



## **From Project Management to the ‘Management of Projects’: What motivated Peter Morris to create a new paradigm?**

Andrew Davies<sup>1</sup>

### **Abstract**

This paper suggests that there were three main motivations driving Peter Morris to develop the Management of Projects (MoP) as an alternative approach to traditional project management: first, the need to improve the performance and practice of project management; second, the need to understand the history, context and challenges facing society; and third the need to engage with theory and scholarship. The paper draws upon Peter’s three main single or co-authored books which form the corpus of his work on MoP.

### **Keywords:**

Project management, paradigm, front-end, grand challenges, theory, practice

---

<sup>1</sup> RM Phillips Freeman Chair and Professor of Innovation Management  
Science Policy Research Unit (SPRU), University of Sussex Business School, BN1 9SL, UK  
Email: [Andrew.Davies@sussex.ac.uk](mailto:Andrew.Davies@sussex.ac.uk)  
Orchid id: 0000-0002-5785-8548



## INTRODUCTION

Peter Morris transformed how we think about and manage projects. He understood the practical value of project management as a discipline, traced its origins back to the Cold War weapons and defence systems projects, and pioneered new scholarship based on extensive case studies to advance research and new thinking about projects. Although Peter devoted his life to studying, practicing and contributing to the discipline, he was unashamedly iconoclastic in his approach because he was prepared to attack traditional beliefs, principles and assumptions of project management. He believed the discipline was failing because it was “execution-oriented” and neglected more strategic factors particularly during the “front-end” that were much more important to the successful management of projects. Indeed, the front-end is a mantra that Peter often spoke about with colleagues, practitioners and students. By neglecting the front-end, project managers and practitioners fail to appreciate the profound impact the discipline can have in shaping how projects are planned and organised to achieve strategic and far-reaching transformational outcomes. To encourage us to think differently about projects, Peter established a new paradigm – or a fundamental shift in the concepts, theory and practices underpinning a scientific discipline – called the “Management of Projects” or MoP, which he wrote extensively about in his books, journal articles and practitioner publications.

This essay draws upon my interpretation of Peter’s seminal work and is informed by my role as Chair in the “Management of Projects”, established in honour of Peter’s

contribution, in the School of Construction and Project Management (as it was then called) in the Bartlett Faculty of the Built Environment, University College London (UCL). Soon after I joined UCL in 2012, Peter was gradually reducing his hours and preparing for retirement, which happened far too prematurely. Peter and I had many one-to-one meetings to help me gain a first-hand understanding of what motivated and shaped his approach to MoP. In what follows; therefore, I often refer Peter in the first person so that I can draw upon these conversations as well as his key texts. I was also fortunate enough to hear Peter introduce his work to students on many occasions when I participated in (and subsequently led following Peter’s retirement) a module informed by the MoP paradigm.

Peter wasn’t a conventional academic. After completing his PhD at the then UMIST, now part of University of Manchester, he embarked on a career in industry and consulting and developed a passion for improving the performance of projects. When he eventually re-joined academia, Peter pursued his life-long mission to establish a new intellectual approach showing why projects frequently failed to achieve their objectives and how they could be more successfully managed. Unlike most academics whose talks are aided by PowerPoint slides, Peter spent a great deal of time and effort developing carefully worded scripts for his talks, which were always compelling, often funny and included many pithy literary, metaphorical and philosophical references. Peter employed a similar style in his books. When you read them, it’s almost as if you hear his voice.



Rather than seeking to make a contribution to a particular theoretical conversation read by a few interested scholars as many academics aspire to do, Peter was driven by writing books full of provocative ideas to reach the largest possible audience of practitioners, students and academics interested in the management of projects. He said to me, it is only in books, not journal articles, that “ideas have room to breathe”. He was also quite dismissive, for example, of the idea that systematic literature reviews could provide a proper assessment of any contribution to the field of project management when the methodology adopted focuses solely on journal articles and excludes books. There are some valid counter arguments to Peter’s objections about the merits of books versus journal articles (and he did write journal articles), but his point was that books (his and other authors) have been critical in shaping the field of project management. This essay, therefore, focuses on Peter’s three main single or co-authored books which form the corpus of his work on MoP:

- *The Anatomy of Projects* (1987) co-authored with George H. Hough
- *The Management of Projects* (1994)
- *Reconstructing Project Management* (2013)

This essay is informed by my reading of Peter’s work, notes of our long conversations and hearing him talk with colleagues, practitioners and students. The next section provides a summary of the MoP paradigm and the following sections discuss the three main motivations encouraging Peter to develop an alternative to the conventional project management discipline including the need to (1) improve the performance and practice of project

management, (2) understand the history, context and challenges facing society and (3) engage with theory and scholarship. Because the purpose of this essay is to illuminate what I think motivated Peter to develop the MoP paradigm, I pay a lot of attention to his first two books where the ideas were initially formulated and developed. In my view, Peter’s final book is important because it builds on his prior work, cements his overall contribution to the field and identifies some of the challenges facing project management scholars and practitioners in the 21<sup>st</sup> century.

