in terms of quality, is complete and is error free. This information must be translated by constructors into a physical artefact. Once received, one of the construction design manager's most important tasks is to review the information to ensure that the building can be constructed safely and efficiently. Any queries will be addressed to the architect's design manager.
- ♦ *Resources.* Allocating the correct amount of time and the most appropriate people to a specific design task is a fundamental skill of design managers. Additional resources, such as the availability of appropriate software, ICTs and BIM will also play a part.

Design managers are first and foremost responsible for providing leadership to the designers, both within the office and (indirectly) via individual projects. In the design office environment the emphasis is on *creating* design value and transforming it into design information. In the project environment the emphasis is on *delivering* design value by translating information into a physical artefact, and is usually managed by the contractor's design manager (see Figure 1.1). These are culturally different worlds connected by a
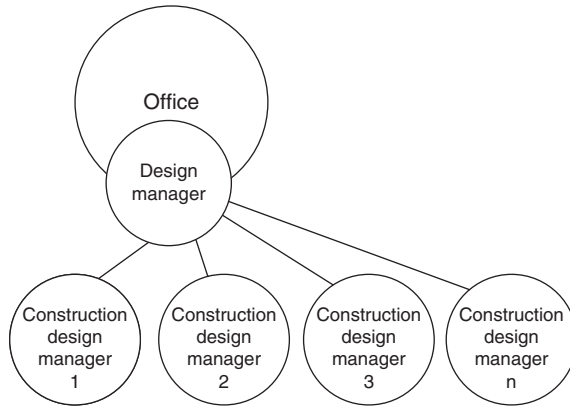
Figure 1.1 Design manager's relationship with construction design managers.
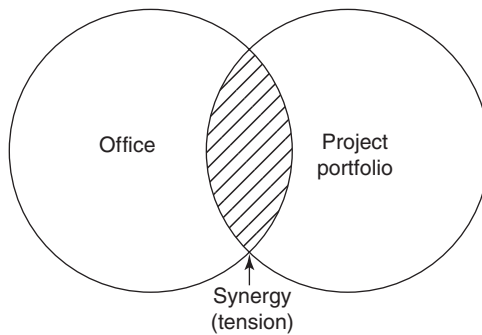
Figure 1.2 Synergy between office and project.

common desire to deliver value to the client and make a return on investment. Increasingly, the relationship between the designers and the contractors is being transacted by design managers employed by designers and contractors.

It is the synergy between individual projects and the design office that affects the financial health of an architectural business. More specifically, it is the effectiveness of the relationship between clients and architects that is fundamental to the creation and delivery of exciting architecture (Figure 1.2). Engagement with the sponsors of building projects allows for the discussion of goals, opportunities, risks, values and business culture; the closer the interaction between the design office and the client, the better the understanding.

What value does a design manager bring to the business?

Employing one or more design managers is expensive and so it is necessary to clearly demonstrate their value to the business before a decision to employ is taken, as is the case in Vignette B. A similar sentiment can be extended to the promotion of staff to a design manager role because with increased responsibility comes the expectation of a better salary.

Demonstrating value is not an easy task because many of the actions of the design manager are concerned with assisting individuals within the office, and these are not easy to measure or quantify. However, the value of the role should not only be assessed in terms of time/resources/cost savings but there is also a major benefit in terms of staff morale and general wellbeing. These may be relatively intangible indicators, although they can be demonstrated in low staff turnover, low levels of stress and little or no incidences of staff burnout. Freeing up the business owners (partners and directors) to concentrate on the business and client relations is another benefit, which is not easy to put costs to, but which adds considerable value to the business.

Vignette B – why employ a design manager?

