THE POWER OF RITUALS
A Study of Transition Rituals in the Life Cycle of Complex Construction Projects

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The Power of Rituals
A Study of Transition Rituals in the Life Cycle of Complex Construction Projects

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door
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geboren te De Bilt
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Preface

We all practice rituals that mark important transitions and milestones in our lives, such as birthdays, graduations, weddings, and funerals, to name a few common examples. Rituals offer us a bounded space and time in which we can make the ordinary extraordinary, to commemorate our past, to become aware of our present, and to envision our future. Upon completing this dissertation, knowing that I would soon have to legitimize my work during the PhD defense ritual, I began to reflect on my own past and the path that took me to this present moment.

During my Bachelor study from 2006 to 2009, I didn’t yet know what I wanted to be. Because I preferred the social sciences, I enrolled in various courses in the fields of psychology, sociology, and anthropology. I specifically remember an anthropology course about the Russian transition after the collapse of the Soviet Union. The course was given by Dr. Herman Tak, an associate professor who is also a member of the reading committee of this dissertation nine years later. I was intrigued by the critical and insightful perspective of anthropology, giving insight into how people continuously reconstruct and renegotiate their culture in transforming social, political, and environmental contexts. The message I received is that reality is never fixed and the complexity of humans, and – in the words of Clifford Geertz – the intricate webs of significance that they themselves have spun, cannot be truly simplified, generalized, or quantified. This inspired me to become an anthropologist.

Coincidentally, during this time, my parents moved to Russia for my father’s work. They moved to Sakhalin Island, situated in Siberia just north of Japan. My parents would live here for five years while my father worked for Sakhalin Energy; the first liquefied natural gas project in Russia initiated by an international consortium between foreign shareholders and the Russian Federation. With a climate that reaches minus 20 degrees Celsius, a poor infrastructure, and a community prone to detest foreigners, Sakhalin is labelled as one of the most difficult places for expatriates to live. Quite honestly, I strongly doubted whether I would ever visit my parents there since it did not seem very inviting. I was wrong. I did and it would have a significant impact on my path to this present moment.

When I graduated for my Bachelor degree I decided to do a Master program at the VU University of Amsterdam, Culture, Organization and Management. This would allow me to specialize in organizational anthropology involving the study of people and their culture in organizations. To complete this program we had to conduct an ethnographic field research in
an organization, but I had trouble deciding on what and where. Then I read about the research specialty of Prof. Dr. Alfons van Marrewijk: “cross-cultural collaboration in infrastructure megaprojects,” his field description stated. Without having a clue about what I wanted to study, and never having met Alfons before, I stumbled into his office and started to tell about my father who worked for a megaproject in Siberia where he, along with many other expatriates, collaborated with Russians. Alfons got very excited and convincingly encouraged me to take this rare opportunity to study such an interesting cross-cultural interface in such a remote, exotic and difficult to access place. “Oh great” I remember thinking, “now I have to do research in Siberia and live with my parents for three months.” I already lived on my own then for some years and did not think I would live under the roof of my parents again, not to mention in the Russian Far East. I was wrong. I did, and this also had a significant impact on my path to this point.

Alfons became my supervisor and in 2010 I went to Sakhalin Island to do fieldwork. Being given the opportunity not only to research but also to live on Sakhalin Island was a memorable experience. From the moment I arrived on the airport I realized this wasn’t the typical travelers’ destination. The surroundings were cold, grey and harsh, with an implicit beauty. Residual of the Soviet era, statues and images of Lenin could be found everywhere throughout the island, and ‘dachas’ or Russian country (vacation) houses were scattered in the forests. Everything was covered in layers of snow and colossal mountain ranges surrounded towns and cities. Rivers, lakes and even seas were frozen solid permitting ice-fishers to pursue their hobbies, and people were dressed in thick furry coats, hats and snow boots. In this fascinating place I was able to collect plenty of data on cross-cultural dynamics in this multinational project. Alfons was pleased with the end result and subsequently asked me to continue research as a PhD student on cultural phenomena in infrastructure projects. I never expected I would become a PhD researcher, especially in the organizational settings of construction projects with which I had no affinity. I was wrong. I did, and this would have the most significant impact on my path to this present moment.

When I started to research construction projects my topic was still unclear. However, in the exploratory phase I started to observe that rituals are practiced to mark important transitions and milestones in the life cycle of construction projects such as signing a contract, enacting a project kick-off, or celebrating the completion of a railway. These rituals are not only practiced by construction workers, but also involve state officials and residents. I was intrigued by these observations and started to dig deeper by interviewing people in the field. I distinctly recall one of my first interviews with a communication advisor of Railzone Delft
(an underground railway project and one of the cases of this research) who told me a story about a recent ritual event. She explained that the project organization had communicated to the residents of Delft that they were going to close the bike tunnel connecting the neighborhood behind the (now former) train station to the center of the city. In response to this information, an elderly citizen sent a letter to express her grief about the loss of this tunnel which had been there since she was a little girl. She remembered biking through the tunnel with her sister to school every day, falling off her bike and injuring her knee and even sharing her first kiss there. She wanted to bid farewell to the tunnel in honor of her memories. In view of that, they organized a public farewell ritual for the residents for which they built a ‘musing bench’ from recycled wood, now covered in signatures and proverbs, to be placed against the wall next to the tunnel’s soon-to-be closed entrance. During the event, after placing the bench, the alderman of Delft gave a speech about how the bench offers citizens the occasion to muse about how the city used to be and envision how it would become. Thereafter, poetry was recited in commemoration of the tunnel and an art piece was revealed featuring forget-me-nots, to be hung above the bench.

This anecdote provides a glimpse into this dissertation about how rituals that mark transitions in the life cycle of complex construction projects enable those involved or affected to attribute significance to it. It also serves to show that construction projects, far from being inhuman and solely technical, are all about people. Upon completing the life cycle of this research project and in memory of the path I travelled to get here, I want to share that extraordinary things can happen or appear in the most unexpected places. To experience them, we need to go against our plans, step outside our comfort zone, seek out the unfamiliar, pursue what we thought we would never do, and open up to that with which we initially have no affinity. Therein lies the power of gaining knowledge, changing perspectives, and transforming philosophies.
Acknowledgement

I did not walk this path alone and I could not have reached this present moment without the support of various people to whom I would like to express my utmost gratitude. First, I would like to thank my promotor, Alfons van Marrewijk, and co-promotor, Kees Boersma, for guiding my research trajectory, providing me with shrewd feedback, and bringing me back to earth when I was wandering off into distant theoretical complexes. I would especially like to thank Alfons for his encouragement and enthusiasm over the years and for giving me the opportunity to do this PhD research. I also wish to thank the reading committee Herman Tak, Marcel Veenswijk, Kristina Lauche, Martin Kornberger, and Jonas Söderlund for taking the time to read, assess and approve my dissertation, and permitting me the chance to defend my work. Besides, I want to thank all the organizations and people who made this research possible, such as the TU Delft, Next Generation Infrastructures, ‘Rijkswaterstaat’, ‘Kennis in het Groot’, and the members and associates from the project cases of my study, Room for the River, the North-South line of Amsterdam, Railzone Delft, and the Hanzeline.

Furthermore, I wish to acknowledge all the editors and reviewers of conferences, academic journals and special issues who helped me develop and publish my research papers, including, but not limited to, Tuomas Ahola, Brian Hobbs, Michael Rowe, Manuela Nocker, Darren McCabe, Alex Wright, Jean-Pascal Gond, Laure Cabantous, Joachim Thiel and Gernot Grabher. I would also like to thank my colleagues, both in Amsterdam and abroad, for their support, feedback and friendship; my friend, Ko Cusveller, for helping me edit my work; and my paranymphs, Sander Merkus and Sasha Kovalev, for helping me complete my dissertation and standing by me during the defense.

Moreover, I especially want to express gratitude to my mother and father, Janine and Leendert van den Ende, for giving me all the support, confidence, and opportunities a daughter could ever wish for, for inspiring me to follow my dreams, and for standing by me during the good times and the difficult times. I also want to thank my brother, Lex van den Ende, for always being a good role model and for making me laugh, as well as my extended family, my grandma, aunts, uncles and cousins, for their kinship. Last but not least, I would like to thank all my close friends, you know who you are, for having my back and enjoying life with me to the fullest. I hope we will share many more adventures together in the future.

Leonore van den Ende
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Chapter 1: General introduction

Around 16:30 on Thursday the 28th of April 2011, I witnessed the baptism and name-giving of a tunnel-boring machine used to excavate part of the North-South metro line of Amsterdam. The project organization performed this ritual to launch the third phase of tunnel construction, attended by a large group of project actors, state officials and members of the press. It became clear that the ritual had commenced when a Catholic Priest dressed in traditional robes came to the fore at the dark, cold construction site reaching 25 meters underground; staging a colossal machine which would soon eat away the earth to create a gigantic burrow under the city. The priest started by imparting the significance of the ritual he would perform, while presenting a statue of Santa Barbara; a Patron Saint acknowledged by the Catholic Church as the protector of harm and later espoused by mine and tunnel workers as such. He explained that even though he would physically bless the statue and the machine, he would emblematically yet truly be blessing the tunnel workers who necessitated protection. As he recited texts from the bible, he blessed the water in a shiny goblet into holy water, with which he then blessed the Santa Barbara statue. Afterward, eight engineers standing next to the priest recited a traditional German mining song – Glück Auf Close – while the statue of Santa Barbara was carried by one of the construction workers and delicately placed in a decorated glass cupboard hanging on the wall next to the machine. Subsequently, the name of the machine would be revealed. After the alderman of Amsterdam smashed a bottle of champagne against the machine followed the theatrical release of a giant poster displaying the name ‘Molly’ in big bold letters. The name was female as this belonged to the tradition, and it was chosen by a group of school children from Amsterdam who also participated in the ceremony. At that moment, the Priest came to the fore once again and blessed the machine just as he had blessed the statue, finishing with the eminent words “in the name of the father, the son, and the holy spirit.” At the end of the ritual, in the midst of a fascinated and clapping audience, all attendees and participants further indulged themselves with food and drinks in the party tent set up alongside the abyss of the construction site, striking up vivid conversations in reflection of the bizarre yet intriguing phenomenon they had just collectively experienced (Fieldnotes, 28 April, 2011).

What happened that day at the underground construction site stirred my curiosity and raised questions. In such a seemingly rational and technical setting, why did the workers perform this ritual? Why was the tunnel boring machine baptized and given a name? What was a decorated shrine encasing Santa Barbara doing at the construction site? Why was the event publicized and mediatized for the entire city to witness? And, what meaning did this have for the project actors? Because this phenomenon ignited my research interest, it became the inspiration for this PhD project. Thereupon; this research aspires to place such phenomena, which I will generally refer to as rituals, within an academic framework to explore their relevance and value in the fields of organization studies and project management.
To start my investigation, I first explored prior research on rituals in organization studies to determine their research relevance. Rituals are generally understood as social practices that are bounded, recurring and serial (Trice and Beyer, 1993), and which confer symbolic meaning to mundane activities and materials when carried out in specific, predetermined settings (Smith and Stewart, 2011; Gbadamosi, 2005). In simpler terms, they are distinct, episodic enactments that express and/or influence (cultural) values and beliefs (Islam et al., 2006). Examples include (annual) meetings, workshops or conferences, induction and basic training, organizational development activities, collective bargaining, business dinners and office Christmas parties (Deal and Kennedy, 1988; Catasús and Johed, 2007; Smith and Stewart, 2011; Islam and Zyphur, 2009; Trice and Beyer, 1984; Johnson et al., 2010; Rosen, 1988; Lampel and Meyer, 2008). They usually mark important transition points, life cycles, or the history of organizations and prescribe and reinforce significant events (Martin, 2002). Moreover, rituals can serve as communication and learning schemes, helping to direct thoughts, feelings and behavior (Smith and Stewart, 2011; Cheal, 1992; Rothenbuhler, 1998), and attracting the attention of its participants towards that which is or should be regarded as important (Anand and Watson, 2004). Due to their generic integrative character, they are attributed various social functions such as enhancing social coherence, solidarity, loyalty, and commitment. Additionally, they can provide a window to maintain, influence, or transform organizational culture (Smith and Stewart, 2011; Islam and Zyphur, 2009; Trice and Beyer, 1993). On the whole, rituals are practices ‘made special’, also referred to as the ritualization of practice which privileges and distinguishes them from ordinary, everyday practice (Bell, 1992; 2009).

From these preliminary insights, it becomes apparent that rituals in organizations have a wide-ranging significance and research relevance. However, to sharpen the focus of this PhD research I intend to explore the practice and meaning of rituals in complex construction projects as specific organizational settings. Rituals are common, yet taken for granted practices in construction projects such as signing contracts, (sub)project kick-offs, project phase launches, celebrating milestones and (sub)project completions or deliveries. Examples include signing a Record of Decision for the initiation of a bridge project, laying the first slab in the road for a highway project, reaching the highest point of a building or the end of a tunnel, or celebrating the opening of a new railway. What these rituals have in common is the marking of important transitions and life cycles in (project) organizations (Martin, 2002). Therefore, my premise is that such rituals play an important role in the life cycle of
construction projects where change and transitions are enacted with difficulty due the complex and fragmented nature of construction work (Bresnen et al., 2005a; Van Marrewijk et al., 2008; Marshall, 2003). Projects are contested organizational constructs concerning various sub-projects, stages and/or phases, typified by overlap, time delay and pressure, and involving multiple workforces and stakeholders. Not only do these features result in a high level of ambiguity and uncertainty among project actors, they also may lead to the collapse of many project-based alliances (Marshall and Bresnen, 2013; Cicmil and Gaggiotti, 2009; Nocker, 2006; Atkinson et al., 2006; Van Marrewijk et al., 2008). In this context, this study will focus on what I will call transition rituals to refine the focus of investigation.

With the exception of several studies (e.g. Cova and Salle, 2000; Löfgren, 2007; Eskerod and Blichfeldt, 2005; Berg et al., 2000) rituals have yet to be addressed in the field of project management. Perhaps, this is because “rituals seem to clash with the organizational drive for rationality, effectiveness, efficiency, and goal attainment” (Smith and Stewart, 2011: 11); this being a common reason why rituals were understudied in organizations in the past. However, extant research in both organization and project management studies indicates that rituals have pertinent symbolic and strategic significance (e.g. Eskerod and Blichfeldt, 2005; Löfgren, 2004; Johnson et al., 2010; Smith and Stewart, 2011; Cova and Salle, 2000). That is to say, rituals are dually significant practices having on the one side a symbolic and expressive dimension through which values, beliefs and behavior are conveyed or formed. While on the other side, rituals have a tangible character where they are performed strategically to accomplish or establish something (Islam and Zyphur, 2009; Smith and Stewart, 2011; Johnson, 2007; Schatzki, 2010; Sillince and Barker, 2012). As such, rituals are not only representative of something, but they can do something (Bell, 2009; Alexander et al., 2006; Koschmann and McDonald, 2015).

**Research aim and question**

Because I believe the study of transition rituals in project settings can generate valuable insights, the main aim of this research is to provide an in-depth understanding of the practice and meaning of transition rituals in the context of complex construction projects. Consequently, the main research question addressed is ‘how are transition rituals practiced by project actors and what do they mean in the context of complex construction projects?’ This question has been approached from a qualitative interpretive perspective (e.g. Yanow and Schwartz-Shea, 2006) and practice-based perspective (e.g. Nicolini et al., 2003). While the first approach is more concerned with the meaning attribution and social construction of
organizational actors, the latter underlines the corporeal and material practices of organizational actors in a field of study. This is in line with the aim of the research to explore both the meaning and practice of rituals in complex construction projects.

To operationalize the research, multi-sited ethnographic fieldwork was carried out. According to Pink et al. (2013: 1) ethnography is becoming increasingly popular and is “emerging as part of a repertoire of approaches to understanding the construction industry.” For this study, participant-observation was conducted during eight transition rituals in four different construction projects in the Netherlands, including two project kick-offs in a river expansion project; two sub-project phase launches in an underground metro project; two milestone celebrations in an underground railway project; and two project completions/deliveries in an aboveground railway project. Additionally, participant-observation was carried out at various sites in the four construction projects, such as by visiting information centers, project office buildings, and the actual construction sites via open days, excursions and tours. Also, 58 in-depth interviews were held with diverse project participants, including communication advisors, contractors, constructors, and state officials. These methods were chosen to observe and analyze how transition rituals are practiced in the field of study and to investigate the meaning attributed to them by various actors.

The structure of this introduction is as follows: First, the context of construction projects will be addressed because the practice and meaning of a ritual depends on the context in which it is practiced (Bell, 1992; Bell, 2009; Islam and Zyphur, 2009). Then, the research approaches will be further elucidated, being an interpretive and practice-based approach to project management. Next the methods will be explained and the description of the project cases will be provided. Lastly, a description and comparison of the research articles will be given. Subsequently, in Chapter 2, the theoretical framework will be provided to theorize rituals and introduce the conceptual lenses selected and utilized to build theory in various sub-fields of organization and project management studies.

**The context of complex construction projects**

Complex construction projects, also known as infrastructure megaprojects, are here understood as large-scale, geographical dispersed, technically intricate constructs delivered through various partnerships between public and private organizations. Examples include highway, railway, subway, waterway, bridge, and train station projects. They are characterized by their high cost, immense scope, inherent complexity and uncertainty, high environmental and societal impact, and the laborious collaboration between legally separated
partners. Therefore, megaprojects are perceived as unconventional, necessitating special authorization, funding, revenues, land acquisition, and legal actions by various levels of government (Altshuler and Luberoff, 2003; Dille and Söderlund, 2011; Van Marrewijk et al., 2008). Such projects generally require complex construction integration and technical, resource and material management characterized by a long time frame and numerous interfaces among multiple contractors and third parties to deliver some agreed outcome (Greiman, 2013; Van Marrewijk et al., 2008). In sum, they comprise vast complexes characterized by a variety of interests and purposes, different financing techniques, technical innovation, a mixture of public and private sector initiators, and multiple stakeholders (Lehrer and Laidley, 2008). Justifiably, these features form a strenuous context within which project partners must function and interact on a daily basis.

To determine the main factors that typify a construction project as complex, a literature review was carried out focusing on the complexity of the project context and process (e.g. Cicmil and Marshall, 2005; Bresnen et al., 2005b; Pryke and Smyth, 2006; Li and Guo, 2011; Söderlund, 2013). Consequently, four main themes that typically characterize construction projects as complex repeatedly emerged from the literature; a project’s (1) laborious collaboration, (2) temporal organizing, (3) difficult change, and (4) interface with the environment. These themes will be addressed and resurface in the upcoming chapters featuring the research papers and be further discussed in the concluding chapter of this dissertation.

Fundamentally, a project’s complexity stems from the laborious collaboration between public and private partners and multiple stakeholders (Van Marrewijk et al., 2008). Often, the complexity experienced in this multi-faceted collaboration is an important explanation of the huge economic and social costs in terms of cost overrun, time delays and social impact (Van Marrewijk, 2009; Flyvbjerg et al., 2003b). Collaboration in a megaproject does not take place in a power-free context as all partners and stakeholders have their own culture typified by different perspectives, interpretations and interests. Workforce fragmentation and conflicting values and interests are held responsible for the collapse of many project-based alliances (Söderberg and Vaara, 2003; Van Marrewijk and Veenswijk, 2006). If partners are unable to cope with diverse work ethics, management styles and cultures within the project, tensions and misunderstandings are likely to emerge which can hamper a project’s course of development (Veenswijk et al., 2010; Bresnen et al., 2005b). Therefore, this dissertation argues that megaprojects should be seen as complex cultural phenomena (Van Marrewijk,
forthcoming), where culture is the result of the social construction and meaning attribution of people within and around a project (Alvesson, 2002). Understanding project organizations as complex cultures acknowledges the sub-cultures, power relations, rituals, myths, artifacts, and spatial settings as essential features of the project process (Martin, 2002).

Secondly, the temporal organizing of a megaproject is a defining feature of a project process. This is because complex projects are multifaceted organizational constructs that are constantly transforming and evolving over time (Söderlund, 2013). According to Marshall and Bresnen (2013: 112) the spatial and temporal patterning of project work is what distinguishes a project from other organizations; “particularly its time-bound nature; they have ostensibly clear start and end points.” In this sense, construction projects can be viewed as a temporary collection of organizations, groups and individuals having a life cycle (Pink et al., 2013). This life cycle can typically be divided into various phases such as initiation, decision-making, preparation, realization and delivery, which are aligned to spatial and temporal planning schemes of the project (Bresnen et al., 2005a; Van Marrewijk, 2007). However, the interface of a project’s step from one phase to the next is ambiguous, difficult and time consuming (Engwall, 2003), comprising different actors such as project managers and employees, contractors and constructors, as well as state officials and other stakeholders (Van Marrewijk, 2010). Therefore, a main issue is the ever-changing, non-linear, and often unpredictable process of a megaproject (Cicmil and Hodgson, 2006; Maaninen-Olsson and Müllem, 2009). Project actors experience difficulty in organizing and coordinating the complex project process which is often comprised of intricate and drawn-out phase transitions with a series of overlapping sub-projects and phases (Pink et al., 2013; Van Marrewijk et al., 2008). To facilitate this process, rather than relying on instrumental approaches, such as the use of temporal models and pacing devices, researchers call for more interpretive approaches to account for the social and symbolic facet of transitions in the project life cycle, such as signing contracts and reaching milestones and deadlines (Eskerod and Blichfeldt, 2005; Cicmil, 2006; Löfgren, 2007; Söderlund, 2005).

A third related theme is difficult change in megaprojects, especially since they are continuously evolving over time due to their unique process of temporal organizing. According to Bresnen et al. (2005a: 548): “the project-based nature of construction activity, the complexity of construction work, and the fragmented and geographically dispersed nature of construction organizations make change difficult to achieve.” To implement change and improve the performance of construction projects, the field of project management has
witnessed a variety of new management initiatives. These initiatives seek the ‘best’ or ‘good’ practices for project implementation. However, there remain gaps in our understanding of the manifold social dynamics and issues involved in project implementation and change, comprising issues of power, politics, culture, interest and context which are often disregarded (Hodgson and Cicmil, 2006; Söderlund, 2005; Maaninen-Olsson and Müllern, 2009). Therefore, various researchers argue project management theory needs to distance itself from dominant, rationalistic traditions and assumptions (Blomquist et al., 2010; Bresnen et al., 2005a). Specifically, there needs to be an alternative approach to ‘good’ or ‘best’ practice (Hodgson and Cicmil, 2006), such as the contextual study of situated events and social and cultural practices that are important for implementing change in projects (Blomquist et al., 2010; Bresnen et al., 2005a; Van Marrewijk, 2007; Söderlund, 2005). Moreover, according to Hancock (2006), the spatial and temporal mediation of change must be taken into account at the symbolic and aesthetic level to account for the narratives and artifacts of organizational change within its broader socio-cultural environment.

A fourth main theme is a megaproject’s interface with the environment. This is especially relevant for complex projects executed in urban areas, which involve a transformation of urban space and the social practices within that space (Lehrer and Laidley, 2008; Del Cerro Santamaria, 2013). During implementation, such projects rarely remain uncontested because they are often perceived as significant threats to local quality of city life. Frequently they disturb their environmental context, not only structurally but also socially and politically. They become sites of socio-political unrest due to the hindrance and obstruction they produce for long periods of time (Grabher and Thiel, 2014). Citizen resistance or opposition is not uncommon in these megaprojects. For example, the extension of the Stockholm rail (Corvellec, 2001) and the Mexico City airport megaproject (Dewey and Davis, 2013) never came into existence due to resistance. Hence, the dominant perception of projects as monolithic constructions that are closed off from their environment has become heavily criticized (Merrow et al., 1988) because “no project is an island” (Engwall, 2003: 789). Megaprojects have been reproached for disregarding citizen participation and involvement (Flyvbjerg et al., 2003a). Rather, implementers should seek a collaborative process that is fair and transparent to all the affected stakeholders, and citizen participation should be encouraged to gain support and help legitimize the project (Innes and Booher, 2010). An example is the Bay Bridge renovation work in which an interactive platform involved end users (Ney et al., 2009). Additionally, projects must learn to expect and respect citizen opposition and be
flexible in terms of modifying their process and procedures accordingly (Dewey and Davis, 2013; Diaz Orueta and Fainstein, 2008). It is pertinent for initiators and implementers to adopt an “everyone gains” rhetoric and the paradigm of “do no harm”, which is the idea that a megaproject should only ensue if their negative impact is trivial or significantly moderated (Altshuler and Luberoff, 2003; Lehrer and Laidley, 2008).

In sum, issues of power, politics and conflicting interests should be acknowledged in the megaproject process (Clegg and Kreiner, 2013) and a democratic approach to integrating a project in its (urban) environment should be sought after (Maaninen-Olsson and Müllern, 2009). Accordingly, complex construction projects should be seen as temporal, organizational and social arrangements that should be studied within their historical and environmental context (Kreiner, 1995; Packendorff, 1995; Lundin and Söderholm, 1995; Söderlund, 2013). Attention to multiple cultures, interests, participation and micro practices in the specific project context will give insight into how the social and environmental impact caused by megaprojects can be mediated and rebalanced (Maaninen-Olsson and Müllern, 2009; Manning, 2008; Grabher and Thiel, 2014; Söderlund, 2005).

To refine the scope of this dissertation, this research will focus on transition rituals as micro practices taking place at various transition points during the project life cycle to unearth what significance they have in the context of complex construction projects as described above. As maintained by Kunda (1992: 94), “the meaning of ritual is context-dependent; it is always an interpretive empirical question.”

Research approach

The interpretive approach

In this dissertation it is argued that the difficult context of complex construction projects cannot be approached with a rational, instrumental perspective to project management. Namely, the field of project management has been criticized for its implicit or underdeveloped theoretical underpinnings, guided by conventional, mainstream approaches (Flyvbjerg et al., 2003a). This problem reflects an “apparent reluctance on the part of many researchers to embrace the interpretive paradigm and qualitative methods” (Pink et al., 2013: 2) in the infrastructure sector. In a similar vein, Pollack (2007) argues that project management lacks a substantial theoretical basis because it has been dominated by the instrumental approach, associated with a positivist epistemology, deductive reasoning and quantitative techniques, with an emphasis on rationality and objectivity. On the contrary, he characterizes the under-acknowledged humanistic paradigm as having an interpretive
epistemology, inductive reasoning, and exploratory qualitative techniques, emphasizing subjectivity and contextual relevance rather than objectivity. While in the former paradigm practice is based on efficiency, planning, control and an interest in structure, in the latter practice is typified by participation, communication, learning, and an interest in culture and social processes.

Engwall (2003) agrees that theories on project management have been dominated by a singular perspective which views project management as a lonely, universal unit of analysis, calling for more in-depth and contextual research. Hodgson and Cicmil (2006: 111), too, challenge the dominant, functionalist approach to project management and express their disapproval of the long-standing pragmatic emphasis on planning and control. Instead they call for more critical approaches to project management “with the aim of creating new possibilities for thinking about, researching and developing our understanding of the field as practiced.” Moreover, Bresnen and Marshall (2000: 230) assert that scant research to date has explored the social aspects of project dynamics “despite the fact that commentators place considerable emphasis upon the importance of changing attitudes, improving interpersonal relationships and transforming organizational cultures.” According to various authors (e.g. Cicmil, 2006; Hodgson and Cicmil, 2006; Engwall, 2003; Clegg and Kreiner, 2013; Pink et al., 2013; Pollack, 2007; Söderlund, 2005), instrumental approaches have been far too overbearing, suggesting that humanistic or interpretive approaches should be emphasized and further developed in this field.

To sharpen the conceptual lens of this dissertation, the topic of transition rituals in complex projects must be positioned within this debate. I suggest it is indeed essential to shift from the dominant, instrumental paradigm towards a humanistic paradigm to account for the social and cultural dynamics in complex projects and the subjective interpretations and experiences of project actors. This shift requires the implementation of a qualitative, interpretive epistemology in order to seek the meaning of rituals according to the perspective of project actors. An interpretive approach “assumes that knowledge can only be created and understood from the point of view of the individuals who live and work in a particular culture or organization” (Hatch and Cunliffe, 2006: 13). In short, it underlines processes of meaning- and sense-making of actors, indicating that reality is not fixed but seen as socially and situationally constructed (Yanow and Schwartz-Shea, 2006). In this way, complex construction projects are seen as both the object and outcome of social interaction and meaning attribution taking place within a particular context (Van Marrewijk, forthcoming).
The researcher must therefore attempt to find out “how people give meaning and order to their experience within specific contexts, through interpretive and symbolic acts, forms and processes” (Hatch and Cunliffe, 2006: 14). This pursuit suites the study of rituals well, especially because to this date, “little is known about how organizational members interpret rituals” (Smith and Stewart, 2011: 17).

**The practice approach**

In conjunction with an interpretive approach, a practice-based approach is used in this dissertation. The concept of practice and how it should be interpreted and approached is an important issue which has generally been left out of (project) management studies (Söderlund, 2005). In organization studies, practice-based approaches focus on the tangible actions and activities in organizations in contrast with the traditional reductionist approach which focuses mainly on static and formal aspects while neglecting the manifold practices (Geiger, 2009). Hence, within the last decade the field of (project) management studies underwent a ‘practice turn’ where the question ‘what do people actually do in an organization?’ gained increasing interest (Nicolini et al., 2003; Blomquist et al., 2010; Schatzki et al., 2001). Subsequently, various practice-based approaches emerged which, according to Geiger (2009), can be roughly divided into two camps: practice as what actors do, and practice as an epistemic-normative concept. While the former focuses more on individual activities, the latter regards practice as a collective, social category. Because this research is interested in the practice of rituals as a social phenomenon, I adopt the latter understanding.

In this dissertation, practices are construed as social and cultural phenomena capturing the ways things are done and unraveling deeply embedded processes of acting and doing (Geiger, 2009). They can be observed at all levels of the organization as patterns of (inter)action in the daily cooperation and communication of employees at the workplace (Nicolini, 2009; Orlikowski, 2002). According to Geiger (2009: 13) practices in organizations should not only focus on what people in an organization do, but should try to find out “why and how practices continue to be practiced in organizations, which normative and institutionalizing power they unfold and how they are changed (mended) and their implicit norms are questioned and reflected.” Bjørkeng and Clegg, et al. (2009) argue that a practice can now be understood as a fundamental social facet which will allow us to explain other social phenomena such as knowledge, meaning, power, events, roles, and lifeworlds.
When taking a practice-based approach to (project) management studies, it is important to consider materials by the same token as they go hand-in-hand with practices. According to Orlikowski (2007), materiality and spatial settings are crucial in the understanding of practices and how they can change, transform, or be modified. That is to say, material objects, such as technological apparatuses, tools, and workplace space and design resemble important artifacts enabling practices to be accomplished (Nicolini et al., 2003). In infrastructure projects the most advanced technological innovations, instruments and machines are used for planning and construction. Hence, one might assume that a material or technological focus is central and often seen as independent from social phenomena. However, this dissertation supports the notion that the material should not be seen as separate from the social as they are incessantly intertwined (Dale, 2005; Pfaffengerger, 1992; Orlikowski, 2007; Leonardi, 2012). As Dale (2005: 641) explains, a conceptualization of sociomateriality is developed “whereby social processes and structures and material process and structures are seen as mutually enacting.”

The concept of sociomateriality encapsulates the sociality of human technological activity and materiality, where artifacts are seen as not only having an instrumental dimension, but simultaneously as having a social and symbolic dimension. Orlikowski (2000) reminds us that all materiality is social in that it is created through social processes, and states that artifacts continue to evolve over time. Therefore, Leonardi (2012: 42) defines sociomateriality as the enactment of a particular set of activities that meld materiality with institutions, norms, discourse and all other phenomena we typically define as social. To uncover their implicit social significance, it is essential to humanize, socialize and localize materials with a focus on how actors draw on social and cultural elements of daily work and life to make sense of and give meaning to their practices and materials (Pfaffengerger, 1992). As will be demonstrated in the findings of this dissertation, the concept of sociomateriality becomes relevant and tangible in showing how project actors humanize their material artifacts to attribute meaning to their work practice during transition rituals.

**General methodology**

In this research I chose to write four separate research articles that, together, make up this dissertation as a whole. This is a new and encouraged practice for PhD students for the benefit of their career and the institution(s) for which they work. Each article (see Chapters 3 – 6) can thus be read as a manuscript in its own right and will each have its own introduction, theoretical frame, methodology, findings, analysis, and conclusion. Consequently, the reader
will detect overlap in methodological information and the description and analysis of case studies. By choosing the format of research articles, this editorial issue could not be evaded. I therefore wish to ask the reader to take all chapters as independent yet closely interrelated texts. Though the methodology and analyses will coincide, they will nonetheless be further specified and refined depending on the concepts and theory used and developed in each paper. Below I will first share the general methodology and analysis of the research as a whole to give a universal impression. Thereafter, the methodology and analysis of each article will be further explicated and systematized in the upcoming chapters.

Ethnographic approach

This research focuses on the practice of transition rituals and their meaning according to the project actors who organize and participate in them. To study this, a qualitative, ethnographic fieldwork approach has been taken. Importantly, this “can generate fresh insights into the social, cultural and material ways that the [construction] industry and conditions of work in it are experienced and played out” (Pink et al., 2013: 3). Ethnographic fieldwork is a research strategy to describe, interpret and explain behavior, meaning and cultural products of persons involved in a limited field by direct data collection of researchers who are physically present (Yanow and Schwartz-Shea, 2006). The aim is to give an emphatic understanding of the habitual activities of employees and to describe the connections among these employees within a specific context (Bate, 1997; Ybema et al., 2009). In this sense, ethnography is contextual because behavior cannot be fully comprehended outside of the context in which it is situated, meaning that actors must be placed within their organizational setting. In this way, micro-level and macro-level perspectives are integrated. It is also processual because organizational culture and practices are not seen as static and fixed entities but, rather, as processes that are principally political since meanings are continuously renegotiated and redefined over time (Bate, 1997). Furthermore, it is actor-centered because “instead of asking, ‘What do I see these people doing?’ [the researcher] must ask, ‘What do these people see themselves doing?’” (Bate, 1997: 1160). This method suites the interpretive paradigm as it assumes that knowledge can only be generated and understood from the point of view of the people who live and work in a particular setting (Hatch and Cunliffe, 2006). Ethnography has been a rare method in the construction industry, though more recently it is becoming an acclaimed approach to understanding and theorizing this field (Pink et al., 2013; Smits and Van Marrewijk, 2012).
Research methods

Fieldwork was conducted over a three-year period between summer 2010 and summer 2013. To allow for systematic operationalization, four research steps were taken: a theoretical review, a desk study, participant-observation, and in-depth interviewing. I aimed for the triangulation of information, referring to the involvement and comparison of different kinds of data and/or methods to ensure the quality and comprehensiveness of the research (Bailey, 2007).

