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# Working Paper Proceedings

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**Engineering Project Organization Conference**

Cle Elum, Washington, USA

June 28-30, 2016

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## **Opening Up the ‘Sociological Imagination’: Construction Management as the Enabler of Society**

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## OPENING UP THE ‘SOCIOLOGICAL IMAGINATION’: CONSTRUCTION MANAGEMENT AS THE ENABLER OF SOCIETY

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### ABSTRACT

It is a truism that much of construction management research is preoccupied with helping the sector to deliver buildings and infrastructure more quickly, cheaply and efficiently. And yet, historical concerns with the efficiency of production have done little to bring about an industry, or profession, which is seen as contributing to societal well-being. Indeed, it is questionable as to whether this instrumental and rationalistic approach to improvement has even had significant effects on the cost and quality of the built environment. Hence, here we try to develop a counter-position on the role of construction management research, and the construction sector more generally. We argue that the built environment is at the centre of societal interaction, both positive (such as in enabling social and physical mobility) and negative (as the reproduction of socio-economic inequalities through poor housing, limited access and so on). It is commonly accepted that good quality housing, transport and public facilities such as schools and hospitals are central to a fair society. But we see little rehearsal of these priorities in discussions on the delivery of the built environment in our field. So we ask – what would construction management (and construction management research) look like, if it placed its societal function above time, cost and quality? We take inspiration from both critical studies of projects - notably those of the Scandinavian School that sees projects as being in a constant state of drift - and Mills’ (1970) classic concept of the ‘sociological imagination’, which contends that sociological thinking should be the bridge between individual concerns and macro-level societal and economic structures. We re-cast these perspectives in relation to both technology (building information modelling) and a project (the 2012 Olympic Games) to explore the connectivity between societal contribution, and narrower pre-occupations with delivery and efficiency within the sector. This leads us to provide new provocations around the relationship between construction management and the built environment that it brings about. Specifically, seeing construction management as an enabler of the built environment shifts debates away from myopic obsessions with the management of production, to a focus on the multiple contributions that it makes to society. Moreover, it suggests a fundamentally different role for construction management research in understanding the implications of industry practices across multiple societal contexts and scales.

**KEYWORDS:** Sociology; construction management research; critical project studies

### INTRODUCTION

There are few that would deny the claim that the built environment provides the material fabric of society. Moreover, construction as a sector is seen as important as a core part of national economies, a significant employer and an ‘enabler’ for other activities – recently

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couched in the UK as ambitions for signature infrastructure such as High Speed Rail 2, Thames Tideway or Crossrail. But it is also mired in perceived problems relating to both performance and outcome; a tendency towards cost and time over-runs, issues with coordination, and with quality, access and with longevity of product. The plethora of policy recommendations urging construction to improve, modernise, innovate, is a familiar mantra (e.g. Industrial Strategy, Construction 2025) and increasingly the connection between building and long term use is being problematized. Perhaps, then, it is no surprise to see a pre-occupation with delivering more ‘value’ at lower cost, and with the re-engineering processes of work and embedding of new techniques to increase certainty and predictability, and hence close the gap between production and product. Similarly, it is no surprise that construction management research largely mirrors this preoccupation.

But whilst the question of how this came to be is beyond our scope here, one might raise the question of what the implications of it are, and what alternatives there might be. A perfectly coordinated, controlled and auditable process, where goals unambiguously align with ends is one way to conceptualise the construction sector; a socially aware, responsive and imaginative one is perhaps rather different, with very different implications for the research agendas that should surround it.

Whilst the limitations of this rather binary conception are acknowledged, it does serve as a foil against which to think through the implications of where the change agenda in construction should be headed, and what the role of construction management research within this should be. As a way of developing this, the paper is structured as follows. To begin, we provide our own, deliberately provocative account and problematization of the existing construction management research paradigm. We then introduce two parallel ideas. The first is the Scandinavian School of project management, which departs from a management of performance position to an acceptance of ambiguity, uncertainty, and the need to ‘manage within uncertainty’. These ideas have been further developed within the critical project studies field, especially through their critiques of functionalism and positivism in project management research (Cicmil and Hodgson 2006; Cicmil 2006). Such critical studies offer a point of departure for opening up new ways of thinking about construction research and practice. The second, and perhaps less familiar one, is C. Wright Mills’ (1970) concept of the ‘sociological imagination’. Although originally published in the 1950s, this work is still regarded as a highly relevant treatise on the role of sociological research in society in bridging between our everyday lives and experiences, and large scale social, economic and political organisational structures. Indeed, given the importance of the sociological imagination to *thinking* sociologically, it is surprising how little influence Mills’ seminal contribution seems to have had within the construction and project management research communities.

