SUB-THEME 10: WHAT'S TAKING SPACE? RE-FRAMING PLACE IN

WORK-IN-PROGRESS PAPER. PLEASE DO NOT CITE

What's taking space on site? Embodied place making in construction

Sandberg, R. Chalmers University, Sweden rikard.sandberg@chalmers.se

Raisanen, C. Chalmers University, Sweden christine.raisanen@chalmers.se

Raiden, A. Nottingham Trent Business School, UK ani.raiden@ntu.ac.uk

Introduction

... [I]t is necessary for space to be *occupied*. What, then, occupies space? A body – not bodies in general, nor corporeality, but a specific body, a body capable of indicating direction, of defining rotation by turning round, or demarcating and orienting space. (Lefebvre, 1991:168, emphasis in original)

In the quote, Lefebvre draws on Leibnitz to argue that space is always a relative concept, with an abstract, primordial dimension, and a concrete dimension in which bodies exist and produce meaning. Space is therefore not just there as a backdrop to bodily enactment; rather it interacts with the bodies that occupy it through availabilities it affords, but also constraints it generates. Spaces are perceived, conceived and inhabited by human and non-human entities whose enactment of and in the space work to re-produce the space. Lefebvre poses the question: "How does a body *occupy* space?" and states that "The connection between space as *available* and space as *occupied*, however, has nothing simple or obvious about it." (Lefebvre 1991: 170, emphasis in original).

It is this interrelationship between the *available* and the *occupied* that we want to explore in this paper. Our interest here is how construction-site managers appropriate and embody the construction site and transform it into their own place. In other words, we explore how site managers produce and consume space on site, and what implications this may have on subordinates and organisation. Our theoretical framing stems from two separate yet linked perspectives: a practice-based approach to managerial work (Tengblad 2012) and masculinity.

Framing

Recently, organisation scholars have highlighted a need to investigate managerial work in organisations as it is lived to gain insight into how expectations, meanings and values about work influence managerial identities. For example, Tengblad (2012) advocates a practice-based approach to the study of managerial work and leadership so as to include the complexity, heterogeneousness, uncertainty and unpredictability of organisational work places. In the leadership and managerial literature, much of the research has concentrated on upper-level managers and leader. Recently, management researchers have started to bridge this gap, and in construction management, for example, studies of site managers actual work situations have increased (Djerbani, 1996; Mustapha and Naoum, 1998).

One of the most recent of these studies has depicted the work of site managers as "muddling through"; the managers skilfully solve problems as these inevitably crop up, and they try to be everywhere at the same time (Styhre, 2012). This puts high demands on site managers' abilities and possibilities of coping with their work situations. Seen from a social sustainability perspective, it may hinder development in construction organisations. Another study by the same author (Styhre, 2011) argues that the dominant masculine construction culture produces this unsustainable, muddling through, response. These studies also show that over the last two decades, little has changed in the behaviour and attitudes of site managers (e.g. Styhre and Josephson, 2006; Mäki and Kerusuo, 2015). What has changed, however, is the nature of site managers' work: more areas of responsibilities and stricter accountability, as described in the following sub-section.

Brief overview of construction

Construction is characterised by multi-project organisations. Construction projects are heterogeneous compositions, gathering a wide number of stakeholders from different spheres and professions and from different organisations, e.g. contractors, clients, subcontractors, architects, materials suppliers, craftsmen/women, municipal and governmental politicians, activists, and not least users. Many of these parties engage actively in the projects, individually or in teams, at different times, working in part as separate entities, but also needing to negotiate boundary interfaces, both intra and inter-organisationally (e.g. Dainty et al., 2006; Styhre and Josephson, 2006; Dossick and Neff, 2010; Fellows and Liu, 2012). This diversity makes for a fragmented reality, composed of loosely coupled permanent and

temporal organisations (e.g. Dubois and Gadde 2002; Gluch and Räisänen, 2009). During the production phase, the various loosely coupled organisational entities involved have to ensure that production activities are tightly coupled according to planned schedules and processes. The hub that ensures communication, coordination and orchestration of all the interfaces is the site manager, who then needs to be attuned to the different cultures, processes and tools of the different interacting professions (e.g. Dossick and Neff, 2010; Styhre 2012, Mäki and Kerosuo, 2015).