According to Yanow and Schwartz-Shea (2006) ethnographic research depends largely on prior theoretical understandings. In this dissertation a variety of literature in the fields of project management, organization science, anthropology, and sociology has been constructive in helping to research and understand the mechanisms and significance of transition rituals practiced in project settings. The theoretical review mainly concerned the study of rituals in social science and organization science, and the study of the project context and process in project management studies. Furthermore, this dissertation engages a variety of theoretical debates depending on the topic and organizational field of the research articles such as theory on transitions and temporal organizing in projects organizations (see Chapter 3), Strategy-as-Practice theory and performativity theory (see Chapter 4); sociomateriality theory (see Chapter 5) and theory on the complex context of urban megaprojects (see Chapter 6).

Subsequently, the desk study was essential to gain a thorough historical and contextual understanding of the four project cases (see Table 1). Hence, an abundance of data was collected from reading newspaper articles, books, documents, reports and brochures, watching films and documentaries, browsing the internet for news and trivia (including Facebook, Twitter, and YouTube), visiting project websites and information centers, listening to and reading secondary interviews, taping and studying speeches made by important project figures, as well as conversing with citizens and residents living in or next to the project areas. This was necessary in order to become truly familiarized with each project and its unique history and context.

Participant-observation was carried at various sites in the construction projects. Most important for the focus of this research, participant-observation was carried out during eight transition rituals in four construction project in the Netherlands. The choice of the four projects depended on the occurrence of a variety of transition rituals at these projects. Overall, I aimed to attend a variety of rituals taking place at different moments/transitions during the project life cycle in four different projects: two localized project kick-offs for the Room for
the River project held in two different cities, Deventer and Zwolle; two phase transitions during the sub-project of tunnel-boring in the North-South Metro line of Amsterdam, including the official launches for phase 1 and phase 3; two milestone celebrations in the Railzone Delft project, one for reaching the end of the tunnel and the other for reaching the highest point of the new municipality building; and two project completions/deliveries for the Hanzeline railroad project, one internal held for the project organization and the other external held for the public. This selection was further determined by project accessibility, the accessibility and occurrence of planned ritual events in these projects, and on the permitted research time. Accessibility was granted by the community of practitioners, ‘Kennis in het Groot’ (KING) in which project managers of ‘Rijkswaterstaat’ (RWS), the executive body of the Dutch ministry of infrastructure and environment, and ProRail, the Dutch rail infrastructure provider, participate. The choice to select planned ritual events was for pragmatic purposes so I could gain access to various rituals at different times and project sites and be physically and experientially present as an attendee.

### Table 1: Project cases and ritual research sites

<table>
<thead>
<tr>
<th><strong>Project cases</strong></th>
<th><strong>Transition Rituals</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Room for the River (RR)</td>
<td>Project kick-off Deventer</td>
</tr>
<tr>
<td><em>River expansion project</em></td>
<td>Project kick-off Zwolle</td>
</tr>
<tr>
<td>North-South line Amsterdam (NS)</td>
<td>1st phase launch</td>
</tr>
<tr>
<td><em>Subway/metro project</em></td>
<td>3rd phase launch</td>
</tr>
<tr>
<td>Railzone Delft (RD)</td>
<td>Milestone end of tunnel</td>
</tr>
<tr>
<td><em>Underground railway project</em></td>
<td>Milestone top of building</td>
</tr>
<tr>
<td>Hanzeline (HZ)</td>
<td>Internal project delivery</td>
</tr>
<tr>
<td><em>Aboveground Railway project</em></td>
<td>External project delivery</td>
</tr>
</tbody>
</table>

Additionally, participant-observation was conducted at other sites and during various events and activities in the project cases, such as project office buildings, open days, information markets and centers, recreational events, conferences and meetings, as well as project excursions and tours. Examples include the public, annual ‘Day of Construction’ attended in the Amsterdam North-South line project on the 2nd of June 2012 at the underground station Vijzelgracht. Here, I could walk through the underground subway station under construction, as well as see the tunnel boring machine (TBM) up close; and subsequently in the Delft Railway project on the 1st of June 2013 during which I walked in the underground bike station and could converse with constructors about their work. I also joined various project excursions such as in the Room for the River project where I joined an
informative trip walking along the river with a project manager who explained how the project would change the public space, and another underground excursion which entailed a day trip to both the North-South line in Amsterdam and Railzone Delft for (student) engineers and constructors to explore the innovative techniques used for underground tunnel construction.

As a participant-observer, it was vital to be physically present to experience the project sites and spaces in order to gain a deeper understanding of the project context and process (see Photo 1 below). In this way, I could gain a ‘feel’ for organizational material by sensually experiencing spaces as I carried out fieldwork in the project organizations (Warren, 2008). By being physically present and active in the field of study, researchers themselves can become valid sources of data through their own aesthetic experiences, refining their capacity to empathize with others and imagining what it might be like to be them walking through and/or working in these same spaces (Warren, 2008). The ethnographic method used is regarded as multi-sited since I was present at various projects, ritual events, and project sites and spaces, including less tangible spaces such as the internet. Scholars claim multi-sited research is a development of ethnography that better suites our contemporary, globalizing societies and more complex research sites (Hannerz, 2003; Marcus, 1995).

Further, to help uncover the meaning(s) of rituals, in-depth, semi-structured interviews were conducted with a variety of project managers and associates (see Table 2 below). Purposeful sampling was used because I sought participants who could contribute to the research in a meaningful way. In total, 58 in-depth interviews were conducted. Initially, 12 interviews were held with communication advisors in the construction sector more generally.
to familiarize with the topic as they are the main organizers of ritual events in projects. Subsequently, 46 interviews were conducted with diverse project actors who organized, performed or attended the selected ritual. This included 18 interviews with communication advisors (‘Com. adv.’ on Table 2), 14 interviews with state officials and political representatives such as ministers, mayors, aldermen and state attorneys (‘VIPs’ on Table 2), as well as 12 interviews with project directors, managers, employees, project contractors and constructors (‘Builders’ on Table 2). Additionally, accounts from citizens, as ritual attendees, were collected via informal conversations during ritual events but have not been included in the interview sample due to scope and the focus on organizational actors. Because rituals can have different meanings for different participants I aimed for a mixed and large sample to ensure the reliability and validity of the findings. All interviews, ranging from 1 to 2 hours, were recorded, transcribed and translated from Dutch into English.

<table>
<thead>
<tr>
<th>Project(s)</th>
<th>Transition ritual</th>
<th>Interviews</th>
<th>Project actors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary round</td>
<td>Various rituals</td>
<td>12</td>
<td>12 Com. adv.</td>
</tr>
<tr>
<td>Project RR</td>
<td>Kick-off Deventer</td>
<td>7</td>
<td>2 Com. adv.</td>
</tr>
<tr>
<td></td>
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<td>3 VIPs</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>2 Builders</td>
</tr>
<tr>
<td></td>
<td>Kick-off Zwolle</td>
<td>7</td>
<td>2 Com. adv.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 VIPs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 Builder</td>
</tr>
<tr>
<td>Project NS</td>
<td>1st phase kick-off</td>
<td>4</td>
<td>2 Com. adv.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 VIP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 Builder</td>
</tr>
<tr>
<td></td>
<td>3rd phase kick-off</td>
<td>6</td>
<td>3 Com. adv.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 VIP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 Builders</td>
</tr>
<tr>
<td>Project RD</td>
<td>Milestone tunnel</td>
<td>3</td>
<td>1 Com. adv.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 VIP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 Builder</td>
</tr>
<tr>
<td></td>
<td>Milestone building</td>
<td>3</td>
<td>1 Com. adv.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>advisor</td>
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<td></td>
<td></td>
<td></td>
<td>1 VIP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 Builders</td>
</tr>
<tr>
<td>Project HZ</td>
<td>Internal project delivery</td>
<td>7</td>
<td>3 Com. adv.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 Builders</td>
</tr>
<tr>
<td></td>
<td>External project delivery</td>
<td>9</td>
<td>4 Com. adv.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 VIPs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 Builder</td>
</tr>
</tbody>
</table>

Table 2: Interview sample and details
General Analysis

According to Trice and Beyer (1984: 655) studying rituals in organizations has a methodological advantage compared to studying other cultural forms because they “provide culturally rich occasions for intermittent observation.” Further, they are bounded, visible, tangible and often accessible, and researchers can anticipate their occurrence as they are usually planned ahead. Important to mention is that seven of the eight rituals studied in the project organizations (except for the internal project delivery of HZ) were performed externally, involving the public such as (local) citizens and the media as spectators. This is because the cases studied are provincial and urban construction projects, embedded in multiple social and political contexts, and having considerable environmental and societal impacts (Manning, 2008; Bresnen et al., 2005b). Accordingly, to analyse rituals it is essential to link their meaning and practice to their context.

Specifically, to analyze rituals I first ‘zoom in’ (Nicolini, 2009) on these practices to observe how they are performed, followed by a process of ‘zooming out’ (Nicolini, 2009) to see how and why they are organized, to uncover their significance according to various project actors, and to relate this meaning to the specific history and context of each project. It must be stressed that rituals should not be studied in isolation; they are always ‘betwixt and in between’ (Turner, 1977). That is to say, though they are spatially and temporally specific, rituals always mark important moments in time, between the past and the future, often marking changes, transitions, and milestones during a life cycle (Martin, 2002). Therefore, it was key to consider the history, status, and prospect of each project organization (Engwall, 2003), and to relate these findings back to each ritual event. In short, rituals are always embedded in a larger context, and they often reflect and even influence the history, status, or prospect of an organization (Smith and Stewart, 2011).

Both actors and audience participate in drawing the hermeneutic circle when it comes to ritual semantics (Alexander, 2006). Initially, a ritual script is based on cultural interpretation(s), which is reinterpreted by its actors who attempt to perform its meaning, which is subsequently reinterpreted by the audience, not to mention that the media often plays an important role in mediating this meaning further for an audience (Cottle, 2006). An important analytical aspect of this hermeneutic circle is that, through participant-observation, I as a researcher was part of the audience as a ritual spectator. Hence, besides interviewing ritual actors and spectators about their interpretation of the ritual event, my own observation and interpretation is included as a primary source of data. Thus, not only did I analyze the
interpretations of others (second order data collection), I also analyzed my own first-hand interpretations (first order data collection). A description of how I analyzed my data will be specified in the upcoming research papers presented in Chapters 3 - 6 in this dissertation.

Case descriptions: Introduction into the field

The Room for the River project (RR):
The first case, the river expansion project ‘Room for the River’, is a national project to expand the IJssel River, thereby achieving a lower water level. The Netherlands is a country partly situated under sea level and therefore at a high risk for high water levels and flooding, especially considering that dikes erode over time and cannot withhold excess water by themselves. For the safety of Dutch inhabitants this project was started to achieve lower water levels by excavating floodplains along the IJssel River, by constructing new side channels and relocating and maintaining dikes. The IJssel River is expanded along six national provinces: Gelderland, Noord-Brabant, Overijssel, Utrecht, Zuid-Holland and Zeeland. In 2012, in the district Overijssel, the project made its official transition from the planning and preparation phase to the construction phase in two main cities that border the river: Deventer and Zwolle (see circled cities on Figure 1 below).

Figure 1: Map RR adapted by author (source: www.wgs.nl)

To make this transition official, a project kick-off was held in Deventer on the 29th of March 2012, from 14:00 until 18:00. The ritual event was organized by the Water board ‘Groot Salland’ (WGS) and held in the local church. All residents of Deventer and the
surrounding area were invited. Inside, an information market was set up with stands occupied by all collaborating project partners and organizations, such as the Deventer municipality and the contractor consortium ‘IJsselfront’, where attendees could collect information and ask questions. Local school children helped to guide attendees and food and drinks were provided throughout by a catering service. Around 16:00 all attendees were asked to sit down on the chairs set up in front of a podium staging a large projected screen in the center of the church. After an introductory speech by one of the organizers, a nature documentary was played about the natural reserve (the ‘IJssellanden’) around the river near Deventer. While playing this film, a local choir stood on stage singing songs about the river (see Photo 2 below). To portray the collaboration between different governments, several state officials came on stage to sanction the project launch. First the dike warden of WGS gave a speech to express the importance of this project for the people and the environment. Next the provincial representative of Overijssel came on stage with several school children who recited poetry they wrote about the river and the environment. Then, the alderman of Deventer came on stage to give a speech about the importance of this project for the people of Deventer and received a colorful poster from a student who depicted her interpretation of the river. The alderman also selected poems of three students who won the poetry competition they held for the project. For the grand finale a sand artist came on stage and artistically illustrated different images of the river and the nature area of the IJssellanden. Then he drew a heart in the sand and the dike warden and director of the contractor IJsselfront came on stage and symbolically signed their names in the sand to mark the official start of the project (see Photo 3 below).

Photos 2 and 3: RR kick-off Deventer (courtesy of WGS)
The second kick-off was held in Zwolle on the 18th of June 2012, from 13:00 to 16:30. It was held at a party venue next to the IJssel River near Zwolle. Rather than inviting all residents of Zwolle, only those residing in or just around the project premises were invited, especially people living alongside the river. Members of the contractor consortium assigned to execute the project were also present. The event began with a presentation by a renowned meteorologist who spoke about climate change, rising water levels and the need for safety; hence the need for this project. Then a film was played in which several public officials visited the natural reserve around the river while sharing what the project means for them, including the minister of infrastructure and environment, the mayor of Zwolle, the provincial representative of Overijssel, and the dike warden of WGS. After the film was displayed, the minister was interviewed by the dike warden about why the project is necessary (see Photo 4 below). He responded that despite the difficulties and nuisances the project may cause, it is necessary for the safety of citizens. Afterwards, the provincial representative of Overijssel and the mayor of Zwolle were interviewed by the dike warden sitting back to back. Both comical and delicate questions were asked, such as a question about a national soccer tournament against Germany (as a joke), but then another about the residents who have to be displaced to literally make room for the river which was a sensitive subject. Then all attendees were asked to go outside where the official launch would be marked next to the river. All the important state officials, five people, stood around a round table in front of two crane machines along the river. There was a count down and together they pressed a red switch atop the table, after which a banner was raised by the two crane machines behind them reading “Together we start for a safe Zwolle” (see Photo 5). The audience clapped and pictures were taken by the media. Afterwards, food and drinks were provided for the attendees and everyone could converse and socialize with one another.

Photos 4 and 5: RR kick-off Zwolle (taken by author)
The North-South line Amsterdam project (NS):

The second case, the North-South line metro project, is a construction project in Amsterdam to build the first subway that travels directly from the north to the south of the city along eight different stations, six of which are new (see line 52 from ‘Noord’ to ‘Zuid’ on Figure 2 below). In the North of Amsterdam, the metro will travel above the ground over an archway from Noord until it reaches the water. Then, it will go underneath the waterway (‘het IJ’) towards Central Station though a tunnel that was first constructed and then immersed under the water. Then, from Central Station to Europaplein the metro will continue to travel underground. In order to do this, the contractors Saturn and Herrenknecht drilled a tunnel 25 meters underneath the ground, with an eastern and western tube, using four different boring machines which have been named Gravin, Noortje, Molly and Victoria. Gravin bored the eastern tube of the tunnel from Central Station to Rokin, from March to June 2010 (phase 1), while Noortje bored the western tube, also from Central Station to Rokin, from August to October 2010 (phase 2). Subsequently, Molly bored the eastern tube from Europaplein to Rokin, from May 2011 until October 2012 (phase 3), while Victoria bored the western tube, also from Europaplein to Rokin, from December 2011 until February 2013 (phase 4).

When the project made the transition from the planning and preparation phase to the construction phase concerning the technique of tunnel boring (a new and risky technique never used before in the Netherlands), a project kick-off was held on the 11th of March 2010.
at Rokin. This grand event was held in a tent set up along the construction site underground, attended by a large group of project directors, managers, employees, stakeholders, political representatives, and the alderman of Amsterdam. This event signified the start of the first two phases of tunnel excavation, serving as the official launch for tunnel construction using TBMs. Starting in the party tent, the project director gave a speech to express the importance of the official launch of tunnel construction which would serve as the first line directly from the north to the south right through the heart of Amsterdam. Then below at the underground construction site, the Catholic priest would baptize the machines. First he baptized a small statue of Santa Barbara, the holy protector of tunnel and mine workers (see Photo 6 below). Subsequently, the names of the TBMs would be revealed. As the participants counted down, a giant poster was released from the first machine, reading ‘Noortje’ in big bold letters, followed by the release of the second poster from the second machine reading ‘Gravin.’ The names were female, as this belonged to the tradition, and were chosen by two school children from Amsterdam who were also present at the site. The priest then baptized the machines as he had baptized the statue with holy water. Afterward, the statue of Santa Barbara was carried by the ‘bore master’ and placed in a glass cupboard hanging on the wall next to the machines. Then, the boring manager and the alderman smashed a bottle of champagne against the first machine and then the second, after which confetti was cast down from above in celebration of this moment. At that time, above in the party tent, a group of engineers recited a traditional German mining song (see Photo 7) after which all attendees could further enjoy the event.

Photos 6 and 7: NS launch phases 1 and 2 (taken by Josine Voogt and Tom van der Leij)

Subsequently, the same transition ritual was held to launch the third phase of tunnel construction on the 28th of April 2011, where the machine ‘Molly’ was also baptized and bestowed her name (see Photos 8 and 9), another significant event attended by project directors, managers, employees, stakeholders, political representatives, and the alderman of
Amsterdam. This ritual followed the same script as the first, and was thus carried out in almost the exact same way. However, it was held at a different location (Europaplein), for a different machine, and for a different stage in the project (refer to fieldnotes p. 1 for ritual description).

Photos 8 and 9: NS launch phase 3 (taken by Gé Dubbelman)

The last phase-transition, the ritual in which ‘Victoria’ was baptized on the 15th of November 2011, was a more private ceremony (for the tunnel construction workers and managers only) making access too difficult. I was, however, able to observe and follow the event on film.

The Railzone Delft project (RD):
The third case is an underground railway and station project; Railzone Delft. Delft has one of the most intensely used rail networks in the world, which is located just along the old walls of the city. The rail divides the historical city into two parts. This has been “solved” in the 1960’s by building a rail viaduct 5 meters above the ground to give space to intense connection between the different parts of the city. However, noise, trembling, and metal erosion hindered living conditions of citizens near the rail. Therefore, the Railzone Delft project was initiated in 2009; a multi-faceted project including an underground railway tunnel and train station, underground parking stations for cars and bikes, combined with new neighborhoods, new residencies and offices, a new park, and a new municipality building.
In Delft, one sub-project recently finalized, was the completion of the eastern tunnel tube for the new railway. The project organization ritualized this milestone by creating an event – ‘Tour de Tunnel’ – on 28 June, 2013 where ten citizens were granted the opportunity (via Facebook and Twitter) to participate in an exclusive bike tour through the tunnel tube. At the information center, safety vests, helmets and bikes were given to the attendees who were then led to the tunnel construction site by the project manager. The event started in the tunnel where citizens, together with the alderman and the project manager, biked through the eastern tunnel tube. There was an arch of balloons at end of the tunnel to represent the finish line for the bikers (see Photo 10). After all participants completed their bike tour and crossed the finish line, the citizens celebrated the milestone together with the constructors and project manager by smashing a bottle of champagne against the wall of the tunnel. After this, cake and champagne was handed out for the attendees and the tunnel workers present at the site (see Photo 11). Then, a speech was given by the supervisor of tunnel construction during which he expressed the importance of this milestone, and the local media held some interviews with the participants.
Subsequently, on 7 October 2013 the project organization celebrated the completion of another sub-project when they reached the highest point of the new municipality building. This was also attended by a group of citizens who were granted participation, in addition to the alderman of Delft and representatives of the organizations who are responsible for the project such as the contractor, Dutch Railway, and ProRail (see Photo 12). During the event, attendees were given safety vests and helmets and climbed to the top of the building where they served (alcoholic) beverages for the celebration. Here, pictures could be taken of the construction site and the surrounding area. Then the alderman of Delft gave a speech in which she expressed what this new building would symbolize for the people of Delft, using words such as ‘innovation’ and ‘interconnection’. Subsequently, five flags representing the collaborating project partners (contractor Bam, municipality Delft, Dutch Railway, ProRail, and Railzone Delft) were raised by five representative members to epitomize their alliance and mark the milestone of reaching the highest point (see Photo 13).

Photos 12 and 13: RD milestone celebration reaching the top (taken by author)

The Hanzeline project (HZ):

The fourth case, the Hanzeline project, is a new railroad spanning 50 kilometers between the cities Lelystad and Zwolle. It passes through three provinces and borders five municipalities. Most importantly, it is the first railroad that connects the provinces Overijssel (where Zwolle is) and Flevoland (where Lelystad is), for many representing the east and west sides of the Netherlands which used to be parted by the IJssel River (see Figure 3 below). From conception to termination, the project took eighteen years to complete. Besides the railroad, the project includes over eighty sub-constructions such as the new stations in Donten and Kampen, the Drontermeer-tunnel and the Hanzeboog, a new railway bridge that connects the provinces Overijssel and Flevoland. According to the ministry of the environment and infrastructure,
this will probably be the last, significant railway to be built in the Netherlands. The project has been delivered by ProRail (responsible for the construction and maintenance of the entire railway net of the Netherlands) within the appointed budget and time frame, to the permanent operations team which runs the daily service of the railway and its trains since December 9th 2012.

Figure 4: Map HZ (courtesy of ProRail)

To make this delivery official, the project held an internal delivery celebration on the 20th of September 2012, from 17:00 until 20:30 in a theatre/party venue next to Lelystad station, for all the project employees, managers and directors, including all (former) members. First attendees collected in the foyer to have drinks and appetizers and socialize with one another, much like a reunion. Then, they were asked to go to the theatre and take a seat. They started by playing a movie regarding the 18-year history of the project, summarized in five minutes. Next, the director and operations manager of ProRail, a former minister of infrastructure and environment, and the project director came on stage. First the director of ProRail gave a speech to emphasize the importance of this delivery. Then, the operations manager gave a short speech saying he was delighted to take over the project. Furthermore, the former minister spoke about the history of the project explaining it took twelve years of research and preparation and six years of building. Lastly, the project director spoke a few words, saying the project was mainly about the people who work(ed) for the project and that the people needed to celebrate their success and this important moment. Then a performance was given by a professional entertainer dressed like a robot, who could imitate sounds of vehicles and airplanes etc. When he was finished, the four men came back on stage and told the attendees they each had a small bottle of champagne and glass underneath their chair,
which they were to grab, open, and pour into the glass. Then everyone stood up for the moment that the project would officially be proclaimed as complete and transferred to the permanent operations team. There was a countdown and when the moment came the director and operations manager pressed a red button (see Photo 14). Everyone said cheers and drank their champagne (see Photo 15), followed by a big applause. Thereafter, the attendees were summoned to the dining and music area where they could eat, drink and celebrate together.

Photos 14 and 15: HZ internal project delivery (courtesy of ProRail)

The project also held an external delivery celebration on a national scale, where the Queen was invited to inaugurate the railway. This event, or official opening, took place on the 6th of December 2012, from 9:00 to 14:00, and was attended by ‘VIPs’. This group of VIPs mainly consisted of members from ProRail or the ministry of infrastructure and environment who were considered to have an important function during the project process. They set up red chairs in front of the stage for these exclusive attendees (see Photo 16). The event started at Lelystad station on one of the platforms, the start of the railway. When the Queen arrived in her royal train she walked over the red carpet to sit at one of the red chairs at the front. Then the minister of infrastructure and environment gave a speech on stage, followed by a speech from the president-director of ProRail, and the president-director of Dutch Railways. Thereafter, the Queen came on stage to make the delivery official by pressing a red button (see Photo 17). Then she entered her royal train, followed by the VIPs, to inaugurate the railway. The mayors of four cities (Lelystad, Dronten, Kampen, Zwolle) along which the railway travels also joined the Queen, as did four children from each city who won a poetry competition about the railway. The train stopped briefly at each station where the Queen could greet the local residents from a window. When the train arrived at the destination station in Zwolle, another small ceremony was given outside where the four children recited
their winning poem to the Queen. Then the Queen and attendees walked to a party venue next to the station where they could further celebrate the delivery of the project.

Photos 16 and 17: HZ external project delivery (taken by author)

Dissertation outline

In the following Chapter 2 of this dissertation, the theoretical framework will be provided. Here, ritual will be conceptualized by reviewing relevant theory in social science, organization science and project management. Subsequently, four main conceptual lenses will be introduced which have been selected over the course of this research to better comprehend the meaning of rituals in project settings and within particular sub-fields in organization studies. Specifically, a (1) practice lens, (2) strategy lens, (3) performative lens, and (4) sociomateriality lens have helped to develop theory in associated research fields. The purpose for selecting these lenses, how they are applied, and how they are related will be further elucidated in this chapter.

Chapter 3 is based on the first research article of this dissertation, ‘The ritualization of the transitions in the project life cycle: A qualitative study of transition rituals in construction projects.’ This paper serves as an overview article about how, when and why transition rituals are practiced in construction projects. Specifically, the aim is to gain insight into the practice and meaning of transition rituals in the project life cycle. To accomplish this aim, the research question formulated is ‘what transition rituals can be discerned in the project process, how and when are they practiced, and what do they mean for project participants?’ Data was used from all four project cases, including all 58 in-depth interviews and observational accounts of the transition rituals and project construction sites. The term ‘transition rituals’ is introduced and theorized because it was observed that the rituals of this
study mark and establish important transitions, milestones and deadlines in the life cycle of a project. This includes collective bargaining, signing contracts, (sub)project kick offs, (sub)project phase transitions, celebrating milestones, and (sub)project completions and deliveries. Furthermore, the paper demonstrates how rituals vary in terms of how they are practiced, with a certain focus (i.e. internally or externally), for particular target groups (i.e. Builders, VIPs, and Citizens), and at different levels (i.e. team/organizational, institutional, and societal). Moreover, the purposes attributed to rituals according to different actors are underlined such as enhancing commitment, gaining public support, and enacting transitions. The paper was presented at the 29th EGOs colloquium in Montreal Canada in 2013, for sub-theme 38 on temporary and project-based organizing. The paper was then submitted to a special issue on temporal organizing in the International Journal of Project Management. The article was accepted and published in the International Journal of Project Management (see Table 4 below).

Chapter 4 is based on the second research article of this dissertation, ‘The point of no return: Ritual performance as strategic practice in project organizations.’ Having provided an overview of the practice and meaning of rituals in construction projects in the first article, the second article zooms in on what happens during the performance of ritual; specifically on how it can enact a transition. Namely, the findings of the first article indicated that rituals are not only important symbolic practices but that they are also performed strategically to construct certain meanings and realities. Therefore, this article is positioned in the debate on Strategy-as-Practice where scholars have called for a more critical approach to strategy research. To address this call, this research engages a critical analysis of ritual performance as strategic practice from a performative perspective. Correspondingly, the research question formulated is “how are ritual performances practiced strategically in project organizations?” Ritual performances are here defined as ceremonial events performed at a certain time and place, with predetermined actors and audiences, and (symbolic) words, gestures and materials that signal and express meaning. The data from all four projects was used, and the 46 interviews excluding the preliminary interview round. From observations in the field, an analytical framework is devised based on seven performative elements: time, place, actors, audience, words, gestures, and materials. Through this framework, all studied transition rituals are compared to distinguish patterns concerning these elements. Based on this analysis three forms of strategic practice can be discerned that have performative power effects being (1) the demarcation of time and space, (2) the legitimization of symbolic performance, and (3)
the catalysis of a point of no return. This paper was presented at the 30th EGOs colloquium in Rotterdam in 2014, to sub-theme 43 on ‘Performativity as politics.’ Subsequently the article was submitted to a special issue on ‘the performativity of strategy’ in the journal of Long Range Planning, and has received a ‘revise and resubmit.’

Chapter 5 is based on the third research article of this study, ‘Machine baptisms and heroes of the underground: Performing sociomateriality in the Amsterdam North-South line project.’ Whereas the first and second articles focused on all four project cases for the transferability of the findings, this article focuses on one particular case to provide a more in-depth and ethnographic account of the history and context of a particular project; the North-South line of Amsterdam. In the course of this research, it was found that the performance of rituals showcases important social and material elements that are interrelated – i.e. ‘sociomaterial’ – to construct certain meanings and realities. Here, sociomateriality is understood as a (re)configuration of entangled agencies, thereby discrediting the ontological separation between social and material entities. However, scholars claim this relational ontology is difficult to engage empirically. Therefore, the aim of this paper is to apply sociomateriality theory to exhibit how the social and material are entangled and (re)configured over time and in practice. Accordingly, the question formulated is “how are the “social” and “material” entangled and (re)configured in a particular organization of study?” To answer this question, the history of the project is traced since the 1960s to provide a rich account of the context, and by drawing from 10 in-depth interviews the narratives of project participants are shared throughout. In the findings, I exhibit the process of sociomaterial entanglement over time by focusing on this history of the case at the contextual level, the agency and performativity of the material at the organizational level, and the performance of sociomateriality via ritual performance at the practice level. This article was presented at the Annual Ethnography Symposium in Ipswich and submitted to the Journal of Organizational Ethnography to which it was accepted and is currently in press (see Table 3).

Chapter 6 is based on the fourth and last research paper ‘Rebalancing the disturbance: Shock-absorbing platforms in urban megaprojects.’ Whereas the previous articles were more focused on theory building, this last paper has a more pragmatic focus to contribute to the management of complex construction projects. For this purpose, the complex context of urban megaprojects (UMPs) is taken centrally. Managing UMPs has proven to be difficult due to context, scale, uncertainty, complexity, and multiple stakeholders. Frequently, they disturb their socio-political environment, trigger citizen resistance, and are perceived as significant
threats to local quality of life. Hence, the aim of this paper is to understand how UMPs can absorb or rebalance their self-produced shocks. Accordingly, the research question formulated is “what are the shocks caused by UMPs and how do project organizations absorb these shocks?” To answer this, two UMPs in the Netherlands have been studied and compared: the North-South Line of Amsterdam and Railzone Delft. From analyzing the findings, a new term is coined, ‘shock absorbing platform’, being a practice-based platform used by project participants to rebalance the shock of a UMP. Specifically, four platforms are detected in both projects: an (1) informative platform, (2) interactive platform, (3) participatory platform, and (4) transitional platform. These findings are important to show that, in addition to rituals at the transitional platform, there are various other platforms used for rebalancing the socio-political disturbances caused by UMPs. Hence, this article is more holistic in its approach and societally relevant. For an overview of the four research paper titles, aims and questions refer to the Appendix (Table 11, p. 173).

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<td>The social construction of cultural differences in a Siberian joint-venture megaproject</td>
<td>Leonore van den Ende</td>
<td>Journal of Strategic Contracting and Negotiation 1(2): 168 - 185</td>
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<td>1</td>
<td>The ritualization of the transitions in the project life cycle: A qualitative study of transition rituals in construction projects</td>
<td>Leonore van den Ende</td>
<td>International Journal of Project Management 37(7): 1134 – 1145</td>
<td>Published</td>
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<td>The point of no return: Ritual performance as strategic practice in project organizations</td>
<td>Leonore van den Ende</td>
<td>Long Range Planning Special issue on the Performativity of Strategy</td>
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<td>Machine baptisms and heroes of the underground: Performing sociomateriality in an Amsterdam metro project</td>
<td>Leonore van den Ende</td>
<td>Journal of Organizational Ethnography 4(3): 260 - 280</td>
<td>Published</td>
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<td>4</td>
<td>Rebalancing the disturbance: Shock-absorbing platforms in urban megaprojects</td>
<td>Leonore van den Ende</td>
<td>Gernot Grabher &amp; Joachim Thiel (eds.). Self-produced shocks: megaprojects and urban development. HCU publication series.</td>
<td>Published</td>
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Table 3: Summary of research papers, authors, journals and status

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1 This research paper is not included in this dissertation but based on my Master research on cross-cultural collaboration between Russian and western project partners in a megaproject based in Siberia.
Chapter 7 is the last chapter of this dissertation and provides the general discussion and conclusion of the research. It features a general answer to the main research question, the theoretical contributions to project management and organization studies, how the conceptual lenses used to theorize ritual have contributed to theory development, the practical contributions of the research, a critical discussion of the main findings and analyses, suggestions for future research, and a methodological reflection. Finally, some final words will be shared to wrap up the research.
Chapter 2: Theoretical framework

In this chapter ritual will be conceptualized by incorporating theory from various social research fields. First, a theoretical review and perspective will be provided from ritual theorist and anthropologist Catherine Bell (1992; 2009) who has informed this research to a great extent, particularly her practice-based approach to ritual. Subsequently, extant ritual literature will be shared from organization studies to show how ritual has been theorized and utilized in the field. Next, the concept of transition ritual will be theorized in the field of project management studies by drawing from social theory. Lastly, four conceptual lenses will be introduced that have been selected over the course of this research to gain a more in-depth understanding of rituals in the context of complex construction projects and to help develop theory in various branches of organization studies.

Conceptualizing ritual

Outside organization studies, the study of ritual has been immense and longstanding, especially in the fields of anthropology and sociology. Renowned social scientists such as Lévi-Strauss (1944), Durkheim (1954), Van Gennep (1960), Turner (1969), Goffman (1967), Geertz (1973) and Foucault (1975) are among its most important theoretical pioneers, having constructed a profound discourse on ritual (see Bell, 1992; 2009 [1997] for thorough reviews). In her comprehensive manuscript on ritual theory and practice, Bell (1992) deconstructs ritual theory as it has been developed over the past decades. Fundamentally, she writes, theory on ritual stemmed from studying the dichotomy between thought and action. Ritual was generally regarded as action where conceptual aspects such as beliefs, symbols and myths were acted out. Herein, ritual was identified as the means by which thought and action, as well as comparable dichotomous categories (e.g. irrational vs. rational; expressive vs. pragmatic, etc.), could be reintegrated. However, in such a theorization ritual action is automatically distinguished from the thought behind it which also became its main critique. In this light, the notion that ritual resolves social contradictions remains problematic.

Since it has been difficult (and still is) to determine what ritual is or is not in theory, Bell (1992) suggests that we depart from the longstanding theoretical tendency to view ritual either as a magical or sacred activity in sharp contrast with technical or utilitarian activity, given that ritual was frequently characterized by its symbolic and non-instrumental dimensions; or as an activity which can be seen as an aspect of all activity given that the basic features of rituals, such as repetition and routinization, also lie at the basis of all social life. In
her view, the former stance should be rejected because ritual can be seen as possessing both expressive and pragmatic aspects simultaneously, and because such a distinction could easily lead to more dichotomous conceptions of ritual, as was the case with the action-thought conundrum. On the other hand, she argues that the latter stance should be rejected because seeing ritual as an aspect of all activity makes ritual almost impossible to distinguish from other activities.

