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GOVERNMENTALITIES OF CONSTRUCTION: FROM MORTAR TO MODULAR SYSTEMS AND MARKETS

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In this paper, we apply Foucault's concept of governmentality in a dual analysis of the formation and transformation of the construction sector and the construction worker. The governmentality concept is well-suited for such an analysis as it directs attention to the ways in which control is the exercised over a specific area of institutional life through the shaping of individuals' conduct. We argue that construction, as a coherent sector, first was rendered governable in the 1940s in order to achieve national modernisation. It is shown how the political measures that were based on the exercise of disciplinary power also impacted the formation of identities constituting the construction worker as a normalised subject. We then illustrate how construction since the mid-1990s has been shaped by two contrasting governmentalities framing the sector as respectively a resource area, with emphasis on innovation and capacity building, and as an economic entity, where deregulation and the establishment of free markets are the governmental objectives. With this shift in governmentalities, we argue that new identity formations have taken place in that the construction worker has been rearticulated as a calculative subject with responsibilities for own conduct and the development sector as a whole.

Keywords: governmentality, reform, sector development, subjectivity

INTRODUCTION

Societies and construction sectors all over Europe are facing major challenges coming years. In Denmark, the population concentrates in cities where there is a housing shortage while the surplus of housing in the country is growing. The built environment is aging, and the need for renewal increases. An increasing proportion of the existing buildings does not meet the technical and use requirements we impose with regard to energy consumption, indoor air quality and accessibility. Furthermore, the increasing internationalisation and the free market for construction products and labour are challenging the balance between, on the one hand, competition, innovation and cost reductions and, on the other hand, considerations to local building customs and the quality of the built solutions. The ever increasing proliferation of new and untested materials and solutions are thus placing the sector's professional actors in a position where they have to be able to ascertain that products and solutions being delivered and used conform to health and safety requirements under conditions of deregulation.

In an effort to address the challenges faced by the construction sector, the Danish government, as governments across other Western societies, from time to time has

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released a series of industrials strategies and actions plans describing the current state of affairs and highlighting changes necessary in order to bring construction back on the track, into the 21st century, or however the different aspirations are formulated. In Denmark, the construction political strategy "The road to a strengthened construction industry in Denmark" (Regeringen, 2014) is the most recent example, whereas its UK counterpart is Construction 2025 (HM Government, 2013).

Much has been said, also sometimes rightfully harsh, about the nature and scope of such government strategy documents for the construction sector. In a comment on the Construction 2025 industrial strategy for construction, Green (2013) thus argues that only a minority of construction professionals sees the need for a coherent government strategy and the report in essence doesn't really have a lot to say. Also Dainty *et al.*, (2015) question the role and functioning of reform agendas, arguing that there is a distinct lack of continuity and learning from policy cycle to another, and that it is ironic that "...the development and diffusion of post-war reform policies has changed as little as the content of the research agendas themselves" (Dainty *et al.*, 2015, 4), which i.a. can be attributed to a lack of contextual sensitivity (Fernie *et al.*, 2006).

Whilst it undoubtedly can be seen as a shortcoming that such reports only display a vague contextual and historical sensitivity, and that it often is difficult to see the link between overall aspirations and proposed actions, we will nevertheless contend that construction policy and policy making is not located within an institutional vacuum. Rather, construction policy should be seen as intertwined with and reflecting a broader transformation of government as such, and following this, the effects of various reform initiatives could fruitfully be understood in terms of how institutions become transformed in the image of a new governmentality, rather than in cost-benefit terms.

Drawing on Foucault's (2007) concept of governmentality, we explore how the Danish construction sector, historically has been rendered a governable entity through different governmentalities or regimes of power and control that is not only grounded in sovereign authority, but also in alternative configurations of state and power, or governmentalities, in the form of discipline, biopower and liberal government. In doing so, we focus on how construction has been appropriated as an object of knowledge and try to unravel the ensemble of institutions, administrative measures, laws, technologies and practices that have become mobilised and interlinked in each of these different governmentalities. In other words, we attempt to relate articulations of construction and construction reform, no matter how seemingly alike they are, to changing modes of governance in order to illustrate how societal or supranational considerations are linked to and changing not only the face of construction and its policy landscape, but also sectorial institutions and consequently transforming conceptions of professionalism and identities (cf. Hughes and Hughes, 2013).