## 1. THE MANAGEMENT OF PROJECTS (MOP) PARADIGM

By the late 1960s, professional bodies were established around the world to promote project management, such as the Project Management Institute (PMI) in the United States and the Association for Project Management (APM) in the UK. His first book with George Hough (1987) criticized efforts by the professional bodies to create a standardized model of project management which focused almost exclusively on how internal activities performed by projects should be managed, and how concepts, tools and techniques should be applied on a project through its life cycle to achieve cost, schedule and technical objectives. Informed by considerable empirical evidence (see Section 2), Morris and Hough (1987) argued that the discipline should pay more attention to how projects can achieve the strategic objectives of those promoting, organizing or affected by them. The successful accomplishment of projects, they argued, depends on a variety of strategic and organizational factors not



addressed by the traditional project management discipline, such as the project owner's strategy, technology, organizational design and interactions with the environment (e.g., finance, politics and community views). The call for a new way of thinking about managing projects based first appears rather tentatively in *The Anatomy* (1987):

“We might then talk, perhaps, not so much of project management as of the management of projects, the focus being not the tools and techniques of bringing the project on schedule, in budget, to technical performance but the phenomenon of projects and how they can be managed successfully” (Morris and Hough, 1987: 7).

The MoP as a new paradigm for managing projects was not, however, fully articulated and placed in its historical context until the publication of *The Management of Projects* (1994), which argues that the broader discipline of MoP – defined as a new paradigm – is required to address the key actors involved in three main phases of the project life cycle:

- (1) Front-end definition and development
- (2) Implementation and execution
- (3) Back-end commissioning, start-up and operations

Peter believed that the project management discipline was unnecessarily preoccupied with the second phase: defining project objectives (measured in time, cost and quality), integrating organizational functions, and managing a project (utilizing tools and techniques) as it evolves through its life cycle to ensure the objectives are successfully accomplished. The MoP, by

contrast, stresses the critical role of the owner as project sponsor, champion and customer in phases one and three. A holistic perspective is required to address all three, Peter argued, including more ambitious definitions of success, sophisticated forms of management and appropriate forms of organization. The main argument in *The Management of Projects* (1994), however, is that success depends on careful management of the front-end:

“the way one starts largely determines the way one will continue. Get it wrong here and it is likely that the project will go wrong; conversely, spend time getting it as right as possible and it is likely that the project will have a better chance of going right” (Morris, 1997 preface, 1994).

More recent research has shown that many projects fail during phase three (as Morris (1994) recognizes but doesn't elaborate on) because of inadequate preparations, capabilities and routines for commissioning, integrating systems and transitioning to operations (Zerjav et al., 2018). In his final book, Peter calls for the MoP to be extended from the three phases to include portfolio, program and project management (Morris, 2013).

## **2. A PARADIGM MOTIVATED BY IMPROVING PRACTICE AND PERFORMANCE**

Throughout his career Peter was motivated by understanding why large, complex projects so often failed to achieve their objectives and identifying what new practices could be adopted to achieve more successful outcomes. These questions were explored in Peter's first book with George

Hough, *The Anatomy of Projects* (1987), which conducted an extensive review of studies of 1,653 projects and discovered that as few as 12 projects achieved their stated time, cost and quality objectives. They also conducted interviews with project executives and analysed eight case studies of major projects to identify the causes of poor performance. They found that projects fail because of many strategic factors ignored by traditional project management such as unclear definitions of success, changing sponsor strategy, technological uncertainty, changes in government or client requirements, and evolving market conditions. Indeed, overruns may not be the best measure of success for project sponsor and owner, because a project may be profitable when it becomes operational, although it may be delayed or exceed its original budget, as in the early 1980s North Sea oil and gas projects. Morris and Hough (1987: 213) also suggested that conventional measures of project performance and success based on time, cost and quality should be extended to include the symbolic importance and value of projects – an often used example is the Sydney Opera House as a symbol of Australia (e.g. Shenhar and Dvir, 2007).

Informed by their own in-depth case study analysis, Morris and Hough (1987) identified key lessons or cures for the management of major projects, including measures and dimensions of project success and the strategic approach that would later inform the MoP paradigm. Some of the key conceptual underpinnings of the MoP paradigm developed in Chapter 11 of *The Anatomy* are firmly grounded in an analysis of these case study findings. It is important to recognise that this research was

undertaken in the 1980s when the literature on project management was almost exclusively focused on tools and techniques and theoretical work connecting projects to their organizational context (or project studies) was still in its infancy.