Consider the case of a medium/large architectural practice with a good portfolio of clients, a good reputation for the quality of their architecture and a busy project portfolio. Despite this, the owners of the business were struggling to make a profit on their projects. Employees were consistently working long hours and the general morale in the office was starting to suffer. The partners sought external advice from a consultant, and taking that advice, invested in an experienced design manager. The design manager's task was to make the office more profitable without compromising the quality of the architecture being produced. The role was to provide leadership on design by:

♦ *overseeing the project portfolio, making strategic and operational decisions about resourcing of individual projects against the office resource;*
♦ *managing the designers in the office, providing guidance and support;*

- *becoming the main point of communication for external project partners (e.g. clients' representatives, contractors' design managers and fellow consultants);*
- *liaising with the partners and staff;*
- *identifying inefficiencies and addressing them.*

The design manager first asked all employees, including the partners, to describe their working day and identify one area that they felt could be improved. Once collected and analysed, these data were fed back to the office in a staff meeting as a means of starting a discussion about effective working habits. The design manager also spent time watching what individuals were doing within the office prior to suggesting any changes. By watching and listening the design manager was able to identify good and poor working habits. The good habits could be shared within the office and the poor habits addressed and eliminated. This was achieved by introducing a regular knowledge sharing/ learning event. Within six months the following benefits were reported:

- *helped to ensure a consistent approach and standard of design information;*
- *reduced staff hours to a standard working week;*
- *increased productivity;*
- *improved staff morale;*
- *freed up time for the partners to deal with strategic business issues, especially interfacing with clients.*

After twelve months the initial benefits had been retained and in some cases further improved:

- *Productivity improved by approximately 15% compared to the initial baseline figures. It is important to note that this was achieved by making small, incremental, improvements in working practices; it was not achieved by making major changes to the operation of the design office.*
- *Quality of design information improved because staff had more time to complete the information before it was issued. This had the effect of reducing the number of enquiries from construction sites, thus further easing the burden of the designers.*
- *The importance of commercial awareness was now recognised by all members of the office.*

In this example the design manager was a shrewd investment, helping to reinvigorate the office and return it to profitable operating. This initial impact was further enhanced by other incremental improvements in how the office operated as a cohesive unit, helping to engender a happy office and a profitable business. After the initial impact the design manager's role turned to one of making further marginal improvements in performance and further reinforcing and embedding a culture of continual improvement.

Taking on the role

Management is concerned with leadership and taking action. Fortunately, the creative thinking skills encouraged in architectural education are also highly relevant to management, as both are concerned with framing and solving problems. Creative management is less concerned with systems and procedures, and more with individuals and their ability to apply their knowledge, skills and competences efficiently. Good managers know how to work with people and systems; they understand the importance of getting the right people for the required work, getting everything in place before work starts and providing appropriate leadership.

Design professionals will develop management competences as their careers develop, with those excelling in management moving into formal or informal design management roles. The formal design management role carries a considerable amount of responsibility and can be a highly rewarding career move, in terms of both job satisfaction and financial reward. Some architects will be promoted to a design management role by their current employer, while others will move to a new employer to take up the position. In both situations it is important to define one's management style and ensure the owners of the business and the staff understand how one intends to operate. It is also essential to resist the temptation to design, which may undermine the designers and will distract the design manager from the design management task.

When entering a design office as a new member of the office it is inevitable that the design manager will initially be perceived as an outsider and as 'management' by the designers. In the first few weeks the design manager will be greeted with a degree of caution and the staff will be defensive and guarded when communicating.

New design managers should expect to take somewhere between three and six months as a minimum to get to know how the office and the staff work and start to develop empathy and trust. The challenge is slightly different for those promoted internally. They will be familiar with office systems and the staff, which makes the job a little easier at the outset. However, they may be too familiar with office systems and staff, which may make it difficult to be objective and see what needs to be improved. Moving from being a member of the design office to a management role will put the individual in a different position and relationships with staff will change, and this can also prove problematic for some individuals.

All new design managers should have a desire to take on the role and have empathy with designers. They should:

♦ *Observe and listen.* Watch how the members of the design office work and interact with their colleagues. Listen to the hum of the office as designs are conceived and developed, and be alert to the discussions. It is the day-to-day actions of the staff and the informal conversations that reveal how well the office procedures fit the working methods of the staff, often helping to identify inefficiencies or bottlenecks in the flow of work.