GOVERMENTALTY AS A LENS FOR STUDYING REFORM

Gouvernementalité or governmentality is a concept formulated by Foucault in the fourth lecture of his 1978-course on 'Security, Territory, Population.' In this lecture, Foucault sets out to discuss the so-called problem of government that arose in the sixteenth century as a result of the intersection of two movements or processes namely religious dispersion and state centralisation. These movements presented new problems in different aspects ranging from the problem of the government of (i) oneself (morality), (ii) the family (economy); and (iii) the state (politics). Government, in Foucault's reading, thus denotes something more than the present day interpretation where it belongs to politics and the state alone. Rather, government in the sense of 'to govern' covers a very wide semantic

domain referring to "a process of exchange between one individual and another" or to "the control one may exercise over oneself and others" (Foucault, 2007, 122). In this context, governmentality can be seen as "a strategic field of power relations [...] within which the types of conduct, or 'conduct of conduct,' that characterize 'government' are established" (Senellart, 2007, 389). Foucault (1977, 194) argues that governmentality can be understood as an ensemble "consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions" that allows for a specific exercise of power over many areas of social life. As an analytical approach, the study of governmentality is thus the study of the historical constitution of different forms of governance that are not only limited to the state are exercised on all levels society (Oels, 2005). The concept not only draws attention to the ways in which institutions of the state become transformed, but also "to the moulding and mobilising of individual subjectivity and individuals' capacity to govern themselves" (Patterson and Stripple, 2010, 346).

Studying construction sector governmentalities

Governmentality analyses aim to study the techniques and procedures though which a phenomenon (e.g. construction) is rendered visible as a stable and governable object and associated with particular political rationalities (Miller and Rose 1991). Drawing on Dean (2003), Oels (2005) presents an analytical framework (Table 1) for the study of governmentality by focusing the analysis of programmes being "interventions that seek to transform an existing regime of practices by using new technologies and procedures, which give rise to a different field of visibility, different forms of knowledge and which presuppose a different kind of identity" (Oels, 2005, 189).

Table 1: Analytical framework for the study of governmentality (Adapted from Oels, 2005)

	Questions	Examples (Discipline)	
Fields of visibility	What is illuminated, what obscured? What problems are to be solved?	Individual bodies	
Forms of knowledge	Which forms of thought arise from and inform the activity of governing	Polizeiwissenschaft (science of politics), morality, economy, politics	
Technical aspects	By what instruments, procedures and technologies is rule accomplished?	Hierarchical observation, panopticism, normation (control and surveillance)	
Formation of identities	What forms of self are presupposed by practices of government? Which transformations are sought?	Docile bodies, normalised (normated) subjects	

In the following analysis we use these categories as a guideline for identifying the changing governmentalities of Danish construction. The first analytical category concerns the particular visibility, i.e. representation of construction, which is created by a given governmentality, and the political rationalities associated with that visibility. The second category concerns the different epistemic technologies and procedures employed to develop and maintain that visibility. The third category concerns the instruments and techniques by which rule is carried out according to a particular political rationality. The forth category addresses the production of new subjectivities pertaining to e.g. the engineer or the contraction worker.

As a backdrop for the analysis of Danish construction governmentalities we furthermore draw on four governmentalities originally laid out by Foucault (2007; 2008): sovereignty, discipline, biopower and liberal and advanced liberal government. Sovereignty is an exercise of power that has territory as the object of governance, law and legislation as its main governmental technologies, and thus exists as a codifying technology that lays down

sanctions to be respected by legal subjects. Discipline, in contrast, intervenes in the existence of its object of governance, being individual bodies that are moulded to function according to a prescriptive norm in order to prevent the unwanted to occur. Biopower works to facilitate the self-regulation of a population by means of various social technologies that instead of trying to prevent or dispose certain outcomes let things, desirable or not, take place (Raffnsøe *et al.*, 2014). Finally, in advanced liberal government, the market is the organising principle for all types of social organisation (Oels, 2005). The idea is that "...markets have strong disciplinary effects on the subject made to compete in them. These subjects model themselves on the 'calculating' and 'responsible' individual who needs to increase his/her competitiveness in a constant strive to self-optimization" (Oels, 2005, 191-192). This is accomplished by means of technologies of performance and agency that work on multiple social areas and introduce an evaluative dimension into social life.

CONSTRUCTION GOVERMENTALITIES

In this analysis we focus on changing governmentalities in Danish construction (see Table 2 for a summary). We start by focusing on how construction first was rendered governable in the 1940s in order to achieve national modernisation. We then go on illustrate how construction since the mid-1990s has been shaped by two other governmentalities framing the sector in a market-based view. Along this, we discuss how these governmentalities not only change the policy landscape but also function as technologies of subjectivation and impact the identities of the construction worker.