Although the main objective of *The Anatomy* was to identify the causes of failure and new practices required to improve performance of large, complex projects, many of Morris and Hough's (1987) propositions and insights anticipated important streams of theoretical research undertaken during the subsequent decades. The influence the book had on the field perhaps served only to reinforce Peter's belief that the need to meet stringent requirements of journal articles and connect to existing theoretical conversations may inhibit the creativity and freedom of expression that is more permissible in book publications. Indeed, *The Anatomy* identified many of the strategic factors encouraging Peter in his next book (Morris, 1994) to develop an alternative to conventional project management's focus on the internal processes and activities. Many of these ideas were pursued by leading scholars (knowingly but often unwittingly) in what have become classic and significant contributions to the study of large, complex projects since the 1980s. Here are just a few examples:

- Morris and Hough (1987: 212) argued that large complex projects should be considered as "extended systems" affected by their interaction with the context within which they are delivered, including public attitudes, stakeholder engagement, community involvement and resistance. These insights paved the way for research



studying the institutional arrangements surrounding projects (Engwall, 2003; Scott et al, 2011; Gil and Pinto, 2018; Söderlund and Sydow, 2019),

- Anticipating future research on optimism bias (Flyvbjerg et al, 2003; Flyvbjerg, 2014), Morris and Hough (1987: 230) emphasized that accurate estimates of out-turn costs (including a risk analysis and allowance for contingency) were needed to avoid cost escalation and allowances should be made for human error and bias.
- Research on the role of project sponsors and owners, particularly in shaping how risks are addressed in the front-end stage (e.g., Miller and Lessard, 2000; Mellow, 2011; Winch, 2013; Winch and Leiringer, 2016) owes much to Morris and Hough's (1987: 220-226) recognition that projects are influenced by funding, legislation, sponsor and role of government as direct owner.
- The observation that projects face the challenge of retaining key knowledge and experience when teams are disbanded on completion of the task (Morris and Hough 1987: 243) became the focus on a large stream of research on project-based learning and capability development which became prominent from the early 2000s (e.g., Davies and Brady, 2000; Brady and Davies, 2004; Prencipe and Tell, 2001; Söderlund and Tell, 2009).
- Morris and Hough's (1987: 241-243) claim that many projects

depend on teams working in flatter organizational structures based on horizontal peer-to-peer relationships and collaborative styles leaderships is now recognized in a variety of different studies (e.g., Edmondson, 2012; Mellow and Nandurdikar, 2018; Müller et al, 2018).

Although *The Anatomy* does not explicitly refer to contingency theory (e.g., Lawrence and Lorsch, 1967, Thompson, 1967), Morris and Hough (1987) do, however, recognize that the management and organization of projects is influenced by various environmental dimensions such as the size, complexity, urgency, uncertainty and required know-how (or capabilities) – that have to be managed more successfully. Here are some examples of the contingency thinking in *The Anatomy* which influenced subsequent research and became key elements of the MoP approach:

- The view that projects have to be managed differently depending on their duration, technological uncertainty, urgency and concurrency (Morris and Hough, 1987: 14, 211, 216-220, 227-228) is widely accepted in innovation research advocating a contingency approach to project management (Loch et al, 2006; Shenhar and Dvir, 2007).
- The recognition that the form of contract (e.g., fixed price, cost-sharing, target cost and cost reimbursable) influences project performance and may change during the life of a project as the perceived risk changes (Morris and Hough, 1987: 236-238) is now widely accepted by project scholars (e.g., Loch et al, 2006).

- Anticipating future research, Morris and Hough (1987: 238-239) emphasized that the form of the organization (i.e., functional, project and matrix) is contingent on environmental conditions (e.g., size, complexity and uncertainty) (e.g., Hobday, 2000; Whitley, 2006) and depends on the capabilities of the parent organization and the contractors responsible for delivering the project (e.g. Merrow, 2011; Winch, 2013).

The role of contingency theory in shaping Peter's thinking about projects is much more explicit in *The Management of Projects* (1994) where he makes the case that there is no one-size-fits all approach to project management. As we will see in Section 4, the book contains numerous passages referring to contingency theory to show that different environmental conditions (e.g., technological and market conditions) require different forms of project organizations and styles of management.