We then take these ideas and apply them to two empirical examples. The first discusses the current dominance of BIM as a technology to both improve the quality and outcomes of construction, but also as an instrument of control and constraint. The argument here is that within the extensive amount of research on BIM development and use, there is little acknowledgement of the effects of technology on the conditions and status of workers. The second example thinks through the legacy of a construction programme; the construction of the 2012 Olympic Games and its explicit intention of positioning construction development as a catalyst for societal regeneration. Here, we suggest that claims around societal impact are contestable and obscure discussions around connecting construction practices with real social benefit. Our examples promote very different re-imaginings of CM, the first oriented to impacts of CM within

construction work (and specifically on workers), and the second about impacts of the sector's activities on society more broadly. We conclude by outlining what a commitment to both a fit-for-purpose and an imaginative sector might entail for construction management research, with a recognition of the uncertainties inherent in the construction process, and a commitment to its multiple societal contributions. Rather than reproduce a series of aspirational tenets, we ground this discussion in the empirical, practical and relevant, an attempt to make sociology work for the construction management community.

## **THE PROBLEM OF THE CURRENT CM PARADIGM**

Construction management is a nascent applied field which attends to the processes of delivering built assets. In drawing upon an array of different theoretical and disciplinary perspectives from both the natural and social sciences, it is not deeply rooted in any specific discipline or tradition, although it does share theoretical foundations with the project management field for which construction activity provides a prominent empirical arena. While construction and project management's ontological and theoretical pluralism can be seen as advantageous in accommodating multiple perspectives (Dainty 2008), this can also be seen as self-limiting in terms establishing a coherent body of theory from which deeper understanding of construction practice might emerge. Moreover, its shallow theoretical underpinnings have arguably led to a tendency towards strident empiricism, and with it a focus on descriptions of - rather than informed insights into - project practice. Indeed, as Bannerman et al (2013) suggest in relation to project management research, much remains "mired in the middle" in offering little insight for practitioners whilst remaining insufficiently rigorous for the academy. In a similar vein, Koskela (2008) points out that theory in the built environment does not play a significant role in informing practice or policy, or indeed in shaping societal understanding. Whether this ultimately stems from its obsolescence (Koskela and Howell 2002) or just weak theorisation (Bannerman et al 2013) is debatable, but the disconnect between the ways in which projects and their management are theorised and the actualities of project practice appears unequivocal, especially when viewed through the lens of failure to achieve the normative 'iron triangle' performance outcomes against which most projects are judged (Sage et al. 2014).

While there is much to bemoan about the existing construction management research paradigm in terms of the knowledge and insight that it produces, of greater significance, we would argue, is that it fails to situate the field in any kind of broader societal context. Although recourse is made to society, sustainability, through-life, users and so on, there is little attempt to substantively deal with or contribute to external agendas, and even less to make a robust connection between the activities of the sector, and broader societal outcomes. It is generally assumed better efficiency, new technology or increased 'quality' of buildings and infrastructure leads to positive social and economic impact, without considering the consequences – both intended and unintended – of such activity within and beyond the sector. Moreover, the route to this impact is heavily reliant on a narrow functionalist-positivist/managerialist view of project and organisation and its concomitant focus on productivity, efficiency and technical improvement (Sage et al. 2014). The result is that the field narrowly reproduces its own agendas in ways which distance it from the broader societal milieu within which construction occurs. Set within this context, construction management research appears - at best - remote from the social agendas to which it purports to serve, and at worst, rationalistically self-serving.

## AN ALTERNATIVE VIEW

And so how might we conceptually break out of this rationalist trap? One point of departure is provided by the Scandinavian School of project management, which has long been critical of over-rationalising the project process, and encouraging the project manager to see the process and context over the original intended outcome of project. Rather than see the project process as an institutionalised set of formal mechanisms, Christensen and Kreiner (1991) urge us to see the project as a phenomena, an unfolding course of action set within a context with an unpredictable and uncertain future; a ‘drifting’ environment (Kreiner 1995) where there may be divergence “relative to the projected environmental conditions, on the premise of which the project was originally designed and planned” (Kreiner, 1995: 338). This drift might be expected, and is not the problem, but rational approaches to management and the measurement of success against a priori criteria (time, cost) risk the original intentions losing relevance in the emerging present. The managerial game should be about embracing and managing within this uncertainty, not the application of control mechanisms to make the project context fit plans, intentions and goals. In other words, by focusing solely on the achievement of initially intended outcomes we become increasingly irrelevant as these change (or are eroded) in the process of implementation. It is important to note here that this approach is not an attack on project planning, but an attempt to recognise a tension where rational management techniques can lead to failure as well as success.