From mortar to modular systems

From the 1940s a radical new governmentality was introduced as the basis for the governance of Danish construction. This new governmentality was formulated as response to the industrialisation of the Danish society that had led to an urbanisation and the emergence of the 'working class' as a new societal force that could potentially threaten societal stability. The political significance of the working class grew increasingly strong as workers became organised in unions. In order to ensure stability it was seen as an imperative that workers' organisations were not persuaded by the socialist and fascists ideals of radical societal reconfiguration, which had otherwise been strongly promoted in the 1920s and 1930s. In particular the quality of built environment was recognised as key concern for winning over the workers in favour of a social-capitalist societal order, since workers hitherto had been crowded together in low-quality unhealthy buildings in the cities during the early years of industrialisation. It was in response to this situation that a new governmentality was formulated in the 1940s, framing construction as an instrument for societal modernisation and a safeguard against the threat of socialist and fascist imaginaries. This was an entirely new role prescribed to construction, since the governance of buildings and the built environment previously had focused on physically and symbolically demonstrating the power of the king, the military and the church, thus being an instrument of nation-building (cf. Van Wezemael et al., 2011). However, to achieve the biopolitical ambition of governing the population through the provision of better living conditions for the working class, construction became institutionalised as a national sector. This sectoralisation entailed that construction was institutionalised as discrete object of national regulation anchored in a housing ministry, and as a discrete object of scientific knowledge production anchored in a national building research institute.

This powerful politico-epistemic configuration gave rise to a new governmentality in the intersection between scientific knowledge and industrialised factory production.

According to this visibility, the traditional organisation principles of construction activities based on tradition, guilds and tacit knowledge was seen as irrational and anachronistic (Gottlieb, 2010). On this basis, a very different organisational configuration was successively developed over the next decades, partly financed by the Marshall Plan provided to support the redevelopment of Europe after WW2.

A fundamental element of this reorganisation involved the introduction of new 'rational' building materials and techniques. The traditional use of timber and bricks was partly replaced by pre-manufactured reinforced concrete elements, allowing much of the production move away from the often chaotic construction site and into more controlled factory settings. This in turn gave rise to an entirely new organisational configuration of construction and a new regulatory regime. Planning became increasingly more important, and was permeated by 'scientific' and calculative procedures and tools.

New types of scientific and calculative planning was thus required (i) for the design and production of concrete components, (ii) in the design of the construction site and the use mechanical equipment such as cranes; and (iii) in order to optimise the assemblage processes on the construction site. Equipped with authoritative knowledge, the planning engineer emerged as critical figure within this new construction governmentality. The rationalisation of construction also required a new regulatory regime. Local building codes were replaced by national building codes in order to develop a national market for standardised products, and a modular grid was enforced as a regulatory norm in order to ensure the compatibility between pre-fabricated components. This entire reconfiguration left little room for the traditional skilled craftsman, and within the new governmentality the knowledgeable craftsman was replaced by 'the assemblage worker' disciplined through the surveillance techniques of the regulatory regime and the planning engineer (Jensen *et al.*, 2011).

Market logics: From biopower to advanced liberal government

Following the continuous growth periods in the 1950s and 1960s where the state played an active and interventionist role in the socio-economic and political development of the welfare society and the Danish construction industry, the mid-1970s marked a turn towards more than 20 years of frequent economic and social crises that radically altered the existing policy landscape (Bang et al., 2001). Jensen (2012) thus argues that the sectorial development strategy for construction completely disintegrated in the 1970s as a consequence of a collapse in the publicly subsidised large-scale market for housing construction that hitherto had been the impetus of the sector development efforts. In conjunction with the ratification of the Maastricht Treaty and the opening of the Eastern European markets after the collapse of the Soviet Union, the early 1990s saw the emergence of new field of visibility for Danish construction. In contrast to the post-war period where the construction sector had been framed as an instrument of national modernisation, the new visibility framed the industry as an industrial cluster challenged by the imperative of market-based value creation. The political rationality contained herein sought to (i) improve the productivity of the sector as such; and (ii) position construction as a cornerstone in the general enterprise policy-reorientation towards an expansive economy fuelled by international competitiveness (F.R.I, 1990). This reorientation, we argue, implicated two different governmentalities based on liberalism and advanced liberal government as well as the development of a new field of visibility where the production of market values was promoted as the point of departure for the development efforts.