As an attempt to move away from dichotomous, too limited or too flexible conceptions of ritual, Bell (1992: 169) proposes ritual should be rethought as practice or as “a strategic mode of action effective within certain social orders.” She also advises to use the term ‘ritualization’- rather than ‘ritual’- defined as a way of acting that is appropriated and orchestrated to distinguish and privilege what is being done in comparison to other, more ordinary, activities. In this sense, a ritual is a practice ‘made special’, set apart from everyday practice and work life. In doing so, ritual grasps the attention of its participants, creates contextual awareness, and either preserves or transforms worldviews (Sillince and Barker, 2012; Anand and Watson, 2004; Johnson et al., 2010). Additionally, rather than attempting to define ritual by its structural features, it would be more useful to pay attention to the features of a ritual within specific contexts (Islam and Zyphur, 2009). Therefore, this research will explore the practice of ritual in the context of complex construction projects.

Rituals in organizations

For a substantial time, ritual theory has been applied to various subfields of organization studies. Specifically, scholars have utilized ritual theory to study and gain insight into initiation, training and socialization (Van Maanen, 1975; Van Maanen and Schein, 1979; McNamara et al., 2002; Vaught and Smith, 1980), organizational culture (Trice and Beyer, 1984; Beyer and Trice, 1987; Kunda, 1992), (cultural) change and intervention (Howard-Grenville et al., 2011; Powley, 2004; Powley and Cameron, 2006; Harris and Sutton, 1986), management and consultancy practice (Sturdy et al., 2006; Czarniawska and Mazza, 2003; Gbadamosi, 2005; Pfeffer, 1981a), auditing and financing (Power, 1999; Pentland, 1993), institutionalization and institutional change (Sillince and Barker, 2012; Suddaby and Greenwood, 2005; Meyer et al., 2006; DiMaggio and Powell, 1983) learning and communication (Cheal, 1992; Thralls, 1992; Sosis and Alcorta, 2003; Koschmann and McDonald, 2015), partnering and teamwork (Eskerod and Blichfeldt, 2005; Brooks, 1996; Cova and Salle, 2000), negotiation and conflict reduction (Kamoche, 1995; Deal and Kennedy, 1988; Pratt, 2000; Pettersen, 1995), and (strategy) meetings and workshops
Johnson et al., 2010; Peck et al., 2004; Mechling and Wilson, 1988; Catasús and Johed, 2007). Undoubtedly, these studies draw our attention to the valuable contribution of the ritual concept to a wide variety of organizational theories, practices and processes.

Trice and Beyer (1984) are the theoretical pioneers of research on rituals in organizations, having provided various definitions of ritual and related concepts. In the literature, the terms rite, ritual and ceremonial are often used interchangeably. However, Trice and Beyer conceptualize ritual as the general idea behind a rite; that being the specific instance of ritual, while they use the term ceremonial to portray the context in which rites occur. In this research, I use the term ‘ritual’ or ‘transition ritual’ to refer to its practice in a general sense and will also use ‘ritual event’, ‘ritual performance’, and ‘ceremony’ throughout the research depending on the empirical focus and theoretical point of departure. Important to mention is that the rituals of this study are premediated and publicized ritual events that are performed in a dramaturgical and highly ceremonial manner as will become evident later in this dissertation. This sets the rituals of this study apart from more small-scale or internal organizational rituals such as workshops, meetings or office parties.

Trice and Beyer also created the first typology of organizational rituals which is still being applied to current studies: rituals of transition/passage (e.g. induction); rituals of degradation (e.g. firing, replacing); rituals of enhancement (e.g. promotion); rituals of rebirth/renewal (e.g. annual meetings); rituals of conflict reduction (e.g. collective bargaining); and rituals of integration (e.g. office Christmas party). The authors explain this typology is not fixed, rather forming the basis for future research. For example, Trice and Beyer (1993) provide other possible categories, such as ‘rituals of creation’ to establish new roles in an organization, and ‘rituals of parting’ which concern the “death” of an organization or organizational culture, for instance. Sutton (1987), too, has researched how various “dying” organizations made the ritual transition to death. Furthermore, Powley and Piderit (2008) have described organizational healing rituals, drawing from a case study about a high-school shooting. Others have discussed mediation rituals associated with the practice of negotiation (Fisher, 2000; Moore, 2014; Silverstone, 2005), as well as crossing, association and disassociation rituals that accompany the inauguration of institutional change (Sillince and Barker, 2012). According to Kunda (1992), distinguishing between ritual types is useful for analytical purposes given their broad spectrum. Therefore, I focus on what I call ‘transition rituals’ which mark and establish transitions and milestones in the project process.
Besides reviewing ritual types, it is also important to address their assorted meanings and values. Organization literature (Islam and Zyphur, 2009; Trice, 1985; Beyer and Trice, 1987; Smith and Stewart, 2011; Martin, 2002; Kunda, 1992; Trice and Beyer, 1993) claims rituals to have a widespread social value, depending on the context and the kind of ritual involved. According to Smith and Stewart (2011), rituals can provide meaning, communicate important values, dissipate uncertainty and anxiety, exemplify and reinforce the social order, manage work structure, and prescribe and reinforce significant events. Due to their generic social character, organizational rituals are claimed to be strongly integrative, helping to build solidarity, identity, trust, loyalty, and commitment within the organization (Islam and Zyphur, 2009; Baum, 1990; Moore and Myerhoff, 1977; Collins, 2004).

Moreover, rituals can play a significant role in expressing and even shaping or transforming organizational culture (Van Maanen and Schein, 1979; Schein, 1991; Van Maanen and Kunda, 1989; Trice and Beyer, 1993). Namely, according to Trice and Beyer (1993), rituals not only have the capacity to communicate and maintain organizational culture, they also offer an opportunity for its management and change. This is because rituals can be structured to endorse both organizational stability and change, either by maintaining organizational status or by facilitating its transition. Herein, rituals can be powerfully transformative in bringing about changed social conditions (Turner, 1969). This information is valuable considering that change in (project) organizations is implemented and managed with difficulty (e.g. Demers, 2007; Bresnen et al., 2005a). All in all, rituals embrace a wide range of possible meanings, purposes, and values. Therefore, researchers must study how the instance and significance of these events vary in different organizational settings and situations (Islam and Zyphur, 2009).

In this dissertation it is argued that while rituals may be useful or valuable for an organization and its actors, they should be studied critically with a close consideration for their embodiment and (re)production of power (Bell, 1992; Foucault, 1982). Specifically, rituals can vary in size and in who is included or excluded, they are just as likely to be emergent as they are to be planned or imposed, they can be formal or informal, and may occur at the front- or back-stage of an organization (Hallier and James, 1999; Van Maanen, 1975; Kamoche, 1995; Islam and Zyphur, 2009; Smith and Stewart, 2011; Kunda, 1992; Dacin et al., 2010; Anand and Jones, 2008). These facets imply that rituals can represent tools not only for enculturation but also for subversion (Smith and Stewart, 2011; Hall and
Jefferson, 1993; Islam et al., 2008), and that they are concerned with empowerment or disempowerment (Bell, 1992), and normative control (Kunda, 1992).

For example, Kunda (1992) explains how managers attempt to control their employees through ritualized training and teaching events, thereby orchestrating organizational culture to benefit the management of the company. Similarly, Dacin et al. (2010) demonstrate how fine dining rituals at Cambridge Colleges reinforce class divisions in British society. Earlier studies (e.g. Pfeffer, 1981b; Rosen, 1985; Kamoche, 1995; Van Maanen, 1975; Rosen, 1988) found comparable results, showing how rituals are strategically orchestrated to fulfill certain interests. Therefore, it is important to be wary of ritual power dynamics which are often implicit, and to challenge the assumption that a ritual can or should always be associated with outcomes such as integration, solidarity or equality. Rather, rituals should be studied cautiously with the expectation that they might, in fact, encourage and (re)produce hierarchy, power relations, and fragmentation within an organization (Pfeffer, 1981b; Kamoche, 1995; Baum, 1990; Rosen, 1985; Kunda, 1992; Islam et al., 2008).

A critical perspective to ritual should challenge the strong bias in organization studies towards the functionalist perspective, with a focus on “rituals that bring about integration and value consensus and result in employee “loyalty,” “commitment,” and “satisfaction””, much like a “cookbook advice to managers” (Kunda, 1992: 266-267). More critical and interpretive perspectives that address the latent, implicit and hidden meanings of rituals are lacking in organization and business studies (Kunda, 1992). Therefore, more recently, rituals are theorized as constitutive of meanings and realities, having intended but also unintended and latent consequences beyond the purpose of its actors (Koschmann and McDonald, 2015; Nordin, 2009; Sørensen, 2007). Specifically, Koschmann and McDonald (2015: 3) argue there are limits to “management’s ability to “create” particular organizational cultures and “use” rituals to accomplish specific ends.” Therefore, they advise scholars to look beyond human intentionality and address the agency and performativity of ritual in its own right. Such an approach departs from prior research on rituals in organizations that mainly highlights their intentional and functional character (Anand and Jones, 2008; Koschmann and McDonald, 2015).

**Transition rituals in the project life cycle**

Given the wide array of ritual types, meanings and purposes it becomes necessary to narrow the focus of this research. Therefore, I will observe the actual instance of rituals to examine
how they are practiced and what they mean to actors in complex construction projects. Exploratory research indicates that rituals in construction projects are often practiced in the form of (sub)project kick-offs or launches, (sub)project phase transitions, reaching milestones, or (sub)project deliveries/completions that mark important transitions in the project life cycle. Examples include signing a contract for construction, the official kick-off of a subway project, reaching the end of a railway, or delivering a new train station for public use. In line with this, this research will focus on the ritualization (Bell, 1992) of such transitions via the practice of transition rituals. Before theorizing what transition rituals mean in the life cycle of construction projects in this dissertation, literature from anthropology on transition rituals in the human life cycle will first be reviewed to inform and inspire the conceptualization of this study.

Transition rituals is derived from the term ‘rites de passage’ – coined and theorized by French anthropologist van Gennep (1960) and later succeeded by Turner (1969) – who define it as a ceremonial event that marks the passage of an individual or group from one social status to another. Both Van Gennep (1960) and Turner (1969) describe how important transitions in the life cycle of humans (such as birth, adulthood, marriage and death) require the practice of rituals so that individuals or groups can transition from one status to the other. This transitional process can be explained by the concept liminality defined as the passage through a threshold that marks the boundary between two phases, allowing an individual or group to move from one culturally defined state to another. First, the individual or group undergoes a metaphorical death where one is separated from a previous state of being, breaking with previous practices and routines. Subsequently, the individual or group is ‘betwixt and in between’ two different existential planes where one’s identity is dissolved to some extent. In this liminal phase, differences between participants are inverted and they experience ‘communitas.’ This refers to sense of community in which all participants are equal as a result of ‘anti-structure’ which is the ideological denunciation of structure. This is where the actual transition takes place; the passage through the threshold from one state to the next. Then, the individual or group is re-incorporated into society as a new being with a new identity (Turner, 1969; Turner, 1977).

Though Turner researched liminality in a specific tribal community, he argued that the understanding of liminality as a social practice had relevance far beyond a certain ethnographic context, both in tribal and non-tribal societies. Van Gennep (1960), too, argued that rites of passage were equally significant in social transitions occurring in urban
Conceptual lenses
To help theorize the practice and meaning of rituals in construction projects, this dissertation utilizes four main conceptual lenses: the (1) practice lens, (2) strategy lens, (3) performative lens, and (4) sociomateriality lens. These lenses are all related and have been selected over the course of this research in four consecutive steps. First, as the most fundamental lens, the practice lens was selected because this research aims to study the practice of rituals in construction projects and uses a practice-based approach in organization studies as described above. The second lens, the strategy lens, is closely related to the practice lens and was chosen because the theory and findings of this research indicated that rituals are practiced strategically for various purposes such as communication, legitimization and enacting transitions in construction projects. Therefore, I became interested in deciphering the strategic process of rituals and specifically in how they can enact transitions in the project life cycle. The third lens, the performative lens, follows from the strategy lens in that ritual strategy is seen as a performative practice that does something beyond the performance of ritual itself (such as enacting transitions). This lens is informed by performativity theory that underlines how meaning and reality are enacted in practice. The last lens, the sociomateriality lens, was chosen because ritual practices comprise interrelated social and material factors that construct certain meanings and realities. Here, the focus is on how boundaries between social and material entities are not pre-given or fixed, but incessantly enacted in practice through their
performativity. Together, these four related lenses form what I call a ‘kaleidoscopic lens’; the features, meanings and mechanisms of ritual will shift depending on how the kaleidoscope is turned (see Figure 5 below).

Below, each lens will be elucidated, including the validation for its selection and the corresponding theory. Though these lenses are described separately, they are closely interrelated. They have been used in varying degrees in the ensuing book chapters featuring research articles, and will be further discussed in the final chapter of this dissertation. Important to mention is that rather than applying this lens systematically throughout the research, I use this lens as a kind of spectacles to sharpen and refine my perspective and conceptualization and to help me build and extend theory.

Figure 5: Kaleidoscopic lens for conceptualizing ritual

**Practice lens**

A practice lens lends itself well to conceptualize ritual because it shifts the focus of ritual as a concept to ritual as a practice; as something that actors do. More precisely, this research utilizes the practice-based approach of Bell (1992), as briefly described in the first section of this chapter. This practice-approach to ritual, or ‘ritualization’, addresses how ritual strategically differentiates itself in comparison to other practices and activities. Thus, rather than focusing on what ritual means or represents, it focusses on what ritual does to distinguish and privilege itself from ordinary, mundane practice and on how it does it.

In a more recent work, Bell (2009) explains that a practice approach to ritual first addresses how a community or culture ritualizes and then addresses when and why ritualization is taking place. She argues, then, that the study of ritual as practice means a
shift from looking at ritual activities as the expression of cultural patterns, to what makes and anchors such patterns. In that way it is not the mere communication of meanings and values, but rather how a set of activities construct particular types of meanings and values (Bell, 2009). This lens has been used in the first research article of this dissertation (see Chapter 3) which addresses how, when and why ritualization takes place in the life cycle of construction projects.

**Strategy lens**

As explained above in the practice lens, ‘ritualization’ is a strategic way of acting orchestrated to distinguish what is being done compared to everyday, more ordinary practices. More explicitly, ritualization concerns cultural strategies for differentiating between acts, for constructing qualitative distinctions between the ordinary and extraordinary, and for attributing such differentiation to reality supposedly transcending the power of human agents (Bell, 1992). Strategies for doing so include performance, such as the use of scripts, props and gestures; formalization, meaning it is premeditated and organized rather than spontaneous; repetition, in that it is routinized and repeated according to cycles; and symbolic communication comprising artifacts, aesthetics and speech that express meanings (Alexander et al., 2006; DeMarrais et al., 1996; Goffman, 1959). Bell (1992; 2009) argues that rather than being structural features of ritual, these are core strategies to give it a privileged and authoritative status over other practices, granting it the ability to preserve or transform meanings, values, realities, cultures, and lifeworlds. From a more critical perspective, this enables ritual to (re)produce power and authority and legitimize a certain social order (Bell, 1992; Foucault, 1982).

Relevant for conceptualizing ritual through a strategy lens is that strategizing is something that actors do, emphasized in the field of Strategy-as-Practice (Jarzabkowski, 2003). In its practice, strategy involves orchestrated communication, having temporal, spatial, and aesthetic properties that account for its power. In this sense, understanding ritual as strategy underlines its symbolic performance featuring verbal and non-verbal cues to influence and persuade an audience (Kornberger, 2013). It also underscores the political character of ritual because strategizing involves the exercise and reproduction of power (McCabe, 2010; Carter et al., 2010; Clegg, 1989). As such, ritual is a form of strategizing with performative power effects (Kornberger and Clegg, 2011), which will be explained in the
next lens. The strategy lens has been utilized in the second research article of this dissertation where I conceptualize ritual performance as strategic practice (see Chapter 4).

Performative lens

The third, performative lens casts light on the strategic and carefully orchestrated performance of ritual, as the previous strategy lens pointed out. Through its appropriation and orchestration, ritual exercises persuasive power and is thus essentially rhetorical, using aesthetics and poetics to impel (Sillince and Barker, 2012). This typifies them as situated performances that enact “a highly charged ceremonial form designed to attract the collective attention of a field” (Anand and Watson, 2004: 59). Consequently, a performative lens stipulates how ritual is a form of strategizing that does something beyond the performance of ritual itself (Alexander, 2006; Kornberger and Clegg, 2011; Koschmann and McDonald, 2015), even if doing is saying in the form of a ‘speech act’ from an Austinian perspective (e.g. “I do” is an act of marriage) (Tambiah, 1981; Austin, 1963; Cooren, 2004). Here, the performance refers to the embodied practice or ‘acting’ of ritual whereas performativity refers to the meaning or reality it (re)constructs (Loxely, 2007; Gregson and Rose, 2000). As Bell (2009: 75) explains:

From [a performative] perspective, what emerges from ritual is, in one sense, the event of the performance itself. When analyzed further, this event is seen to have brought about certain shifts and changes, constructing a new situation and a new reality.

The concept of performance is central in a performative approach. In prior research, Goffman (1959) showed how individuals frame and socially construct their reality, playing roles as social actors on ‘stage’, such as on the frontstage or backstage. Furthermore, Moore and Myerhoff (1977) emphasized how ritual is formally acted like a play, involving the manipulation of symbols and sensory stimuli to attract the attention of an audience, having social and political consequences. In a similar vein, Turner (1977) describes ritual as a performance in a sequestered place, with a stereotyped sequence of activities involving words, gestures and materials designed to influence forces on behalf of the goals and interests of the ritual actors. In short, ritual, through its framed and scripted performance and, under the appropriate conditions, it can establish, effect or bring about something (Tambiah, 1981; Loxely, 2007).
In this way, ritual performance not only represents change or a social relationship, it also realizes it (Alexander, 2006), and rather than describing an order of the world, it performs this order into existence (Giesen, 2006). Similarly, Turner (1982: 91) explains that “to perform is [...] to complete a more or less involved process rather than to do a single deed or act.” In this sense, a ritual performance does not merely manifest something, but rather it ‘accomplishes’ something as part of its process. For example, rather than seeing ritual as the arena for the expression of authority, a performative approach sees ritual as the arena for the construction of authority (Bell, 2009: 82).

This perspective is significant for this research because it moves beyond a symbolic or representationalist understanding towards seeing ritual as simultaneously pragmatic, strategic and constitutive. On the other hand, it also moves beyond seeing ritual as mainly instrumental in that it is seen to have a performative and agential capacity beyond the intentions of its actors, having latent consequences beyond its explicit purposes (Koschmann and McDonald, 2015). The performative lens has been utilized in the second research article (see Chapter 4) of this dissertation where I perceive the strategic process of ritual as performative in catalyzing transitions. Furthermore, this lens has been used in the third research article (see Chapter 5), where I analyze the performativity of materiality in constructing meaning and reality.

**Sociomateriality lens**

The sociomateriality lens follows from the performative lens because ritual involves both social and material factors in (re)constructing meaning and reality. As such, ritual embodies and performs an entanglement between the social and material; i.e. the sociomaterial. This premise is based on a post-humanist approach to performativity, which sees social and material entities as entangled agencies in the world’s becoming (Barad, 2003; Orlikowski and Scott, 2008).

Sillince and Barker (2012: 14) convey that ritualization is an occasion “where expressive significance is given by material objects such as scenes, props or clothes, and scripts,” thereby persuading an audience with material performance. This was also observed in the field, as rituals are not only social and symbolic but visible, tangible and material practices where spatial settings and artifacts play a leading role in constructing meaning and reality (Sillince and Barker, 2012; Orlikowski and Scott, 2008; Robichaud and Cooren, 2013). Here, the material and corporeal manifestation of ritual has just as much performative
power as the social and discursive (DeMarrais et al., 1996; Turner, 1982; Boivin, 2008), such as a material contract signed with a signature by an authoritative figure in the presence of witnesses which binds and makes tangible an agreement (Loxely, 2007). It follows that “social processes and structures and material process and structures are seen as mutually enacting” (Dale, 2005: 641); a notion taken up by scholars studying the performativity of materiality (e.g. Leonardi, 2013; Faulkner and Runde, 2012; Orlikowski and Scott, 2008).

This lens is relevant for the conceptualization of rituals because rituals can be seen as performative, sociomaterial enactments that construct meaning and reality. Here, the performativity of materiality is significant, where materials become powerful and powerfully experienced by ritual participants (Boivin, 2008). As such, the materiality of ritual is agential in its theatrical ensemble as part of the codes and means of performative action (Turner, 1982; Koschmann and McDonald, 2015). Consequently, ritual concerns a particular set of activities that fuse materiality with social and cultural elements such as symbols, language, and discourse (Leonardi, 2012). This lens has been used in the second research article of this dissertation (see Chapter 4) by using a post-humanist approach to performativity that incorporates social and material factors in the construction of meaning in reality (Barad, 2003). Additionally, it is applied in the third research article of this dissertation (see Chapter 5) where I analyze how the social vis-à-vis the material is entangled and (re)configured in a case study by exhibiting how ritual embodies and performs sociomateriality.
Chapter 3: The ritualization of transitions in the project life cycle

Summary
To manage the project life cycle and facilitate transitions, Project Management (PM) research often points to temporal models and structuring devices. However, the social and symbolic facet of transitions in projects remains understudied. Therefore, the paper presented in this chapter focuses on the ritualization of transitions in projects. Specifically, the aim is to gain insight into the practice and meaning of transition rituals in the project life cycle. The contribution to the PM debate on temporary organizing lies in the conceptualization of transition rituals as powerful symbolic and strategic practices in the project life cycle, and in the provision of an overview showcasing how, when and why transition rituals are practiced to facilitate transitions and embed a project in its environment.

Introduction
The ever-changing, non-linear, and often unpredictable process that unfolds during a project’s life cycle is a main concern in PM research (Hodgson and Cicmil, 2006; Maaninen-Olsson and Müllern, 2009). Project actors experience difficulty in managing and coordinating the project process which is comprised of intricate and drawn-out phase transitions with a series of overlapping sub-projects, phases and/or stages (Marshall and Bresnen, 2013). Moreover, projects are temporary organizational constructs continuously evolving over time and embedded in multiple contexts (Manning, 2008; Lundin and Söderholm, 1995; Engwall, 2003). In this sense, a project should be understood as a contextual process of change from start to termination (Maaninen-Olsson and Müllern, 2009; Söderlund, 2013).

To better understand how this process transpires and can be managed, research increasingly focuses on the project life cycle and in particular the themes of time, duration and temporal structuring (Lundin and Steinthórsson, 2003; Winch, 2013; Furst et al., 2004). In this domain, research habitually points to temporal models, such as the Project Life Cycle (PLC) model (King and Cleland, 1983; Westland, 2006), and temporal structuring devices, such as contracts, deadlines and milestones, that are used to organize time and trigger transitions in projects (Manning, 2008; Gersick, 1989; Cicmil, 2006; Gersick, 1988; Waller et

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al., 2002; Gersick, 1994). However, these temporal models and pacing devices remain largely instrumental, shedding little light on the social and symbolic facet of transitions (Cicmil, 2006; Eskerod and Blichfeldt, 2005). Exploring this facet is essential to gain insight into the symbolic practices used by project actors to realize transitions (Cicmil and Gaggiotti, 2009).

To fill this gap, this paper takes the ritualization of transitions in the project life cycle as the main research focus. Specifically, the aim is to gain insight into the practice and meaning of transition rituals during the project process. Transition rituals are common yet taken for granted symbolic practices in projects, such as signing contracts, project kick-offs, or celebrating milestones. With the exception of several studies (e.g. Cova and Salle, 2000; Löfgren, 2007; Eskerod and Blichfeldt, 2005; Berg et al., 2000) rituals have yet to be addressed in the field of PM. We argue that they should be for two main reasons. First, rituals mark important transition points, life cycles and histories of organizations (Martin, 2002) and are powerfully transformative in bringing about changed social conditions (Alexander et al., 2006). This is particularly relevant for the study of the project life cycle and how transitions are enacted herein. Second, in addition to organization literature, the extant PM literature on rituals confirms their relevance and value, even suggesting that “formal transition and maintenance rites are introduced” in the project life cycle (Eskerod and Blichfeldt, 2005: 502).

To study the role of transition rituals in the project process, we formulate the following research question: what transition rituals can be discerned in the project process, how and when are they practiced, and what do they mean for project participants? To answer this question we draw from a qualitative-interpretive field study in the infrastructure sector. Participant-observation was carried out during eight transition rituals in four construction projects in the Netherlands: two project kick-offs in a river expansion project, two kick-offs marking sub-project phase transitions in a subway project, two milestone celebrations in an underground railway project, and two project completions/deliveries in an aboveground railway project. Concurrently, 58 in-depth interviews were executed with project actors who organized, performed or attended the transition rituals, including communication advisors, project managers and employees, contractors and constructors, as well as state officials and political representatives.

The paper makes two main contributions to the debate on temporary organizing in the field of PM. First, this paper conceptualizes transition rituals as powerful symbolic and strategic practices in the management of the project life cycle. Second, it provides an
overview of how, when, and why transition rituals are practiced to facilitate transitions and embed a project in its environment. The paper is structured as follows. First, a theoretical framework is provided to conceptualize transition rituals and contextualize the study to construction projects. Second, in the methodological section we discuss how data on transition rituals was collected and analyzed. Next, the findings are presented where interview accounts of project actors are shared to demonstrate how, when and why transition rituals are practiced in construction projects. In the discussion section, we provide an in-depth and theoretically grounded analysis of the findings. Finally, conclusions are drawn concerning the meaningful role transition rituals have in the project life cycle followed by the research contributions, research limitations and suggestions for future research.

Theoretical Framework

Dichotomous conceptions of ritual are common in theory. According to Smith and Stewart (2011: 11) there “is a need to reconcile the symbolic and communicative ambiguity of ritualized performances with the functional impact that rituals command.” Or, as Bell (1992) explains, there is a longstanding theoretical tendency to view ritual as a symbolic or sacred activity in sharp contrast with a technical or practical activity. Rather, ritual should be seen as possessing both symbolic and pragmatic aspects simultaneously. Essentially, rituals are dually significant, having on the one side a symbolic character through which meanings and values are expressed, while they also have a tangible character where they can be used strategically to achieve or establish something (Martin, 2002; Bell, 2009; Smith and Stewart, 2011; Johnson, 2007).

Consequently, Bell (1992) proposes ritual should be rethought as practice or as “a strategic mode of action effective within certain social orders.” In doing so, she devises the term ‘ritualization’- alternative to ‘ritual’- defined as a way of acting that is orchestrated “to distinguish and privilege what is being done in comparison to other, usually more quotidian, activities” (Bell, 1992: 74). This is an important point because ordinary practices are more easily taken for granted owing to their rapid standardization and intrinsic enactment (Geiger, 2009). Conversely, a ritual is a practice ‘made special’ by ascribing symbolic meaning to mundane activities and materials (Martin, 2002; Smith and Stewart, 2011). Specifically, ritual is ‘made special’ by the rule- and role-governed manner in which it is organized, with predetermined actors and audiences, performed at a predestined time and place, with symbolic
words, gestures, and artifacts that serve to signal and express meaning (Smith and Stewart, 2011; Trice and Beyer, 1993; Alexander et al., 2006; Turner, 1977).

**Rituals in organizations**

To understand the practice and meaning of rituals in projects it is helpful to review the growing amount of research on rituals in organizations more generally. Trice and Beyer (1984) are the theoretical pioneers of this domain, having provided the first typology of (possibly overlapping) organizational rituals, or ‘rites’: (1) rites of transition (e.g. initiation), (2) rites of degradation (e.g. firing, replacing), (3) rites of enhancement (e.g. promotion), (4) rites of rebirth/renewal (e.g. annual meetings), (5) rites of conflict reduction (e.g. collective bargaining), (6) rites of integration (e.g. office Christmas party). This typology has also been applied in subsequent research (e.g. Hallier and James, 1999; Islam and Zyphur, 2009; Smith and Stewart, 2011). However, it is not standardized as other types of rituals, such as healing rituals (Powley and Piderit, 2008), closure, parting or ‘death’ rituals (Sutton, 1987; Catasús and Johed, 2007), and creation rituals (Trice and Beyer, 1993) have also been identified, among others.

Organization literature has also elaborated the widespread social significance of rituals, depending on its type and context (Islam and Zyphur, 2009; Trice and Beyer, 1993; Smith and Stewart, 2011; Kunda, 1992). Rituals can act as communication and learning schemes to provide meaning and communicate important values (Cheal, 1992). They can embody and strengthen the social order, set and underscore significant events, and help manage time and work structure (Smith and Stewart, 2011; Ancona et al., 2001). Important to the focus of this paper is that rituals mark important transitions, life cycles, or histories of organizations (Martin, 2002). Furthermore, due to their generic integrative character, rituals can build solidarity, identity and commitment within the organization (Islam and Zyphur, 2009; Kunda, 1992). Moreover, rituals not only have the capacity to maintain but also manage and change organizations (Howard-Grenville et al., 2011; Gbadamosi, 2005; Trice and Beyer, 1993).

On a more critical note, rituals can include or exclude, they are just as likely to be emergent as they are to be planned or imposed, and they may occur at the front- or back-stage of an organization (Islam and Zyphur, 2009; Smith and Stewart, 2011; Kunda, 1992; Goffman, 1959; Cottle, 2006). These facets imply that rituals can represent tools not only for enculturation but also for subversion (Boyd and Stahley, 2008; Smith and Stewart, 2011; Hall
and Jefferson, 1993), or that they may be fundamentally concerned with empowerment or disempowerment (Bell, 1992; Alexander et al., 2006). In sum, rituals should be studied critically with a close consideration for their social, cultural and political implications.

Transition ritual in construction projects

In the broad spectrum of ritual types we focus specifically on transition rituals in construction projects as unique and novel organizational settings. Transition ritual was first coined and theorized as ‘rite de passage’ by French anthropologist van Gennep (1960) and succeeded by Turner (1969), who define it as a ceremonial event that marks the passage through a threshold from one status to another. This passage is enabled in a ‘liminal’ space, which is a temporary, transitional period between two separate phases. It was found that transition rituals marked and established important stages in the human life cycle, including birth, adulthood, marriage, reproduction, and death. Though Van Gennep and Turner researched transition rituals in traditional communities, they argued these were equally significant in contemporary societies. Therefore, we apply the concept of transitional rituals to the project life cycle. We expect that rituals mark important phase transitions and milestones in the project life cycle which can be divided into various phases; typically conception, feasibility, implementation, operation and termination, and including various sub-projects, phases and/or stages in between (Bresnen et al., 2005a; Van Marrewijk, 2007; Bennet, 2003; Pinto and Prescott, 1988).

Various authors draw our attention to rituals during the project life cycle (Eskerod and Blichfeldt, 2005; Cova and Salle, 2000; Berg et al., 2000; Löfgren, 2004). For example, Cova and Salle (2000) claim that integration rituals engage and bind participants, serving to mediate extra-business relationships and reduce uncertainty in projects. Or, as Löfgren (2007) followed the stages of the Oresund Bridge project connecting Denmark and Sweden, he showed how inaugural ceremonies and symbolic manifestations contributed to the emergence of a transnational territory. In another example, Eskerod and Blichfeldt (2005) discovered that entry and withdrawal rituals ease transitions in the composition of project teams and help increase performance. Moreover, they suggest introducing formal transition rituals in the project life cycle, as coordination across project phases depends heavily on social mechanisms (Eskerod and Blichfeldt, 2005). In sum, the concept of transitional ritual can enhance our understanding of the project life cycle and how transitions are enacted herein.
Methodology

Interpretative approach

We agree with and follow various authors (Engwall, 2003; Hodgson and Cicmil, 2006; Packendorff, 1995; Pollack, 2007; Pink et al., 2013; Marshall and Bresnen, 2013) in their attempt to endorse a qualitative-interpretive paradigm to address social, cultural and political dynamics in construction projects, revolving around (project) culture, power relations, and practices of collaboration, learning and communication. This interpretive approach assumes that knowledge can only be generated and understood from the point of view of the people who live or work in a particular setting (Hatch and Cunliffe, 2006). Here, the aim of the researcher is to describe “how [the researched] give meaning and order to their experience within specific contexts, through interpretive and symbolic acts, forms and processes” (Hatch and Cunliffe, 2006: 14).

Data collection

Data was collected by the first author over a two-year period between summer 2011 and summer 2013. To allow for clear and systematic research three research steps were taken: a desk study, participant-observation, and in-depth interviewing. By using multiple methods for data collection and a diverse sample of respondents, we aimed for the triangulation of our information, referring to the involvement and comparison of different data and/or methods to ensure the validity and reliability of the research (Bailey, 2007). The desk study included reading newspaper articles, books, documents and reports, browsing project websites and the Internet for news and trivia, and visiting projects via excursions, open days and information centers. Exploration of this data showed that transitional rituals were especially visible around the implementation, operation and termination phases, and that communication advisors usually organize them.

Participant-observation was carried out during eight transition rituals in four construction projects in the Netherlands (see Table 1, p. 14): two kick-off rituals that marked the transition from the feasibility to implementation phase in the ‘Room for the River’ (RR) water expansion project held in two different cities, Deventer and Zwolle; two kick-off rituals during implementation that marked the 1st and 3rd phase transitions of a tunnel-boring sub-project in the ‘Amsterdam North-South’ (NS) subway project; two rituals during implementation that marked milestones in the ‘Railzone Delft’ (RD) railway project, one for the completion of a tunnel and the second for reaching the highest point of the new
municipality building; and two rituals marking the transition from operation to termination in the ‘Hanzeline’ (HZ) railroad project, one internal for the project organization and one external for the public.

Access to the field was granted by a Dutch community of public project managers organized to reflect upon complex infrastructure projects. This resulted in the selection of the four abovementioned mega-projects. Consequently, smaller-scale projects are excluded in this study. The rituals included in Table 1 (except for the internal delivery of HZ) are premeditated, front-stage events as these are visible, planned ahead and therefore easily accessible for researchers (Trice and Beyer, 1984). Consequently, the unplanned, back-stage rituals were not the direct observational focus of this study. Nevertheless, we inquired about all kinds of transition rituals, both front- and back-stage, during interviews to compensate for this. Further, rituals were selected on the grounds that they marked different phases and/or transitions during the project life cycle, ranging from kick-offs to deliveries, to gain an overview (see Table 1, p. 14).