A project is usually conceptualised and carried out in more or less discrete phases, mainly a design phase and an implementation phase. These are enacted in very different spaces, with very different socio-material affordances and constraints, and governed by different ontologies, epistemologies and ideologies. At the same time, the phases are highly interdependent: in the design phase, the actors involved plan and forecast the feasibility of the following production phase; they set the preconditions for the project's fundamental criteria: time, budget and quality, based on the involved actors' perceptions, aspirations and lived experience of the project outcome.

Our concern here is with the production phase of the project, more specifically the space in which the constructing is carried out, i.e. the site. In a Swedish context, this space is overseen by a site manager, who is the formal project manager of the production phase. He/she is held accountable for legislative, financial, administrative, procurement, planning, coordination and leadership aspects pertaining to production (Styhre 2006; Styhre and Josephsson, 2006). According to Mustapha and Naoum, (1998:1) "The site manager stands at the heart of the building process. His [sic] ability will strongly influence the success or the failure of the project for the contractor, the professional team, the client and ultimately the general public". These authors also describe dramatic changes within the construction industry, resulting from effects of globalisation, developments in ICT, new contractual forms and higher demands from better informed clients.

Moreover, other research in the late 90s early 2000 warned that apart from being one of the most demanding jobs in the construction process, requiring particular skill sets and experience, job dissatisfaction and stress among site managers seemed to be higher than among other middle managerial categories (e.g. Djerbani, 1996; Fraser 2000; Haynes and Love, 2004; Lingard and Francis 2004). These conditions seem prevalent still today and warrant qualitative studies of the lived work-life situations of middle managers in

construction (Styhre and Josephson, 2006; Dossick and Neff, 2011; Styhre 2011; Mäki and Kerosuo 2015).

Although the above-cited studies note stress symptoms among site managers, the underlying causes and long-term effects for the individuals and the organisations need further investigation. Apart from the situational causes mentioned already, Styhre (2006; 2011; 2012) in a series of studies of site managers in several organisations discusses two interesting causes. The first is the new global public management wave being established, which entails attempts to strengthen bureaucratisation of temporary organisations by increasing standardization of processes, practices and communication, as well as accountability and control. This shift has increased the work tasks of site managers, especially administrative tasks and paperwork (Styhre 2006). Another explanation provided by Styhre, which is especially interesting for us, takes a gender perspective. According to Styhre, site managers reproduce a masculine ideology of self-sufficiency and commitment to work, which can lead to overwork and ultimately to stress. Our data indicate similar behavioural patterns as those noted by Styhre. In our data, site managers felt that they needed to "be everywhere at the same time". They seemed to feel that they had to occupy and control all the space on site, making it their place. How do they do this, and why?

Masculinity and male-dominance in Construction

From earlier being seen as gender-neutral entities, organizations have been recognized as arenas that produce and re-produce gender roles and inequalities that permeate society (Acker & van Houten, 1974; Kanter, 1977; Cockburn, 1985, Knights & Wilmot, 1985). This shift mirrors an increased awareness in how gender-segregating structures and processes are created, and how these promote masculine hegemony in areas of working life (Acker, 1990).

Masculinity is a concept that has both seen an increased interest and been a subject of critique in organization studies over the last few decades. The concept has contributed a perspective that focuses on how organizational conditions revolve around masculine norms and values without necessarily emphasizing if the agents are men or women; i.e. in organisational context women can take on masculine traits and behaviours (Collinson & Hearn, 1996). The concept has also been criticized in that it presupposes essentialist gender traits and constitutes a rigid typology of gender (Connell & Messerschmidt, 2005).

From a managerial perspective, researchers have argued that masculinity is inheently rooted in the the managerial role from the outset (Kerfoot & Knights, 1998; Collinson & Hearn, 1994; Collinson & Hearn, 1996). Importantly, it is stressed that there is not one form of masculinity, but many heterogeneous forms contingent of a multitude of individual background traits and power relations (Collinson & Hearn, 1996). However, a predominant form of masculinity, which has been recognized as attractive and legitimate especially in leaders, relates to traits such as competition, control, authority, instrumentality, goal orientation and commitment to work (Kerfoot & Knights, 1998; Wajcman, 1998).