The raison d'être of the early efforts to bring construction back on the development agenda was rooted in a perceived economic/structural problematisation. In 1990, the Danish Building Development Council (BUR, 1990) released a report on the resource consumption and distribution in house building that documented a marked decline in productivity over a 20 year period. This report marked a turn towards a new governmentality for two reasons. First, it introduced the idea of construction as a market, framing the sector as a so-called resource area (Jensen, 2012), with emphasis on innovation and capacity building. The main argument shared by government and industry alike was that the subpar performance of the construction industry compared to other industries could be attributed to a 'market failure' that had led to a lock-in situation (EfS, 2001), i.e. a condition where the production and distribution of goods or services by the market is inefficient leading to inferior results for the society as a whole. In order to break the lock-in situation it became imperative to formulate a new enterprise political strategy for the construction sector. The strategy was based on the understanding that there was a strong need for public intervention in order to force the necessary changes through – most notably in the form of equipping the professional actors with the required competences to enter into new modes of collaboration, which was seen as one of the central cornerstones in the development efforts (EfS, 1993).

Second, the report introduced industrial economics and productivity analyses as forms of knowledge in the governance of construction. In doing so, it gave rise to proto-ideas relating to the formation of new subjectivities and identities. In contrast to the identity formation of the post-war years that was influenced by centralised scientific and calculative planning, the aim of the new governmentality was to cultivate responsible subjects with the capacity and freedom to contribute to market-based value creation. This was achieved through the use of technologies of performance and agency that are hallmarks of advanced liberal government (Oels, 2005).

According to Dean (2006) technologies of agency and performance can be understood as two strategies geared at the production of the 'calculating individual' being a subject that has been "shaped, guided and moulded into one capable of responsibly exercising that freedom" (Dean, 2006, 262) that liberal government presuppose. Technologies of agency include quasi-contracts, formation of partnerships and various instruments of voice and representation. In a government perspective, technologies of agency can be seen as topdown instruments that aim at establishing subjects with the capacity "to keep the agreements of a contract, to speak out for themselves and to enter into partnerships" (Oels, 2005, 192). As such technologies of agency establish institutional spaces for responsible self-conduct. Looking into the actual instruments, procedures and technologies through which the enterprise political strategy for construction actualised, it is clear to see this governmentality at play. In addition to the so-called "liberal solution" (F.R.I, 1990, 21) that was believed to stimulate an economic-structural rationalisation of the construction industry, the ambition was to invest heavily in a joint development program that would put innovation, capacity building and competences high on the agenda. In the course of the following ten years a large number of initiatives were launched, two of which is highlighted below.

If the degree of strategic codification and formalisation in an indicator of success, one of the most prominent results of the political efforts were the Project Productivity and Project New Forms of Collaboration programs that were instrumental in the uptake and development relational contracting in Denmark, including partnering and various types of partnerships. When we argue that this is a highly representative example of an advanced

liberal government technology it should be understood in context of the specific Danish actualisation.

Thus, since the establishment of the phase-model that can be seen as a strategic codification or ideal representation of the rationalisation efforts in the 1960s, coordination in construction projects has been based on contractually defined relations involving high degrees of surveillance in order to ensure correspondence between plan and action (Clegg *et al.*, 2002). With partnering, however, the industry began to experiment with less formalised and rigid plans, contracts and modes of collaboration. Our main argument here is that these new forms of collaboration can be seen technologies of agency that create 'deliberative spaces' at the same time as it is an example of a so-called 'new contractualism' that establishes individuals and companies as entrepreneurs of themselves (Oels, 2005, 192) being responsible for their own conduct as well as for the realisation of the project and the governmental objective as such (Gottlieb and Jensen, 2012).

The turn to a new contractualism led to a reticulation of the roles of the various actors in general, and the contractors and craftsmen in particular. Thus, in order for these actors to be able to occupy by the new deliberate space they had to be empowered subjects rather than normalised subjects acting in accordance to a disciplinary matrix as was the governmental ideal in the 1950s and 1960s. The so-called BygLOK initiative (Leadership, Organization and Competence in Construction) was a development program established under the general LOK program. The goal of the program was to "show a way to change the old-fashioned norms and traditions in the participating firms and on their construction sites" (Elsborg *et al.*, 2004, 2). This was sought accomplished in particular by focusing on the development of personal and collective competences in order to enable the creation of value for the customer while respecting the wellbeing of the worker. This is, in other words, in stark contrast to the immediate post-war approach with its focus on creating value for the society by means of functional differentiation and elimination of the skilled worker.