In total, 58 in-depth interviews were conducted (see Table 2, p. 16). Initially, 12 interviews were held with communication advisors in the construction sector, mainly from ‘Rijkswaterstaat’ (RWS); the executive body of the Dutch Ministry of Infrastructure and the Environment. This was important to familiarize with the topic as they are the main organizers of ritual events in construction projects. Further, 46 interviews were conducted with diverse project actors who organized, performed or attended the selected rituals, including communication advisors (‘Com. adv.’ on Table 2), project directors, managers, employees, project contractors and constructors (‘Builders’ on Table 2), as well as state officials and political representatives such as ministers, mayors, aldermen and state attorneys (‘VIPs’ on Table 2). Furthermore, accounts from citizens, as ritual attendees, were collected via informal conversations during ritual events. Because rituals may have different meanings for different participants we aimed for a mixed and large sample to ensure the reliability and validity of our findings.

Purposeful sampling was a method for selecting our interview respondents as we sought deliberate interaction with participants who could contribute to our study in a meaningful way (Bailey, 2007). Interviews ranged from 1 to 2 hours and were each transcribed, translated from Dutch to English, analyzed and coded. Intentionally, most of the interviews were semi-structured based on a list of topics (i.e. project context, history, current phase/stage, prospect; ritual type, practice, instance and meaning) while maintaining a
considerable degree of flexibility, active listening, and interviewee rapport to increase respondents’ willingness to speak (Silverman, 2006). With our method of questioning we applied the practice approach of Bell (2009) by asking respondents to describe how, when and why transition rituals are practiced in the project life cycle. We also asked respondents to be critical about the notion of rituals to avoid their reification.

Data analysis
In the analyzing process an interpretive five-step method was used (Schwartzman, 1993). In a first step, a familiarization with specialized terms used in the projects studied was needed in order to fully understand observations and comments made in interviews. For example, rituals are not referred to as ‘rituals’ in projects but rather as ‘kick-offs’, ‘signing contracts’, ‘milestone celebrations’, ‘media/press moments’, ‘manifestations’, or ‘deliveries.’ In a second step, the ‘how’ label contained information on internally and externally (i.e. back- and front-stage) practiced rituals for three main groups of actors. The ‘when’ label focused at rituals that mark (phase) transitions, deadlines and milestones in the project life cycle. The ‘why’ label contained various meanings that differed according to the interpretations of project actors/interviewees. In a third step, we addressed under what conditions these transition rituals are connected to (phase) transitions. During this process we continuously went back and forth between documents questioning under which ritual label data on the project process could be placed and to compare new data with material that already had a label (Feldman, 1995). Essentially, two kinds of labels were used: rituals that were directed internally at the project organization and those directed externally at the project environment and all the stakeholders. The fourth step was the building of a framework, which involved a mix of revalidating concepts, the abandonment of others, and the addition and re-integration of new categories (Schwartzman, 1993). All these findings were compared resulting in tentative assertions on transition rituals. Then, in a final interpretive process by multiple readings and iterations between tentative assertions and data the definitive results were found.

Transition rituals for transitioning projects
Transition rituals are regarded as necessary to bring project actors together and allow the project to proceed. That is to say, signing a record of decision or contract, enacting a project kick-off, and celebrating a milestone are seen as vital practices to facilitate the project process. According to respondents, this process is typified by phase transitions that are ambiguous and uncertain because of overlapping phases which are not easily set apart. In the
midst of this complex process, respondents claim to find the need to mark phase transitions with a ritual. As the following provincial representative described:

Completing phases is very important because for the next phase you may also have other stakeholders, other parties, and you shouldn’t just let these overlap. Maybe you're in a planning phase or at the start of something only with governmental layers [...] and in the next phase you have the citizens or the residents, or entrepreneurs. It is very good to distinguish these phases, but also to neatly complete them (interview, provincial representative, RR).

Furthermore, while some transition rituals are more emergent, such as signing a contract or celebrating the completion of a (sub)project, others are planned or created to mark, albeit symbolically, certain moments or transitions in the context of overlapping phases and workforces. One project manager explains: “So, what I do try to do is to deliberately mark when we have an important moment, that we bring this to our attention, and that we also name it as a milestone in this process.” More specifically, given the large scope and fragmentation of the project process, project actors intentionally point out and ritualize transitions and moments to help them organize time and indicate progression in projects, thereby enabling them to pass temporal thresholds:

The builders take off their helmets for a moment and we will celebrate the moment that we have reached. In this way, you divide your work into phases, also because of the limited scope when people find it difficult to see the whole process from the beginning until the end. It is good to, well, make phases and to say ‘hey, this is where we have arrived and now we will go on (interview, state attorney, RR).

The practice of transition rituals: How ritualization takes place

Respondents adhere that a construction project not only has an important internal goal to make sure the project organization operates successfully, but also an important external goal to ensure that outsiders support the project, being all the stakeholders such as state officials and citizens. Indeed, transition rituals reflect this dual focus as they may be more internally or externally directed:
There are different kinds of rituals for every target group [and] you have an external goal but also an internal goal. I always say ‘external winnings are internal beginnings’ (interview, communications manager, RWS).

 Builders, VIPs and Citizens

According to respondents there are three main target groups of actors by and for whom transition rituals are practiced. The extent to which these groups are involved varies for internal and external rituals. Internal transition rituals generally concern those who are directly involved with that particular milestone or transition. The following quote describes such a ritual:

We have a list hanging on the wall with all the pictures of the bridges that we are renovating, 14 bridges […] When we finish one of the bridges successfully, then we have a cake moment and on this cake is a picture of the bridge, and then the one who had the most influential role during the renovation puts a check mark next to the bridge [on the list] and cuts the cake (interview, project manager, RWS).

We have labeled this first target group of actors ‘Builders’, representing all project managers and employees, including planners, engineers, technicians, contractors and construction workers of the project organization.

Conversely, external transition rituals usually concern a more institutional and societal target group comprising those who are in- or less directly involved. One of these groups, the second target group, we have labeled ‘VIPs’ representing directors, key decision makers and investors, especially state officials and political representatives such as mayors, aldermen, ministers and state attorneys. VIPs often stand at the forefront during these rituals, performing ritualized gestures such as the state attorney signing the contract in RR, the aldermen breaking a bottle of champagne during the NS phase transitions and RD milestone celebrations, or the Queen pressing a switch to inaugurate the railway in HZ.

The third target group we have called ‘Citizens’ being residents living in or near the project premises. Citizens are usually the audience during an external ritual. Sometimes they also participate such as local school children who give a special performance. In fact, in all four project cases local schoolchildren played an active role during various rituals: in NS children chose and revealed the names bestowed to each tunnel bore machine (TBM) during
each phase transition; in RR children received and guided attendees during the project kick-off in Deventer and presented the aldermen with poetry about the river; in RD a large group of children welcomed the contractor consortium chosen to build the new municipality building; and in HZ four children were selected from each province through which the railway travels to present their winning poem to the Queen of the Netherlands during the external delivery.

According to communication advisors, the ritualized participation of schoolchildren symbolizes the future and the local involvement and embedment of the project. Moreover, communication advisors contend that citizens are the most important target group of external transition rituals. This is because they have to cope with, and hopefully support, the tedious construction process which often takes place in close proximity to their residency, and because they represent the future users of the to-be completed infrastructures.

**Internal and external transition rituals**

Often, certain milestones or phase transitions are ceremonially enacted both internally and externally, which varies according to the target group. This is particularly relevant when a project moves from feasibility to implementation. Internally, this is first marked by choosing a contractor and signing the contract. One project employee described this:

> When we finally had a contractor consortium who would construct the project for us, we celebrated this. This happened by officially signing the contract, when the water board and contractor signed the contract. This was celebrated internally, with all the people who were involved in this (interview, project employee, RR).

To further manifest the start of the implementation phase, a kick-off ritual will be practiced internally, externally, or both, depending on the project and where it is being implemented. In the RR project, they first practiced an internal kick-off for the Builders when they shoveled the first earth. Other examples named during interviews are laying the first slab or brick, or hammering the first pole. These rituals are small-scale, may be mediatized and accompanied by a VIP such as an alderman, and celebrated with a toast or an informal, social gathering by the project team. Subsequently, projects will also perform an external kick-off which invites and involves local citizens and institutions, as was the case during the observed kick-offs of RR in the cities Deventer and Zwolle. Here, as the audience, Citizens are able to see the project directors and state officials (i.e. VIPs) who are held accountable as the decision
makers of the project and who also inaugurate the project by performing ritualized gestures such as giving a speech or toast, signing a signature, pressing a button or switch, raising a banner, or breaking a bottle of champagne, as was observed in the field. For example, during the RR kick off in Deventer the contractor and dike warden signed their signature on a slab of sand displayed via a light projector, and in Zwolle the provincial representative, minister of infrastructure and environment and alderman pressed a button, honked a horn and made a toast after which a ‘start’ banner was released. During such an event, citizens receive sufficient information about why the project is necessary, and when and how it will proceed. One contractor explains:

The exposure towards the outside is just as important. Because that is what it was all about, that the public knows ‘hey, something has changed, they are starting, the cranes are coming in front of our door.’ Here you have your task of saying ‘yes, this is going to be a nuisance here and there, that will not be missed.’ So yes, in such a moment a lot comes together (interview, contractor, RR).

Conversely, a project can also choose to ritualize a transition or milestone by combining an internal and external focus and involving all target groups simultaneously. For example, both milestone celebrations in RD invited a group of interested citizens and the alderman to come celebrate with the builders when they reached the end of the tunnel and later the highest point of the municipality building.

Another example is the first and third phase transitions of the NS subway project. These transition rituals had a formal and informal part involving all target groups; Citizens, VIPs (‘bobo’s’ in Dutch) and Builders consecutively.

So, for one the public, the city of Amsterdam […] the ‘bobo’s’ have a role in this because they often stand at the front during these rituals […] The builders were also there, and we had two parts of the program, a formal part and after that there was a barbeque given by the contractor for all the men themselves […] It’s separate from the ‘bobo’ story because this is really for the men, the builders themselves, so there is no press (interview, communication manager, NS).
Thus, milestones and phase transitions are ceremonially enacted for various target groups, Builders, VIPs, and Citizens, and may be internally and/or externally directed. These levels can overlap (e.g. VIPs may play a role during internal rituals and Builders may play a role during external rituals), yet for the purpose of clarification a division can be discerned.

Evidently, the more externally directed a transition ritual is the more front-stage and extravagant it is. This is because a construction project itself is large-scale, involving many stakeholders. One communication employee stated; “If you have a very big project, then often you have bigger events as well.” Notable is that the media also plays an important role which will expose the project to the public. In these cases, transition rituals are said to be performed strategically (e.g. ‘who do we need to convince or involve?’ ‘how do we want to expose ourselves?’). They are also costly events, considering the organization and provision of a suitable venue with an eventful program. Internally for the Builders, transition rituals are often enacted on a smaller scale and in a more informal, inclusive and less costly fashion, such as celebrating with cake or champagne or having a beer or barbeque. Take, for example, the ritual of German TBM builder Herrenknecht. When the SMART tunnel of Kuala Lumpur was halfway done, Dr. Herrenknecht roasted an ox in the tunnel with all the tunnel constructors (personal conversation with SMART project employee).

Rituals of inclusion and exclusion

Compared to internal transition rituals held for Builders, external or formal rituals held for VIPs or Citizens are exclusive events in the sense that only those who have an important role (the VIPs) are allowed to participate:

At an official party there will be almost no employees, those who have really worked for the project. Then the important people will come, the mayors and the aldermen and the provincial representatives […] But the people who did the real work, they are not there (interview, project director, HZ).

Thus, people on the work floor, the Builders, are generally excluded from the external or official ritual events. This is claimed to be unfair for employees who feel neglected when important moments in a project are marked or celebrated by an exclusive group of people who employees declare are less involved with the project than they are:
They find it ridiculous that they are not allowed to be there, also managers and people who have worked really hard for the project. The say ‘gosh, isn’t this our project, haven’t we worked the hardest for it?’ […] But we are also business-oriented because we have important interests, such as with the contractors and with the media (interview, communications advisor, RWS).

For reasons like this it becomes necessary for project managers to maintain a balance between external and internal transition rituals, so that the Builders are not excluded. A good example is the internal delivery ritual of the HZ project in the transition from operation to termination. This was a celebratory event attended by all (former) project members to honor their efforts and accomplishments. Thus, while internal rituals do not need to be as full-blown or front-stage as external rituals, they nonetheless need to be inclusive to commemorate the efforts of employees. Subsequently, HZ also held an external project delivery on a national scale, where the Queen inaugurated the railway with her private royal train. This was attended and performed by VIPs, including the minister of infrastructure and environment, the director of the Dutch Railroads, the media, and Dutch citizens who witnessed the event from a distance or from the news. Thus, while the internal delivery ritual was practiced inclusively to celebrate the efforts and successes of the Builders who realized the project, the external ritual was performed exclusively for the target groups of VIPs, such as state officials and the Queen, and Dutch citizens who will make use of the railway.

**The instance of transition rituals: When ritualization takes place**

As described above, there are different transition rituals that vary in terms of how they are practiced; with a certain focus (i.e. internal, external) and directed at particular target groups (i.e. Builders, VIPs, Citizens). However, it is difficult to indicate, more specifically, what kinds of transition rituals exist because they are contextual and situational and this varies according to each project. For example, one communication advisor explained there are not only transition rituals that mark bigger transitions in a project, but also those that mark smaller moments:

You can have a project kick-off or a completion, but you can also celebrate the moments in between, you know? You have certain sub-projects and these will also be
completed. Then, you can do something with that as well, but this won’t be approached in a grand way (interview communication advisor, RWS).

Thus, a better way to approach the question of what kinds of transition rituals are practiced in construction projects is to focus on their instance, or *when* ritualization is taking place. Table 4 below lists the transition rituals that take place during various project phases including examples of this research.

<table>
<thead>
<tr>
<th>Project phase</th>
<th>Ritualized transitions</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiation</td>
<td>Record of Decision (ROD)</td>
<td>Signing ROD in RR</td>
</tr>
<tr>
<td>Feasibility</td>
<td>Tendering/collective bargaining and contracting</td>
<td>Signing local contracts in RR</td>
</tr>
<tr>
<td>Implementation</td>
<td>(Sub)project kick-offs, mid-points, completions, milestones</td>
<td>Project kick-offs in RR, TBM kick-off for phases 1 – 4 in NS, Reaching tunnel midpoint NS, Reaching end of tunnel RD, Reaching highest point of building RD</td>
</tr>
<tr>
<td>Operation</td>
<td>First test run of infrastructure</td>
<td>(Unofficial) inauguration of the railway in HZ</td>
</tr>
<tr>
<td>Termination</td>
<td>Project completion and delivery</td>
<td>Project deliveries in HZ</td>
</tr>
</tbody>
</table>

Table 4: Instance and level of ritualization during project life cycle

To summarize, when an important moment or transition presents itself or is pointed out by project actors - usually marking the beginning, midpoint, or end of something - it will often be marked by a transition ritual. In this sense, the instance of transition rituals reflects the bounded temporality and stage-based nature of the construction process from the beginning until the end (Marshall and Bresnen, 2013). In practical terms, this indicates that rituals play an important role in the temporal organization of the project life cycle (Ancona et al., 2001) as the following quote confirms:

A project has a lifespan, and during this lifespan you end certain things, you begin certain things and all those moments you mark […] It’s important, I think, to be able to complete things or to have a clear starting point. It’s part of the cycle (interview, communication advisor, HZ).
Subsequently, we will focus more in-depth on the meanings ascribed to transition rituals by project actors.

**The meaning of transition rituals: Why ritualization takes place**

When asking project actors what meaning they ascribe to transition rituals in the project process, they often respond with a functional or strategic meaning:

> It is functional, you need it. It gives managers a certain form of legitimization to finalize a decision and it stimulates people in a project [...] Such a ritual is also an expression of, let’s say, a certain manifestation. An organization wants to manifest itself, wants to show itself; ‘look, this is what we have accomplished (interview, project director, HZ).

Here, a significant finding is that according to respondents, transition rituals do things. They establish beginning and ending points, exhibit progress, mark and enable transitions, celebrate milestones and accomplishments, help legitimate a project, and communicate important messages to outsiders. In this sense, the ascribed meaning of a transition ritual signifies what needs to be changed, decided, established or communicated at a particular time and place within the construction process.

Furthermore, the ascribed meaning of a transition ritual varies according to its focus and target group:

A big [external] ritual is aimed at gaining support, which we need for the construction period. The minister will attend, there are certain goals and attention from the media; this really goes in pragmatic way. And the smaller [internal] rituals are more directed at binding people and at the team members themselves (interview, communications advisor, RWS).

Thus, while external rituals are chiefly about gaining support, involvement and exposure for the project and directed at a wider audience, internal rituals are more about commemorating and enhancing solidarity and commitment for those who are more directly involved.
**Different meanings for different project actors**

It was found that rituals have different meanings for different actors, or as one project employee of HZ said; “With every milestone that emerges, you try to expose your project once again. So yes, there are many rituals for this, and for every party it has another meaning.”

For communication advisors rituals are often used strategically as communication schemes (Cheal, 1992) to create a common vision, communicate important messages, and especially to gain support from and involve outsiders. Hence, transition rituals are often used to embed a project in its local environment:

> Usually, we aim communication at the region, well, regional and local, because that’s where the project is being realized and what the people in the region will have to deal with (interview, communication advisor, RR).

For project managers, transition rituals also have a more strategic meaning, such as for time and task management, marking deadlines, finalizing a decision, and building a good reputation for the project by establishing its progress and proficiency. For example, the project manager of the HZ, responsible for realizing the project within the appointed budget and time-frame, stated the following about the external project delivery:

> Commercially, you see, the reputation of the Dutch Railways is not very good. We are being associated with the winter during which we fail to make sure the tracks function properly […] but if you have done something positive you try to get a spin-off out of this, to improve your reputation (interview, project manager, HZ).

For the Builders transition rituals are often integrative rather than strategic, by helping to build team spirit and socialize with one another. According to a construction worker; “they are very important for the team spirit. Very important.” These rituals are often more celebratory, usually when they start or complete a (sub)project. For example, the project leader of the tunnel-boring subproject of NS described the name-giving ritual where construction workers traditionally baptize and name the TBM before they engage in a new phase of drilling:
First of all it’s the traditional part of the [TBM] blessing and to ask help ‘from above’ etcetera. This stays that way. But the other part is that this is a milestone in the project and so a good reason to celebrate together (interview, supervisor tunnel boring, NS)

To Citizens transition rituals are moments of involvement with the project and sites of contact with VIPs (mayors, ministers and aldermen) and Builders (local contractors) who are held accountable for the project’s construction. In the projects studied, ritual spaces were places to obtain information about the project, concerning when, how and why the project will proceed. People living in the nearby area of the projects generally understand the need for transition rituals and may even change their perspective of the project after attending ritual events:

First I was annoyed by the construction, but I attend these events to get a different perspective, so I can enjoy it [...] I take my camera and take nice pictures of the milestones so that I see it differently (informal conversation, civilian, RD).

For VIPs transition rituals are also used strategically as they provide a window of opportunity to gain exposure and legitimacy and embed the project in its environment. As the common performers of transition rituals, it also gives them an opportunity to proliferate their representative role as the key decision makers of the project in their region:

I am the visible point where the society is represented. But if I play [my role] well, this gives people a feeling of ‘yes, the world is in order, things are being attended to, it goes as it is supposed to go, and we have trust in this (interview, aldermen, RR).

Moreover, transition rituals are valuable for VIPs, not only for exposure or legitimization towards the outside, but also for ending disputes and establishing commitment, involvement, and collaboration among themselves:

At some point you sit behind a table and everyone has that contract in front of him and then you put with your pen your signature. Photographers always find this the most boring pictures out there, but for those people behind the table it is the marking of the
end of all discussions. ‘We no longer are going to talk about the price, we no longer talk about conditions, we agree (interview, state attorney, RR).

**Critical view of transition rituals**

Indeed, rituals can be powerfully transformative in bringing about changed conditions (Alexander et al., 2006) if the ritual is practiced in an appropriate context, time and place, and when it is performed by and for the appropriate people or ‘target group’. Hence, in the right circumstance and when participants are amendable to them, rituals can have much momentum in shaping, changing or creating meaning or (new) circumstances (Alexander et al., 2006). However, when a ritual is not organized, practiced, or received in the right way, it can have unintended consequences or lose its meaning. A named example was the official opening of a highway where the minister of infrastructure and environment spent over 130,000 Euros of state capital to throw a party with excavator machines that danced to classical music. This event caused a public debate as many disagreed with the extravagance of this opening (NRC Handelsblad, 6 April 2011). According to a state official of RR, “as soon as you start having discussions about a ritual, it loses its value [...] it can work against you.”

Other interviewees conveyed that when a ritual is used to cover things up or comes across as inauthentic, when it is practiced too often or too little, when it is too extravagant or rather too simple or dull, or when it is not embedded in a broader context, it can lose its meaning:

> Not the ritual on its own, no, it needs to fit in a context, it needs to be imbedded in a broader context, otherwise it will be too exotic. And because of this it will lose its value (interview, communication manager, NS).

Thus, transition rituals can be meaningful and functional indeed, but they need to be organized and practiced with much forethought. Essentially, it needs to suit the context, situation and stage of that particular project, it needs to resonate with its participants and observers, and it needs to strike a balance regarding incidence, authenticity and exoticism:

> It depends on the situation. You need to be, I think, permanently alert about what is appropriate and how far you can go with it (interview, project manager, HZ).
To encapsulate the findings, transition rituals provide collective spatial and temporal platforms within the construction process, allowing projects and its members to progress and helping to organize and oversee work structure over time. In other words, transition rituals manifest that projects, though unfinished, are constantly heading towards completion, phase by phase. Below we summarize our findings in Table 5 to illustrate the focus, target groups, participants, meanings and features of transitions rituals. This information has been gathered from our collected data in order to provide an overview of the practice and meaning of transition rituals in construction projects.

<table>
<thead>
<tr>
<th>Focus</th>
<th>Target group</th>
<th>Participants</th>
<th>Meaning</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal</td>
<td>Builders</td>
<td>Project managers</td>
<td>Celebrate milestones and/or mark transitions.</td>
<td>Small-scale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Employees</td>
<td>Establish commitment</td>
<td>Informal; unofficial</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contractors</td>
<td>Create a team spirit; bind and bond members</td>
<td>Social</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Constructors</td>
<td>Create a common project vision</td>
<td>Inclusive</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acknowledge and give credit to workers</td>
<td>Team level</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cope with the ambiguity and uncertainty</td>
<td></td>
</tr>
<tr>
<td>External/</td>
<td>VIPs Internal</td>
<td>State officials</td>
<td>Celebrate milestones and/or mark transitions.</td>
<td>Large-scale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&amp; representatives</td>
<td>Establish commitment</td>
<td>Formal; official</td>
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<tr>
<td></td>
<td></td>
<td>Directors</td>
<td>Gain (political) support</td>
<td>Business-oriented</td>
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<tr>
<td></td>
<td></td>
<td>Managers</td>
<td>Gain positive exposure</td>
<td>Political</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contractors</td>
<td>Gain legitimacy</td>
<td>Strategic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Investors</td>
<td>Enhance project reputation or image</td>
<td>Exclusive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Media</td>
<td>Acknowledge and give credit to actors</td>
<td>Hierarchical</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Allow for networking and socializing</td>
<td>Institutional</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Embed project in (local) environment</td>
<td>level</td>
</tr>
</tbody>
</table>
Table 5: Characteristics of transition rituals in construction projects

<table>
<thead>
<tr>
<th>External Citizens</th>
<th>National and local residents</th>
<th>Communication advisors</th>
<th>Children</th>
<th>Media (VIPs)</th>
<th>Media (Builders)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Celebrate milestones and/or mark transitions.</td>
<td>Gain support</td>
<td>Gain positive exposure</td>
<td>Gain legitimacy</td>
<td>Provide information</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Involve citizens</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Create project familiarity and transparency</td>
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<td></td>
<td></td>
<td></td>
<td>Enhance project reputation or image</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Embed project in (local) environment</td>
</tr>
<tr>
<td></td>
<td>Local situated</td>
<td>Formal; official</td>
<td>Social</td>
<td>Political</td>
<td>Strategic</td>
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<td></td>
<td></td>
<td>Inclusive</td>
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<td></td>
<td>Inclusive</td>
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<tr>
<td></td>
<td></td>
<td>Society level</td>
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**Discussion**

The wide diversity of transition rituals found in this study emerged at three distinct analytical levels. Firstly, at team level, Builders engage in transition rituals such as shoveling the first earth, laying the first brick or celebrating milestones and realizing subproject scopes. These smaller-scale rituals, such as having BBQs or eating cake (see Photo 18 below), have an integrative character and help to build solidarity and commitment within the project organization. These findings are in line with Eskerod and Blichfeldt (2005) who claim that rituals are advantageous to the composition of project teams. Secondly, at institutional level transition rituals such as the Queen’s opening of HZ or the state officials signing a contract in RR provide a space for VIPs as mediators between a project and its environment (see Photos 20 and 21 below). In this way, collective commitment is enhanced and a common project vision is created which supports the collaboration between project partners necessary for the realization of complex projects (Pitsis et al., 2003). Thirdly, at society level transition rituals held for Citizens contextualize and embed a project in its environment. Citizens were invited in transition rituals such as the RR project kick-offs or the RD milestone celebrations to involve them in the project process and to provide them information (see Photo 19 below). Although analytically divided here, the three levels do overlap as a transition ritual can involve different target groups simultaneously and may have an external and/or internal focus.
Photos 18 and 19: Builders eating cake in tunnel RD and citizens receiving information in RR Deventer (taken by author)

Photos 20 and 21: The VIP entrance and the Queen arriving in her royal train in HZ (taken by author)

The internal and external distinction regarding the focus of transition rituals reflects the dual focus of construction projects which are embedded in multiple contexts (Maaninen-Olsson and Müllern, 2009). Internal rituals are usually more small-scale and practiced at the back-stage of a project for those who do the ‘real’ work, while external transition rituals are more large-scale and performed on the front-stage for a wider audience, during which state officials and the media play important roles in exposing the project. These external transition rituals provide project actors a window of opportunity to communicate values, gain support, enhance the project’s reputation and legitimacy, and satisfy shareholder agreements. We adhere that such strategic ritualization is closely intertwined with power relations (Bell, 2009), and the social, political and economic interests of especially large, complex construction projects as they involve many stakeholders and have a high cost and societal and environmental impact (Flyvbjerg et al., 2002).

Moreover, as critical theory indicates, rituals can be used strategically, can include or exclude, be emergent or planned, back- or front-stage, and fundamentally concern empowerment or disempowerment (Bell, 2009; Smith and Stewart, 2011; Kunda, 1992;
Cottle, 2006). This corresponds with the findings of this research, such as that Builders are often excluded from external, official rituals, that these are planned, front-stage events performed with a certain strategy for project exposure, and that only VIPs have the symbolic power to perform such rituals, thereby authorized to publically enact major transitions in the project life cycle. Besides, rituals can have intended but also unintended consequences beyond the purpose of its organizers and actors (Anand and Jones, 2008). In this sense, the value or usefulness of ritual is limited and negotiated (Kunda, 1992).

Hand-in-hand with its strategic facet, transition rituals, both internal and external, contain a symbolic dimension such as that in all of the four studied cases children were showcased as symbols of the future and the local embedment of the project. Furthermore, symbolic gestures are used to manifest transitions such as giving a speech (in all observed transition rituals), pressing a switch (in the deliveries of the HZ project), shoveling the first earth (in the internal RR project kick-off) or breaking a bottle of champagne (in the RD milestone celebrations and NS phase transitions). These gestures are usually carried out by Builders internally, or by VIPs externally after which Citizens, as witnesses of external rituals, are hopefully convinced of the project’s necessity and societal benefit. In other words, all kinds of quotidian moments and activities can be made special, or ritualized (Bell, 1992), within a bounded time and space, with certain actors and audiences, and symbolic words, gestures and artifacts that serve to signal and express meaning(s) (Alexander et al., 2006).

Our most important finding is that transition rituals facilitate and mediate the construction process. Specifically, the studied rituals both mark and enable transitions in the project process. Although project actors ascribe different meanings to these rituals, they share the view that rituals play an important role in the temporal organization of the project life cycle. Transition rituals do so by providing temporal and spatial platforms or ‘liminal’ spaces (Turner, 1969) beyond everyday work life, during which participants can reflect, celebrate or commemorate, permitting them to transition from one phase to the next. Particularly, the bounded temporality and stage-based nature of construction projects (Marshall and Bresnen, 2013) are complemented and retained by transition rituals, which create transitional spaces where time and progress can be established and ambiguity and uncertainty obliterated (Cova and Salle, 2000; Eskerod and Blichfeldt, 2005). That is to say, by ritualizing important transitions and moments, project actors and stakeholders are stimulated to reflect on and oversee the process and move forward, helping to manage and coordinate work structure, and serving to embed and manifest the project in multiple contexts, both internal and external.
(Maaninen-Olsson and Müllern, 2009). This is important for the temporary construction of the project as well as for the permanent societal and environmental changes it will bring (Engwall, 2003).

Conclusion

This research focused on the practice and meaning of transition rituals in construction projects as temporary and complex organizational settings. The main argument is that the project process is facilitated and mediated by transition rituals as they complement and retain the bounded temporality and stage-based nature of this process (Marshall and Bresnen, 2013). Furthermore, it is claimed that transition rituals are socially significant in projects as much as they are in any organization (Smith and Stewart, 2011; Islam and Zyphur, 2009). They are closely intertwined with the social, cultural and political dynamics of a project (Bresnen et al., 2005b) such as the vital need to enhance legitimacy, support, involvement, solidarity and commitment. In other words, transition rituals embody and act upon these dynamics as they serve to both inform and involve people and guide the project life cycle in a structured and timely yet ethical manner. In this way, a transition is not just about moving from one project phase to the next, but rather about contextualizing, embedding, transforming and legitimating a project as it evolves over time (Maaninen-Olsson and Müllern, 2009).

The theoretical contribution of this paper lies in the conceptualization of transition rituals as powerful symbolic and strategic practices in projects, in our view to be considered in the management of the project life cycle, as Eskerod and Blichfeldt (2005) suggested previously. Secondly, this paper provides an overview of how, when and why transition rituals are practiced to facilitate transitions and embed a project in its environment. This is helpful for practitioners in the field as it can encourage their reflection on the project life cycle and inform their utilization of rituals to mark and enact transitions. The transformative power of rituals can be used to help organize time, synchronize different sub-projects, achieve certain goals, and communicate important values or messages. This is vital in helping a project to progress while remaining sensitive to its multi-layered context. In sum, transition rituals help project actors to manage the project life cycle by facilitating transitions and by embodying and reinforcing the social order in and around a project (Smith and Stewart, 2011).

One limitation is that this paper merely provides an overview and description of transition rituals in the project process, to lay the foundation for more thorough research in the future. Subsequent research should go more in-depth by studying the symbolic words,
gestures and artifacts and the socio-material spaces of rituals. Secondly, participant-
observation was carried out during premeditated transition rituals in the implementation and
termination phases meaning that other kinds of transition rituals (i.e. informal, back-stage)
during other times or phases (i.e. feasibility, operation) are underrepresented. Hence, future
research should study transition rituals during a single project’s entire life cycle. Thirdly, the
target group of Citizens was not included to the same extent in the interview sample as the
communication advisors, VIPs and Builders because this research focused on project actors.
Forthcoming research should aim at providing a more detailed account by focusing on
particular roles of organizers, actors, and audiences. Lastly, this research focused on
construction projects as particular temporary organizations which raises issues regarding the
generalizability of the research. However, though the precise meaning and practice of the
rituals studied may be specific to construction projects, the theory supports their significance
in all projects and organizations alike. In any case, research should address the practice and
meaning of rituals in diverse organizational settings to extend current theory as this study has
aspired to do in the field of PM.
Chapter 4: The point of no return

Summary
Organization scholars have called for a more critical approach to the field of Strategy as Practice (SAP). To unleash its full potential, scholars suggest more reflexive, interpretive and micro-level analyses of strategic practice, and to reframe strategy around notions of power and performativity. The paper presented in this chapter aims to address this call with an in-depth analysis of ritual performance as strategic practice in project organizations. A performative approach to ritual reveals three forms of strategic practice: the (1) demarcation of time and space, (2) legitimization of symbolic performance, and (3) catalysis of a point of no return. A comparison of rituals demonstrates that their strategic practices construct particular meanings and, together, allow transitions to be catalyzed in the project process. The contribution to the SAP debate is the conceptualization of rituals as platforms where strategy is performed into being, having performative power effects. Secondly, the contribution to performativity studies is the application of the post-humanist approach to study the performativity of rituals by taking seriously both human and nonhuman factors in the construction of meaning and reality.

Introduction
The practice-turn in organization studies has directed our attention to the importance of social practices in strategy research, elaborated in the research domain of Strategy as Practice (SAP) (Vaara and Whittington, 2012; Carter et al., 2008; Jarzabkowski, 2005). While strategy theory originated from a positivist, economic tradition, SAP offered another perspective to strategy by drawing from social theory (e.g. Giddens, 1990; Goffman, 1959; Foucault, 1982; Bourdieu, 1991). Despite its advancement, various scholars have called for a more in-depth and critical analysis of strategy to unleash the full potential of SAP. Specifically, Carter et al. (2008) claim strategy research remains management-centric, mainstream, and philosophically and sociologically naïve. Therefore, they promote more reflexive, interpretive and micro-level analyses, especially of the nonhuman actors involved in strategizing such as the symbols, artifacts and aesthetics (Carter et al., 2008: 93). Additionally, Carter et al. (2010) and

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3 This article is based on Van den Ende, L. The point of no return: Ritual performance as strategic practice in construction projects. Submitted for a special issue on the performativity of strategy in Long Range Planning.
Kornberger and Clegg (2011) suggest reframing strategy around notions of power and performativity which are essential to the understanding of strategy.

This paper takes the call for a more in-depth and critical analysis of strategy as a point of departure with an interpretive study of ritual performances as strategic practices. A micro-level analysis of ritual performances can generate valuable findings regarding practices and processes of strategy, power and performativity (Bell, 2009; Bell, 1992; Alexander et al., 2006; Johnson, 2007). More specifically, it can help gain insight into the episodic, purposeful, and transformative nature of strategizing (Kornberger and Clegg, 2011; Johnson et al., 2010). Various strategy scholars (e.g. Peck et al., 2004; Johnson et al., 2010; Johnson, 2007; Sturdy et al., 2006) have applied the ritual concept to study meetings, workshops, ‘away days’, and business dinners to show how strategy is ritualized and indicate its episodic and transformative character. However, an in-depth, critical study of organizational rituals that are publically performed is absent in the SAP literature. Importantly, this can give insight into practices and processes of strategy, power and performativity that transcend the organizational periphery (Bell, 2009; Bell, 1992; Alexander et al., 2006; Turner and Schechner, 1988; Cottle, 2006). This is in line with Vaara and Whittington (2012), who argue strategic practice should not only be studied at the organizational level, but also at the institutional and societal levels.