If we now turn to the construction industry, one distinctive feature is the numerical and hierarchical male dominance, both among craft(men) and managerial positions. In countries like Great Britain, Australia and Sweden, representation of women among staff and managers average around a mere 10 per cent (Sang & Powell, 2012; Byggnads, 2015; Byggcheferna, 2015). This numerical male dominance in the industry could be reflected upon from the perspective that it also produces and maintains a masculine culture. Researchers argue that a "macho-culture" is indeed rooted in construction, and argue that masculine norms and stereotypes reinforce male-homogeneity and raise barriers that militate against female inclusion and career development (see e.g. Gale, 1994; Dainty et al., 2007; Braundy, 2011; Ness, 2012).

The industry's orientation toward rough and labour intensive work has historically been intertwined with the image of a construction worker as a self-sufficient and autonomous character (Applebaum, 1999; Löwstedt & Räisänen, 2015). The notion of a construction worker as a masculine figure permeates the conception of not only craftsmen, but all professions in construction projects, thus contributing to reproduce a masculine mind-set in the industry (Hayes, 2002).

It has been argued that masculine norms and discriminatory structures are present already in construction education. According to Faulkner (2007) assumptions of construction workers as males is a view that permeate norms and values in construction engineering programmes, where women, contradictory to men, often feel that they have to justify their occupational choices thus marginalising women as deviating in the industry.

Other studies report on a 'laddish' site culture where many women feel they are subject to prejudice, sexist beliefs and sexual harassments (Eisenberg, 1998; Agapiou, 2002; Watts,

2007; Braundy, 2011). Taken together, these conditions contribute to maintain a male and masculine dominated industry. However, there are some tendencies indicating a cultural change. Based on a study of gender roles among Scottish construction workers, Agapiou (2002) detected a change in cultural values where masculine traditions are being challenged and where there seem to be an increasing acceptance of female inclusion in the industry.

Taking a construction project and site perspective, the site manager has been depicted as a key role in upholding masculine norms, values and practices in construction projects. Styhre (2011) argued that a masculine ideology, e.g. a system of masculine beliefs, norms, assumptions and worldviews, is rooted in construction practices and behaviours. The site manager is often depicted as a person who embodies and enacts conceptions pertaining to masculine ideology. This is done, Styhre argues, through a process where the site manager takes on a paternalistic leadership role characterized by omnipresence, a 'crisis management' approach and the upholding of overwork as a virtue (Styhre, 2011; Fleming, 2005). By occupying a key leadership role in the construction project, the site manager reproduces norms and paragons associated with masculine features thus contributing to uphold a gender-segregated industry.

Research approach and method

An interpretative approach was chosen, based on interviews. The data included in-depth interviews with 19 site managers, 20 closest higher-level bosses and 1 foreman. Most of the typical construction contexts and project were represented, e.g. infrastructure, residential and commercial development projects. The data collection strategy was purposive: since we wanted to understand the unfolding of lived, everyday managerial practices on site, we asked CEO's and top managers from large and mid-sized contractors in Sweden to name their "best" site managers. We did not define what we meant by "best", but left it to them to define. Not very surprisingly, the individuals suggested turned out to be middle-aged men with long careers in construction. We then requested our informants to also provide us with names of promising younger site managers, both male and female. This resulted in 19 site managers consisting of whom 2 were women aged 30 to 40. The rest were men: half of them aged 50 to 65 and the other half 25 to 40. The respondents were ensured anonymity in that all specificities enabling identification would be neutralised, and we offered them the possibility

of reading the transcripts should they wish. The interviews were informal, taking the form of casual conversations, lasting from one to one and a half hours each. They were audio-recorded and transcribed verbatim. The location for the interview was either a meeting venue or the respondent's office on location; these premises were familiar to the respondents and enabled us to get a feel for the spaces they occupied and embodied. A brief interview guide was used to keep interviewer intervention at a minimum.

The procedure was to first ask, before turning on the recorder, whether there were any questions or clarifications needed. The respondents were then asked to provide the essential bio-data concerning career trajectories. After these preliminaries, the respondents were encouraged to talk freely. Our prompts were open-ended; we wanted them to tell us how they generally went about planning and leading site activities, what tools they used, what issues arose, and how they dealt with them. We also asked them to evoke one or two recent specific situations and to describe these.