As Hällgren et al (2012) point out in their review of Christensen and Kreiner’s seminal book, they do not claim that project managers should follow their advice, but merely use it as a way of understanding the limitations of an overly rational view of projects, and as a means to foreground the impact of uncertainty and the institutional environment on operations. This is important because the risk of this loss of relevance is significant for both the individual and society. For the project manager the ‘animal spirits’ and sense of accomplishment is lost, and management becomes decontextualized control. For society, the object of the project loses its worth and function. What we might take from this is that there is a rupture between the ‘reality’ inscribed within the current managerial paradigm, and what is actually going on when we build things, where one is not necessarily reflective of the other. For the construction management researcher, this doesn’t completely debunk planning, control or coordination of the construction process. But what it does do is point to something outside of current techniques which links the management of construction projects with social contribution. We might take relevance as a starting point to consider this new, broader contribution (as well as an explanation of current limitations), and “maybe we would learn something more helpful if we acknowledged the complexity, uncertainty and ambiguity as the conditions under which project management is performed” (Kreiner, 2012: 716).

Traces of the Scandinavian School and the thinking embraced by Kreiner and colleagues can be found in the more recent work of critical projects scholars and their focus on the social contextualization of project management (see Cicmil et al., 2009) and the problematization of the reification of the project in the project management academic field more generally (Hodgson and Cicmil 2006). Of particular relevance here is the assertion that this has led project management knowledge to be prematurely ‘black-boxed’ leading to the “elevation of universal, abstract rationality over embodied and reflexive rationality” (ibid. p.31). In contrast, seeing construction management practice as merely part of an unfolding myriad of interwoven social, political, symbolic, economic and material forces (Sage et al. 2014) opens up new possibilities for understanding its relationship with society. It is through these broader reflections that we might

become to understand its political and ethical contribution (Sage 2013), and ultimately reconnect the field with the society that it recursively interacts with. One way that this can be achieved is through an overt attempt to engage more deeply with the big societal agendas that it has a central role in shaping (housing, sustainability, infrastructure, social mobility etc.) The other is to think more imaginatively about how construction management concerns relate to the social concerns of our time. But if we do that, where does it take us as researchers?

## **THE RELEVANCE OF SOCIOLOGICAL IMAGINATION**

‘The Sociological Imagination’, first published in 1959, presents a number of useful concepts which might help, which are also largely consistent with, if not directly related to, the discussion above. The text, whilst initially criticized by the sociological community, continues to be recommended reading for sociology scholars. In many ways it is a sweeping and rather imprecise critique of the social sciences at the time, but in its central message provides a novel way of rethinking research practice and its connectivity to industry and society.

The notion of the sociological imagination calls for approaches to “grasp the interplay of man [sic] and society, of biography and history, of self and world” (Mills, 1970: 10). The sociological imagination allows the exploration of connections between the individual, and larger social structures, a way of situating problems and challenges between the individual and the institution. It calls for an accounting of how particular issues are grounded in social trends, and how those trends have developed. But this is not advocating a particular level of detail, focus or unit of analysis. It certainly isn’t a call for ‘more words, less numbers’ or ‘more ethnography, less KPIs’. However, if we are interested in the connection between what construction does, why it does it, and what the implications are we are, perhaps, beginning to show a sociological imagination, and indeed are trying to retain relevance to our context, to ensure our problems, interests, methods and insights do not drift<sup>3</sup>.

It calls for research which tries to explain and contribute to its problematic with whatever tools are useful, and to have the “capacity to shift from one perspective to another – from the political to the psychological; from examination of a single family to a comparative assessment of the national budgets of the world” (Mills, 1970: 13). This allows us to counter what Mills terms ‘abstracted empiricism’ - “the pronounced tendency to confuse whatever it is to be studied with a set of methods suggested for its study” (ibid. 61), or ‘illiberal pragmatism’ – the use of research to reaffirm or reproduce particular managerial or institutional arrangements. It therefore challenges us, as researchers, to consider “the relationship between the ‘personal troubles of milieu’ and ‘the public issues of social structure’” (ibid. 14) within and through our empirical work.