To study ritual performance as strategic practice we apply a performative lens which underlines how meaning and reality are enacted in practice (Barad, 2003; Alexander et al., 2006; Orlikowski and Scott, 2008). Precisely, through a performative lens we define rituals as formal ceremonial events performed at a certain time and space, with predetermined actors and audiences, and particular words, gestures and materials that construct meaning and reality (van den Ende and van Marrewijk, 2014). The central research question addressed in this paper is “how are rituals performances practiced strategically in project organizations?” To answer this question, an in-depth ethnographic study of eight ritual performances in four infrastructure projects in the Netherlands has been conducted between 2011 and 2013. Findings indicate rituals in infrastructure projects are performed to influence a public audience, legitimize the project, and actualize transitions in the project process.

The paper makes a contribution to both strategy and performativity studies. In strategy studies, this paper adds to the SAP debate a critical analysis of rituals as platforms where strategy is performed into being, have real power effects. Furthermore, this paper departs from traditional approaches to performativity (e.g. Austin, 1963; Butler, 1988; Searle, 1962)
by applying a post-humanist approach that incorporates important social and material or human and nonhuman factors (Barad, 2003). In our study, this approach exhibits how ritual’s ensemble of performative factors (i.e. time, space, actors, audience, words, gestures, and materials) expresses meaning, (re)constructs reality, and catalyzes transitions.

The structure of the paper is as follows. First we conceptualize ritual performance as strategic practice, followed by an explication of the performative lens used. Subsequently we outline the methodology employed, including a description of our research sites and context, research techniques, and data analysis. We then outline our findings based on observations in the field and supplemented with interview accounts. Next, we offer an in-depth and critical analysis and discussion of our findings to extend strategy theory and performativity theory. Last, the main conclusions are drawn to answer the research question, followed by the contributions, implications, and suggestions for future research.

**Ritual performance as strategic practice**

Within the last decade, strategy research has been concerned with various social branches such as discourse (Ezzamel and Willmott, 2008; Hardy and Thomas, 2014), sense-making (Gioia and Chittipeddi, 1991), power and politics (McCabe, 2010; Kornberger, 2013), and power and performativity (Kornberger and Clegg, 2011; Carter et al., 2010). Strategy is here understood as an activity; as something that actors do (Jarzabkowski, 2003). It is also understood as a sociopolitical process, fundamentally concerned with power (McCabe, 2010; Carter et al., 2010; Clegg, 1989). Relevant for this paper is that a strategy process involves carefully orchestrated communication, having temporal, spatial, and aesthetic properties that account for its power (Kornberger, 2013). Specifically, Kornberger (2012: 93) describes strategy as an aesthetic phenomenon where strategists must induce the audience with a striking performance. He goes on to explain; “strategy provides the script and the props for a convincing performance of the future in the here-and-now [...] its agenda is change, its process acts as catalyst, and its tools are performative.” Thus, strategy involves aesthetic performance to influence an audience in order to change and transform the present and ‘discipline’ the future (Kornberger, 2013; Kornberger and Clegg, 2011).

Correspondingly, ritual performances are here understood as highly aesthetic strategy episodes. They are episodic because they include some actors and matters within a particular time and space, whilst excluding others; and they are formal because they are premeditated gatherings with a purpose (Jarzabkowski and Seidl, 2008). Thus, rituals are temporally and
spatially bounded, demarcated from everyday organizational work life (Johnson et al., 2010). Within this ‘liminal’ space, rituals – as rites of passage – can catalyze transitions, granting them transformative power and enabling them to bring about changed social conditions (Turner, 1969; Van Gennep, 1960). As Turner (1982: 24) explains, all rituals have “the processual form of ‘passage’”, indicating that they catalyze a transition as part of its process. In sum, ritual, like strategizing, is a social practice that transforms its subjects through its process (Kornberger and Clegg, 2011).

To explain how the strategic process of ritual works, anthropologist Bell (1992) uses the term ‘ritualization’, shifting the focus to ritual as a practice; as something that actors do. Specifically, she defines ritualization as a strategic way of acting orchestrated to differentiate and privilege what is being done compared to everyday, ordinary practices (Bell, 1992). This way of acting distinguishes ritual and what it performs as extraordinary, similar to Durkheim’s (1954) meaning of the sacred in relation to the profane (Giesen, 2006; Johnson et al., 2010). And by distinguishing itself, ritualization is strategically able to reproduce power and authority and legitimate a certain social order (Bell, 1992; Foucault 1982). Similarly, Rappaport (1999) asserted that rituals help to create a social order by organizing, representing and amending social and political relations. Furthermore, Foucault (1980) indicated that ritual, which is strategic and embodied, is basic to the practice and creation of power. Notably, this contrasts with traditional ritual theory which emphasizes community (Turner, 1969) rather than hegemony (Bell, 1992). Such a contradiction calls for a more critical perspective which accounts for ritual’s ability to both include and/or exclude, to voice or to silence, empower or disempower, to be emergent or imposed, to occur at the front- or back-stage, and to represent tools for enculturation or subversion (van den Ende and van Marrewijk, 2014; Smith and Stewart, 2011; Islam and Zyphur, 2009).

A performative lens to ritual

Gregson and Rose (2000) claim that performance is embedded within and always intertwined with performativity. Here, the performance refers to the embodied practice or ‘acting’ of ritual whereas performativity refers to the meaning or reality it (re)constructs (Loxely, 2007). Accordingly, it can be adhered that at the core of all ritual is a performative act (Alexander et al., 2006: 38). This indicates that ritual does something beyond the performance of ritual itself, even if doing is saying in the form of a ‘speech act’ from an Austinian perspective (e.g. “I do” is an act of marriage) (Tambiah, 1981; Austin, 1963). Hence, from a performative
perspective a ritual is not merely a performance but one that can enact shifts and changes to construct a new reality or influence a state of affairs (Bell, 2009).

To study the performance of rituals we adopt a post-humanist approach to performativity that integrates important material and discursive, human and nonhuman, and natural and cultural factors (Barad, 2003: 808). Importantly, this departs from traditional approaches to performativity (e.g. Austin, 1963; Butler, 1988; Searle, 1962) which have mainly focused on language and discourse while neglecting materiality, space, and other typically nonhuman factors (Barad, 2003; Gregson and Rose, 2000; Orlikowski, 2005). In a post-humanist approach, the notion of performativity explicates how relations between social and material factors are not pre-given or fixed, but continually enacted in practice (Orlikowski and Scott, 2008). Accordingly, there is no real separation between social and material factors; they are entangled – i.e. sociomaterial – and conjointly agential in the construction of meaning and reality (Orlikowski and Scott, 2008; Barad, 2007).

However, various scholars (e.g. Faulkner and Runde, 2012; Leonardi, 2013; Mutch, 2013) have pointed out that this post-humanist approach is difficult to operationalize and apply to empirical research. Therefore, in this paper we operationalize the post-human approach with an ethnographic study to show how the time, space, actors, audiences, words, gestures, and materials of ritual performances conjointly express meaning, construct reality, and catalyze transitions. In this way, we hope to contribute to a post-humanistic understanding of performativity that is empirically grounded.

Methodology

Multi-sited ethnography

This research has engaged a multi-sited ethnographic method, which is the execution of ethnographic research at different research sites (Hannerz, 2003; Marcus, 1995). Access to the research sites was granted by a Dutch community of public project managers and resulted in the selection of eight ritual performances in four large infrastructure projects (see Table 1, p. 14, Introduction). The selected rituals are formal and ritual events as these are premeditated and therefore more easily accessible for researchers (Trice and Beyer, 1984). Consequently, the unplanned, ‘backstage’ rituals were not the focus of this study.

Using a ‘mixed methods approach’ (LeComte and Schensul, 2013), the first author collected data in the field by means of participant observation, desk research and interviews. Participant-observation was conducted during each ritual performance to ‘zoom in’ on its
practice (Nicolini, 2009). According to Trice and Beyer (1984) rituals are tangible, visible and culturally rich occasions for intermittent observation. The duration of the rituals varied from two to four hours. During these ritual occasions, it was essential to collect an abundance of observational accounts in the form of photographs and written descriptions to decipher their visual, material and aesthetic performance. Apart from participating in these rituals the author also visited information centers, open days and project excursions.

Desk research was used to collect secondary visual data in the form of media reports, photographs and videos. Visual media allow the researcher to concentrate on different aspects of the image, and to recognise diverse and subtle details which would otherwise have been missed (Gillian, 2007). Visual data enabled us to use camera shots, stills and slow-motion pictures to analyse and to reanalyse, if necessary, behaviour and materials in the greatest possible detail (Gillian, 2007; Pink et al., 2013). Additionally, secondary textual data, such as invitations, news articles and reports of the rituals were also gathered. Furthermore, the desk study revealed extensive documentation about each project. It must be stressed that rituals should not be studied in isolation; they are always ‘betwixt and in between’ (Turner, 1977) something. That is to say, though they are spatially and temporally specific, rituals always mark important moments in time, between the past and the future, often marking changes, transitions and milestones during a life cycle (Van Gennep, 1960). Therefore, it was important to ‘zoom out’ (Nicolini, 2009) to consider the history, status, and prospect of each project organization (Engwall, 2003), and to relate these findings back to each ritual performance. In short, rituals are always embedded in a larger context, and they often reflect and even influence the history, status or prospect of an organization (Smith and Stewart, 2011; Martin, 2002).

Further, to help uncover the meaning(s) of ritual performances, 46 in-depth, semi-structured interviews were conducted with a variety of project managers and associates (see Table 2 p. 16, excluding preliminary round). Purposeful sampling was used because we sought participants who organized, performed and/or attended the selected rituals. All interviews, with an average duration of 1.5 hours, were recorded, transcribed and translated from Dutch into English. Participants include ‘Communication Advisors’ who play an important role in organizing and scripting ritual events; project directors, managers, employees, contractors and constructors, which have been grouped and labelled as ‘Builders’; as well as state officials and political representatives, such as mayors, aldermen, ministers,
etc., which have been labelled ‘VIPs.’ Open-ended questions focussed on the subjective interpretations interviewees had when reflecting on the ritual performance and its elements.

Data Analysis

Both actors and audience participate in drawing the hermeneutic circle when it comes to ritual semantics (Alexander, 2006). Initially, a ritual script is based on cultural interpretation(s), which is reinterpreted by its actors who attempt to perform its meaning, which is subsequently reinterpreted by the audience, not to mention that the media often plays an important role in mediating this meaning further for an audience (Cottle, 2006). An important analytical aspect of this hermeneutic circle is that, through participant-observation, the researcher is part of the audience as a ritual spectator. The ethnographic literature emphasizes this empathic understanding in which the researcher him- or herself is the primary research ‘tool’ (Van Maanen, 1995). Researchers might then gain a ‘feel’ for organisational aesthetics by sensually experiencing rituals as they carry out fieldwork in organisations (Warren, 2008). Thus, not only did we analyze the interpretations of others (second order data collection), we also analyzed our own first-hand interpretations (first order data collection).

The coding of our qualitative data was inspired by the initial and axial coding of Glaser and Strauss (1967), the first order and second order labeling of Van Maanen (1979), and by the more recent first order concepts and second order themes of Gioia et al. (2013). In all three approaches, while the initial or first order coding is more empirical and informant-centric, the axial or second order coding are more conceptual and researcher-centric, based on theoretically informed themes. Additionally, coding must be guided by the research question to ensure the codes provide evidence supporting analysis and interpretation (LeComte and Schensul, 2013: 81).

In utilizing this methodology, we found the first order codes of time, space, actors, audience, words, materials and gestures, which are based primarily on empirical evidence representing the basic elements of ritual performance that were observed and analyzed in the field. Our observations in the field were supplemented with interview questions such as: “when and where was the ritual performed?”, “who played a role?”, “who was invited?”, “what was verbalized?”, “what materials were used?”, “what gestures or actions were performed?” These first order codes and their corresponding data for all eight ritual performances in the four project cases are exhibited in Table 6 below. In this way, we could
observe, analyze and compare the rituals performances and their elements across cases to find patterns.

<table>
<thead>
<tr>
<th>Pr.</th>
<th>Event</th>
<th>Time</th>
<th>Space</th>
<th>Actors</th>
<th>Audience</th>
<th>Words</th>
<th>Gestures</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>RR</td>
<td>Kick off Deventer</td>
<td>Start</td>
<td>Church</td>
<td>VIPs, Builders, Children</td>
<td>Citizens, Media</td>
<td>Speeches, Choir, Poetry, Interviews</td>
<td>Signatures signed</td>
<td>Film &amp; photo, Sand art, Food &amp; drinks</td>
</tr>
<tr>
<td></td>
<td>Kick off Zwolle</td>
<td>Start</td>
<td>In front of River</td>
<td>VIPs, Builders</td>
<td>Citizens, Media</td>
<td>Presentation, Speeches, Interviews</td>
<td>Button pressed, Banner raised, Champagne toast</td>
<td>Film &amp; photo, Button, Banner, Champagne, Food &amp; drink</td>
</tr>
<tr>
<td>NS</td>
<td>1st phase transition</td>
<td>Start</td>
<td>Underground</td>
<td>Builders, VIPs, Children</td>
<td>Citizens, Media, VIPs</td>
<td>Speeches, Holy script, Choir, Interviews</td>
<td>TBM baptized, Banners released, Champagne bottle smashed</td>
<td>Film &amp; photo, Holy Statue, TBM, Banner, Champagne, Food &amp; drink</td>
</tr>
<tr>
<td></td>
<td>2nd phase transition</td>
<td>Midway</td>
<td>Underground</td>
<td>Builders, VIPs, Children</td>
<td>Citizens, Media, VIPs</td>
<td>Speeches, Holy script, Choir, Interviews</td>
<td>TBM baptized, Banner released, Champagne bottle smashed</td>
<td>Film &amp; photo, St. Barb. Statue, TBM, Banner, Champagne, Food &amp; drink</td>
</tr>
<tr>
<td>RD</td>
<td>Milestone tunnel</td>
<td>End</td>
<td>In tunnel</td>
<td>Builders, Citizens, VIPs</td>
<td>Citizens, Media</td>
<td>Speech, Interviews</td>
<td>Champagne bottle smashed</td>
<td>Bikes, Balloons, Champagne, Cake</td>
</tr>
<tr>
<td></td>
<td>Milestone building</td>
<td>End</td>
<td>On top of building</td>
<td>Builders, Citizens, VIPs</td>
<td>Citizens, Media</td>
<td>Speech, Interviews</td>
<td>Champagne toast, Flags raised on poles</td>
<td>Flags, Champagne</td>
</tr>
<tr>
<td>HZ</td>
<td>Internal delivery</td>
<td>End</td>
<td>Theatre-party venue</td>
<td>VIPs, Builders</td>
<td>Presentation, Speeches, Poetry, Interviews</td>
<td>Button pressed, Champagne toast</td>
<td>Button pressed, Royal train inaugurates railway</td>
<td>Film &amp; photo, Button, Royal train, Food &amp; drink</td>
</tr>
<tr>
<td></td>
<td>External delivery</td>
<td>End</td>
<td>Stations and railway</td>
<td>VIPs, Children, Residents, Media</td>
<td>Presentation, Speeches</td>
<td>Button pressed, Royal train inaugurates railway</td>
<td>Button pressed, Royal train inaugurates railway</td>
<td>Film &amp; photo, Button, Royal train, Food &amp; drink</td>
</tr>
</tbody>
</table>

Table 6: Codes and corresponding data on ritual performances
Thereafter, we reduced the data into larger categories based on the strategic practices of the ritual performances. More specifically, we analyzed how the ritual performances are practiced strategically according to our research question. This led to the second order coding of three forms of strategic practice observed and analyzed in all four projects: (1) demarcation of time and space, (2) legitimization of symbolic performance, and (3) catalysis of a point of no return. To move beyond the mere description of ritual performances, we also asked the question “why?” thereby decoding its meaning and purpose. This is in line with Bell’s (2009) practice approach to ritual who first asks how ritual is practiced and then addresses why. These meanings are elaborated below in the findings and discussion sections, anchored in interviewee accounts and our conceptual framework and analyses.

In the next section, we take a closer look at the findings which address how ritual performances are practiced strategically and why. Specifically, three forms of strategic practice emerged from the data: the (1) demarcation of time and space, (2) legitimization of symbolic performance, and (3) catalysis of a point of no return. Below, these practices will be described with an elaboration on the particular elements and meanings that they entailed.

**Demarcation of time and space**

The most basic strategic practice of ritual is the demarcation of time and space. Fundamentally, each ritual in this study deliberately marked the start and/or completion of something in the project process, thereby attracting the attention of its participants to a significant moment or transition in time. Moreover, besides simply marking a moment, these rituals served to actualize a transition within the project process at large. Specifically, project participants claimed rituals played an important role in the temporal organizing of the ambiguous, lengthy, and often fragmented project process by deliberately marking phases, sub-projects, milestones and deadlines. In doing so, this enabled participants to transition from one project status to the next, albeit symbolically. This is emphasized by a state attorney of project RR:

In this way, you divide your work into phases, also because of the limited scope when people find it difficult to see the whole process from the beginning until the end. It is good to, well, make phases and to say ‘hey, this is where we have arrived and now we will go on (interview, state attorney, RR).
Furthermore, according to interviewees, these rituals are events during which “you can reflect on how it was” (state official, RR), “you can stand still and take a few steps back” (provincial representative, RR) or “you [can] sketch a vision” (contractor, HZ). In this sense, rituals are indeed ‘betwixt and in between’ (Turner, 1977) time itself, demarcating important moments between the past and the future, thereby enabling changes and transitions in the present moment with the intention of moving on from the past and/or actualizing a vision of the future. A state official of RR explains the transition being made during the official kick-off of the river expansion project in Deventer:

The main meaning was marking and transition. We [state officials] are busy with making plans and now something will really happen…Actually, [the start of the project] already happened but now we made it official and this is the political meaning of it…This means for the environment that, ‘yes, you will be bothered by us but it’s for a good purpose (interview, state official, RR).

Notable in this quote is that a project’s step from one status to the next is openly and strategically communicated to outsiders; to the public. In this sense, a ritual performance is not only held to mark a completion or actualize a transition for those who are directly involved in constructing the project, being the project organization. It is also “especially a moment that society sees there is progress” (provincial representative, RR). In sum, it is important for ritual participants and audiences to experience an explicit step forward in time and to perceive the project process as linear and cyclical in the midst of its complexity.

Hand-in-hand with the theme of time is the theme of space in which the ritual performance takes place. Interestingly, six out of eight rituals were held on the actual construction sites which are usually ordinary, everyday working sites. Indeed, even “ordinary secular spaces can be made temporarily special by means of ritual action” (Schechner, 2012: 12). By demarcating the space, ritualization privileges something as extraordinary or even sacred, meaning that what is included, voiced and/or made visible within that particular space is (or should be) regarded as socially significant or authoritative for its participants. For example, in the NS case, both rituals marking the start of each tunnel boring phase were held in a cold, dark construction space 25 meters underground where the TBMs were publically baptized with holy water and bestowed female names by a Catholic priest. To further sanctify the space, a sacred statue of Santa Barbara, the holy protector of tunnel construction workers,
was placed by the ‘bore master’ in a shrine next to the machine (see Photo 22 below) and a choir of engineers sang a traditional German mining song (see Photo 23 below). The communication director and organizer of the event expressed the following about the ritual during an interview:

It contributed because it is something extraordinary, something magical or something, and ceremonies help with that, that it’s something mystical, and that fit in our approach that we wanted to bring it closer to the men, their pride, their craftsmanship (interview, communication director, NS).

Essentially, ritual’s demarcation of time and space is a strategic practice because it is where the transformative power of ritual resides or is sought out. This is confirmed by an organizer of the external delivery of HZ who explains: “you do [a ritual] in an extraordinary circumstance or space [because] this gives cachet. People need something representative that sanctions the agreement.” In the HZ external delivery

Photos 22 and 23: Statue of Santa Barbara placed in shrine (taken by Gé Dubbelman) and choir of engineers in NS (courtesy of North-South line)

**Legitimization of symbolic performance**

During the ritual performances it was observed that active roles were played by key decision-makers in society, including directors, state officials and political representatives such as aldermen (RR, RD and NS), mayors (RR and HZ), ministers (RR and HZ), provincial representatives (RR and HZ), the Queen of the Netherlands (HZ), and even a Catholic Priest (NS). These actors have been grouped and labeled as ‘VIPs’; representing those entitled or authorized to perform rituals. One organizer of the HZ delivery said the following:
[The delivery] has a national meaning. That’s why we asked her majesty the Queen to [inaugurate the railway]. She does it with her own train, the royal train…she will come symbolically as the first citizen to open the railway, and be the first citizen to ride on the railway…This is formal. The minister will be present, the president-director Meerstadt, the president-director of ProRail, also the commissioners of the Queen and the chamberlains and several mayors are present (interview, delivery organizer, HZ).

These findings indicate that not just anyone is authorized to perform a ritual. Turner (1982: 92) explains that rituals are usually performed by those “who consider themselves or are considered the most legitimate or authoritative representatives of the relevant community.” This was indeed observed during all the ritual performances of the projects. What is more, when state officials perform their role they also manifest their authoritative public position which indicates the reproduction of power, authority and social order. For example, the Priest not only baptizes the machine because he is authorized to do so, but he is also exercising and manifesting his authoritative role to the public. Furthermore, according to interviewees, when a project, sub-project or project phase is initiated or completed, it is necessary for key-decision makers in society – usually state officials – to perform a ritual because they represent society and, thereby, act as mediators between the project organization and the public with the ability to influence the public opinion:

As alderman I wanted to play the unifying role between the internal project and the external world. I believe that is where you can make the most impact, and where the interface is with the project (interview, alderman, RD).

Generally, ritual actors are very conscious and strategic about the roles they play. One provincial representative of RR explained that with his role he wants to show society that he is working hard for the benefit of the region and that he is trying his best to act in the interest of the people. Similarly, a communication advisor of HZ said, “the minister has a political purpose to show to residents that he is active.” Moreover, a state official who played an active role during the kick-off in RR Deventer described the following when reflecting on his role:
My role is ritualistic […] but if I play it well, this gives people a feeling of ‘yes, the world is in order, things are being attended to, it goes as it is supposed to go, and we have trust in this.’ […] So the thing is, because I say we will do it in this way it will also happen in this way […] For a big part this is magic, because there is the illusion that there is order, this makes for a future by behaving in certain manners, to make things better. The illusion steers the behavior of people and makes itself reality (interview, alderman RR, Deventer).

Significantly, this actor is well aware of the influence he can exercise during a ritual performance meaning that he realizes that playing his role ‘right’ is performative and strategic in that it “makes for a future”. As Kornberger (2013: 104) explains, “the strategist is a technocrat who claims jurisdiction over the future.”

Notable is that in all the projects studied, local school children played an active role during ritual performances as well. In RR, children received and guided attendees during the project kick-off in Deventer and presented the aldermen with poetry about the river (see Photo 24 below); in NS, children chose and revealed the female names bestowed to each TBM during each phase transition (see Photos 25 and 26 below); in RD when the contractor consortium was chosen for the project, children gathered at the construction site to welcome the contractors; and in the HZ external delivery four children were selected from each city (through which the railway travels) to present their winning poem about the railway to the Queen during the ceremony. According to the ritual organizers, the selection of children as actors is a symbolic performance and conscious strategy. One communication advisor of HZ explained:

It is always positive what [the children] emit, and people always like that. Children are also endearing and they are the future of course. And this always goes well, yes, and it’s also involving a part of society, you know? And what better way to do this than through [involving] schools? (interview, communication advisor, HZ).

According to interviewees, children symbolize the future, progress, goodwill, and innocence which create positive associations with the project. For example, for the external delivery of project HZ, the children recited poetry about the railway that revolved around the event’s main theme of ‘connectivity’:
Together with the Queen, the children bear, in the context of the theme of the Hanzeline, ‘connection’. The children connect, as it were, the cities, places and residential locations with each other, and they also won a poetry contest at school. The children depict with [the poems] the connection to the future as well (interview, communication advisor, HZ).

In this way, children and the symbolic performance they give is used strategically for the benefit and development of the project. A state official of RR explains this: “The children are there to give us the feeling that we are doing it for the future.”

Important to mention is that the societal and environmental impact of a construction project in an urban area has an immense environmental and societal impact which is often negatively received by residents or third party stakeholders. Therefore, it becomes evident that authoritative figures, such as provincial representatives and aldermen, must publically validate and legitimate their construction. During a ritual performance, legitimization and validation potentially takes place when VIPs exercise their authoritative position which is “where you can make the most impact” (alderman, RD), and when children are included which “always goes well” (communication advisor, HZ). Essentially, then, the symbolic performance of authoritative figures and children is a strategy for the legitimization, successful development, and ultimate completion of a construction project.

Photo 24: Children reciting poetry at RR in Deventer (courtesy of WGS)
Catalysis of a point of no return

To manifest a transition and communicate certain messages explicitly to an audience during a ritual performance, a script is followed. As a ritual actor in NS mentioned during an interview: “[the ritual] is completely planned ahead, like ‘first we will do this, and then this’ so there is a whole program that has been prepared, a script.” The script includes the utilization words, gestures and materials that have high symbolic value, frame reality, and signify and express meaning.

What all ritual performances had in common was a pivotal moment during which a particular symbolic gesture was performed, here referred to as ‘the point of no return’. During the RR kick-off in Deventer, the point of the actual start of the project was marked when the dike warden and project contractor publically signed their signatures and the words “hereby we start” on a slab of sand that was artistically displayed via a light projector on a screen for the audience. In Zwolle, this point was manifested when the provincial representatives, aldermen and minister of infrastructure and environment pressed a red button together on a stand outside next to the river (see Photo 27), after which a giant banner was raised by two excavator machines nearby reading “Together we start for a safe Zwolle.” In HZ, during both the internal and external project deliveries, red buttons were also publically pressed on a stage in front of the audience, internally by the president-director of the project and externally by the Queen, thereby indicating ‘the point of no return’.

In NS, during both phase transitions of the sub-project of tunnel boring, this point was made clear during several consecutive moments; first when the Catholic priest baptized the TBM and the statue of St. Barbara (the holy protector of tunnel and mine workers), followed by the alderman who smashed a bottle of champagne against the machine, after which a big blue banner was released revealing the female name bestowed to the TBM. According to the
project members this point was very important because it had real power effects. A communication advisor and organizer of the first kick-off of the tunnel boring phase explains:

For us it was very important that with [the kick-off] we showed the city that we were really going to start boring, because there were still a lot of people in Amsterdam, even on the day that we would start boring, who thought ‘oh, we can still stop this.’ So, by doing this so publically, so manifestly, then you make it very clear, and this is also the power of a ritual, [to say] ‘look guys, now it will really happen (interview, communication advisor, NS).

In project RD, when they celebrated reaching the end of the tunnel during a ritual event called ‘tour de tunnel’, they allowed ten residents to ride a bike through the tunnel and reach the finish line at the end of the tunnel, decorated by an arch of balloons. After they all crossed the finish line, the manager of tunnel construction and the alderman also smashed a bottle of champagne against the wall of the tunnel to manifest the milestone (see Photo 28). Several months later, when they reached the highest point of the municipality building, a toast was made by the alderman after which five important representatives of the collaborating project partners raised five flags representing their organization on poles that were placed on a platform at the top of the building. Though less abrupt than pressing a switch or breaking a bottle, raising flags is another common symbolic gesture to indicate important moments, reflections or transitions in life.

Photos 27 and 28: Enacting a point of no return in RR Zwolle and RD (taken by author)
These observations are confirmed by Turner (1984: 25) who explains that “many passage rites are irreversible.” Even if they are reversible this is not an easy process, such as a divorce procedure after a marriage. Reflecting on this irreversibility concerning the project rituals, it would indeed be difficult to mend a bottle once it has been smashed, to un-press a switch, to erase a signature, to reverse crossing a finish line, or to un-baptize or un-name something or someone. In this irreversibility lies the performativity of symbolic gestures because they act as catalysts for the transition that is being made. Hence, these symbolic gestures marking ‘the point of no return’ are not only symbolic but, perhaps, even more so strategic and pragmatic. When I asked a tunnel constructor of NS why he thinks such moments are necessary, he elaborated the following during an interview:

Well, because it’s like a sort of peg. I mean, first of all it is a very literal moment that you create, you need that. I mean, if you would just say “now we start”, then it has less impact. It is less believable because, in fact, you haven’t really done anything yet, then it’s just so empty. So evidently you do need something (interview, tunnel construction, NS).

Notably, there is a psychological aspect involved in this because rituals give participants the feeling that they have crossed a boundary, can leave something behind and move on:

It marks something and then you can also leave it behind, you know, like the discussion you had, the decision has been made, we go on. It is good to do this very explicitly, and rituals really help with that, to let people experience it in that way, in their mind-set (interview, project manager, HZ).

Discussion

The strategic practices found in this study were performed into being in the specific bounded settings of rituals at a particular time and space. Through the very situational orchestration of its performance, ritual strategically sanctifies ordinary time and space as extraordinary and even ‘sacred’ (Johnson et al., 2010; Giesen, 2006) such as during the baptism of the TBM in NS. In this way, by privileging and distinguishing what is being done compared to everyday work practices, strategy is granted its episodic and transformative power (Bell, 1992; Johnson et al., 2010). This is in line with Kornberger (2013: 105) who argues there are discernible
temporal and spatial dimensions of strategy that account for its power. This episodic power is further fueled by carefully orchestrated communication (Kornberger and Clegg, 2011) during the ritual performance as shown in the Queen’s inauguration of the railway where the children recited poetry, for example.

The findings show that ritual actors are important strategists of this orchestrated communication as they play their roles on stage, simultaneously exercising and reproducing their authoritative position in the relevant community (Bell, 1992; Turner, 1982). In the cases studied, it was found that only authoritative figures such as mayors, aldermen, provincial representatives, ministers, the Queen, or even a Catholic priest – here referred to as ‘VIPs’ - are permitted to perform rituals, entitling them to make important decisions or enact transitions during the development of infrastructure projects. Indeed, only authoritative figures in society or in the relevant community are permitted to perform ritual events (Turner, 1982) which grants them the performative power to exercise influence over an audience and claim jurisdiction over the future (Kornberger, 2013).

As such, these ritual performances function as rituals of verification and legitimization where only those who have the power to speak on behalf of the public can legitimate actions and decisions during the construction of a project (Kornberger and Clegg, 2011). This indicates a strong political dimension of strategy, where power is not only performed but (re)produced. That is to say, these rituals have performative power effects whereby authoritative figures enact and maintain their social status, bestowing them the position to influence a state of affairs. In sum, only after authoritative figures give their public ‘blessing’, so to say, the project vision can (continue to) become a reality. Consequently, this research demonstrates that “all politics play themselves out in the relationship between stage and audience” (Kornberger, 2013: 107).

Besides authoritative figures, it was interesting to observe that in all the projects studied school children were given important roles to perform the rituals, such as by reciting poetry in projects RR and HZ, welcoming the contractors in project RD, or choosing the names bestowed to each TBM in project NS. Children are identified by project actors as important symbols of the future because “they are the future” as one interviewee stated. This demonstrates a strong symbolic dimension of strategy, corresponding with Turner (1982: 22) who argues that symbols are “crucially involved” in actualizing transitions and linked to human interests, purposes, means and ends. Specifically, the symbolic performance of children is used strategically to envision and shape the future of a construction project. It
follows that strategizing is a performative practice for “disciplining the future” aimed at “transforming reality” (Kornberger, 2013: 104-105).

Other means for disciplining the future and transforming reality involve the aesthetic use of scripts and props, comprising words, gestures and materials as observed in the ritual performances of this study. Strategies are first and foremost aesthetic phenomena. In their article about an urban development project, Clegg and Kornberger (2011: 155) elaborate on the aesthetics of strategy that expressed “what words would not be able to capture”. Similarly, the ritual performances of this study were highly aesthetic, such as the use of balloons, banners, photographs, films, posters, flyers, art, statues, special attire, food, drinks, and so forth, constructing particular meanings, framing reality, and engaging the audience in various ways. Moreover, these artifacts were accompanied by symbolic actions such giving speeches, raising a glass to give a toast, singing songs, reciting poetry, or raising flags. In this vein, ritual performances are carefully orchestrated aesthetic channels of strategic communication, indicating that strategizing is not only discursive but also highly aesthetic, corporeal, and material (Carter et al., 2010; Carter et al., 2008; Löfgren, 2004). Importantly, this extends performativity theory which has traditionally focused on language and discourse, whereas this paper uses a post-humanist performative lens that integrates important human and nonhuman and material and discursive factors (Barad, 2003).

The most important analysis concerning the strategic practice of ritual performance is that its process acts as a catalyst. It was found that rituals give the impression of irreversibility (Turner, 1977; Turner, 1982) via a particular ‘point of no return’ manifested and verified by certain materials and performative gestures such as smashing a bottle or pressing a button or switch. According to project actors, this gives rituals a certain ‘magical’ or self-fulfilling character that is integral to performativity, allowing it to transform the present and frame, influence or construct reality (Kornberger, 2013; Bell, 2009). Thus, because a certain state of the present and vision of the future are performed during ritual, this state and vision become a reality through their very performance (Alexander, 2006; Giesen, 2006). This is what Bell refers to as the ‘redemptive hegemony’ of ritual practice, which is able to reproduce or reconfigure relationships of power, where agents do not only conform to a shared sense of reality but also reproduce that reality in such a way that it continues to empower them to act. She explains; “redemptive hegemony is a strategic and practical orientation for acting, a framework possible only insofar as it is embedded in the act itself. As a result, the redemptive hegemony of practice does not reflect reality, it creates it” (Bell, 1992: 85).
In other words, during ritual performance strategy takes the form of aesthetic representations, such as the performance of authoritative figures and children or other symbolic materials and acts, which display a vision of how things are or ought to be. And by envisioning the future it shapes the present moment and transforms its subjects. Just as Alexander (2006), claims; rituals not only mark transitions but also actualize them, or Giesen (2006) who conveys that rituals do not only describe an order, but rather create order because it exists only because it is performed. Accordingly, ritual performance in infrastructure projects is a strategic practice with performative power effects by constructing meaning and reality and catalyzing transitions in the project process. These transitions were manifest in the sense that rituals both sanctioned and empowered the construction of projects during their most pivotal moments, allowing them to transform from plans or visions into concrete realities, or “from talk and notes to bulldozers” as one state official in RR mentioned. In this way, they have real power effects. Significantly, this power is elusive and implicit because it is highly aesthetic, indicating the performative power of the visual, material and aesthetic which plays a central role in strategizing with its ability to slip under the “radar of control” (Meyer et al., 2013: 529).