'Free' storytelling has been suggested as an appropriate interview technique for this purpose, where interviewees' personal stories are allowed to evolve, and in which their underlying assumptions and beliefs guide the conversation (Clandinin and Connelly, 2000). The interviewer interrupted only when clarification or elaboration was needed, for example to request a concrete example. To mitigate the subjectivity inherent in such data, we also interviewed the site managers' closest higher-level managers and one subordinate. We were therefore able to somewhat triangulate the data. We found that the site-managers' perceptions of themselves and their accounts of their lived reality on site corroborated with their bosses' perceptions of them and the work they did.

A narrative approach was used to analyse the transcripts of the interviews. Narratives have long been viewed as fundamental forms of human understanding and sense-making, through which individuals structure and organise their experiences of the world (Polkinghorne, 1995). In social-science research, narratives are increasingly being used as a method of inquiry as well as a way of presenting results (e.g. Gergen, 1994). Drawing on Polkinghorne (1995) and Lindebaum and Cassell (2012), narrative analysis was applied on the data in order to identify and code the various fragments that made up the narrative. These fragments were then sorted under storylines that linked to the overall common plot concerning how the narrators managed their work and life situations.

Narrative analysis is data-driven and time consuming, requiring several iterations and critical reflexive readings. We first worked separately, organising and reorganising the fragment to find coherent storylines. We then spent several consecutive days jointly working the data, challenging each other's interpretations. This resulted in agreement concerning identification and sorting of the fragments, which later revealed the storylines that collectively rendered coherent narratives of the men's experiences. As we worked, we continually referred back to the full transcripts in the analysis, and related the specific storylines and fragments to the way the respondents portrayed their experiences as a whole, *gestalt* or life-world (Aarseth, 2009: 428).

Findings

A recurrent characteristic in the site managers' narratives of their work practices was an emphasis on planning. Nearly all of them spoke of the importance of planning and how they continuously had to plan developments of the diverse components and processes that constitute the construction project.

Planning is a huge part. Being able to prioritize and plan is first and last since it is about large amounts of money, lack of time and large risks.

As a result of the decentralisation of responsibilities mentioned earlier, the site managers were responsible for the planning and performance related to diverse yet substantial areas such as economy, purchasing, logistics, staffing, work environment and production. Together these broad areas took up a substantial amount of time and energy in their work. Many of them also noted that they were not schooled or trained in the disciplines needed and thus often lacked formal knowledge.

As a counterweight (or rather as interference) to the planning, the managers also had to cope with recurrent, large and small, unforeseen problems that emerged on a daily basis. They related these to the uncertainty inherent in construction projects.

Well, right now we have a situation where the geo-technicians haven't done their job because it has been said there is a mountain 14 meters below that hasn't been there before (laughing).

These unforeseen problems can evolve almost anywhere in the construction process and calls for the site managers' attention, and requires them to be good problem solvers. They have to make quick decisions. In addition, many site managers reported an increased standardization of administrative work tasks, which they experienced as burdensome and time-consuming. They also felt that they were tasked with more administrative tasks overall.

As a consequence, when being pulled between rigorous planning in order for operations to run smoothly and solving a stream of unforeseen problems within an increasing standardized frame, the managers experience a very fragmented, demanding and oftentimes stressful work situation.

Well, [the most taxing part of work] is when I have to be in too many places at the same time ... and of course when I have to abandon my own planning or what how can I put it ... when I have scheduled my day in a certain manner and it fails already in the beginning ... and I don't get near my plans in such a day. Then it feels kind of heavy.

In order to cope with these conditions, all the respondents agreed that besides being an excellent planner and problem solver, they also said that site managers had to be exceptionally dedicated and committed to their work in order to be able to combine details and the whole picture of the project.

Ah, the commitment ... if one does not have the commitment one might as well quit already ... Everything is about the possibility and ability to see the whole picture.

This combination of responsibilities, competencies, attitudes and positions enhances a kind of highly attentive "split-vision" attitude among the managers, in which they seem to stand on their toes to analyse situations and risks in specific events to "solve" them almost before they have occurred.

I believe a good leader can see such things and analyse them early on. It is almost enough for me to park at the site in order to see if everything is in order ... [e.g.] is it OK [for workers] to park their cars and stuff where the hell they want?

What this site manager is alluding to is that already when he parks his car at the start of the day, he can anticipate the state of affairs on the site. Besides the formal responsibilities associated to the role of the site manager, this "tiptoeing" behaviour they have to adopt predisposes them to take on work tasks and/or solve problems that are not within their role description. As one site manager put it:

If no one else does it, then I will do it!