This is all well and good, but what does this mean for actionable research practice, that shows a sociological imagination? To us, it is about engaging with the problem and its multiple influences and impacts before thinking through ways it might be addressed. It is about revealing and challenging the assumptions and limitations which drive research problems and approaches. It is about rehearsing the interdependencies between experience (or practice) and institutional

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<sup>3</sup> Interestingly, throughout the book there is a strong sense of the need for positive change and for societal progress. This is unsurprising for a Marxist oriented scholar in the 1950s (and also suggests some reason for the initial critical reaction to it) but outside of specific politics it does align the idea that our research can and should aim for positive impact – we don’t have to pretend to be neutral observers.

structure, and accounting for how these come about, or are reified. In seeking to develop this sociological imagination, we now turn to two empirical examples to help us.

### **BIM is the answer; BIM is the problem**

From IT in construction practice being largely within the interests of specialists, virtually everyone in any construction setting is now aware of BIM. Not only has it colonised most industry and policy level debates, but also has undeniably had material consequences on the practices of the sector. This does not mean it is not met with some scepticism in practice, but it has come to dominate discussions of improvement in construction sectors internationally. It has also led to large swathes of research activity, ranging from the development and prototyping of new tools and processes, to accounts of its implementation, use and benefits on projects. Much of this frames BIM in a particular way and with a narrow (and familiar) set of rationalist lenses. For the sector it is *the* technological panacea, the answer to the problems of construction. The transition from old to new ways of working is unproblematic, a case of deployment of the correct tools. Research activity is largely supporting this stance; improving technological tools, rehearsing rather sketchy links between technology use and improvement, chasing this industry problem of implementation. It is easy to identify abstracted empiricism and illiberal pragmatism at play. There are counter-arguments made, and claims that perhaps the issue is more complex than it might first appear (e.g. Dainty et al. 2015; Harty 2008; Linderoth 2010), turning to more sociological rather than managerial positions. But there is equally an argument of abstracted empiricism here, in that many of these scholars would be doing similar, critical studies of whatever the flavour of the month might be, and in that sense are more interested in pushing back against the dominant rationalist paradigm of CM research than actually contributing to understanding, in this case, BIM.

But what, then, might we explore as a set of sociologically imaginative questions? One debate which has received little attention is that of the impact of BIM processes and technology on the substantive content and quality of design and construction work. For instance there is little discussion of whether the digitisation of the design and construction process will lead to an erosion of creativity in design, or a reduction of flexibility in building processes. This is despite studies which have looked in detail at BIM design processes and shown that traditional technologies such as paper and pen, and collaborative approaches, such as face to face meetings remain crucial even for BIM design projects. (e.g. Harty and Whyte, 2010, Dossick & Neff, 2011). There is also plenty of anecdotal evidence that design practices are not wholeheartedly moving to digital techniques.

Similarly for the management of construction projects, the positive rhetoric of improvement through information coordination has not grappled with associated issues of increasing managerial control and domination through technology. Davies and Harty (2012) show how BIM can be appropriated as an instrument to enact power over the supply chain, and there is an extensive and indeed rather old discussion in the sociology of technology (e.g. Lyons 1994; Poster 1990) and information systems (Zuboff, 1988) literatures which points to the negative power effects of increasing surveillance through IT systems, but within CM it is largely silent.

The implications of BIM for on-site work is almost exclusively limited to its positive use for site management or site office based activities with some discussion of BIM for site safety planning. The implications of BIM for on-site craft based work is non-existent in the literature, even if the debate over technology and deskilling is long established (i.e. Braverman 1974) and

in practice the need for faithful reproduction of plan over craft based discretion and experiential problem solving shows an obvious rupture with current practices of on-site work. So is BIM the solution to the sector's problems, or the death knell for creativity and craft, a Trojan horse containing a new oppressive power hierarchy for construction work? Obviously it is neither in totality, but perhaps it is a question worth more exploration if we want to understand the broader impact of BIM, or any similar improvement initiative.