Conclusion
This paper conceptualizes ritual performance as strategic practice in project organizations. The study has shown that rituals are framed, designed, orchestrated and performed at a certain time and space, with predetermined actors and audiences, and (symbolic) words, gestures and materials to signal and express meaning. Specifically, the assembly of these performative elements is symbolically and strategically performed to construct particular meaning(s), shape reality and catalyze transitions in the project process.

To answer the research question ‘how are ritual performances practiced strategically?’ we provide three forms of strategic practice; the (1) sanctification of time and space, (2) legitimization of symbolic performance, and (3) catalysis of a point of no return. These highly visual manifestations show how strategy is performed into being through rituals. In this sense, a ritual performance can be perceived as a storehouse of strategic tools, practices and processes which become visible and tangible through their very performance. In sum, ritual provides the platform where strategy is performed into being, having performative power effects (Kornberger, 2013; Carter et al., 2010).
The paper makes a contribution to both strategy research and performativity studies. In strategy research, this paper adds to the SAP debate a critical and reflexive analysis of rituals at platforms where strategy is performed into being, having real power effects. Furthermore, this paper contributes to performativity studies by applying a post-humanist approach that incorporates both human and nonhuman, and social and material factors (Barad, 2003). Specifically, this approach exhibits how ritual’s ensemble of performative elements (i.e. time, space, actors, audience, words, gestures and materials) conjointly express meaning, (re)construct reality, and catalyze transitions.

The limitation of this study is in the choice of studying premeditated, publicized rituals in complex infrastructure projects. In these ‘front-stage’ rituals, strategic practices can be more frequently expected because they are framed with a certain purpose. Furthermore, projects are particular temporary organizational constructs, having a sequence of sub-projects and phases as they evolve over time (Manning, 2008; Marshall and Bresnen, 2013; Maaninen-Olsson and Müllern, 2009). On the one hand, this makes rituals especially relevant to study in projects, as they mark important moments during a project’s sequential process (van den Ende and van Marrewijk, 2014). On the other hand, this brings up issues regarding the transferability of these findings to other types of organizations. Projects are more complex than simple organizations, and that is perhaps why these ritual performances are project-specific rather than organizational specific. However, it is the case that all organizations are parts of the larger social system or environment in which they function and on which they are dependent, meaning that, in general, organizations are also active in the public domain, perhaps in ritualized manners as well. Therefore, future research should aim to study the strategic aspect of various rituals in different organizational forms and contexts. We also advise future research to use a critical, performative lens to study ritual events and/or performances in organizations as this can generate valuable findings regarding multifaceted and dynamic processes of strategy, power and organizational change.
Chapter 5: Machine baptisms and heroes of the underground

Summary
The aim of the paper presented in this chapter is to apply the theory of sociomateriality to exhibit how the social and material are entangled and (re)configured over time and in practice in a particular organization of study. To do so we conduct an ethnographic case study of the North-South metro line project in Amsterdam and use the methods of participant-observation, in-depth interviewing and a desk study. In the findings, we showcase the process of sociomaterial entanglement by focusing on the history and context of the project, the agency and performativity of the material, and sociomaterial (re)configuration via ritual performance. We found the notion of performativity not only concerns the enactment of boundaries between the social and material, but also the blurring of such boundaries. Our contribution lies in the provision of a unique empirical account to exhibit the entanglement and (re)configuration of the social vis-à-vis material in a particular organization of study. We suggest the ethnographic method is well suited to study sociomaterial entanglement from a historical and contextual perspective. Furthermore, we provide a multilayered lens for organization researchers to engage sociomateriality theory at a contextual, organizational, and practice level.

Introduction
On the 19th of June 2008, seven historical buildings in the monumental Vijzelgracht of Amsterdam prolapsed for more than 35 centimeters after subsoil leaked through the dam walls of the ‘North-South line’ metro under construction (Berkhout and Rosenberg, 2008). Although the project organization proclaimed no earlier risks, all residents were evacuated from their homes as the structural damage endangered their living conditions. The public outrage, the political unrest and the media coverage that followed caused an immediate stop to the construction project. The project members accused the soft subsoil of being the perpetrator of this dramatic incident (Soetenhorst, 2011).

This example calls attention to the significance of the material in (project) organizations and their larger social settings. Namely, it shows that materials – in this case subsoil – are intrinsic to everyday practices and constitutive of social meanings and realities.

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4 This chapter is based on Van den Ende, Van Marrewijk and Boersma (2015). Machine baptisms and heroes of the underground: Performing sociomateriality in an Amsterdam metro project. Accepted to the Journal of Organizational Ethnography 4(3). In press.
This is elaborated in sociomateriality theory which sees social and material entities as entangled and mutually enacting, rather than as separate and autonomous (Dale and Burrell, 2008; Orlikowski, 2007). Consequently, all organizations and processes of organizing are simultaneously social and material – i.e. sociomaterial – though what this means precisely remains unclear (Leonardi, 2013).

To better grasp sociomateriality, and particularly the material which has often been treated as peripheral, the notion of performativity has recently been applied (e.g. Orlikowski and Scott, 2008; Leonardi et al., 2012). The performativity of materiality argues that the material, in assemblage with the social, is agential in the construction of meaning and reality (Robichaud and Cooren, 2013; Orlikowski, 2007; Callon et al., 1986; Latour, 2005). Furthermore, it shows how boundaries between the social and material are not pre-given but incessantly enacted in practice (Orlikowski and Scott, 2008; Barad, 2003). This latter understanding follows the philosophy of ‘agent realism’ where sociomateriality is understood as a (re)configuration of entangled agencies (Barad, 2003), thereby discrediting the ontological separation between the social and the material (Orlikowski and Scott, 2008).

While this relational ontology is philosophically enlightening, various scholars point out that it is also difficult to engage empirically (Mutch, 2013; Faulkner and Runde, 2012; Leonardi, 2013). That is, while it might be true that the social and material are always entangled, scholars question what the “social” and “material” are and how their entanglement takes place over time and in practice (Leonardi, 2013). In line with this, the aim of this paper is to apply sociomateriality theory to exhibit how the social and material are entangled and (re)configured over time and in practice. Accordingly, we ask the main research question: “How are the “social” and “material” entangled and (re)configured in a particular organization of study?” To answer this question, we conducted an ethnographic case study of the ‘North-South line’ metro project in Amsterdam and unfold its historical and contextual process of sociomaterial entanglement. In this process, we focus on a specific practice; the ritual performance of the baptism and name-giving tradition of the TBM used to excavate the metro tunnel. We argue this ritual performance provides an ideal empirical account to show how and why the social vis-à-vis the material is reconfigured within a certain historical context.

This study contributes to sociomateriality theory in three ways. Firstly, we provide the ethnographic method to exhibit the process of sociomaterial entanglement and (re)configuration over time and in practice. Secondly, we propose that performativity in
sociomateriality theory not only concerns the enactment of boundaries in practice (Orlikowski and Scott, 2008) but also the blurring of such boundaries. Lastly, we offer a concrete organizational setting (i.e. a construction project) and a distinct practice (i.e. a ritual performance) to study the performativity of materiality, whereas prior studies in this research domain have mainly focused on routine practices in IS and IT (e.g. Leonardi et al., 2012; Orlikowski, 2007; Kautz and Jensen, 2012). Additionally, our practical contribution lies in the provision of a multilayered lens through which sociomaterial entanglement can be analyzed at a contextual, organizational and practice level.

The paper is structured as follows. First we define the basic concepts of material, materiality and sociomateriality to clarify our theoretical foundation. Subsequently, we engage in the debate on the agency and performativity of materiality. Then, we discuss the concept of ritual performance and explain why it lends itself well to study the performativity of materiality. Next, the methods of data collection and analysis will be described. After, the findings on the metro project will be presented with a focus on the sociomaterial entanglement, material agency and performativity, and sociomaterial reconfiguration via ritual performance. The discussion section critically reflects on the findings while the conclusion provides theoretical and practical implications, research limitations and suggestions for future research.

**Sociomateriality**

In the academic debate on the material aspects of organizations the concepts of material, materiality and sociomateriality have different connotations (Leonardi et al., 2012). The material is understood as an artifact’s physical material, while materiality is the arrangements of this material into particular forms that endure across differences in place and time and are important to users (Leonardi, 2012). Orlikowski (2000) reminds us that all materiality is social in that it is created through social processes, and states that artifacts continue to evolve over time. Therefore, Leonardi (2012: 42) defines sociomateriality as the enactment of a particular set of activities that meld materiality with institutions, norms, discourse and all other phenomena we typically define as social. For example, Suchman (2000: 316) views a bridge as an arrangement of more and less effectively stabilized material and social relations. Importantly, sociomateriality has advanced our understanding of the social and material as incessantly entangled and mutually enacting, rather than as separate, autonomous entities (Orlikowski and Scott, 2008).
Besides these basic concepts, the notion of agency has gained the interest of sociomateriality researchers (e.g. Latour, 2005; Pickering, 1995; Leonardi, 2011). Leonardi (2013: 70) defines material agency as “the way the object acts when humans provoke it.” In this way, materials exercise agency through their performativity (Barad, 2003; Pickering, 1993) or “through the things they do that users cannot completely or directly control” (Leonardi, 2011: 148). Human agency, in contrast, is defined as “the ability to form and realize one’s goals” (Leonardi, 2011: 148). A main theory used in organization studies to explain the relationship between material and human agencies is Actor Network Theory describing how these agencies transpire through their intrinsic and temporal alignment (Latour, 2005; Callon, 1990; Law, 2008).

Two important perceptions of organizational scholars on the relation between the human and the material are criticized. First, Putnam (2013) problematizes the tendency of scholars to privilege the social over the material, where objects are merely seen as signs mediated through humans. However, materials increasingly mediate human relationships in organizations as well, especially in circumstances when the latter becomes more dependent on the former (Cetina, 1997). Similarly, Suchman (2005: 379) reminds us that “objects are not innocent but fraught with significance for the relations they materialize”. Second, organization scholars often treat the nonhuman as predictable (Putnam, 2013: 34). We agree with Pickering (1993: 562) who argues that materiality is a context “in which human agents conspicuously do not call all the shots,” especially because humans cannot always control or predict the material. Rather, Pickering (1995: 25) describes the ‘mangle of practice’ where material and human agencies temporally emerge in everyday practice, in a ‘dance of agency’ which takes the form of a dialectic of accommodation and resistance.

Instead of focusing on separate agencies and dialectics, Barad (2003), followed by Orlikowski and Scott (2008), take a different perspective; that of ‘agential realism.’ According to Barad (2003: 818), “agency is not an attribute but the ongoing reconfigurations of the world.” To explain, she uses the concept of ‘agential intra-activity’, which challenges the traditional notion of causality. Namely, “nonhuman” and “human” are not fixed or pre-given entities but constituted through their agential intra-action: “all bodies, not merely “human” bodies, come to matter though the world’s iterative intra-activity – its performativity” (Barad, 2003: 823). In this sense, “phenomena are the ontological inseparability of agentially intra-acting “components”” (Barad, 2003: 815). Yet, intra-actions within phenomena enact separations between the human and nonhuman, which Barad (2003)
calls making an ‘agential cut’ at the local level of observation. Therefore, Kautz and Jensen (2012: 92) argue that humans “make – consciously or unconsciously – agential cuts, and explore and analyze what they see though a magnifying glass.”

In other words, in sociomateriality theory the notion of performativity explicates how relations between humans and materials are not pre-given or fixed, but continually enacted in practice (Orlikowski and Scott, 2008). As such, it acknowledges the active role of materiality in the world’s becoming (Barad, 2003). Most importantly, this notion of performativity discredits the ontological dualism between the social and the material to account for the diverse and dynamic ways in which the social and material are entangled (Orlikowski, 2007).

However, various scholars (e.g. Faulkner and Runde, 2012; Leonardi, 2013; Mutch, 2013) have pointed out that while the ontology of agential realism is philosophically engaging, it is also difficult to apply in a field of study. For example, Leonardi (2013: 66) argues:

> Although the philosophical rejection of a subject-object dualism in agential realism is attractive from a philosophical standpoint, researchers have a great deal of trouble using this idea to engage empirical data.

In an earlier paper, Leonardi (2011: 151) explains that even that even though the ontological claim that human and material agencies are inseparable might be true, because infrastructures are constituted of both human and material agencies, “we must be mindful that the ways in which those agencies are weaved together produce empirically distinct configurations.”

Subsequently, Leonardi (2013) provides ways to help researchers apply the approach of agential realism. Specifically, he suggests researching how the social and material are distinguished and signified in accord with organizational actors’ categorization of phenomena. Here, a distinction can be made between human and material agencies with respect to intentionality. While humans and materials are both agential, ultimately humans will decide how to appropriate, modify, or respond to the material. Therefore, to study the (re)configuration of the social vis-à-vis the material, human intensions should be taken into account (Leonardi, 2011). Furthermore, he advises to specify a temporal framework to link the social and material over time and in practice. These strategies, in turn, allow the researcher to examine how the social and material are entangled to produce the sociomaterial in an empirically unique way (Leonardi, 2013).
In light of the debate on the performativity of materiality, we draw from the perspective of agential realism and use certain strategies to engage and exhibit this theory empirically. Barad’s notion of an ‘agential cut’ is useful as this provides an ontology of inseparability, but also a lens through which to investigate sociomateriality and the boundaries enacted between the social and material or the human and nonhuman (Kautz and Jensen, 2012; Orlikowski and Scott, 2008). Additionally, we study the intentions and interpretations of our respondents to see how the social and material are distinguished, signified, reconfigured and interwoven. Furthermore, we provide a temporal framework by using the ethnographic method to study the process of sociomaterial entanglement from a historical and contextual perspective over time and in practice.

**Performativity and ritual performance**

To study sociomaterial entanglement and (re)configuration over time and in practice, we not only account for the history and context of our case but also focus on a specific practice at the local level of observation. In our study we focus on a ritual performance, defined as formal ceremonial practice performed at a certain time and place, with predetermined actors and audiences, and particular words, gestures and materials that construct meaning and reality (Van den Ende and Van Marrewijk, 2014). This builds upon previous organizational studies on sociomateriality which have mainly focused on everyday, routine, and often taken for granted practices that bring sociomaterial realities into being (Latour, 2005; Suchman, 2007; Orlikowski, 2007). Conversely, a ritual is an extraordinary practice that differentiates and privileges itself from other, more ordinary practices through its orchestrated performance (Bell, 1992; Turner and Schechner, 1988). In this way, ritual is appropriated as more powerful and significant, permitting it to (re)construct meaning and reality (Bell, 1992).

We argue that a ritual performance lends itself well to study the performativity of materiality because performance is embedded within and connected to performativity (Gregson and Rose, 2000). Here, the performance refers to embodied practice or ‘acting’ of ritual whereas performativity refers to the meaning or reality it (re)constructs (Loxely, 2007). As such, ritual is a way of acting that does something beyond the performance of ritual itself (Bell, 2009; Tambiah, 1981), and where the assemblage of space, symbols, words, gestures, and materials actively participate in the creation of meaning and reality (DeMarrais et al., 1996; Turner, 1982; Boivin, 2008; Bell, 2009; Austin, 1963; Glass and Rose-Redwood, 2014; Barad, 2003). In other words, ritual’s performative potential is enhanced with the performance
of social and material elements that are interwoven and accordingly become powerful and powerfully experienced by ritual participants (Boivin, 2008; Alexander et al., 2006). However, the performative power of ritual is limited, negotiated and, therefore, never a given. Rather, it must be strived for by ritual organizers (Bell, 2009; Koschmann and McDonald, 2015; Anand and Jones, 2008). Consequently, it is important to study how and why ritual is framed and performed to (re)configure meanings and realities in practice and within a certain context. We will do this below in the findings by studying the ritual performance of the machine baptism and name-giving of the TBMs in the North-South line project in Amsterdam.

**Research methods and analysis**

In order to take the material seriously, we need to understand what it really ‘does’ in relation to humans in the context of a large urban construction project. Therefore, we followed the qualitative ethnographic method, which allowed us to ‘be there’ and analyze sociomaterial entanglement over time and in practice in a particular field of study. Accordingly, this research is based on a case study of the North-South line of Amsterdam; an urban construction project initiated in 2002 to build the first subway travelling directly from the north to the south of the city. According to Eisenhardt and Graebner (2007: 25), case studies emphasize the rich, real-world context in which phenomena occur, and facilitate theory building as unique analyses emerge from identifying patterns in the raw data of the case. This research is also ‘phenomenon-driven’ (Eisenhardt and Graebner, 2007) as it focuses on a ritual performance during which the TBMs used to excavate the metro tunnel were publically baptized and named.

Data was collected by the first author over a three-year period between summer 2010 and summer 2013. To allow for systematic operationalization and triangulation, three research steps were taken: a desk study, participant-observation, and in-depth interviewing. The desk study was essential to gain a thorough historical and contextual understanding of the case. Hence, an abundance of data was collected from newspaper articles, books, documents, reports, photographs and films, and by browsing the Internet and websites for news and information about the project.

Besides the desk study, participant-observation was carried out at construction site look out points, project excursions, open days and the information center approximately three days a week for three years. Important excursions included the annual ‘Day of Construction’
on the 2nd of June 2012 to visit the underground station and tunnel under construction at the Vijzelgracht, where the TBM could be witnessed at a standstill and tunnel constructors could be asked about their work. Another excursion was a day trip in March 2012, led by the technical director of the North-South line, to explore innovative methods of underground construction under the Central Station in Amsterdam. A private underground trip was also attended together with the supervisor of tunnel construction and Tunnel Godmother\textsuperscript{5} to bring the builders cake in the south of the city. Here the workers showed how they froze and injected the ground to stabilize the earth 25 meters underground, giving a telling impression of the construction site which was cold, dark and moist. Furthermore, the first author lived in the center of Amsterdam at the time of data collection enabling her to see and experience the project on a daily basis, such as by biking passed the construction sites, watching how a chunk of the tunnel was sunk underwater next to the Central Station, or visiting the project during the Vijzelgracht incidents when various buildings prolapsed and residents were evacuated. Informal contact was also maintained with the communication team who kept us up to date about project matters and events.

In this way, researchers can gain a ‘feel’ for organizational material by sensually experiencing spaces as they carry out fieldwork in organizations (Warren, 2008). By interacting with employees, researchers themselves can become valid sources of data through their own aesthetic experiences, refining their capacity to empathize with others and imagining what it might be like to be them walking through and/or working in these same spaces (Warren, 2008). Furthermore, participant-observation was carried out during two ritual performances. When the project officially launched the task of tunnel boring, a public ritual performance was held on the 11th of March 2010, in which the first two TBMs were baptized by a Catholic priest and named ‘Gravin’ and ‘Noortje.’ Subsequently, the same ritual was held to launch the third phase of tunnel construction on the 28th of April 2011, where the third machine ‘Molly’ was also baptized and named.

During these events, an abundance of visual data was collected, both primary and secondary, in the form of films and photographs to (re)analyze the necessary details of the ritual performances. Materials are largely unacknowledged as a source of qualitative research data. Therefore, materiality was observed and analyzed as both a framework for and outcome of the phenomenon under study (O'Toole and Were, 2008; Van Marrewijk and Yanow, 2010). Symmetric anthropology assumes that material objects and organizational spaces are

\textsuperscript{5} A Tunnel Godmother is a female citizen symbolically appointed to represent ‘Saint Barbara’; the Catholic patron saint of mine and tunnel construction workers for safety and good luck.
connected to aesthetic experiences in a network, without being trapped in vulgar materialism (Latour 1993) or material determinism, a view that the material world exhibits deterministic influence over the social world.

Subsequently, 10 in-depth, semi-structured interviews were held with diverse project participants who were closely involved in the organization and/or performance of the ritual events and the metro construction project more generally. Interviews took approximately 1 to 2 hours and were directly transcribed from Dutch to English. The sample included five communication advisors of the project organization who organized the rituals; the Catholic Priest and Tunnel Godmother who performed the rituals; the team leader/supervisor and the director/contractor of tunnel boring; as well as the technical director during the metro project’s preparation phase. We questioned the respondents about the project process more generally, and about how, when and why the rituals were performed more specifically.

The data was analyzed by studying how our respondents distinguished and interpreted the “social” and “material” to see how and why they are entangled and (re)configured over time and in practice (Leonardi, 2013). Furthermore, we devised a multilayered lens to analyze our empirical findings on sociomateriality from a contextual, organizational and practice level (see Table 7).

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<th>Level</th>
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Table 7: Levels of collecting and analyzing empirical data on sociomateriality

**Sociomaterial entanglement in the Amsterdam North-South line project**

Amsterdam, that beautiful city
It is built on stilts
If that city would topple
Who would pay for it?
(Proverbial children’s song of Amsterdam)

In 1965, the Dutch government decided to build a metro through the east of the city – the ‘East line’ – which would be technically and socially less complex; or so they thought. To the dismay of many residents, the East line would pass under the ‘Nieuwmarkt’ on its way to the east, which is a monumental market square in the heart of Amsterdam just south of Central Station. Because tunnel bore technology in soft subsoil was not yet available, they would first
build the 3.5 kilometer tunnel tube and then sink chunks of it underground via colossal concrete caissons. Unfortunately, this meant that a substantial part of the Nieuwmarkt neighborhood would be demolished (Soetenhorst, 2011).

When the demolitions commenced, the public responded with massive protests which went on for weeks, comprised mainly of squatters, artists, architects, journalists, and academics who strongly rebelled against the metro project, portraying themselves as ‘monument protectors’ (Soetenhorst, 2011). The protests, referred to as the ‘Nieuwmarkt riots’ or, more generally, the ‘metro riots’, were so fierce that the Dutch government used teargas bombs and water cannons to keep the riots at bay (see Photo 29 below). Many protestors were injured and/or arrested, and the majority of Amsterdam residents supported or sympathized with the protestors. As a result, the Minister publically stated that after the completion of the East line, no other metro would ever be built in Amsterdam, including the North-South line. After 1975, the word ‘metro’ became taboo in Amsterdam (Soetenhorst, 2011).

Photo 29: Water cannons during Nieuwmarkt riots (taken by Hans Peter, 1975)

This period of turmoil and the hushed years that followed formed the backdrop for the North-South line project, already formulated in the 1960s, which emerged again in the late 1980s. The technical director of the North-South line, largely responsible for the project’s commencement, shared his experience with these plans during this time in an interview:

I started with the plan at the end of the 1980s. That was a very difficult context, because the first experience with building metros was bad [...] This left deep traumas behind in
the city, among the state officials, the people, and to a lesser extent the business. In this context we had to make plans to improve the public transport of Amsterdam (interview, technical director).

He went on to explain that despite the ensuing trauma of the East line, the old plan of the North-South line kept resurfacing during discussions about improving the Amsterdam public transport because it remained “quite an addition to the system with a major transport-related value”, he argued. Amsterdam was getting busier with more and more car traffic and the tram net was more or less complete. Thus, an underground metro seemed like the only durable way to improve the transport system. Another important reason for the reemergence of this plan was that they now had the necessary technical means, particularly a soft subsoil TBM. A TBM enables underground tunnel excavation without the demolition of aboveground buildings, which was the main issue to be avoided after the metro riots: “We had a solution; we could do it underground” (interview, technical director). However, because the TBM technique had never been used before in Amsterdam and especially because the city has such a watery underground, there were still very high risks and costs involved.

**Material agency and performativity**

The biggest fear concerned the subsistence of monumental buildings which rest upon a foundation of stilts, as the aforementioned children’s song made clear. In fact, most of Amsterdam was built on stilts because of its watery base. Many wondered what would happen if the TBM passed the foundation poles of historic buildings. Would the poles collapse, sink, or remain stable? Due to this uncertainty and to prevent the project via legal procedures an alliance of residents, state officials and politicians was formed called ‘the Abovegrounders.’ They claimed that the foundation of buildings was not strong enough and that the costs for construction would be too high for the state. Hence, in the 90’s, the majority of City Council voters was still against the construction of the North-South line. In 1997, opponents of the North-South line actually “won” the referendum, but this was proclaimed invalid due to an insufficient total amount of voters. “So we went on with the project” (interview, technical director). To prove to the city that the project was possible with minimum risks, the project organization initiated several test runs for the TBM technique between 1997 and 2002 in different areas in the Netherlands, such as Rotterdam and Barendrecht, led by the technical
director and the Center for Underground Building. In many ways, the project organization felt they had to fight against the rest of the world (Soetenhorst, 2011).

The results and expert opinions of civil engineers were confident but mixed. It was predicted they could bore underground with a small chance of subsistence, and that they could inject the ground with a mixture of grout which would stabilize the earth and prevent (further) subsistence. Nevertheless, some skeptical engineers argued that not all foundation poles ‘reacted’ the same, meaning they could not always predict ground and/or pole movement as the TBM passed by. They also experimented with building concrete dam walls underground for the metro stations, up to 40 meters deep, which was generally successful but also resulted in elevation of the aboveground and/or subsistence of foundation poles, the audit committee warned. Moreover, it was argued that the grounds on which they tested were different than the grounds of Amsterdam’s center: “How could you compare containers on stilts in Rotterdam with the ancient buildings in the center of Amsterdam?” (Berkhout and Rosenberg, 2008).

Despite varied reports, the overall statistics and predictions of experts were promising enough for the Amsterdam City Council to approve the construction of the North-South line on October 9, 2002 with 29 votes versus 14. At the time, the estimated costs were 1.46 billion euros, the Amsterdam municipality would pay no more than 100 million, and the delivery date was predicted at 2007 (Soetenhorst, 2011).

What followed next during the preparations were grave complications resulting in technical mishaps, major cost overruns and time delay. Most problems resulted from leakages in the concrete dam walls of the stations through which earth water spilled into the excavation sites, causing the subsistence of roads, railways and buildings in those areas, such as at Central Station, Damrak and Vijzelgracht. The incidents at Vijzelgracht were by far the most critical, drawing heated attention from the public and the media. This is where the first subsistence took place in 2004, causing seven monumental buildings to sink 2.5 centimeters into the ground. Then, in June 2008, four more buildings on this historic street sank 15 centimeters into the ground. Having reached the subsistence limit, they put the project on hold. After doing research to resolve the issue, they continued in September by freezing the ground or injecting it with a mixture of grout to stop further subsistence. However, shortly after, another six buildings sank up to 23 centimeters, also due to a leakage resulting in the residents of the buildings being evacuated. Further evidence showed that the concrete of the dam walls was of low quality, resulting in weak spots and the ultimate leakages.
Consequently, the costs tripled to over 3 billion in total and over 300 million for the Amsterdam municipality, and the delivery was delayed to 2017.

From then on, the city was heaving with anger and distrust: “There were problems with trustworthiness, because it's all happening on the street, right in the middle of the city” (interview, technical director). However, the wound was much deeper than that because it hadn’t quite healed yet from the past metro trauma. With the ghost of the Nieuwmarkt riots hovering above their heads, the project organization tried to keep silent about the building process and shut out the public, especially regarding complications and mishaps. However, the societal and environmental impacts of these mishaps were inevitable and unavoidable:

There was a lot of suspicion. Our engineers had always shouted ‘it's all state of the art and nothing will happen. We make the road open once, cover it, and then we'll go underground.’ Then things went wrong at the Vijzelgracht. Then you really got this idea in Amsterdam, ‘well, they all say that it’s under control and all state of the art materials and construction methods, but why does it go wrong?’ Yes, and yet it goes wrong. Then the drillers came and then there was indeed a need to bring humanity back in (interview, communication advisor).

It became clear that a major underlying problem was figuring out how to break open the ‘metro taboo’ and how “to bring humanity back in,” which implies a perceived separation between the material and the social. Since 1975 the city hadn’t spoken of another metro, and so when the North-South line project reemerged in the 90’s it happened largely behind the scenes. It was precisely this secretive behavior of the project organization that would stimulate such distrust among the city and trigger resistance. Every technical mishap was met with rage, essentially because the people were not honestly informed about the risks or prepared for the technical complications from the start:

So, actually, I think because the curtains were so shut there was a lot of distrust over the process. So, at the end of 2009 they even established a political party called ‘Save Amsterdam.’ Well, the most important point for them was stopping the North-South line, and especially the tunnel boring. Because if the boring would proceed, then everything along the way [would collapse], including the Bijenkorf, the Munttoren [two famous monument buildings in Amsterdam] (interview, communication advisor).
Apparently, the word ‘metro’ was still taboo, and the next steps to break this taboo would be crucial for the construction process and its entanglement with social and political spheres of the city. Below is an image of a postcard that became popular in the city, reading “Never-South line” instead of “North-South line” in Dutch (see Figure 6). It is a modification of the project’s original logo that reflects the public’s disapproval of the project.

![Figure 6: Postcard ‘Never-South Line’ (source: www.cards.boomerang.nl)](image)

**Sociomaterial reconfiguration: The machine baptism and name-giving ritual**

The skeletons had to come out of the closet, meaning that the project organization completely had to alter its management strategy and external communication and become more transparent towards the outside, interviewees explained. The project was too much focused on the construction process while neglecting the communication and collaboration with the public and the environment:

At the start, the project organization was only busy with the project, autistic behavior […] but we had to try to control what happened at the construction sites. That is a big undertaking, because you need a lot of collaboration from the outside, and we did not predict well enough how much we needed. It was not a given, and then we had a crisis […] I got a new director and they started building a new relationship with the environment (interview, technical director).
In this sense, the project was too technical in its attention and practice, where engineers and researchers took the lead and attempted to keep the public at a safe distance with promising predictions and calculations. This technical approach in project management is heavily criticized as it disregards a project’s interrelation with social dynamics (Cicmil, 2006). So when things went wrong, the predictions had no more bearing which caused a lot of uncertainty and lack of faith from outsiders. As a result “the project had become a symbol of failures and mishaps”, the communication director explained. Therefore, they had to change their approach:

We wanted to make a movement towards the repositioning of the project, a project of engineers, researchers and rationality and distance and more research and so on - and in this positioning you saw that all faith had been lost from the stakeholders of the city - so we said we have to go another direction (interview, communication director).

Moreover, “the Monster called the North-South line” (Soetenhorst, 2011: 11) already caused so much upheaval and the TBMs had yet to arrive to bore the actual metro tunnel. In 2010 when the TBMs did arrive, the communication team came up with a unique strategy as part of their new approach that would break open the metro taboo and (re)connect the project with the people of Amsterdam: a ritual performance. When the project organization hired German construction companies, Zublin and Herrenknecht, specialized in TBMs, the team of tunnel constructors also brought with them a ritual: the baptism and naming of the TBM before it is put to use (this ritual is very old, pre-dating Christianity). “They won’t start boring without it”, the contractor explained. While this is usually a private ritual for the construction workers only, the communication team deliberately externalized the event for the public:

In most projects, the inauguration is very internally directed […] but in Amsterdam it became enormous. For the contractor that was something new, but also for us I must say. Yeah, it was so big; I don’t think anyone ever did it in this way. But that was necessary, especially to give off that political signal towards politics and the environment (interview, supervisor tunnel boring).

When the project organization planned the first ritual event, during which the first two TBMs would be baptized as the official kick-off of the tunnel boring task in April 2010, they
invited stakeholders such as state officials, politicians, contractors, investors, citizens and the press including journalists, photographers and television crews from both local and national news companies. Thus, the event was widely publicized and mediatized, even on a national scale. The ritual would be performed underground, but also aboveground in party tent set up alongside the abyss of the boring site reaching 25 meters underneath the surface. At the boring site, the machine baptism was filmed and projected live on a giant screen inside the party tent to be witnessed by the invitees, around 500 people, and even the entire Dutch public as it was broadcasted on the news.

During the ceremony, before the actual ritual performance, appetizers and (alcoholic) beverages were provided for the delight of the attendees and speeches were given by the city alderman and project director in which the phrases “building confidence”, “regaining trust” and “respecting the workers” were repeatedly expressed. This is not surprising given the major set-backs encountered during this project’s course of development. After the speeches were given, the screen went on for everyone to witness the ritual. The reporter at the tunnel-boring site below began by providing the audience with various technical facts about the boring machines weighing 900 tons while she inquired several of the engineers who were also present at the site. All people at the site, approximately 25 persons, most of them constructors and all of them male except from the reporter, were wearing safety helmets and neon vests.

Below, we share a vignette of the ritual performance to give an impression the observation in the field:

It became clear that the ritual commenced when a Catholic Priest from Amsterdam dressed in traditional white and golden robes came to the fore at the dark cold construction site, wearing a helmet. He started by presenting a petite statue of Santa Barbara, a Patron Saint acknowledged by the Catholic Church as the protector of harm and later espoused by mine and tunnel workers for this very purpose. Then, as he recited holy texts from the bible he blessed water in a shiny goblet with which he then baptized the statue using a special staff. Subsequently, the names of the tunnel boring machines would be revealed. As they counted down, a giant poster was released from the first machine, reading ‘Noortje’ in big bold letters, followed by the release of the second poster from the second machine reading ‘Gravin.’ The names were female as this belonged to the tradition, and they were chosen by two school children from Amsterdam who were also present at the site. The priest then baptized the machines as
he had baptized the statue with holy water, finishing with the words “in the name of the father, the son, and the holy spirit”. Afterward, the statue of Santa Barbara was carried by the ‘bore master’ and placed in a glass cupboard hanging on the wall next to the machine; the shrine from which Santa Barbara would watch over the workers. Subsequently, the boring manager and the alderman smashed a bottle of champagne against the first machine and then the second, after which confetti was cast down from above in celebration of this moment. At that time, above in the party tent, a group of engineers recited a traditional German mining song after which the attendees clapped and celebrated this moment together (fieldnotes, 11 March, 2010).

Understanding the performativity of materiality via ritual performance

Fundamentally, the ritual implicitly reveals what the TBM symbolizes for the people who work with it. Namely, the dangers and risks attributed to this machine’s capacity traditionally gave rise to the need to bless and baptize it for safety, and to personify it with a female name, perhaps to render it less hazardous. The workers’ lives depend on the machine’s reliability. As the technical director explained:

I think there is nowhere in the world where a tunnel boring machine went into the ground without this kind of ritual, because it is comparable to the blessing of a boat or an airplane. Why do we do that? Because with that object, this airplane, this boat, we will do things whereby we give our lives into the hands of this object […] so you are dependent. So, there is a sort of, you engage in a sort of relationship with that object, which you want to mark. Well, this tunnel boring machine is in this category. The teams of people that will work in this machine, their lives depend on the reliability of this machine (interview, technical director).