In this sense, the site manager seems to take on a rather paternal role in that he neither delegates nor disciplines, but does the job himself as a parent might for a child. The reasons given for this behaviour is that it saves time, and since the site manager has the bird's eye view of the project, he/she "knows" what is best and has to be done. This kind of preparedness and action means that they have to engage actively in nearly all aspects of the project, being omnipresent and omniscient simultaneously.

One site manager presented a rather interesting view of omnipresence:

If someone starts interfering then they can take over ... I'll withdraw. The most important element of site management is that you have the responsibility.

What we see here is an indication of how important control is for the site managers. If someone interferes with the way this manager manages his space, then he will give it up or withdraw rather than share it.

Conversely, a common strong feeling that we discerned was obligation together with a sense of duty or loyalty. So for example many of the site managers experienced that once they have taken on responsibility for a specific work task, it was difficult to relinquish it.

[the most tasking job is] ... all the paperwork ... but I have only myself to blame, for I let go of nothing. The purchasing I keep for myself, the economy I keep for myself... (...) It would have been a relief to get rid of the economy (Laughing)

As a result, the managers are weighed down by an over-abundance of responsibilities that constantly demands their attention, even during evenings and weekends.

If something happens to a colleague it doesn't matter if it is Saturday or Sunday... then it demands ... it can be some kind of conflict or something might have happened in the family ... it demands a commitment

The managers' commitment and perceived expectations to constantly be involved in all aspects of the construction project is reflected in long working hours and presence on site regardless of the situations in their private and family lives. These attitudes and behaviours give rise to questions regarding sustainability in their work situation. For instance, quite a few managers seemed to work even when they were ill:

I had a serious case of stomach flu, but I had to be on site. So I carried a bucket and a roll of toilet tissue with me, and had good use of them

The site managers' stories, their perceptions of commitment and acceptance of the demands on their work role, resonate with gendered perceptions and values. In this respect, our data reveals that a male-oriented and masculine attitude towards construction still seems to be the predominant culture, at least according to these site-managers' perceptions of what constitutes "good" work and desirable managerial leadership on site. Especially, some of the older site managers seemed prone to uphold a traditional view of construction workers as male family breadwinners. Taking care of children and managing household chores was something that ought to be done by women.

We older guys usually say "What the hell! Staying home with the kids? Don't you have any balls!" (Laughing) That's how it is.

Yet, they also seemed aware of the inappropriateness of upholding such a view. In this sense, they talked about an "acceptance" of equality, promoting developments in the industry even if it constrained planning and performance at the operational level.

In working life today everything is tough for people. They have to pick up kids and there are sick leaves ... you have to manage this, right! You can become crazy if you are 10 men short because people stay home with sick children. But that's how society functions so you have to accept that women are working as well and that they do not stay at home. They have almost better jobs than the guys.

Many of the respondents implicitly expressed a view that a site manager is a person who should devote much of *his* life (they exclusively talked about the profession as male) to work, to be present on site and to take responsibility for both processes and relations in the project. In this sense, the site managers – some implicitly and some more explicitly – positioned themselves as a father figure, overseeing and taking care of everything and everyone on *their* site.

To take an explicit example, one older site manager regretted that he never had any children of his own. As a kind of compensation for this he has devoted much of his life to his work, and developed a highly committed attitude toward his profession and his subordinates.

Interviewer: But what has made you stay in the business for such a long time? Respondent: Well, I have considered it many times ... and I think ... I still feel a craving even though I am getting older. I feel that it is so much fun! Now when young people come in and I see how they evolve I get a kind of paternal role (laughing). If you are not a dad at home, you can be one at work. Yes, that's how it is."

Discussion and conclusion

Our findings show that the work practice of site managers is partly contingent of structural conditions in the industry and its organizations. One of the most prominent features seem to be fragmentation and stress caused by tension between planning activities and ad-hoc problem solving. This could be tied to some defining characteristics of the construction industry, such as project-centeredness and a decentralization of planning and authority. Site managers' day-to-day work includes coordination of multiple stakeholders and disciplines entering the project at different times and the management of activities that need to be tightly coupled. These conditions stengthen the image of the construction industry as a loosely coupled system discussed in Dubois & Gadde (2006).