### 3. A PARADIGM SHAPED BY HISTORY, CONTEXT AND SOCIETAL CHALLENGES

Whereas *The Anatomy* (1987) zooms in to study how specific practices may help provide cures to poor performance, Peter's latter two books (Morris, 1994 & 2013) zoom out to provide a broad overview of how the discipline of project management has evolved over time and the challenges that need to be addressed in the future. Morris and Hough (1987) recognise some of the seminal events in the history of project management (e.g. the Apollo moon

landing), but it is not until *The Management of Projects* (1994) that Peter presents his interpretation of the chronological development of the discipline as it adjusts to changing contexts and responds to societal changes (e.g. the Cold War, space exploration and climate change) and draws upon an extensive body of literature to provide a fully developed alternative based on the MoP paradigm.

While its roots can be traced back to the 1930s (e.g. DuPont's critical path analysis) and 1940s (e.g. parallel development on the Manhattan project), Peter argues that key technical and organizational innovations in modern project management were pioneered and implemented on US defence and weapons systems projects in the post WW2, Cold War era (Morris, 1994). Project management emerged as a separate discipline in the American defence industry to manage the Atlas Intercontinental missile of 1954 (e.g., systems engineering and concurrency) and Polaris programme in 1955 (e.g., the creation of the program evaluation and review technique – PERT). The systems approach to project management used on these projects was formalized and developed further in the 1960s by NASA (e.g., program development plan) during the Apollo programme. Peter describes how the aerospace-defence systems approach developed and spread across industries from the 1970s, while innovations originating in other industries such as car manufacturing (lean production) and software (agile) provided alternative ways of successfully managing projects.

Complementing this historical perspective, Peter argues that the timing and context – political, social, economic, financial,



ecological, and organizational – within which projects are formed and managed also justifies the need for a more strategic MoP approach. Let's consider three examples. First, as advisor to the owners of the Trans-Alaska Pipeline in 1980 Peter found that cost overruns were not caused by poor project management planning and monitoring, but by a variety of contextual factors impinging on the project such as stakeholders, geophysical conditions, and poor technology management that led him to focus on MoP and the importance of the front end (Morris, 2013). Second, the opening up of closed state-controlled markets and the transition to competitive open markets in the 1980s and 1990s led many project sponsors and owners to seek private finance and pay more attention to the financial viability of projects, although some, such as the Channel Tunnel, resulted in significant cost overruns (Morris, 1994: 239). Third, ecological concerns about the climate emergency have encouraged managers to consider the wider environmental impact of projects (Morris, 1994: 283) and how projects can be better equipped to avoid them, a challenge Peter would return in his final book towards the end of his career (Morris, 2013).

Peter was always deeply concerned to understand how the practice of managing projects could be improved to address grand challenges facing societies. The final part of his last book, *Reconstructing Project Management*, articulates how the MoP paradigm can be reformulated to address the consequences of the world's rapidly growing population and the climate emergency. The majority of the world's population living in cities are at greatest risk from global warming and rising sea levels resulting from increasing carbon

emissions. Peter was dismissive of the idea that some kind of massive scale Manhattan project or Apollo program would be able to deal with these challenges as some have suggested, arguing instead that the solutions will need to be more comprehensive, far reaching and globally distributed. He believed that innovative projects should be carefully selected, initiated and managed as a program of interrelated projects to achieve the overarching and ambitious goal of reducing global carbon emissions.

In Peter's view, however, project and program management lacked the rigorous conceptual framework needed to guide and inform how a large-scale system change could be accomplished in practice. Turning to theories developed outside the discipline for inspiration, Peter suggested that Frank Geels and colleagues working on "transition theory" offered the overarching framework required to understand how project-based innovation occurring across multiple levels can be designed to achieve the societal goal of a sustainable future during the 21<sup>st</sup> century (e.g., Geels, 2004). Geels's work is important, Peter believed, because it provides a way of understanding how innovation in technological niches (initiated by multiple projects) are gradually linked together across different institutional levels – micro (niche), meso (regime) and macro (landscape). In a reciprocal movement between levels, changes in the landscape feedback on lower levels, exerting pressure on regimes and opening up multiple new project opportunities and niches. In Peter's view, the multilevel transitions framework helps to identify the comprehensive role program management can play the transition to an



ecologically sustainable future because it is:

“...goal-driven – highly teleological – emphasizing the work required in the front-end design stages – both process and product – on things like governance, strategy, platform design, technology management, innovation, stakeholder management, improving value, identifying and managing risk, resourcing, budgeting, regulation, planning and programming, and utilising learning” (Morris, 2013: 275).