The debate about BIM's contribution outside of sectoral practice tends to follow an argument over cost and value, or position it as the way to better environmental performance by allowing a tighter coupling between design and outcome. The former excludes any recourse to more qualitative assessment of social impact and the latter could be critiqued as the reification of the Scandinavian School's drift and relevance concern. What of BIM's potential in making more inclusive buildings or socially relevant infrastructure? There is some work on the use of BIM related tools to improve inclusion in the design process (Adamu et al 2015) or in enabling engagement with stakeholders more broadly (Collinge and Harty 2014), but there is little here which is specifically about BIM rather than techniques for collaboration more generally, and nothing on whether BIM leads to 'better' buildings, or on what 'better' might mean outside of performance and requirement satisfaction. The more problematic aspects of collaboration are similarly absent, an argument made by Harty et al (2015) where on a Danish hospital project, during early design review engagements with stakeholders the visualisations were excluded from the discussions to limit the scope of potential changes the users might suggest.

So there is a question as to whether any of this research has really contributed to, or engaged with the notion of BIM as a phenomena which might lead to societal improvement – better conditions, better buildings; better infrastructure, a better mediator of social well-being and inclusion – or whether it has been the object of 'abstracted empiricism' or of illiberal practicality. In the UK there is also a real question of relevance and environmental drift, given that the BIM agenda seems to have moved from the construction sector to the client, and from the building process to operation and asset management, yet again a trajectory towards cost and efficiency over broader societal contribution. But the critique here is neither about the utility of what has been done, nor naysaying the potential benefits reported; is about what is not on the research agenda. By promoting issues of social impact – within and beyond construction work – a set of much more pertinent questions appear, which moves us beyond identifying the 'blockers' to adoption, or reifying the imagined benefits of BIM.

### **Constructing an Olympic legacy (or not)**

The 2012 London Olympic games have been heralded by many as a complete success, with the Mayor of London recently describing them as “the greatest Olympics and Paralympic Games the world has ever seen” (Cabinet Office 2013). The swathe of British Construction Industry Awards festooned on the various contractors and organisations involved suggests that this success was founded in no small way on the exemplary effort that was the management of the construction of the Olympic park itself. This was seen by many as a showcase for what the UK industry could achieve, and a triumph for construction management in particular; the games were completed on time and notably, without a single fatality (Finneran et al 2012). Indeed, given the scale of the construction endeavour, the problematic nature of the contaminated site in East London, and the looming spectre of recent high-profile failures in delivering major projects to predetermined outcomes (e.g. the Scottish Parliament, Wembley Stadium and the Channel Tunnel), this was seen as a triumph for the companies involved, the individuals who led the



design and production effort, and for the Olympic Development Agency that oversaw the delivery programme. A set of ancillary objectives were also met, such as the employment of local labour; over 24,000 people worked on the construction of the Olympic Park, with more than 1 in 5 were resident in the five host boroughs, 1 in 10 being previously unemployed (IET 2011).

But what does the Olympics project look like if we broaden our interests beyond local concerns around production efficiency, safe working practices and employment. Opening up the sociological imagination brings a very different – and arguably much larger - set of socio-economic considerations into focus. A recent report into the legacy value of the games (Cabinet Office 2013) for example, reveals how the Games have acted as a catalyst for participation in sport (1.4m more people actively participating since the Games), the development of 11,000 new homes and 10,000 new jobs, and an overall economic impact of £28 billion by 2020. CM can be seen to have enabled everything from public health to sustaining economic growth. At the same time, however, many of the persuasive outcomes espoused at the time of construction are contested. For example, Thompson et al (2015) found that while local residents generally welcomed the cleaner, safer and more unified environment that the Olympic development produced, they saw this as a temporary situation and as an incidental outcome rather than one targeted at their needs. Weed et al. (2012) agree that the best possibility of generating a fitness legacy rests on the so-called ‘festival effect’ that the games might have induced rather than any wholesale ongoing engagement with the public health message. From an economic perspective, Davies (2016) also suggests that ideas around convergence (closing the gaps between the poorer East End boroughs around the Olympic park development site and the rest of London) are far from easy to realise. Convergence at this scale, Davies argues, can only be achieved for what she terms ‘imagined communities’ rather than existing residents themselves. It would seem, therefore, that the politicisation of the Olympic legacy has led to it being applied to a wider range of socio-economic areas than it can legitimately claim to have influenced (Weed 2014).