At the same time, the managers continuously have to resolve unpredicted problems generated by the many uncertainty factors inherent in construction. Here, a rather complex and contradictory view is reflected in the site managers' stories: besides being empowered by organizational decentralization of authority, the managers also witness a centralizing trend.

The organizations means of handling fragmentation and uncertainty have driven them to centralize and standardise many processes. This has resulted in the site managers feeling that their problem-solving freedom is increasingly being curtailed, and that their work role has been burdened by increasing administrative and financial accountabilities.

These conditions give rise to the "muddling through" practice described by Styhre (2012). In our data, the site managers demonstrated numerous skills needed to cope with their work situation. Besides being excellent planners and skilful problem-solvers, our findings show that two further features are linked to the work practices of site managers, namely a remarkably strong work commitment and the ability to see the "wholeness". These driving forces seem to provide the stimuli that enable them to cope with the fragmentation and stress created by the planning/problem-solving tensions in their work.

Our results suggest that notions of what it means to be a "good" and competent site manager to a large extent govern site managers' need to appropriate the site space, and transform it into their place. In this process their perceptions, conceptions and lived realities of the space, their embodiment of the site indicate the direction that others take. Site managers are the legitimate possessors of the whole picture, or rather of their perceptions and conceptions of the whole picture. They maintain a highly attentive position, ensuring they have a finger in the game wherever they perceive it is needed (this means principally everywhere). In this process they are de facto occupying space and transforming it into their own place on site.

Site managers are expected to be available everywhere to plan and solve problems when needed. This real or perceived need to be everywhere forces them to be omnipresent. In order to plan and solve problems, site managers are also expected to have knowledge about everything related to the project, i.e. to be omniscient. This omnipresence-omniscience relationship reveals interesting aspects of how space is appropriated on site. When the site manager is the agent who is expected to have knowledge about basically all aspects of the project, he or she also becomes both author and translator of meaning. However, when the site manager is the one who is everywhere and embodies knowledge about everything, what place is there for other actors to appropriate space and make their place?

If we understand what causes site managers to appropriate territorial space on site there are still questions regarding the preconditions and implications of these processes. Recurring content in the site managers' stories related to masculinity and paternalism. Aspects of

masculinity are conducive to norms and behaviours that resonate with the harsh working conditions prevalent in the construction industry and organizations. Our findings align with other studies that critique the deeply rooted masculine mind-set in construction. What strikes us, and which we want to explore further, is that masculine orientations seem to be important antecedents that govern site managers' appropriation of territorial space.

Our data indicate that the site managers' self-images and self-expectations (as well as others' expectations on them) are rooted in masculine norms and values. These masculine orientations seem to be necessary ingredients to align with the mentioned competencies of planning, problem-solving, work commitment and the ability to see the "wholeness", which in turn guides the site managers' processes of appropriation. The site managers' enact these orientations and competencies through the role of a paternal leader, taking on traits of self-sufficiency, autonomy, omnipresence, crisis management and overwork (Applebaum, 1999; Styhre, 2011).

There are several implications of these findings. Most of the respondents articulated feelings of stress. Already in 1992, Davidson and Sutherland (1992) warned that the construction industry needs to address the high-stress situation among site managers related to work overload and dissatisfaction with extrinsic job factors. They found that many of the stressors stemmed from the lack of management training of site managers, who are traditionally promoted from trade professions. Judging from the results of our study, the industry has not yet managed to adequately deal with this problem.

The results show how the expectancies of site managers and the expectancies on them from subordinates are intertwined in forming processes of appropriation. Site managers feel that they are expected to be everywhere at the same time to plan and solve problems thus taking informal responsibilities for a range of, sometimes trivial, work tasks that contribute to a fragmented and stressful work situation. However, such a proactive operational approach may encourage reactiveness among subordinates. When the site managers become associated with trivial work task, there is a risk that subordinates take for granted that if they do not do the task, the site manager will. In this sense, the subordinates contribute to the site managers' further appropriation of space.

These processes have several further negative implications for subordinates and organizations. Our findings show that site managers' abilities to delegate work are rather

poor. As mentioned, we have suggested indications that their appropriation of space occurs at a possible expense of reactiveness among their subordinates. The site managers' omnipresence and engagement in all activities on site risk jeopardising subordinates' capabilities to learn and innovate.