These ideas about combating climate change were taken forward in a report produced for the *Association of Project Management* where Peter calls for project leaders and managers to focus on the ends rather than means (Morris, 2017). He argued that the MoP approach is needed to deal with the scale, complexity, novelty and urgency of the challenge because it provides a holistic way of selecting and managing projects and programs from the front-end through delivery to the handover to operations. Peter suggested each country around the world should establish a dedicated project or program management office and single point of accountability to integrate plans and coordinate a global response to climate change. In a seminar held at UCL soon after the publication of this report, Peter concluded that after many decades of cumulative improvements the project management profession was now “fit for purpose” for dealing with the climate emergency. It was really a matter of ensuring, Peter argued, that “virtually all” project management techniques are consistently applied at global scale to tackle the problem (Morris, 2017).

#### 4. A PARADIGM INFORMED BY THEORY AND SCHOLARSHIP

The need for the MoP paradigm was also informed by Peter’s deeply held belief that academic research could help practitioners know how to better set up and execute projects more successfully. Although some assume (incorrectly in my view) that Peter was not convinced that theory could help to improve the practice of managing projects, *The Management of Projects* (1994) contains many significant, although admittedly sporadic, references to key scholarly contributions that improve our understanding of the strategic management and organizational challenges involved in managing projects. Here are just a few prominent references to classic studies which have informed the MoP:

- The theoretical foundations of project management were underpinned by systems theory and scholars such as Emery (1959) based on an understanding of how organizations are defined as systems that interact with the environment (Morris, 1994: 74).
- Hirschman (1967) emphasized the creative capacity for projects to resolve problems not anticipated at the outset (the ‘hiding hand’) and understood that project success extending beyond implementation to operations is one of the insights informing the MoP paradigm (Morris, 1994: 118, 223).
- Sayles and Chandler (1971) clarified that large, technology systems require large project-based organizations with capabilities in systems integration and project managers (acting as



“organizational metronomes”) who understand how to move the project at the right pace and in the right way through its life cycle (Morris, 1994: 77-78, 244, 257).

- Perrow (1984) explained how system accidents occur when the complexity of a system exceeds management’s ability to manage a large-scale technological project or program (Morris, 1994: 223).

In my conversations with Peter, he stressed that contingency theory played a key role in shaping the MoP paradigm and we can find evidence for this in his last two books (Morris, 1994 & 2013). Peter recognised that Woodward’s (1965) seminal work on industrial organization helped scholars understand that organic, adaptive project-based structures are required to design and produce one-off, highly customized products (Morris, 2013: 156). Peter often referred to the pioneering work of Burns and Stalker (1961), Lawrence and Lorsch (1967), Thompson (1967) and Galbraith (1973) and Mintzberg (1979) because these authors helped to identify the key mechanisms involved in the successful management of projects such as the role of project manager as an integrator (Morris, 2013; 156). He originally drew upon these ideas in his PhD in the late 1960s to argue that the type of integration varies as projects become larger, more complex, urgent and uncertain. A range of integration mechanisms – such as liaison, coordinator, project manager and matrix structure – are used to coordinate interdependent tasks and achieve cooperation within and between project teams and functional units (Morris, 1994: 74-76, 213, 248; Morris, 2013: 57-58).

*The Management of Projects* (1994) is perhaps Peter’s most significant intellectual contribution because it contains so many original ideas and conceptual insights, often mentioned in passing or as an aside, that would guide and anticipate significant streams of project organizing research over subsequent decades. The advantage of writing a book on the subject is that it gave Peter the freedom to raise questions, explore conjectures and introduce promising new lines of inquiry that might not be permissible in more conventional forms of academic publication. To a lesser or greater degree, Morris (1994) addresses many ideas that project scholars would go on to study, but four concepts in particular have taken hold and played an increasingly influential role in the theory and practice of MoP.

First, although it may appear rather obvious to contemporary project scholars, Peter was among the first to emphasize that entire industries were “project based” (Morris, 1994: 2-3, 214, 298), an idea that was examined in-depth by scholars studying complex products and systems (CoPS) (Hobday, 1998). Indeed, Peter was both highly supportive and a friendly critic of research on CoPS. In the Foreword he wrote for my book on the subject with Mike Hobday (Davies and Hobday, 2005), Peter welcomed a new perspective on project industries from innovation scholars working outside the discipline. He also emphasized that projects play a vital role in manufacturing and service industries that are not primarily organized on a project basis. The idea that many industries and organizations are becoming increasingly “projectified” is explored in depth by Lundin et al (2013).