Naming and baptizing a machine indicates how the object is anthropomorphized to give it a privileged, human status. The machine was already social because it was designed and constructed by humans in a particular social context and for particular social ends. However, this is implicit and indiscernible in ordinary, everyday life. Therefore, the ritual, as an extraordinary practice, makes this explicit by performing and manifesting the material’s social significance. It also shows how human actors acknowledge the agency of the material because
they do not have complete or direct control over it; i.e. “we give our lives into the hands of this object.”

At first glance, it was unusual to see a decorated shrine encasing Santa Barbara, the holy protector of the tunnel workers, at the construction site. This divine image seemed to clash with the technical setting in which it was presented, occupied by tough male construction workers and staging a colossal machine which would soon eat away the earth to create a gigantic burrow under the city. However, given the danger of construction work, the difficult history of the project, and the intentions of the project actors, it can be argued this ritual was a conscious and explicit reconfiguration of the social vis-à-vis the material:

It’s not only about the machine but the people in the machine […] so here you have this movement of the humanization of technology; that is what we are really doing (interview, communication director).

Thus, analyzing the case from a performative perspective, it becomes clear that this ritual was not only symbolic but, at the same time, performative in terms of its social and material differentiation, signification and reconfiguration. As mentioned before, the event was performed for a public audience with the purpose of “showing another image of the project than only all the costs and mishaps” (interview, communication director). Due to the technical risks and mishaps, the materiality of the project had been negatively perceived by outsiders and so they consciously performed materiality in a different way to change the public perception of the project. The communication director explains:

The basis [for the ritual] was support, to regain trust in the project, in the people that make the project […] After the subsidence the project shut like an oyster […] so we said a part of our new course is to open up, as much as possible […] To involve the city by opening up the construction sites, to show the rituals, by sharing these moments with people, very transparently and realistically, to share the risks openly, to stop covering things up, [to say] ‘it is what it is’, to tell that to the outside, to the press (interview, technical director).

Thus, within this particular context, the ritual was especially significant for the public perception of this project with which it had struggled so much. Many people of the city
resisted the project due to the (possible) aboveground impact, which the interest group ‘the Abovegrounders’ made quite clear when they attempted to shut the project down. Hence, the project organization intentionally redirected the attention of the people from aboveground issues to the underground space and materials through ritual performance. And, rather than communicating towards the public in terms of words, the ritual framed the space and the materials and communicated what words could not capture. It was first and foremost aesthetic, visual and material: the deep underground construction site was staged and made visible, the tunnel constructors were positioned at the front wearing safety vests and helmets, the authoritative Priest wore a helmet and traditional robes and recited a holy script, the water was blessed into holy water, the statue blessed and placed in a shrine, the machines baptized and named, the champagne bottles smashed against the machine, and confetti tossed onto the construction site. The machine was by far the most visible of all, placed at center stage:

That just delivers beautiful images [...] with such as machine, that’s beautiful isn’t it? It’s huge, it’s awesome, there's something to film and something will happen [...] With this you make headline news (interview, supervisor tunnel boring).

Not only were the rituals highly material, they were framed and performed in order to exhibit the meaning of the material and the practice of tunnel boring. Specifically, the tunnel workers attribute a different meaning to the machine and their practice than the people of Amsterdam, which the ritual embodies and manifests. Conversely, for the people of Amsterdam the machine and construction work was perceived as nonhuman, intrusive and destructive. This is a major reason why this ritual was performed publicly in this particular context to transmit the workers’ meaning of their craftsmanship to the people of Amsterdam. For example, a communication director explained:

We consciously decided to direct it at the craftsmanship, the men who do the work, to put the men in front of the machine, and this gives the image of the ‘heroes’ [...] and here is mystique, magic, heroism, but also fear and the need for protection (interview, communication director).
He goes on to explain that this involved a shift in communication; away from the calculations and predictions (i.e. a more technical focus) towards the men who work so bravely underground in the machine (i.e. a more human focus):

That is what we wanted to convey, away from the researchers and calculations and engineers to the men who sit behind the machine, this message of safety, because you know that when you are in the machine the men have no other motive, no alternative motive than doing their work safely, because the first one who is the victim is the man in the machine underground. So, who will you believe? Him, right? Here is something authentic […] we consciously chose for this, this approach, and this ceremony fit in that (interview, communication director).

From the quotes above it becomes evident that the materiality is attributed significance and acknowledged agency through ritual performance. Namely, the significance of this machine is that the lives of the workers depend on its reliability, meaning that the material is agential in that it is not under the direct or complete control of its users (Leonardi, 2011). Because of its inherent performativity and agency, the machine is privileged and placed on a pedestal and a collective, public awareness of the machine’s social significance is created through its baptism and name-giving. Findings suggest this is an explicit reconfiguration of the material in relation to the social to serve particular ends in the context of this project.

Interesting is that the ritual enacts certain shifts and changes from a performative standpoint. This means that the ritual constructs a particular meaning and reality, having performative power effects in terms of what it can establish or transform (Bell, 2009; Alexander et al., 2006). For example, once the machine is named it will be referred to by its name by the project organization, the media and often also the public:

What I found extraordinary is, for instance, that the whole name-giving, that this was adopted by everyone who followed us, that in the press they consistently used the name by calling the bore machine ‘Victoria’ or ‘Molly’ (interview, communication advisor).

It also transforms the meaning of the machine, which is a clear indication of performativity:
If you see the bore, it is an enormous thing [...] There is nothing sweet about it actually, but if you give it a name, then suddenly it becomes sweet and human (interview, Tunnel Godmother).

Moreover, only once the machine is baptized and named it can actually be put to use because the ritual performatively enacts what we call a ‘point of no return.’ Specifically, once the machine is baptized and named, the tunnel boring is launched and there is no going back:

[With the ritual] you as a project show very clearly ‘well, the machine is here, it exists, it is no longer a vague story about the future, but that it’s really happening. We are here, the people are here, the machine is here, we will start boring.’ So this was a very important signal for the public relations, but also, yeah, for the environment around the boring contract (interview, supervisor tunnel boring).

The communication advisors explained that it was important to do this so manifestly to make known to the public that the tunnel boring could no longer be resisted, but that it was really happening. The communication strategy of the project actors, including the ritual events, was widely regarded as a success in Amsterdam confirmed by the Amsterdam Communication Award which they won in 2013. Below is an image of a poster widely used by the communication team as part of their strategy that reads “Give the tunnel boring machine a face” in Dutch (see Photo 30).

Photo 30: Communication strategy ‘give the TBM a face’ (courtesy of the North-South line)
Another relevant point to mention is that the communication director of the team is an anthropologist who thought of the idea to publicize the ritual to appeal to the public of Amsterdam due to its social and symbolic significance. However, whether the ritual appealed to everyone and what its broader impact or value was cannot be easily discerned. This is because the performative power effects of ritual are limited and highly negotiated, having intended but also unintended consequences (Koschmann and McDonald, 2015), not to mention that, to this day, there remain critical opponents of the project. Nonetheless, gaining insight into how and why this ritual was performed within the particular history and context of the project is valuable as it gives us in-depth insight into an empirically unique process of sociomaterial entanglement and reconfiguration.

Discussion

In this research we found that our respondents differentiated, categorized and signified the social in relation to the material which, together, constituted their entanglement and reconfiguration over time and in practice in empirically distinct ways. Respondents generally interpreted the “social” as the people of Amsterdam and the social, cultural and political issues and meaning attributions regarding the project process and history of metro construction. On the other hand, the “material” was understood as the physical construction process, including its structural impact, the construction sites and technology, and the machines. To help apply sociomateriality theory in our case study, we use a multi-layered lens to analyze our findings. Specifically, three main levels emerged from our study with which we could structure and analyze our empirical data on sociomaterial entanglement: at a contextual level, organizational level, and practice level. These are displayed in Table 8 below.
When analyzing our findings at a contextual level, we ‘zoom out’ on the case and follow the historical and contextual process of sociomaterial entanglement over time in the city of Amsterdam more broadly. In doing so, the entanglement between the social and material becomes apparent over time. The historical account of the case underlines the arduous process of metro construction since the 1960’s, which resulted in metro riots and a metro taboo, yet to be broken. A ‘metro taboo’ is, in itself, an epitome of sociomaterial entanglement. In this context, the North-South line had to be constructed which turned out to be a highly sensitive and difficult endeavor. Especially the incident of the subsoil leakage at the Vijzelgracht roused much social and political unrest. Thus, it becomes evident that the materiality of metro construction (i.e. the “material”) increasingly became (more) entangled with social and political spheres in the city (i.e. the “social”), to the point where human agents, fearing the material agency, actively turned against the project and even attempted to shut it down, such as the groups ‘the Abovegrounders’ and ‘Save Amsterdam’. The people of Amsterdam distinguished and signified the project and its materiality as inhuman and destructive, seemingly wanting to ‘disentangle’ themselves from it.

At the organizational level, and according to our respondents, a discrepancy between the social and material can be discerned. Project actors struggled to control or predict the material by laser measurement technology, freezing methods, grout injections, and warning systems. They could not control the material at all times, nor prevent the Vijzelgracht

### Table 8: Sociomaterial entanglement at different levels of analysis

<table>
<thead>
<tr>
<th>Level</th>
<th>Empirical step</th>
<th>Analytical step</th>
</tr>
</thead>
</table>
| Contextual  |Difficult history of metro construction  
Metro taboo  
Social and political unrest and resistance among the people of Amsterdam  | The material and the social become increasingly entangled over time  
There is no social without the material and no material without the social |
| Organizational |Technical problems and mishaps despite promising predictions and calculations.  
The project actors struggled to predict and control the material  | The material unpredictability led to a separation between the social and material  
Human and material agencies emerge through their agential intra-action |
| Practice    |The ritual performance attributed meaning to and performed the material to “bring humanity back in”, through “the humanization of technology”  | Sociomaterial entanglement is exhibited to overcome the social-material struggle  
The boundaries between social and material agencies are blurred |

When analyzing our findings at a contextual level, we ‘zoom out’ on the case and follow the historical and contextual process of sociomaterial entanglement over time in the city of Amsterdam more broadly. In doing so, the entanglement between the social and material becomes apparent over time. The historical account of the case underlines the arduous process of metro construction since the 1960’s, which resulted in metro riots and a metro taboo, yet to be broken. A ‘metro taboo’ is, in itself, an epitome of sociomaterial entanglement. In this context, the North-South line had to be constructed which turned out to be a highly sensitive and difficult endeavor. Especially the incident of the subsoil leakage at the Vijzelgracht roused much social and political unrest. Thus, it becomes evident that the materiality of metro construction (i.e. the “material”) increasingly became (more) entangled with social and political spheres in the city (i.e. the “social”), to the point where human agents, fearing the material agency, actively turned against the project and even attempted to shut it down, such as the groups ‘the Abovegrounders’ and ‘Save Amsterdam’. The people of Amsterdam distinguished and signified the project and its materiality as inhuman and destructive, seemingly wanting to ‘disentangle’ themselves from it.

At the organizational level, and according to our respondents, a discrepancy between the social and material can be discerned. Project actors struggled to control or predict the material by laser measurement technology, freezing methods, grout injections, and warning systems. They could not control the material at all times, nor prevent the Vijzelgracht
prolapses. The fact that they had no real control and could not predict how the material would ‘act’ when provoked is a clear indication of material agency (Leonardi, 2013). Though project engineers claimed to have “state of the art” technology, the materiality became a context in which human agents could not call all the shots (Pickering, 1993). This showcases how human and material agencies temporally emerge through their agential ‘intra-activity’ (Barad, 2003). Hence, these findings confirm the performativity of materiality in that the material is equally agential and co-constitutive of reality (e.g. Barad, 2003; Aradau, 2010; Orlikowski and Scott, 2008; Putnam, 2013) such as subsoil leakage during the Vijzelgracht incidents.

At the practice level or local level of observation, we analyze the ritual performance. Rather than relying on technological calculations for control and predictability, the project organization turned to a ritual performance traditionally practiced by tunnel workers to reconfigure the project, the construction process, and the machine (i.e. the “material”) vis-à-vis the people of Amsterdam (i.e. the “social”). Though highly symbolic and seemingly irrational in its performance, the way the ritual was performed in this project and context was intentional for communication purposes; to transform the public perception of the project and its materiality. Project actors mentioned there was “a need to bring humanity back in” via the “humanization of technology.” This is indicative of an extant separation between the social and material, where discursively and materially situated humans enact boundaries and make ‘agential cuts’ to make sense of and attribute meaning to their perceived reality (Barad, 2003; Kautz and Jensen, 2012). Consequently, during the ritual the material was made visible, sanctioned and performed, especially the machine, to differentiate and signify it as human, cultural and even sacred. Hence, the ritual can be seen as a reconfiguration of the social in relation to the material by explicitly performing and manifesting their entanglement in a unique and meaningful way such as the Priest blessing and naming it, the aldermen breaking a champagne bottle against it, and the workers placing a shrine with a sacred statue next to it. In light of these findings, we analyze this ritual as an exhibition of sociomaterial entanglement because the ritual served to blur the boundaries that were perceived between the social and material. It follows that the notion of performativity in sociomateriality theory does not only underline how boundaries between the social and material are enacted in practice (Orlikowski and Scott, 2008), but also the blurring of such boundaries.

Regarding these analyses, a point of discussion is to what extent they showcase entanglement from an agential realist perspective (Orlikowski and Scott, 2008) which sees the world as a (re)configuration of entangled agencies that are indistinguishable (Barad, 2003). At
the contextual level, we argue that material and social agencies are not so easily set apart when describing the historical context of the case at a higher level of analysis. Here, there are manifold and dynamic ways in which social and material components are and/or become entangled over time, reflected by the metro taboo, for example. However, because the people of Amsterdam turned against the project, distinct human and material agencies become visible. Subsequently, at the organizational level of analysis, a separation becomes more discernable as project actors attempted and struggled to control and manage the material. On the other hand, we see that the material, too, ‘responded’ when provoked, such as the leakages or prolapses. Though the material does not act intentionally, we argue it is just as significant and performative according to an agential realist perspective. In this sense, there are multiple intra-actions between social and material agencies which constitute organizational processes and activities. Then, at practice level we analyzed the ritual performance as a reconfiguration of the social vis-à-vis the material. Specifically, the project actors intentionally performed the entanglement between the material and the social by baptizing and naming the machine. While social and material components were already entangled in this project, which was made clear at the contextual level of analysis, there was a negative social signification of the materiality in this project creating a discrepancy. Therefore, the ritual re-signified and reconfigured the materiality by transmitting the traditional meaning the machine had for the tunnel workers to the public of Amsterdam, thereby redirecting attention away from aboveground issues (such as the prolapse of buildings) to underground matters (such as the craftsmanship and safety of the workers).

Ultimately, it is humans who ritualize the material which highlights the difference in human and material agencies in terms of intentionality (Leonardi, 2011). Yet, the ritual would not exist if it wasn’t for the innate entanglement between the workers, the machine, and the practice of tunnel drilling. Like the metro taboo, the ritual epitomizes sociomaterial entanglement. Therefore, at the local level of observing the ritual phenomenon, social and material agencies cannot be reduced to distinct entities, in line with an agential realist perspective. Therefore, concerning the ritual performance, the performativity of materiality underlines the blurring of boundaries between the social and material, rather than the enactment of such boundaries (Orlikowski and Scott, 2008).

We agree with authors (Faulkner and Runde, 2012; Mutch, 2013; Leonardi, 2013) that it is indeed difficult to grasp the ontological inseparability between social and material entities from the perspective of agential realism. Therefore, while maintaining the ontology of
inseparability theoretically, we used certain methods to engage and exhibit this theory empirically. Furthermore, we provide a lens to study sociomaterial entanglement at a contextual, organizational and practice level. Here we found that analyses of sociomaterial entanglement depend on the level of analysis (see Table 9 below).

Overall, though we see contexts, organizations, and practices as (re)configurations of both social and material entities, we agree with Leonardi (2011) that we must be attentive to the diverse and dynamic ways in which these agencies are interweaved to construct empirically unique configurations. In line with this, we argue the use of the ethnographic method to study a particular case over time and in practice provides an ideal empirical approach to engage theory on sociomateriality and the performativity of materiality.

<table>
<thead>
<tr>
<th>Level</th>
<th>Empirical step</th>
<th>Analytical step</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contextual</td>
<td>Focus on the historical context of the organization by zooming out</td>
<td>Analyze how the social and material are entangled over time, within context</td>
</tr>
<tr>
<td>Organizational</td>
<td>Focus on organizational processes, occurrences, and activities</td>
<td>Analyze the intra-activity and agential cuts between social and material agencies</td>
</tr>
<tr>
<td>Practice</td>
<td>Focus on practice at a specific moment in time by zooming in</td>
<td>Analyze how the social and material are (re)configured in practice</td>
</tr>
</tbody>
</table>

Table 9: Multi-level analysis of sociomateriality in an organization of study

**Conclusion**

The purpose of this paper has been to apply the theory of sociomaterial entanglement to exhibit how and why the social and material are entangled and (re)configured over time and in practice. Theoretically, we follow the ontology of inseparability as we view all organizational practices and processes as simultaneously social *and* material, i.e. sociomaterial. Yet, to understand this entanglement empirically we devised a multilayered lens to explore sociomateriality and the boundaries enacted and/or blurred between the social and the material at the contextual, organizational and practice level. Consequently, we argue that the perception of entanglement or separation between the social and material depends on the level of analysis.

This study contributes to sociomateriality theory in three ways. Firstly, we suggest the ethnographic method is well-suited to study sociomaterial entanglement from a historical and contextual perspective. Secondly, we propose the notion of performativity in sociomateriality not only concerns the enactment of boundaries in practice but also the blurring of such
boundaries, demonstrated by the ritual performance. Lastly, previous studies on the performativity of materiality have mainly focused on routine practices in IS and IT (e.g. Leonardi et al., 2012; Orlikowski, 2007), whereas this study focuses on a ritual performance as a distinguished practice (Bell, 1992) in an urban construction project as a more tangible organizational setting. Additionally, the practical contribution of this study lies in the multi-layered lens we provide to study how the social and material become entangled and reconfigured over time and in practice.

While we attempted to apply sociomaterial entanglement in a particular field of study, we realize our study has various limitations concerning this aim. One shortcoming is the difficulty to exhibit sociomaterial entanglement empirically without resorting to dualistic thinking, an issue previously underlined by others (Mutch, 2013; Leonardi, 2013; Faulkner and Runde, 2012). To help us tackle this challenge we aimed to exhibit sociomateriality with the historical story of our case and devised a multi-layered lens to help us analyze our data from an agential realist perspective. We also struggled to showcase our findings without succumbing to the tendency to privilege the social over the material due to the qualitative nature of our research. We hope to have balanced this by emphasizing the significance and agency the material in our case study. To further test and build theory in this domain, we encourage future research to use ethnographic and interpretive approaches in a variety of organizational settings to study sociomateriality over time and in practice, and to analyze this theory from different levels and perspectives. We believe this will help fill the current gap between theory and practice concerning the study of sociomateriality.
Chapter 6: Rebalancing the disturbance

Summary

Urban Megaprojects (UMPs) are important and popular means of organizing urban development. However, they rarely remain uncontested and frequently their outcomes are disappointing. Managing UMPs has proven to be difficult due to scale, uncertainty, complexity, resident resistance, and multiple stakeholders. Therefore, understanding these megaprojects as isolated activities with technically defined matters is too limited. We understand UMPs as cultural phenomena that should be studied in terms of their history, context and social environment. The aim of this chapter is to understand how project organizations rebalance the disturbances caused by their activities. To do so, two comparable UMPs have been studied in the Netherlands by means of an in-depth ethnographic study. Findings show that ‘shock-absorbing platforms’ are used in both projects to enhance transparency and legitimacy, involve residents and other stakeholders, and manage social-cultural dynamics in the implementation phase. These platforms include an informative platform, interactive platform, participatory platform, and transitional platform and serve to rebalance the disturbances caused by the „self-produced shocks“ of UMPs.

Introduction: Urban Megaprojects (UMPs)

Cities are complex constitutions of social, natural and technological worlds that have become more globally interconnected though processes of globalization and competition between city regions (Moulaert et al., 2003; Fainstein, 2003). In these worlds, politicians and local officials initiate complex and extensive civil engineering and construction megaproject organizations to create attractive, sustainable and economically viable urban areas for citizens (Lehrer and Laidley, 2008; Diaz Orueta and Fainstein, 2008; Löfgren, 2008). UPMs are defined here as large-scale urban development projects that sometimes have an iconic design component, usually aim at transforming or have the potential to transform (parts of) a city’s image, and are often promoted and perceived by the urban elite as crucial catalysts for growth and even as linkages to the larger world economy (Del Cerro Santamaria, 2013: xxiv). Consequently, UMPs are great examples of modern engineering and have become symbols of

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6 This chapter is based on Van den Ende and Van Marrewijk. Rebalancing the disturbance: Shock-absorbing platforms in urban megaprojects. Accepted for publication in Gernot Grabher & Joachim Thiel (eds.). Self-produced shocks: mega-projects and urban development. HCU publication series. M7- Perspectives in Metropolitan Research
political mandates as they are highly visible, material results of politicians and officials at a local and national level (Del Cerro Santamaria, 2013).

UMPAs have become popular but rarely remain uncontested, particularly if pursued within a democratic political context as they are perceived not only as costly, but also as significant threats to local quality of city life. UMPAs are socially and politically sensitive as they disturb their environment and produce shocks in public living space (Grabher and Thiel, 2014). The construction of an airport near Mexico City (Dewey and Davis, 2013) and the extension of the Stockholm rail (Corvellec, 2001) never came in the execution phase due to citizen resistance. In another example of disturbance, the revalorization of Stuttgart 21 railway station primarily benefited already affluent individuals and groups and undermined important policy objectives such as historic preservation and environmental protection (Novy and Peters, 2012). Resistance is something which is not grounded within the individual, but distributed across actors and artifacts (Harty and Whyte, 2010) and even animals (Tryggestad et al., 2013).

Because UMPAs are embedded in democratic decision-making processes, multiple stakeholders must be involved and citizen resistance needs to be acknowledged and counteracted by rebalancing the disturbance UMPAs cause. In short, UMPAs must devise (new) practices to mediate its relationship with the social environment (Grabher and Thiel, 2014; Altshuler and Luberoff, 2003; Lehrer and Laidley, 2008). We perceive UMPAs to be cultural phenomena that should be studied in terms of their history, context and environment (Van Marrewijk, forthcoming). Using this conceptualization, culture is defined as the result of social construction by people ascribing meaning to their situation, and meanings are created and reproduced through processes of interaction (Alvesson, 2002). Understanding organizations as cultures recognizes sub-cultures, power relations, communication, ambiguities, rituals, myths, artifacts and spatial settings to be important to the composition and performance of organizations (Martin, 2002).

This chapter focuses upon UMPAs as cultural shocks to city life and aims to understand how project organizations absorb these shocks. The central research question addressed in this chapter is; what are the shocks caused by UMPAs and how do project organizations absorb these shocks? To answer the research question two comparable Dutch UMPAs, the North-South Line in Amsterdam and Railzone in Delft, have been studied by means of an ethnographic study over a two-year period between summer 2011 and summer 2013. The North-South Line Amsterdam, started in 2003, builds a partly underground subway travelling
from the north to the south of the city along eight different stations of which six are new. This UMP is considerably resisted by the citizens of Amsterdam. In contrast, citizens of Delft support the Railzone UMP. This project, started in 2005, not only includes a new underground railway, but also an underground station, parking facility, a new municipality building, residencies and office buildings as well as a city park with various waterways. The findings of the studied cases show that UMPs cause significant threats to local quality of city life during its start and execution regardless of whether they are contested or supported. To rebalance the disturbances project management of UMPs use four, what we have called, ‘shock-absorbing platforms’: the (1) informative, (2) interactive, (3) participatory, and (4) transitional platforms.

The chapter is structured as follows. First the characteristics and contested nature of UMPs are discussed. Next, a distinction is made between ‘old’ and ‘new’ UMPs and it is showed how the latter is increasingly replaced by the former. These new UMPs take the form of vast complexes characterized by a mix of uses, a variety of financing techniques, a large number of stakeholders and a combination of public- and private-sector initiators. The success of new UMPs depends on the careful crafting of a collaborative process that is deemed fair and transparent to affected groups. In the methodology section the used methods in the ethnographic study are discussed. Next, the findings on the study of the North-South Line and Railzone cases are given. We will compare the shocks of the UMPs in Delft and Amsterdam and show how they have used the informative, interactive, participative and transitional platforms to absorb the shocks they produced in their urban context. Finally, the discussion and conclusions are given.

**Contested nature of UMPs**

The dominant perception of organizing UMPs as technically defined matters in demarked spatial settings with particular kinds of complex tasks that has to be solved is highly problematic in a complex urban context (Kreiner, 1995; Söderlund, 2013; Engwall, 2003). Academics coming from sociology, public administration, psychology, and anthropology introduced organization perspectives in which megaprojects are perceived as temporal, organizational and social arrangements that should be studied in terms of their context, culture, conceptions and relevance (Kreiner, 1995; Packendorff, 1995; Lundin and Söderholm, 1995). In these studies, megaprojects are perceived as non-routine, requiring special authorizing, funding, revenues, land acquisition, and regulatory actions by two or
more levels of government. Furthermore, they are initially controversial, proceeding slowly and passing different electoral and business cycles for which public-private cooperation is needed (Altshuler and Luberoff, 2003). Such projects generally require complex construction integration and technical, resource and material management characterized by a long time frame and numerous interfaces among multiple contractors and third parties (Greiman, 2013).

While contractual arrangements seek to address the many interests which are at stake, they do not fully capture the complexity of the multiple, fragmented subcultures at work as megaprojects are politically sensitive and involve a large number of partners, interest groups, citizens, and other stakeholders (Hodgson and Cicmil, 2006; Bresnen et al., 2005b). Therefore, megaprojects can’t be delivered with closed governance systems but explicit attention is needed to the context as an interpretive framework for the environment(s) of organizational actors in megaprojects (Engwall, 2003). Context is important as humans manifest an immense flexibility in their response to the environmental forces they encounter, enact and transform (Geertz, 1973). It concerns the specific aspects and circumstances such as history, ideology, fields of action and technical infrastructures, within which cultural patterns are developed and reproduced, which drive or legitimize an assignation of meaning (Van Marrewijk et al., 2008).

**Old versus New UMPs**

Leher and Laidley (2008) make a distinction between ‘old’ and ‘new’ UMPs in the development of cities. In the “great megaproject era” of the 1950s and 1960s (Altshuler and Luberoff, 2003: 8) UMPs were monolithic constructions, such as the Big Dig in Boston (Greiman, 2013). This old generation of UMPs has received strong criticism (Merrow et al., 1988) for paying little attention to citizen participation and for overrun on costs, falling behind schedule, and failing to deliver in the terms used (Flyvbjerg et al., 2003a).

Since their post-second world war beginnings ‘new’ UMPs have evolved (Fainstein, 2008). These new UMPs take the form of vast complexes characterized by a mix of uses, a variety of financing techniques, and a combination of public- and private-sector initiators (Lehrer and Laidley, 2008). The construction of new transport infrastructures or the extension of existing ones are examples of new megaprojects (Diaz Orueta and Fainstein, 2008). These UMPs involve a transformation of urban space, its built form and its specific land use(s), with the intention to change the social practices in these urban landscapes (Van Marrewijk and Yanow, 2010; Lehrer and Laidley, 2008; Del Cerro Santamaria, 2013).
Importantly, new UMPs are often undertaken by state actors operating in collaboration with private interests in the pursuit of the development of city-regions within a competitive global system (Lehrer and Laidley, 2008; Del Cerro Santamaria, 2013). A distinction has to be made between American and European cities as America city development is more driven by for-profit investments, while European city development is driven by public money (Altshuler and Luberoff, 2003). A study of 13 large-scale urban development projects in 12 European Union countries showed that UMPs are almost all state led and often state financed (Moulaert et al., 2003: 250). Contractually, however, these megaprojects are often defined in terms of Public Private Partnerships (PPP), in which there is a structural cooperation between public and private parties to deliver some agreed outcome. While these contractual arrangements seek to address the many interests which are at stake in complex megaprojects, they do not fully capture the complexity of the multiple, fragmented subcultures at work in a project culture (Van Marrewijk et al., 2008).

**Participation of citizens in UMPs**
Protests and resistance have forced project implementers to change the implementation processes. In Europe, megaproject implementers have learned to expect and respect citizen opposition, and increasingly adapt their interventions and decision-making processes to preempt or defuse claims against their proposals (Dewey and Davis, 2013: 17; Diaz Orueta and Fainstein, 2008). Planners and politicians now adopt an “everyone gains” rhetoric of both economic competitiveness and environmental sustainability and the paradigm of “do no harm” which is the idea that megaprojects should only proceed if their negative side effects are negligible or significantly mitigated (Altshuler and Luberoff, 2003; Lehrer and Laidley, 2008).

Increasingly, participation in UMPs is organized by new forms of real-time monitoring and distributed participation in planning and decision making, and by utilizing diffusion of ICT (Whyte, 2003). Although interactive and communicative methods have been introduced in the planning practice (Healey, 2010), less attention has been paid to participation in the execution practices. Differing patterns or rhythms of visual practice are important in the evolution of knowledge and in structuring social relations for delivery. Hence, to improve their performance practitioners should not only consider the types of media they use, but also reflect on the pace and style of their interactions (Whyte et al., 2007). An example of this is the Bay Bridge renovation work in which an interactive platform communicated and included
end users (Ney et al., 2009).

In the organizing of UMPs, power, politics and conflicting interests are prevalent (Clegg and Kreiner, 2013). Given the interdependency between temporary and permanent organizations (Grabher, 2002), Moulaerts et al. (2003) see a lack of democracy and social policy in the new urban development policies and a poor integration of large urban projects in wider urban processes and planning systems. Participation is rarely statutory and tends to be executed through ad-hoc top down invitation, usually by the key, institutional power brokers. Such a top down approach of including people to participate contains high risks of failure (Alvesson and Sveningsson, 2008). Especially local and regional authorities frequently lack experience and knowledge on organizing such participative decision making processes. Therefore, grassroots organizing might be an alternative to failing top down organizing. In grassroots projects participation of involved actors is maximal as they themselves organize their process and goals (Ghai and Vivian, 1992). In sum, attention to power, participation and the micro-activities and their meaning in the specific social setting gives us insight in the absorption of shocks caused by UMPs (Grabher and Thiel, 2014)

**Methodology**

We use a qualitative–interpretive paradigm in Project Management to address social, cultural and political dynamics in construction projects, enabling us to address themes of power, resistance, transition, and communication. This interpretive approach assumes that “the social world […] is local, temporally and historically situated, fluid, context-specific, and shaped in conjunction with the researcher” (Bailey, 2007: 53). The methodology of this paradigm entails that the researcher must address the meanings attributed to the physical world and the interactions with and observations of participants within the field of study (Bailey, 2007).

The first author collected data of the two UMPs, the North-South line and Railzone Delft, simultaneously over a two-year period between summer 2011 and summer 2013, in the form of a desk-study, participant-observation, and in-depth interviewing to ensure methodological validity and reliability. The second author participated in both UMPs on a number of occasions. The desk study included the collection and analysis of newspaper articles, books, pamphlets, folders, documents and reports, and searching for and browsing project websites and the Internet for news and information, including Twitter and Facebook.

In total, 16 in-depth interviews were conducted. In the North-South Line, 10 interviews were conducted with 5 communication advisors, 2 political executives, and 3 project
constructors. In Railzone Delft 6 interviews were held with 2 communication advisors, 2 political executives and 2 project constructors. Interviews offer the benefit of providing the systematic collection of peoples’ experience, interpretation and feelings without losing flexibility and spontaneity (Ritchie and Lewis, 2003). Furthermore, accounts from residents were collected via informal conversations during open days, excursions and ritual events marking important milestones and transitions. Purposeful and mixed sampling was a method for selecting our interview respondents as we sought deliberate interaction with various participants who could contribute to our study in a meaningful way (Bailey, 2007). Interviews ranged from 1 to 2 hours and were each transcribed, translated from Dutch to English, analyzed and coded. Intentionally, most of the interviews were semi-structured based on a list of topics (i.e. project history, disturbances and shocks, citizen participations, stakeholders, disturbance mitigation, and means of communication) while maintaining a considerable degree of flexibility, active listening, and interviewee rapport to increase respondents' willingness to speak (Silverman, 2006). This fits in the interpretive-paradigm we use which focuses on the interpretation and meaning attribution of interviewees concerning the topics of study.

Participant-observation was carried out at the project information center in both cities and at the actual construction sites, including open days, project excursions, and ritual events. Participant observation provided the researcher with direct experiential and observational access to the insider’s world of meaning (Ritchie and Lewis, 2003: 35). In the North-South Line of Amsterdam, the public, national and annual “Day of Construction” on the 2nd of June 2012 at the underground stations Vijzelgracht was visited. Attendees could climb a ladder down to the building site to see the underground subway station under construction as well as the TBM at a standstill and inquire the tunnel drillers about their work. In this way participant-observation gave us superior data on how citizens were engaged in the UMPs. In Delft, too, the “Day of Construction” on the 1st of June 2013 was visited, during which attendees could walk in the underground bike station, ask constructors about their work, and obtain information. Besides these days, project excursions were joined, which entailed taking people into the tunnel or the new station(s). One excursion, led by the former technical director of the North-South Line, included a day trip to both UMPs for (student) engineers and constructors to explore the innovative techniques used for underground construction. Furthermore, participation observation was done during four ritual events; two ritual events in Amsterdam that marked kick-offs/phase transitions in the tunnel-boring subproject and two
ritual events in Delft that marked implementation milestones for the completion of the left tunnel tube and the reaching the highest point of the new municipality building. Finally, participant observation was executed in the GeoImpuls program, which was focused at acknowledging and communicating underground risks in UMPs, among which the Railzone Delft was one the projects.