Our findings have implication for the perception of gender and masculinity in construction organizations and organizations generally. Many scholars in construction present masculine hegemony as imbedded in the culture of the construction industry. Our study suggests that masculinity is also contingent on the structure of the industry itself. The industry's configuration with distinct project centeredness, decentralization of authority, planning and decision-making, and centralization of standards pose highly demanding expectations on site management. These conditions rather encourage a masculine and paternal leadership style in order to deal with problems posed for both men and women site managers.

References

Aarseth, H. (2009) From modernized masculinity to de-gendered lifestyle projects: changes in men's narratives on domestic participation 1990-2005. *Men and Masculinities*, 11: 424-440.

Acker, J. (1990) Hierarchies, Jobs, Bodies: A theory of gendered organizations. *Women's Studies*. 4 (2): 139-158.

Acker, J. and Van Houten, DR. (1974) Differential recruitment and control: The sex structuring of organizations. *Administrative Science Quarterly*, 19 (2): 152-163.

Agapiou, A. (2002) Perceptions of gender roles and attitudes toward work among male and female operatives in the Scottish construction industry. *Construction Management and Economics*, 20, 697-705.

Alvesson, M. and Sköldberg, K. (2009) *Reflexive methodology: New vistas for qualitative research*. Thousand Oaks: Sage

Alvesson, M., Svenningsson, M., 2003. Managers doing Leadership: The Extra-ordinarization of the Mundane. Human Relations 15, 1-25.

Applebaum, HA. (1999) Construction Workers. Greenwood Publishing Group, Westport.

Braundy, M. (2011) Men & women and tools: Bridging the divide. :Fernwood

Cockburn, C. (1985). On The Machinery of Dominance: Women, Men and Technical Know-How. Women's Studies Quarterly, 37 (1-2): 269-273

Collinson, D. and Hearn, J. (1994) Naming Men as Men: Implications for Work, Organization and Management. *Gender, Work & Organization*, 1 (1): 2-22.

Collinson, D and Hearn, J. (1996) Men as managers, managers as men: Critical perspectives on men, masculinities and managements. Sage, London

Connell, R.W., Messerschmidt, J., 2005. Hegemonic Masculinity – Rethinking the concept. *Gender & Society*, 19 (6), 829-859.

Dainty, A., Moore, D., & Murray, M. (2006). *Communication in construction: Theory and practice*. Oxford: Taylor & Francis

Dale, K. & Burrell, G. (2008). *The spaces of organisation and the organisation of space: Power, identity and materiality at work.* Basingstoke: Palgrave Macmillan.

Davidson, M. and Sutherland, V. (1992) Stress and construction site managers: Issues for Europe 1992. *Employee Relations*, 14(2), 25-38.

Dossick, C. and Neff, G. (2011) Messy talk and clean technology: communication, problem – solving and collaboration using Building Information Modelling. *Journal of Engineering Project Organization*, 1(2), 83-93.

De Vaujany, F-X. and Mitev, N. (2013) Space in organizations and sociomateriality. In De Vaujany, F-X. and Mitev, N. (eds) *Materiality and Space: Organizations, Artefacts and Practices*, Palgrave Macmillan, London, pp. 1-21.

Djebarni, R. (1996) Impact of stress on site management effectiveness. *Construction Management and Economics*, 14, 281–93.

Dubois, A. and Gadde, L. E. (2002) The construction industry as a loosely coupled system: implications for productivity and innovation. *Construction Management & Economics*, 20(7), 621-631.

Eisenberg, S. (1998) We'll call you if we need you: Experiences of women working in construction, Cornell University Press, Ithaca.

Faulkner, W. (2007) Nuts and bolts and people: gender-troubled engineering identities. *Social Studies of Science*, 37 (3), 331-56

Fayard, A-L. (2012) Space matters, but how? Physical space, virtual space, and place. In Leonardi, P. M., Nardi, B. A and Kallinikos, J. (eds) *Materiality and organizing: Social Interaction in a Technological world*. Oxford: Oxford University Press, pp. 177-195.

Fellows, R., & Liu, A. M. (2012). Managing organizational interfaces in engineering construction projects: addressing fragmentation and boundary issues across multiple interfaces. *Construction Management and Economics*, 30(8), 653-671.

Fleming, P. (2005) Kindergarten Cop: Paternalism and Resistance in a High-Commitment Workplace. *Journal of Management Studies*, 42 (7), 1469-1489

Fraser, C., 2000. The influence of personal characteristics on effectiveness of Construction Site Managers. Construction Management and Economics, 18, 29-36.