Second, Peter was among the first project management scholars to point to the key role of the “systems integrator” in the successful management of large, complex projects (Morris, 1994: 19-36; Morris, 2013; 30-34). A critical task in systems engineering, systems integration emerged in the 1950s to design the complete Atlas missile system, specify the performance of each component in the system and manage interdependencies amongst them. A single systems integrator organization was assigned responsibility for planning, scheduling and controlling the implementation of the system from design to operations (Morris, 1994; 21-22). These practices are fundamental to all aspects of modern project and program management. Systems integration was adopted by NASA in the 1960s, incorporated as a key function in the systems approach to modern project management and was developed further in the 1970s, 1980s and 1990s when many large firms focused on being systems integrators (rather than vertically-integrated manufacturers) of components produced in-house and/or externally. Research on CoPS identified systems integration as a core capability for all project-based firms (Hobday et al, 2005) and subsequent research has explored how systems integration is performed on megaprojects (Whyte and Davies, 2022). In the UK, systems integration role is identified as the central task in a new “Systems Approach to Infrastructure Delivery” developed by practitioners and scholars (ICE, 2021).

Third, Peter believed that the idea of the “project owner” is something that distinguishes MoP from conventional project management because it focuses attention on the sponsor and customer who

is paying to create value from the project outcome (Morris, 1994: preface). The project owner performs three roles: first, as *sponsor* – ensures that the asset produced by the project delivers value and creates a profit; second, as *builder* – is responsible for the efficient and effective management and delivery of the project; third, as *operator* – ensures that the asset is handed over and performs optimally during operations; (Morris, 1994: 252-253). Peter called for more research to identify the varying role of the owner across industries, arguing that owners have to decide how much capability and functions should be retained in-house or contracted to outside parties to ensure that the project as originally conceived meets its objectives. The idea of the project owner and sponsor plays a central role is evident in Miller and Lessard’s (2000) classic study of large-engineering projects and developed further in practitioner-oriented work on megaprojects (e.g., Merrow, 2011: 126) and recent scholarship in project studies (Winch, 2014). In the UK, the owner and integrator is the core organizational unit in an influential approach called “Project 13” which is widely used to support the conception, development and implementation of large projects and programs (ICE, 2021).

Fourth, Peter was amongst the first scholars to introduce the label “mega” to describe a category of increasingly large, complex mega-projects and mega-programs (Morris, 1994: 89, 213, 289) a term subsequently addressed in depth by Flyvbjerg et al (2003), Davies et al (2009), Merrow (2011) and a growing body of research (e.g., Gil & Pinto, 2018; Van Marrewijk et al, 2016). Displaying incredible foresight about the inefficiencies of building on such a large-



scale, Peter called for “homogenous mega-type projects to be avoided where possible” and for projects to start off smaller and implemented in “modular form” (Morris, 1994: 289). It is worth quoting Peter at length on this point:

“As far as possible, the modules of the project will be self-standing, so that if the design of the whole changes, the parts themselves remain viable. This will add a new twist to the challenge of integration. The modular parts of the project must be designed so that not only are they individually viable, but also the whole works synergistically” (Morris, 1994: 289).

It is only relatively recently that scholars have begun to recognize that modularity simplifies and eases the task of performing systems integration on megaprojects, particularly when modular components are manufactured more cheaply and with greater precision in off-site factories and assembled more easily when brought together on site (Davies, 2017; Tee et al, 2018). In a recent article published in the influential *Harvard Business Review*, Flyvbjerg (2021) argues that where possible megaprojects would benefit from being modular in design, replicable and constructed incrementally on a smaller scale.

Peter’s interest in theory and recent scholarship both within and outside project management literature was taken further in *Reconstructing Project Management* (2013) where he emphasized that “the practice and theory of managing projects needs to be better integrated” (Morris, 2013: xxi) and called for practitioners to be more “theoretically-grounded” and

informed by academic research (Morris, 2013: 2). In his last book, Peter acknowledges the significant theoretical work done by the organizational scholars associated with the “Scandinavian School” (Morris, 2013: 67-69) who were pioneers of a conceptual way of thinking about projects as temporary organizations (Lundin and Söderholm, 1994) that would become known as “project studies” (Geraldi and Söderlund, 2018). In conversations with Peter, however, it was clear that he wasn’t entirely convinced by work that placed too much emphasis on theorizing about temporal organizing and neglected to develop clear managerial implications for projects.

## CONCLUSION

In this essay, I’ve suggested that there were three main motivations driving Peter to develop an alternative approach to the project management profession he first encountered in the 1960s. Although each motivation has been discussed separately, it is important to recognize that in Peter’s holistic way of thinking, each motivation reinforces and supports the other ones and should be seen as integrated parts of the MoP paradigm. As we have seen, for example, the identification of new strategic ways of managing projects informed streams of theoretical research, the pressing need to deal with societal challenges (e.g., the Cold War, space exploration and the climate emergency) changed how projects are organized and managed in practice, and advances in theory helped Peter recognize some of the ingredients of successful project management (e.g. integration mechanisms and forms of project organizing).