Thus, whilst the discourse of convergence and the lasting legacy for sports participation has become inexorably intertwined with the rhetoric of Olympic legacy, opening up the sociological imagination might enable us to posit a more critical counter proposition; that these wider legacy outcomes might have been mobilised to mask the massive socio-economic cost of the construction of the games, and maybe even the failure of the construction management effort itself. Indeed, dig a little deeper and the frailties of the Olympic Game’s performance are all too apparent. Jennings (2012), for example, reveals how cost underestimation dogged many of the Olympics projects, with optimism bias (cf. Flyvbjerg 2007) characterising the risk profiling and decision making, and uncertainty characterising the project management and administration. Whether this underperformance relates to the creeping scope of the project, poor construction management or exogenous influences remains a moot point. For example, Jennings shows how the global financial crisis meant that developers were unable to raise all of the finance required and this required £700 million from the public sector to support some of the major facilities, as well as undermining competitive tension in the tendering process with contractors reluctant to bid for the higher risk facilities. Although some commentary on cost inflation certainly exists within more critical accounts of the Games, understanding the legacy impacts of this has not formed a major focus within the CM research community.

Our theoretical perspectives therefore provide contrasting views of legacy of the London Olympics project. On the one hand it can be seen as a classic ‘drifting environment’ (Kreiner 1995) where the relevance of original objectives have eroded over time and been replaced with a

new set of legacy outcomes, aspects of which can now be seen to be both tightly and loosely coupled to the CM effort. Moreover, these outcomes, now firmly enmeshed within the legacy story, have themselves become part of the reification of the project in the public imagination; to borrow from Hodgson and Cicmil (2006: 32), the study of the Olympics legacy is not so much a question of ‘discovery’, but one of ‘invention’. That said, and turning to the sociological imagination more broadly, the Olympics project also stands as testament to the power of construction management to restore national pride following economic downturn, galvanise a nation in support of their athletes and rebuild fractured communities in socially deprived areas. The London Olympics paradoxically stands as both an illustration of the irrelevance of construction management in its quest for stability and control, and the societal value of construction management in relation to the multiple societal agendas that it influences.

### **CONCLUDING DISCUSSION: IMPLICATIONS FOR CM RESEARCH**

In recognising both the uncertainties inherent in the construction process, and through an overt commitment to recognising its multiple societal contributions, we have argued that sociology can be made to work for the construction management community. But with this ‘out of the box’ thinking comes a set of new obligations for construction management researchers; the time has come to step back from myopic self-limiting debates around production efficiency and performance targets to focus on the broader resonances of the activity with which construction management practitioners engage. Critical and imaginative perspectives, such as those mobilized within this paper, enable us to question the nostrums of the field – orthodoxies which are enshrined within professional practice, but which have questionable relevance to the actualities of practice or to the societal outcomes that CM produces. They also point towards some necessary reflection of our own practices and contribution, as researchers, to these issues and problems, whether in reproducing the narrow and technocratic abstracted empiricism of identifying performance or organisational (in)efficiencies, or the illiberal pragmatism of affirming policy directions or addressing short term cost reduction oriented concerns.

Mills finishes his text with some instructive pointers for the sociologically imaginative researcher. We also see this as both fitting end point for this discussion, and a starting point for new thinking on our research activities. Mills advocates the following (Mills, 1970: 245-248)

“Be a good craftsman... Avoid the fetishism of method and technique...”

“Stand for the primacy of the individual scholar; stand opposed to the ascendancy of research teams of technicians”

“Do not give up your moral and political autonomy by accepting in somebody else’s terms the illiberal practicality of the bureaucratic ethos, or the liberal practicality of the moral scatter.”

“Know that the problems of social science, when adequately formulated, must include both troubles and issues, both biography and history”

We can perhaps see our community failing on all of these, with methodological approaches looking for problems and funding priorities or university incentives chased over interesting and valuable research activities (often enforcing ‘collaborative’ arrangements as well as prioritising problems for us). Mills reminds us that any researcher “studying society and publishing the results *is* acting morally, and usually politically as well” (ibid. 90) whether explicitly or implicitly. Our current problem of questioning the impact of the sector in society also involves questioning our own impact through research.

We might consider how well anchored our current efforts are in the face of the drifting environment of construction and society. More specifically, and responding to the provocations of Mills described above, we might begin to question the drivers for the research that we do, the ways in which we do research in our field, and the relevance of what we do to both practice and society more generally. Can these rules help us rethink, and make CM research relevant and able to understand and contribute to society? To make a positive contribution to the conditions and wellbeing of those employed within the sector? To help explore the connections between and implications of construction practices on society, good and bad? Can a sociological imagination break our own institutional constraints and inhibitions as a community?

## ACKNOWLEDGEMENT

We would like to thank the three anonymous referees for their thought-provoking comments on an earlier draft of this paper.

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