Gale, AW. (1994) Women in Non-traditional Occupations – The Construction Industry. *Women in Management Review*, 9 (2): 3-14.

Gergen, K. J. (1994) Realities and relationships, Cambridge, MA: Harvard University Press

Gluch, P. and Räisänen, C. (2009) Interactional perspective on environmental communication in construction projects. *Building Research & Information*, 37(2), 164-175

Hayes, N. (2002) Did manual want industrial welfare? Canteens, latrines and masculinity on British building sites 1918-1970. *Journal of Social History*. 35 (3): 637-658

Haynes, N. and Love, P. (2004) Psychological adjustment and coping among construction project managers. *Construction Management and Economics* 22(9) 129-140.

Kanter, RM. (1977) Men and Women of the Corporation. Basic Books

Keerfoot, D. and Knights, D. (1998) Managing Masculinity in Contemporary Organizational Life: A Managerial Project. *Organization*, 5 (1): 7-26

Knights, D. and Willmott, H. (1985) Power and identity in theory and practice. *The Sociological Review*, 33 (1): 22-46

Lefebvre, H. (1991) The Production of Space. Blackwell: Oxford.

Lindebaum, D. and Cassell, C. (2012) A contradiction in terms? Making sense of emotional intelligence in a construction management environment, *British Journal of Management*, 23: 65-79.

Lingard, H. and Francis, V. (2004) The work-life experiences of office and site-based employees in the Australian construction industry. *Construction Management and Economics* 22(9) 991-1002.

Löwstedt, M. and Räisänen, C. (2012). "Playing back-spin balls": Narrating organizational change in construction. *Construction Management and Economics*, 30(9) 795-806.

Löwstedt, M. and Räisänen. C. 2014. Social identity in construction: enactments and outcomes. *Construction Management and Economics* 34, 1093-1105.

Mäki, T. and Kerosuo, H. (2015) Site managers' daily work and the uses of building information modelling in construction site management. *Construction Management and Economics* 33(3), 163-175.

Mustapha, F. & Naoum, S. (1998) Factors influencing the effectiveness of construction site managers. *International Journal of Project Management*, 16(1) 1-8.

Ness, K. (2012) Constructing masculinity in the building trades: 'most jobs in construction can be done by women'. *Gender, Work & Organization*, 19 (6): 654-76

Polkinhorne, D. (1995) Narrative configuration in qualitative analysis, *Qualitative Studies in Education*, 8: 5-23.

Sang, K and Powell, A. (2012) Equality, diversity, inclusion and work-Life Balance in construction. In Dainty, A. and Loosemore, M (Ed.) *Human Resource Management in Construction – Critical Perspectives*, Routledge, Oxon

Styhre, A. and Josephson, P-E. (2006) revisiting site manager work: stuck in the middle? *Construction Management and Economics* 24(5) 521-528.

Styhre, A. and Josephson, P-E. (2006) The bureaucratization of the project manager function: The case of the construction industry. *International Journal of Project Management*, 271-276.

Styhre, A., 2011. The overworked site manager: gendered ideologies in the construction industry. *Construction Management and Economics*, 29(9), 943-955.

Styhre, A., 2012. Leadership as Muddling Through: Site Managers in the Construction industry, In Tengblad, S. (Ed.) *The Work of Managers: Towards a Practice Theory of Management*. Oxford University Press, Oxford, pp. 131-145.

Tengblad, S. (Ed.) 2012. The Work of Managers: Towards a Practice Theory of Management. Oxford University Press, Oxford.

Tuan, Y-F. (1977) *Space and Place: The Perspective of Experience*. Minneapolis: University of Minnesota Press.

Wajcman, J. (1998) *Managing Like a Man: Women and Men in Corporate Management*. The University of Pennsylvania Press, University Park

Watts, J. (2007) Porn, Pride and Pessimism: experiences of women working in professional construction roles. *Work, Employment & Society*, 21 (2), 299-316

Yanow, D. (2010). Giving voice to space: Academic practices and the material world. In *Organizational spaces: Rematerializing the workaday world* (pp. 139-158). Cheltenham: Edward Elgar.

Ylijoki, O-H. (2013) Boundary-work between work and life in the high-speed university, *Studies in Higher Education*, 38(2): 242-255.