In my view, it's unlikely we will see many project management scholars like Peter in the future. Today's scholars face a different set of incentives and rewards. They are often more concerned about publishing theoretical ideas in academic journals and less passionate about changing practice. While Peter owed a great deal to contingency theory and referenced other scholarly work to understand the challenges of managing projects, it's probably fair to say that he didn't make a significant contribution to theory. He wasn't motivated by using projects as a setting to contribute to various streams of scholarly literature within and beyond project management discipline. His concern was more fundamental and far reaching. He came from practice and was inspired by writing well-written, interesting and provocative scholarly books to spread the word that well managed projects could make the world a better place to live, work and play. Many practitioners and scholars would probably agree that professional project management bodies have now accepted and absorbed many of Peter's ideas and acknowledged that project management needs to be reconstructed. Although I'm sure Peter would say there is still work to be done and ask us in the words of his handwritten inscription on my copy of *Reconstructing Project Management* to "Take it forward".

## REFERENCES

- Brady, T. and Davies, A. (2004). 'Building project capabilities: from exploratory to exploitative learning', *Organization Studies*, Special Issue: 'Project Organization, Embeddedness and Repositories of Knowledge', 25(9), 1601-1621
- Burns, T., and Stalker, G.M. (1961). *The management of innovation*. Oxford: Oxford University Press.
- Davies, A. and Brady, T. (2000), 'Organisational Capabilities and Learning in Complex Product Systems: Towards Repeatable Solutions', *Research Policy*, 29, 931-953.
- Davies, A. and Hobday, M. (2005), *The Business of Projects: Managing Innovation in Complex Products and Systems*, Cambridge University Press, Cambridge.
- Davies, A., Gann, D. and Douglas, T. (2009), 'Innovation in Megaprojects: Systems Integration at London Heathrow Terminal 5', *California Management Review*, 51(2), 101-125.
- Davies, A. and Brady, T. (2016). "Explicating the dynamics of project capabilities," *International Journal of Project Management*, 34(2) 314-327.
- Davies, A. (2017). *Projects: A Very Short Introduction*, Oxford University Press, Oxford. Translated into Chinese in 2022.
- Edmondson, A.C. (2012). *Teaming: How Organizations Learn, Innovate, and Compete in the Knowledge Economy*, San Francisco: Wiley.
- Emery, F.E. (ed) (1959). *Systems Thinking*, Harmondsworth: Penguin.
- Engwall, M. (2003). 'No project is an island: linking projects to history and context', *Research Policy*, Vol. 32, 798-808.





Flyvbjerg, B., Bruzelius, N., Rothengatter, W. (2003). *Megaprojects and risk: an anatomy of ambition*. Cambridge University Press: Cambridge.

Flyvbjerg, B. (ed) (2017). *The Oxford Handbook of Megaproject Management*, Oxford: Oxford University Press.

Flyvbjerg, B. (2014). "What you should know about megaprojects and why: An overview," *Project Management Journal*, 45(2): 6–19.

Flyvbjerg, B., (2021). 'Make megaprojects more modular', *Harvard Business Review*, November-December 2021: 50-56.

Galbraith, J.R. (1973). *Designing complex organizations*. Reading, MA: Addison-Wesley.

Geels, F. (2004). 'From sectoral systems of innovation to socio-technical systems: insights about dynamics and change from sociology and institutional theory', *Research Policy*, 36(6-7): 897-920.

Geraldi, J. and Söderlund, J. (2018). 'Project studies: What is it, where is it going', *International Journal of Project Management*, 36(1): 55-70.

Gil, N. and Pinto, J. (2018). Polycentric organizing and performance: a contingency model and evidence from megaproject planning in the UK. *Research Policy*, 47: 717-734.

Hirschman, A. O. (1967). *Development Projects Observed*. Washington, DC: The Brookings Institution.

Hobday, M. (1998). 'Product complexity, innovation and industrial organization', *Research Policy*, 26: 689-710.

Hobday, M. (2000). The project-based organization: an ideal form for management of complex products and systems. *Research Policy*, 29: 871-893.

Lawrence, P.R. and Lorsch, J.W. 1967. *Organization and environment: managing differentiation and integration*, Boston, MA: Harvard Business School Press

Lenfle, S. and Loch, C. (2010). "Lost roots: How project management came to emphasize control over flexibility and novelty," *Californian Management Review*, 53(1): 32–55.

Loch, C., De Meyer, A., Pich, M. 2006. *Managing the unknown: a new approach to managing high uncertainty and risk in projects*. John Wiley and Sons: New Jersey.

Lundin, R. A. and A. Söderholm (1995) A theory of the temporary organization. *Scandinavian Journal of Management*, 11(4): 437-455.