Concurrently, another development took place that can be interpreted as a response to a perceived 'state failure.' Despite 10 years of heavy public investments in the construction sector, in 2000 the so-called Task Force Report (By- og Boligministeriet, 2000) nevertheless problematized the lack of development and argued for a re-orientation of the political efforts. In doing so, the Task Force proposed 28 initiatives, some of which were in continuation of the initiatives throughout the 1990s, and others all new. When we, however, link the reform efforts of the 2000s to a government or 'state failure' perspective, the reason is twofold. First, in 2001, with the election of a liberalconservative cabinet government, the Ministry of Housing was abolished. The following year, also the Danish Building Development Council that had played a crucial role the early 1990 was abolished as a consequence of a larger so-called reconstruction of a series of quasi-governmental councils and committees that also saw the repeal of several councils, funds and support schemes within the construction and housing area. Second, the most prominent outcome of the Task Force report the following years was the establishment of BEC (The Benchmark Centre for the Danish Construction Sector). The benchmark centre had the relationship between the market and the consumer in focus. Instead of a belief in an omniscient state with the foresight and ability to expediently provide the diagnosis and means necessary to solve a societal need, the benchmark centre was moulded in the liberal view that the voluntary exchanges between consumers and producers are sufficient in producing the right solutions - provided that the necessary transparency and knowledge on the performance of companies, products and prices exist (cf. Rasmussen, 2013). This was an objective best left for the industry to fulfil.

Rather than relying on state coercion and prescriptive norms operationalised by standardised materials, practices and procedures technologies of performance were the means through which the transformation was sought accomplished. Our contention is that this turn towards technologies of performance in the 2000s mirrors a development that is a feature of the transformation of the societal governmentality in general. The development in the 1990s can be seen as a strategic intervention that was instrumental in opening the established terrain or field of construction, creating the opportunities for establishing new institutional spaces. In this context technologies of performance are calculative devices that aim at making actors in new institutional spaces self-governing and hold them accountable for their own conduct.

Table 2: Governmentalities of construction

	Mortar	Modular systems	Markets
Governmentality	Sovereignty	Discipline and bio- power	Advanced liberal government
Emergence	-1940	1940-	1990-
Objective of government	Territory, nation building	Governing the working class though national modernisation	Competition, innovation, productivity
Fields of visibility	The building (as symbolic structure)	The sector (as societal instrument)	Market failure and state failure
Technical aspects	Policing of trade, guilds, apprenticeship	Prescriptive norms operationalised by regulation, building codes, modular grids and planning techniques	Technologies of agency: Life-long learning, relational contracting.
			Technologies of performance: best practice, benchmarking,
Forms of knowledge	Tacit embodied knowledge, templates, rules of thumb	Scientific knowledge, optimisation, factory ideal	Competition state
Formation of identities	Juridical subjects constituted by guild statutes	Normalised subjects: Planning engineers and unknowledgeable craftsmen	The empowered subject and the calculating individual.

Observing the current developments it is apparent how the government relies on these technologies of performance. As mentioned in the introduction, most recently the Danish construction industry is facing a hitherto unprecedented de-regulation wave. The nation building code is undergoing a change from prescriptive requirements to performancebased requirements. At the same time, the de-regulation leads to a marketisation of functions that hitherto have been a public affair. At the present moment the Danish parliament is debating a bill to dispense with the mandatory public processing of applications for building permits and instead introduce a market-based certification scheme. Also national standards and norms are being abandoned in favour of international standards in order to reduce trade and entry barriers and increase innovation and competition. In 2014, a general education reform in Denmark took place. The reform resulted in a series of new requirements concerning the quality of education and training in construction. This self-proclaimed paradigm shift led to that entry requirements were placed on all programs, and a focus on development of academic competencies was introduced in order to ensure that the construction worker is able to "...live up to the requirements and expectations of the future labour market" (Kunov, 2014). Surely, in a governmentality that favours constant self-optimisation, the future belongs to the individual that is capable of adapting to future futures.

CONCLUSIONS

In this paper we have demonstrated the relevance of applying Foucault's concept of governmentality in an analysis of construction reform and development. We have shown that this theoretical perspective is able to shed light on the specificities that render a given phenomenon governable, and in doing so illustrate that even though the seemingly same issues and discourse seems to be continuously repeated, these are embedded in larger regimes of power. Also, the governmentality approach has drawn attention to how regimes of power shape subjectivities and has as such provided a way to bridge the dichotomy between macro-level changes and micro-level practices.

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