♦ *Develop.* Develop empathy with all staff and build trust. Try to get to know individual strengths and weaknesses as fast as possible, since it helps with programming and allocation of duties. Find out what each member likes doing and also what they dislike about their job function and try and work with them to maximise the positives and minimise the negatives.

♦ *Discuss.* Discuss individual workloads and existing procedures with all staff members. Encourage an open communication culture in which individuals are happy discussing difficult issues, confident that the design manager will try and support them.

♦ *Act.* It may be possible to make a series of minor and incremental changes quite quickly to help improve the effectiveness of the design studio. All changes, no matter how small, must be discussed with the staff and adjusted to accommodate feedback before they are implemented. Failure to do so will result in a loss of trust and the development of an 'us and them' culture, which is not conducive to effective design management.

♦ *Provide feedback.* The design manager acts as an interface between staff and the owners of the business and must develop a team ethos. Strategic feedback helps to share knowledge and keep all members of the business up to date with developments. An essential job requirement is to keep everyone informed.

By undertaking these tasks design managers will be well positioned to minimise ineffective habits (process waste) and maximise good habits (process value). By concentrating on the individuals within the office and providing leadership it will be possible to develop and maintain an efficient and happy working environment.

Scope of the book

The act of designing can be both intoxicating and addictive, but design is not the only differentiating factor when clients or contractors are making their choice of consultants. Architects need to demonstrate the ability to deliver high quality designs *and* a high quality service. This means that architects need to keep up to date with current management thinking and its application to everyday practice if they are to remain competitive. This is no easy task. Management literature varies enormously in its scope, drawing on disparate fields such as labour economics, sociology, human resources and industrial psychology. Each of these interrelated fields helps to provide a set of lenses through which to view the world, but no one model or theory transfers easily to the professional service firm. Managerial principles and techniques applicable to industrial production or mass consumer markets, based on standardised processes, identical products and repetitive tasks, may not be relevant to a creative, client-driven enterprise such as an architectural practice. Indeed, one might be excused for arguing that few of these approaches are applicable to professional service firms. Management literature is also full of 'instant' solutions to rather complex sociological challenges, and so we should not be too surprised when they are found to be poor solutions when viewed with the benefit of hindsight. Which brings us to the question: what type of management is appropriate for architectural firms? It is a question this book aims to answer.

This book provides a simple and pragmatic guide to the management of projects and design offices from an architect's perspective.

The aim is to provide insights into the world of design management and demonstrate the value that design management offers to architectural practices and their clients. The objective is to address the managerial frames in which design activity – problem framing and problem solving – is enabled and delivered. Emphasis is primarily on the softer issues underpinning the management of design with a focus on how people behave within a project environment and within the design office. The argument is for better integration between creative organisations and creative projects. This is achieved through a better understanding of how we interact with others and how we apply and react to managerial procedures. As a starting point the book adopts the philosophy advocated by Brunton *et al.* (1964) and explores the synergy between design offices and their project portfolios. In recognition of the distinction between design management in projects and design management within the design office the book is presented in two interdependent parts. Part One addresses the management of projects. Emphasis is on the design of the most appropriate project culture to stimulate creative design and realise value in exciting and functional buildings. Part Two explores the management of the professional design office. Emphasis is on the design of the most appropriate office culture; implementing flexible systems that allow creativity to flourish and the staff to enjoy the act of creating great architecture. Each chapter concludes by looking at the synergy between project and office from the perspective of the design manager. Notes and suggestions for additional reading are also provided. The principles and tools outlined in the chapters that follow aim to show that creative design management can offer considerable benefits to all architectural businesses, regardless of size and market orientation. It is through a professional approach to design management that design organisations are better positioned to make a positive input to the quality of our built environment.