Lundin, R. A., Arvidsson, N., Brady, T., Ekstedt, E., Midler, C., and Sydow, J. (forthcoming 2015) *Managing and Working in Project Society: Institutional Challenges of Temporary Organizations*, Cambridge, Cambridge University Press

Merrow, E. W. (2011). *Industrial Megaprojects: Concepts, Strategies, and Practices for Success*. Hoboken, NJ: Wiley.

Merrow, E. W., Nandurkdkar, N. (2018). *Leading Complex Projects: A Data-Driven Approach to Mastering the Human Side of*



*Project Management*, Hoboken, NJ: Wiley.

Miller, R. and Lessard, D. (2000). *The Strategic Management of Large Engineering Projects: Shaping Institutions, Risks, and Governance*. Cambridge, MA: MIT Press.

Mintzberg, H. (1979). *The Structuring of Organizations*, NY: Prentice Hall.

Morris, P.W.G. and Hough, G.H. (1987). *The anatomy of major projects*. Chichester: John Wiley & Sons.

Morris, P.W.G. (1994). *The management of projects*. London: Thomas Telford.

Morris, P.W.G. (2013). *Reconstructing project management*. Chichester: John Wiley & Sons.

Morris, P.W.G. (2017). 'Climate change and what the project management profession should be doing about it, *Association for Project Management*, (2017):1-56.

Müller, R., Sankaran, S., Drouin, N., Vaagaasar, A-L., Bekker, M.C. and Jain, K., (2018). 'A theory framework for balancing vertical and horizontal leadership in projects, *International Journal of Project Management*, 36(1): 83-94.

Perrow, C. (1984). *Normal accidents: living with high risk technologies*, Princeton University Press.

Pich, M.T., Loch, C.H., and De Meyer, A. (2002). 'On uncertainty, ambiguity and complexity in project management', *Management Science*, 48 (8): 1008-23.

Prencipe, A. and Tell, F. (2001). 'Inter-project learning: processes and outcomes of knowledge codification in project-based firms', *Research Policy*, 30: 1373-1394.

Sayles, L. and Chandler, M.K. (1971). *Managing Large Systems*, The Free Press, New York.

Scott, R. W. Levitt, R. E., and Orr, R. J. (2011). *Global Projects: Institutional and Political Challenges*. Cambridge: Cambridge University Press.

Shenhar, A. J. (2001). "One size does not fit all projects: Exploring classical contingency domains," *Management Science*, 47(3): 394-414.

Shenhar, A. J., and Dvir, D. (2007). *Reinventing project management: the diamond approach to successful growth and innovation*. Boston, Mass: Harvard Business School Press.

Söderlund, J. (2005). 'Developing project competence: empirical regularities in competitive project operations', *International Journal of Innovation Management*, 9(4): 451-480.

Söderlund, J. and Tell, F. (2009). 'The P-form organization and the dynamics of project competence: project epochs in Asea/ABB, 1950—2000', *International Journal of Project Management*, 27, 101-112.

Söderlund, J. and Sydow, J. (2019). 'Projects and institutions: towards understanding their mutual constitution and dynamics', *International Journal of Project Management*, 37, 259-268.



Sommer, S.C. and Loch, C.H. (2004), Selectionism and learning in projects with complexity and unforeseeable uncertainty, *Management Science*, 50(10): 1334-1347.

Tee, R., Davies, A., and Whyte, J. (2018). 'Modular designs and integrating practices: managing collaboration through coordination and cooperation', *Research Policy*, 48(1): 51-61

Thompson, J. D. (1967). *Organizations in Action: Social Science Bases of Administrative Theory*. New Brunswick, NJ: Transactions Publishing.

Van Marrewijk, A., Ybema, S., Smits, K., Clegg, S.R., and Pitsis, T. (2016). Clash of the Titans: Temporal organizing and collaborative dynamics in the Panama Canal project. *Organization Studies*, 37(12): 1745-1769.

Whitley, R. (2006). 'Project-based firms: New organizational form or variations on a theme?', *Industrial and Corporate Change*, 15(1), 77-99.

Winch, G. (2014). 'Three domains of project organizing', *International Journal of Project Management*, 32: 721-731.

Winch, G. and Leiringer, R. (2016). "Owner project capabilities for infrastructure development: A review and development of the 'strong owner' concept," *International Journal of Project Management*, 34(2), 271-281.

Whyte, J. and Davies, A. (2021). 'Reframing systems integration: A process perspective on projects', *Project Management Journal*, 52(3), 237-249.

Woodward, J. (1965). *Industrial Organization: Theory and Practice*, Oxford: Oxford University Press.

Zerjav, Z., Edkins, A. and Davies, A. (2018). 'Project capabilities for operational outcomes in inter-organisational settings: The case of London Heathrow Terminal 2', *International Journal of Project Management*, 36(3): 444-459.