Data analysis
The analysis of our data was guided by our research question. Specifically, we first collected and observed various means of communication that are important for absorbing shocks and/or rebalancing disturbances. After analyzing these means, we grouped them into categories, which we call ‘shock-absorbing platforms’ (See Table 10 below). A shock-absorbing platform is here understood as an organizational configuration that compresses, absorbs and suspends disturbances resulting from shocks caused by UMPs during execution, helping to rebalance and mediate the relation between the project and its environment. Specifically, we found that, first and foremost, project organizations provide information, facts and details regarding the project process and its impact to mitigate its shock, which we have called the ‘informative platform.’ Another main development that has been made is the use of the Internet and social media, including Facebook, Twitter, tablet/smartphone applications, and project websites, blogs and posts where people can openly comment and interact with project employees. We have called this the ‘interactive platform’ which is a rather new development in UMPs. Furthermore, we found that project excursions and open days, such as the annual ‘Day of Construction’, are important participatory events used to involve citizens and enhance transparency and legitimacy. We call this the ‘participatory platform’ where stakeholders are invited to visit and tour the building sites, especially the tunnels of both projects. Lastly, we found that ritual events that mark important transitions, too, are important for involving multiple stakeholders in the project’s development, to manifest transitions, and celebrate its progress with the environment. This is what we call the ‘transitional platform’ where transitions, milestones, kick-offs and deliveries are celebrated together with the urban community.
<table>
<thead>
<tr>
<th>1&lt;sup&gt;st&lt;/sup&gt; order data: Means of communication</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; order data: Shock-absorbing platforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Websites (official and others)</td>
<td>Informative platform</td>
</tr>
<tr>
<td>Letters</td>
<td></td>
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<tr>
<td>Leaflets</td>
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<td>Posters</td>
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<td>Articles (news, magazines, etc.)</td>
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<tr>
<td>Information center</td>
<td></td>
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<tr>
<td>Websites (official and others)</td>
<td>Interactive platform</td>
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<td>Facebook</td>
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<td>Twitter</td>
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<td>Posts</td>
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<tr>
<td>Apps (smartphone/tablet)</td>
<td>Participatory platform</td>
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<tr>
<td>Project excursions/tours</td>
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<tr>
<td>Open days</td>
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<tr>
<td>Annual ‘Day of Construction’</td>
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<td>Project lookout points</td>
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<td>Milestone celebrations</td>
<td>Transitional platform</td>
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<td>Openings/kick-offs</td>
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<td>Completions/deliveries</td>
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Table 10: Shock-absorbing platforms

**Findings of the North-South Line and Railzone UMPs**

*Shocks at the start of an UMP*

Both studied UMPs take place in the city center, making the shocks they produce unavoidable to local citizens. Or as the project manager of Railzone Delft stated: “You are building through the center of the city. [For] 2.5 kilometers you open up the city, so that results in disturbance for the local residents.” Though a large part of both projects entails constructing underground tunnels, the aboveground region, too, entails large-scale construction such as the six new metro stations in Amsterdam, and the new train station, municipality building and residencies in Delft. Thus, each project involves various under- and above-ground construction processes that are organized in the form of sub-projects and phases, and that characterize each UMP as complex and multi-layered. Herein, there is a multiplicity of stakeholders, complex processes with lengthy time horizons, concerning changes in the environment and even law- and regulation-making. Specifically, the technical director of the North-South Line explained:
They [UMPs] are not only large scale in terms of their consequences for the urban region, but also because they are just massive projects. A few hundred million, a billion, these sort of investments […] Such a project is already complex enough because there are various processes that need to be identified. You have a lot of processes that have a long duration, which is hard to oversee so you divide it into sub-projects (interview, technical director, NS).

Consequently, the studied UMPs occupy a substantial region of the urban area in various forms, phases and time spans, which residents must endure. Therefore, respondents adhere it is crucial to ensure that residents and other stakeholders support the project. Interviewees expressed that the shock of UMPs are especially impactful at the start of a construction phase because the urban environment will start to change, often drastically. The alderman of Railzone Delft explained this when commenting on the shock of a UMP:

At the beginning support is low. The moment the construction actually starts, then everyone panics. Because suddenly your natural environment has changed; you have to make a detour with your bike, you don’t understand the new diversion… I started at this time [at Railzone Delft]. Plus when I started they also announced two years delay which the previous executive did not notify. And at the North-South Line during this time you saw that many things were out of control which caused a lot of uncertainty. So what will this tunnel signify in Delft? Will we have the same circumstances [as the North-South Line]? So then communication is the most important (interview, alderman, RD).

Here the alderman expresses that support is often low due to the sudden impact – or shock – the project has on the urban environment. Also notable is that the alderman uses the North-South Line as a (negative) example to understand the impact of the shocks. However, the North-South Line project of Amsterdam is significantly more contested in nature than Railzone Delft, because many more residents and politicians resisted the project in Amsterdam than in Delft.
The shocks caused by the North-South Line Amsterdam

The history and context of the North-South Line project is a remarkable account in its own right. Amsterdam’s previous experience with building a metro, the East line, in the 1960s and 70s resulted in the infamous ‘metro riots.’ This was the response of residents who resisted metro construction as it involved the demolition of monumental buildings. Subsequently, the minister publically announced no other metro would even be built in Amsterdam and the word ‘metro’ became taboo for 30 years in Amsterdam. This trauma formed the backdrop for the North-South Line plan which silently recommenced in the 1980s in 90s when state officials concluded the transport system needed to be sustainably enhanced with another underground metro tunnel from the North to the South of the city.

That was a very difficult context, because the first experience with building metros was bad [...] This left deep traumas behind in the city, among the state officials, the people, and to a lesser extent the business. In this context we had to make plans to improve the public transport of Amsterdam (interview, technical director, NS).

Expectedly, the project plan was not received with open arms. Not only did residents actively resist this project, political executives, too, engaged in extensive debates and negotiations as to whether the metro should be built at all due to issues concerning finance, duration, and social and environmental impact which would be immense for this project (not to mention the metro taboo). Nevertheless, in 2002 the project was initiated, but “this process was not without victims” (interview technical, director). The majority of residents was against the project, and resistance groups such as ‘The Abovegrounders’ and, later, ‘Save Amsterdam’ actively attempted to shut the project down. The most prominent fear that fueled their resistance was the dangerously watery underground of Amsterdam and the many historic buildings that rest upon a foundation of stilts. Arguably, this posed many risks for underground tunnel drilling as it might lead to the subsidence or collapse of monumental and/or residential buildings.

To some extent, these fears were verified. The most prominent shocks experienced in this project were the incidents at the Vijzelgracht during the preparation phase, where seven residential buildings sank 2.5 centimeters into the ground due to a leakage in the dam wall of the new station in 2004. Several years later, in 2008, four more buildings sank 15 centimeters,
which exceeded the limit resulting in the evacuation of their residents and the termination of the project until later that year. These critical incidents made headline news and caused much socio-political unrest and (even more) resistance. The contractor of the North-South Line mentioned “The subsidence of the buildings dominated the news for weeks!” Or, as a communication advisor of the North-South Line shared:

In 2008 there were several buildings that sank at the Vijzelgracht. This was rock bottom […] so that was really bad but it was also the deathblow. After that there was a lot of research done […] on the development of the project, but also the future. ‘How must we go on?’, so to say. This was actually just before the tunnel boring (interview, communication advisor, NS).

Significantly, the preparation phase already resulted in a substantial shock for the environment, while the actual metro tunnel was yet to be drilled with a TBM in 2010. This brought even more risks than the preparatory construction of the dam walls, which is why the level of resistance peaked at this time: “There was really a lot of resistance against the [tunnel] boring […] from interest groups and political parties. Yes, really a lot of resistance” (communication advisor, North-South Line Amsterdam). Therefore, it was important for the project organization and particularly the communication team to find practices and platforms to enhance transparency and, thereby, cope with and manage the (further) shock of this project:

Only in the second half of 2009 did the commission report that one of the most important things for the communication was that everything had to be more open and transparent; about the risks and the consequences for the city (interview, communication advisor, NS).

The project organization initiated the construction process in a secretive manner and did not seek involvement or participation from the outside because of the fear for public resistance. However, with the Vijzelgracht crisis the project organization realized that they needed collaboration and support from residents and citizens to construct the project to remedy the shock, and that it was ironically the secretive behavior of the project that lead to resistance nonetheless: “I think because the curtains were so shut there was a lot of distrust
over the process” (communication advisor, North-South line Amsterdam). And, just as was already the case in Delft, the project in Amsterdam needed to become part of the city: “It is a city project I always said, it needed to become part of the city (communication advisor, North-South Line Amsterdam).

The shocks caused by the Railzone Delft

Delft has one of the most intensely used rail networks in the world, which is located just along the old walls of the city. The rail divides the historical city into two parts. This has been “solved” in the 1960’s by building a rail viaduct 5 meters above the ground to give space to intense connection between the different parts of the city. However, noise, trembling, and metal erosion hindered living conditions of citizens near the rail. A multi-faceted project including an underground tunnel combined with new neighborhoods, a new park, and new office buildings was perceived to be a true “healing” of the city. Unlike Amsterdam, the citizens of Delft did not actively resist the project. Certainly, the project resulted in a shock and caused resident unrest, as all UMPs do, but there was no outspoken resistance, interest groups or political parties that aimed to shut the project down, or the like. On the contrary, interviewees claim Delft residents wanted this train tunnel and station before the actual construction commenced, whereas many residents in Amsterdam did not want the metro: “[The support] was high before [the project] started, because the residents of Delft wanted this project. They wanted to get rid of the viaduct and wanted very much for the tunnel to come” (alderman, Railzone Delft). Thus, the UMP shock in Amsterdam was unwanted whereas the shock in Delft was wanted, making the disturbance more bearable:

From the start we had eighty percent support. Well, this is very high. Eighty percent of the environment says ‘super that you guys are here’ while you create a lot of disturbance. But this is because the people in Delft asked for it, you know? The residents of Delft have wanted this tunnel for years so when we were starting, everyone was cheering ‘finally!’ (interview, environment manager, RD)

Similarly, the project manager of Railzone Delft explained:

Luckily we did not have a Vijzelgracht here [laughs]. [The support] was already in the preliminary phase. Then there was much energy and attention paid to it, and
the support is still good […] The support is big and this resonates with ‘everyone will get a better city back,’ so you certainly have a higher acceptance rate (interview, project manager, RD).

What is more, not only did the residents in Delft want the project, they also participated in the preparation and construction of the project which made the project part of the city from the start. The alderman of Delft explains:

We organized [the project] with consideration for ‘Platform Rail’. ‘Platform Rail’ are residents who once initiated to get rid of the viaduct. Now they are being heard within a certain setting, like what do they think can go better in the public space, their ideas, their worries. So these issues are given form. […] So you really let the project live, and you take everyone along every step of the project. You really see that this works, because yeah, there are many residents who take pictures of the project, or who write blogs about the project (interview, alderman, RD).

Another example of citizen participation is that the architect who designed the new station and municipality building as part of the project is also from Delft:

[She] is a renowned architect, but also from here in Delft. I really like to discuss with her what her idea is and why she built it in the way she built it. I like this idea of yeah, that our city is the city of the TU [Technical University] also, where many architects come from. Yes, and the building reflects that (interview, alderman, RD).

An important difference concerning the UMPs in this study is that the involvement and participation of residents in Amsterdam was not sought after from the start whereas in Delft it was. Though the shock was wanted in Delft, making resident involvement and participation more straightforward, in Amsterdam, despite the fact that the shock was unwanted, the project organization realized that they, too, necessitated involvement and participation from the outside. Hence, regardless of whether a shock is unwanted or wanted, respondents from both UMPs argue that support, involvement, and participation from residents is needed from the
start and to be maintained throughout the building process. To do so, it was found that the project organizations use various platforms which consequently help to absorb or rebalance the impact of UMP shocks on the urban environment. Specifically, both UMPs in Amsterdam and Delft use what we have called ‘shock absorbing platforms’ including an informative, interactive, participatory, and transitional platform as will be described in the next section.

**Informative and interactive platforms**

Communication is especially important before a phase of disturbance takes place because it cushions the shock the disturbance will cause. Both projects, especially the ‘environment management’ and ‘communication management’ departments, made use of a number of platforms to be transparent and involve residents, with the purpose of absorbing or rebalancing the environmental shock. This includes an *informative platform* in the form of letters, posters, pamphlets, newspaper and magazine articles, project websites, and a physical information center located at the central station of both cities. At this platform project organizations learned to include not only the residents living directly next to the Railzone, but also residents living within a range of 500 meters from the project. Precisely, interviewees explain it is necessary to give residents information about the start, duration, reason, and nature of the disturbance so that it will not come as a shock. In this way, people can become aware and cope with it or they can leave the area of disturbance (temporarily) if they wish:

> If people are informed, then they will be like “O.K. at 14:00 it will be over.” But if you don’t do that, then everyone will be surprised and then they won’t have the option, if they would want the option, to choose for an alternative, you know, so that they could go away. Then it will rain with complaints. So yeah, this is then damage control (Interview, project manager, RD).

In addition to the informative platform, there is there is the related *interactive platform*, such as the official project websites and related sites, posts, and blogs, applications for tablets and smartphones, as well as Facebook and Twitter. The environment manager of Railzone explained the use of both informative and interactive means to communicate with and involve the environment:
When a time comes that the project will be in phase of disturbance for the 
surrounding area, we will discuss as to how we go about that […] There are a 
number of things [involved] in this. Sometimes residential letters, we almost 
always do, if there is anything that causes disturbance then that is the first thing 
we do. We will inform people by letter anyway, but we also often organize 
evenings [information gatherings] for residents. There will be messages in the 
newspaper, we put something on Facebook, on our website, news reports, we 
Twitter about what happens. So, we use a variety of means in order to call the 
attention of the environement to what is going on (interview, environment 
manager, RD).

At the informative and interactive platforms, information is given about the progress of the 
project, starting times, night work, expected impact on residents, road blockades and events. 
Even a special app was programmed for Railzone Delft featuring real-time forecast of 
nuisance to bikers, cars and pedestrians. This use of social media is quite a recent 
development that UMPs are making use of to inform and involve residents/residents and offer 
them an interactive platform. This became especially important in the Amsterdam metro 
project to involve the outside. Specifically, on their Website they let residents comment freely 
about project matters, including criticism. This was part of the new communication strategy to 
open up more to the outside and allow people to interact with the project organization:

On the Website we show very manifestly what kind of criticism there is on this 
project, what happens on Twitter you will see that on the homepage, we censor 
nothing, everything can be said. Well, this is this new approach of letting go, 
openness, realism, this is also really a value that we name, and this comes back in 
there [the Website]. I think this is the most special move that we made, on the 
Website (interview, communication director, NS).

In both projects, interviewees claim to aim for transparency, to enhance legitimacy and 
stakeholder support and, thereby, mitigate the shock of a UMP. While the project in Delft was 
more transparent and gained support from residents from the start, thereby making the shock 
more acceptable, in Amsterdam there was little transparency and support deeming the shock
insupportable meaning that they had to invest more time and effort into this, especially after the technical mishaps in 2008:

We especially had to get the construction under control and, besides, communicate open and transparent with everyone around this project. This was the most important since 2009. Since the start of [tunnel] boring we really started to do this, by saying very clearly how will we do it and what are the risks (interview, communication advisor, NS).

**Participatory platform**

Transparency, involvement and participation are also created when making the projects more visible and accessible to residents. This is what we call the participatory platform where residents are invited to visit parts of the construction sites. In both projects this is done in the form of open days and project excursions, such as the “Day of Construction” (see Photo 31). This is a national and annual event during which projects in the Netherlands invite and involve citizens in their building process and allow them to see and experience the actual building sites:

Something that is really nice, and we participate every year is ‘Day of Construction.’ This year we will participate for the third year, and these kinds of things are really important. You notice that also, that people will really think ‘wow, jeeze, you guys worked really hard!’ (interview, communication advisor, RD).

The North-South Line, too, holds this event for the residents of Amsterdam:

In 2008 we had a ‘Day of Construction’ where we could show our results, and we said this is something very important, to keep people within the project […] we could show people what we were doing (interview, technical director, NS).
Besides the yearly ‘Day of Construction’, there are manifold excursions that both projects organize from time to time when they want to show residents a (new) object or phase of construction:

We think that we must really show [the construction]. We want to take residents to the building sites, so we have many visits to the building site, quite a lot for the contractor. In a normal contract the contractor should organize two visits in a month, but here we sometimes have two per day, small groups that we take into the tunnel, because we find this very important, to show the neighborhood, Amsterdam, but also stakeholders, people with whom you cooperate (interview, communication advisor, NS).

In Amsterdam there is also an underground look out tow with a camera to observe the constructors at work (http://www.noordzuidlijn.amsterdam.nl/uitkijkpunt/). By holding participatory events such as open days and excursions, resident support will be gained because then they can get a better perspective and understanding for hindrance, disturbance or problems caused by the construction process. In the Railzone project the environment manager and communication advisor explained this when referring to the invitation of citizens to walk in the underground tunnel route:
If you can see why we do it, and that it is very complex what we are doing, you are building a tunnel, how far we have come; then you do create more support (interview, environment manager, RD).

These are moments that people realize. See, if you have looked at a pile of sand for one year and then the next year […] you can look in the tunnel, then you can see that we worked really hard. That is why it’s important (interview, communication advisor, RD).

In both UMPs the tunnel is used to gain support. By making the tunnel construction accessible, citizens can see, smell, hear and feel what goes on underneath the ground as they usually have no idea of what is happening underground. Frequently, such an experience impresses the participants:

We see that as a very important tool; to go into the tunnel […] and people are always impressed by what is taking place. People don’t realize that very often and this radiates back to the environment, that people are actually quite proud of what we are pulling off here (interview, environment manager, RD).

In Amsterdam, too, the tunnel is very important to make the construction process visible and to let citizens experience the impressive spatial settings of the tunnel. Every Sunday people can walk through the tunnel.

First of all we find it important that residents can see it [the tunnel]. So the first invitation was directed at them. They had the hindrance, so come and see it. But we also invite the press, and they came in the tunnel and saw all the residents walking around there, and they took photographs, a very positive atmosphere. And these images went as far as NBC [newspaper] in the media (interview, communication advisor, NS).

In Amsterdam they also started placing a giant red 3D arrow pointed down to the ground to show where exactly the builders are working underneath the ground. The arrow reads; “Here
we are now” (see Photo 32). They also have a website (www.hierzijnwijnu.nl) to show where exactly they are working and provide relevant information.

Photo 32: ‘Here we are now’ arrow NS (source: www.hierzijnwijnu.nl)

According to the communication director, this was very important during the process of tunnel boring:

It’s not only about here is the machine but the people in the machine. On the side of the arrow you also have portraits of the borers who are busy underground at that time so there you have this movement of the humanization of technology; that is what we are really doing (interview, communication director, NS).

**Transitional platform**

The last and perhaps most interesting platform we found in our study is the *transitional platform*. This involves the celebration of milestones and (phase) transitions in the project process via ritual events, such as signing contracts, (sub)project kick-offs and (sub)project completions/deliveries. In the projects studied, we found manifold ritual events that took place during the construction process to mark and actualize transitions, from small internal events to the larger more external events. In this paper, we have chosen to discuss two particular ritual events in each project as these had an important communicative and rebalancing function for the environment.
In the North-South Line, when the project made the transition from the Feasibility phase to the Implementation phase concerning the sub-project of tunnel boring, a project kick-off was held on the 11th of March 2010, in which the first two TBMs, ‘Gravin’ and ‘Noortje, were baptized by a Catholic priest and given female names according to the tradition of the tunnel and mine construction workers. This grand event signified the start of the first two phases of tunnel excavation, serving as the official kick-off for tunnel construction using bore machines. Subsequently, the same ritual was held to launch the third phase of tunnel construction on the 28th of April 2011, where the machine ‘Molly’ was also baptized and bestowed her name. According to a communication advisor, these events were important to (re)direct the attention of the public to the traditions and craftsmanship of the workers, thereby easing the resistance people had towards this project:

To bring the craftsmanship to the forefront and [to show] the experience of the people who do the actual work, then these traditions [the rituals] are really suitable to show it. So in that way in terms of communication, it really fit well. It was a very sympathetic ritual to bring the construction to the forefront. And also in terms of a milestone for this project, but also a political statement, yes, in this sense the ritual had much value (interview, communication advisor, NS).

According to the communication director of the North-South Line, the rituals were especially important to regain the trust and support of residents in the project:

The basis [for the ritual] was support, to regain trust in the project, in the people that make the project […] After the subsidence the project shut like an oyster […] so we said a part of our new course is to open up, as much as possible […] To involve the city by opening up the construction sites, to show the rituals, by sharing these moments with people, very transparently and realistically, to share the risks openly, to stop covering things up, [to say] ‘it is what it is’, to tell that to the outside, to the press (interview, communication director, NS).

In these quotes, it becomes clear that the ritual events in this project were used to make a transition from a monolithic and closed structure towards a more vulnerable and transparent one. As previously discussed, this project had to communicate more openly and honestly to
the environment about the building process and the risks, and enhance its legitimacy due to its heavily contested nature. Data confirms these rituals were an important part of that strategy.

In Delft, one sub-project that was just finalized was the completion of the eastern tunnel tube for the new railway. They ritualized this milestone by creating an event – ‘tour de tunnel’ – on 28 June, 2013 where 10 residents were granted the opportunity (via Facebook and Twitter) to participate in a bike tour through the tunnel tube. At the event which took place in the tunnel, there was an arch of balloons at end of the tunnel to represent the finish line for the bikers. After all participants crossed the finish line the residents celebrated the milestone together with the constructors and project manager by smashing a bottle of champagne against the wall of the tunnel, followed by cake and champagne to be shared by all the attendees. When reflecting on the celebration of milestones, one interviewee said the following:

You don’t really see what is happening; it’s all under the ground. But it does cause hindrance, so when there are important milestones you makes sure that you can share those with the environment, and that you can show them, even if it’s just a few […] its about that you grab a moment to show a part of the community, ‘look, this is how far we are’ (interview, communication advisor, RD).

Photo 33: Residents biking through the tunnel RD (taken by author)

Subsequently, on 7 October 2013, they celebrated the completion of another sub-project when they reached the highest point of the new municipality building. This was also attended by a group of 15 residents who were granted participation. Additionally, it was attended by
the alderman of Delft and representatives of the organizations who are responsible for the project. This, too, was an important ritual event where the project participants and a group of residents could celebrate another important transition in the project process:

The municipality building will be a part of the city in a while, the building of the city, where the municipality of Delft will be situated. But it is for the city, so it is important that you […] also involve citizens and residents in what you are doing (interview, communication advisor, RD).

The findings show that the trips, side visits and the celebration of milestones and transitions are used to involve stakeholders, to show progress, and to be transparent. Interviewees explain that stakeholder participation is needed to win the support of the environment and rebalance the shock that the project brings:

It really helps to create support, and to keep it high, so to say. I believe this also, I believe this is really necessary because people need a counterweight, so to say. Such a project just gives hindrance and disturbance, and so people need something from time to time almost to discharge, and then they can think ‘now we can have a party.’ You know, like I just said, that you show very clearly that we are making progress, we are coming closer to the end point. So for this the milestone celebrations are very important (communication advisor, RD).

Our findings suggest the participation of citizens and residents is necessary because projects impede the public space which they share with stakeholders who need to be involved in this process, also to understand why and how the project is taking place. In sum, the participatory and transitional platforms are organized to make projects transparent and accessible and to involve all the stakeholders in the construction process.

Discussion

For over 11 years (Amsterdam) and 9 years (Delft) the North-South Line and Railzone UMPs have caused considerable shocks to the lives of citizens; including construction noises, the subsidence of buildings, digging and drilling under the ground, traffic jams, hindered access to trains, and traffic detours, to name some examples. When comparing the two studied UMP
cases we see that regardless of whether their self-produced shock is wanted or unwanted, project actors of both UMPs are aware that these shocks have to be absorbed. Findings demonstrate that this is achieved via the use of various platforms which serve to inform and involve stakeholders in the project process thereby helping to absorb the project shock.

Four ‘shock-absorbing platforms’ have been found in our study to moderate and rebalance the environmental shock brought about by UMPs: an informative platform, interactive platform, participatory platform, and transitional platform. The informative platform, such as spreading information about the project via letters, pamphlets or via the information center, has already been used for a long time. Conversely, the interactive, participatory and transitional platforms are more recent since new UMPs have become more complex, contested, and politically sensitive (Altshuler and Luberoff, 2003). With these four platforms, the project organization exposes the project to the outside world but also allows stakeholders to participate; they can leave comments on the Website, visit construction sites and tunnels, ask questions to the constructors, and celebrate the milestones together with the project members. Overall, the shock-absorbing platforms are perceived to be necessary to enhance transparency and legitimacy, to involve stakeholders and gain their support, and to absorb or rebalance the shock of a UMP.

In both cases, all shock-absorbing platforms are or should be used regardless of whether the project is initially contested or supported. However, the project organization must make more effort to utilize these platforms when a UMP is more contested than supported. Specifically, we observed that the more contested North-South line project did not use all platforms from the start. Initially, this UMP mainly produced information and sought for ad-hoc support through the informative platform. Only after the Vijzelgracht crisis, local and regional authorities forced the project organization to involve outsiders and openly discuss issues concerning the risks by means of a new interactive platform, participatory platform and a transitional platform. Based upon these experiences and taking North-South Line as an example, the Railzone UMP used all shock-absorbing platforms and focused upon the involvement and participation of residents and citizens since the start of the project. Accordingly, we agree with Engwall (2003) that projects have to be understood in terms of their history, context and environment. As such, we see evidence that new UMPs are always politically and socially sensitive in nature (Del Cerro Santamaria, 2013; Fainstein, 2008).

Reflecting on the findings, it is evident that the informative platform is the most longstanding and common platform used in UMPs. However, new UMPs embedded in
democratic decision-making processes must increasingly involve multiple stakeholders in the construction process to gain legitimacy and support, prevent resident resistance, and rebalance the environmental disturbance they cause. In other words, rather than merely providing information about the project process, new UMPs must actively include stakeholders, such as residents, in the project process, especially if they lack support from the start. It follows that shocks can be absorbed and disturbances better mitigated by involving outsiders more actively, closely and transparently with an interactive, participatory and transitional platform. This is confirmed by the findings, such as that the North-South Line project in Amsterdam had to become more open and transparent and make use of these newer, active platforms to involve the residents of Amsterdam, gain their support, and alleviate its social and environmental impact.

Conclusion
In this chapter we focused on the shocks caused by a resisted and supported UMP and on how the project organizations absorbed or rebalanced the disturbances caused by these shocks. The Railzone Delft and North-South Line could be considered as new UMPs as they are great symbols of modern underground engineering, highly visible to Dutch society and intended catalysts of transportation connecting important economic urban areas. Furthermore, they are proceeding slowly and passing different cycles for which public private cooperation is needed (Altshuler and Luberoft, 2003). Although democratic decision-making processes have been applied to create attractive, sustainable and economically viable urban areas for citizens (Lehrer and Laidley, 2008; Diaz Orueta and Fainstein, 2008), UMPs remain socially and politically sensitive (Moulaert et al., 2003).

The findings of the study add to UMP literature by claiming that UMPs cause significant threats to local quality of city life during their start and execution whether they are contested/supported or not. To rebalance the disturbances project management of UMPs use four, what we have called, shock-absorbing platforms: the informative platform, interactive platform, participatory platform, and transitional platform. In both cases, shock-absorbing platforms are used to enhance project transparency and legitimacy, involve citizens and other stakeholders, and mediate social-cultural dynamics. The careful crafting of these shock-absorbing platforms in a collaborations process between residents, citizens and project management that is deemed fair and open to affected groups is an important approach for state
actors to manage the complexity of multifaceted and fragmented UMPs (Innes and Booher, 2010).

To project managers, communication professionals and environment managers of a UMP the findings of this study can help to open up their projects to residents, citizens and stakeholders. For many people working in the construction sector, opening up the construction sites to residents conflicts with professional values of safety. Among each other they complain about the difficulty to do projects in urban settings nowadays due to the legal knowledge of residents. However, opening up the “gated” UMP might be the best way forward to gain the support of the environment and absorb the self-produced shocks in urban areas.
Chapter 7: General discussion and conclusion

The transition rituals studied in this research are practiced to attribute special significance to the construction process in a temporal and cyclical manner. Within their demarcated space and time, rituals tell stories and sketch visions about construction projects and their environment through aesthetic and poetic performance. Rather than being purely symbolic, the stories and visions are performed strategically for various purposes such as embedding a project in its environment, gaining public support, legitimizing the project process, and enacting transitions from one project phase to the next. In this final chapter, the research implications and contributions concerning the practice and meaning of transition rituals will be imparted. First the main research aim and question will be revisited and a general answer will be given, followed by a contextual understanding of transition rituals in complex construction projects. Next the main theoretical contributions to project management and organization studies will be given, followed by implications for theory development concerning the conceptual lenses used as introduced in Chapter 2. After, the practical contributions will be given followed by a critical discussion of the main findings and analyses. Subsequently, suggestions for future research and a methodological reflection will be provided, followed by a brief wrapping up of the research.

Revisiting the research aim and question

The purpose of this research was to provide an in-depth understanding of the practice and meaning of transition rituals in the context of complex construction projects. Consequently, the main research question formulated was: 'How are transition rituals practiced by project actors and what do they mean in the context of complex construction projects?' The findings generally indicate that transition rituals are practiced internally for members and teams of the project organization or externally for the public, and are directed at various target groups which I have categorized as builders, VIPs, and residents. Furthermore, it was observed that they are performed strategically at a certain time and place, with predetermined actors and audiences, and with particular words, gestures and materials that signal and express meaning. This performance involves both social and material factors, symbols and strategies that account for its performative power. This power is manifest in ritual’s ability to communicate important messages, catalyze transitions, and help rebalance disturbances caused by the impact of the construction process, especially in urban areas. To shed further
light on the meaning of rituals in the context of complex construction projects, a contextual understanding will be given next.

**A contextual understanding of transition rituals**

As described in the introduction, there are four important themes that typify the context of construction projects as complex and that are important to consider for this research. These are a project’s (1) laborious collaboration, (2) temporal organizing, (3) difficult change, and (4) interface with the environment. The research as a whole exhibits the significance of ritual practice in this particular context, in line with the research aim to study the practice and meaning of transition rituals in the context of complex construction projects.

The first theme concerns the complex collaboration in projects which comprise both public and private partners and multiple stakeholders. Frequently, the laborious collaboration is an important reason for cost overruns, time delay, or the collapse of project-based alliances (Flyvbjerg et al., 2003b; Söderberg and Vaara, 2003). Moreover, the wide social and environmental impact of construction projects indicates they require collaboration from the outside, by gaining public support and involvement (Lui, 2008). In short, the diversity in stakeholders, cultures, and interests characterizes project management as a difficult endeavor (Van Marrewijk et al., 2008). Within this context, this research found that rituals can play a vital role in the collaborative facet of projects by involving multiple groups and stakeholders such as builders, VIPs and residents at the organizational, institutional and societal levels as shown in Chapter 3. Involving residents has become especially relevant because projects increasingly realize the need to include them in the construction process via various platforms, such as the informative, interactive, participatory and transitional platforms as found in Chapter 6. For instance, ritual events at the transitional platform invite residents to celebrate milestones together with project actors.

This is not without drawbacks, however. Namely, Chapters 3 and 4 also showed how rituals can be exclusive and political events, especially those held for and/or performed by VIPs, where builders and residents are not always included unless their role is strategic (e.g. the performance of children who symbolize the future; the performance of the builders who symbolize heroes). It was explained by ritual organizers that not everyone can be invited to all events due to the scope and costs. Hence, ritual organizers must be mindful of whom they include and exclude at a particular stage in the project, about what the possibilities are in
terms of the size and costs of the event, and maintain a balance between the diversity of project actors and stakeholders.

The second theme concerns a project’s temporal organizing. A project is a temporary organization that can typically be divided into various phases such as initiation, decision-making, preparation, realization and delivery, which are aligned to spatial and temporal planning schemes of the project life cycle (Marshall and Bresnen, 2013). However, projects deal with manifold phase overlaps, sub-projects, workforces, and drawn-out phase transitions characterizing the management of time and transition as difficult (Van Marrewijk, 2007). Hence, a main issue is the ever-changing, non-linear, and often unpredictable process of a complex project (Cicmil and Hodgson, 2006; Maaninen-Olsson and Müllern, 2009; Söderlund, 2013). This research showed that rituals can help to organize the complex construction process. Specifically, rituals are practiced to mark, albeit symbolically, certain moments or transitions in the context of overlapping phases and workforces. This helps to create a sense of linearity, progress and structure, where project actors can reflect on the process, become aware of the present, and enact a vision for the future. For example, Chapter 3 showed how rituals help project actors oversee the process by marking boundaries and distinguishing phases. Similarly, Chapters 4 and 5 showed how rituals catalyze transitions in a symbolic yet manifest way so as to give the impression of irreversibility, such as by signing a signature, smashing a bottle, or pressing a switch. This ‘point of no return’ is used to actualize a transition from one phase to the next. In sum, in this research ritual events are considered as valuable collective practices that help to guide and organize the lengthy, fragmented and complex project process.

The third theme is a project’s difficult change. Organizational or cultural change is difficult to implement in the project process due to the complexity, fragmentation, and geographically dispersed nature of construction work. Hence, project management literature indicates change initiatives must be instigated to manage the ever-changing and unpredictable process of construction (Bresnen et al., 2005b). However, issues of culture, power, politics, and interest are generally disregarded in the implementation of change which must be taken into account (Hodgson and Cicmil, 2006). Furthermore, scholars encourage contextual studies of situated, temporal events and social and cultural practices that are important for realizing change in projects (Blomquist et al., 2010; Bresnen et al., 2005a; Van Marrewijk, 2007; Hancock, 2006). In line with this, this dissertation shows that rituals, as temporal events and significant social practices, can help to bring about change by
catalyzing transitions in the project life cycle. For example, Chapters 5 and 6 showed how the baptisms of the TBMs were important rituals for implementing change in the North-South line metro project, by making the project more transparent and regaining respect for the workers in the hope of easing public resistance and enhancing support.

The fourth theme that typifies the project context is its interface with the environment. The projects of this research are carried out in urban and provincial living space. Within this space, they become sites of socio-political unrest due to the hindrance and obstruction they produce for long periods of time. For example, in the Room for the River project residents had to be displaced to make room for the river which caused unrest and resistance. Or, in the North-South line project there were several political groups that actively resisted the project as shown in Chapter 5. In simpler terms, projects produce shocks in their environment and they must learn to expect and respect civil and/or political opposition or unrest (Grabher and Thiel, 2014) emphasized in Chapter 6. Since complex construction projects frequently disturb their environment, it was found that externally performed (i.e. publicized and mediatized) rituals, among other practices, can play an important role in helping to rebalance this disturbance, mediating at the interface between a project organization and its environment. Specifically, the data indicated that rituals can communicate important information and messages, enhance transparency, create project familiarity, and embed a project in its local environment. For example, in the Railzone Delft project residents were invited to participate in the celebration of the milestones, allowing them to bike through the completed tunnel or climb to the top of the new municipality building. In this way, residents can gain a different perspective of the project.

Reflecting on the practice and meaning of rituals in the project context as described above, a bias towards a functionalist perspective of rituals must be discussed. There are limits to using rituals to fulfill certain purposes because they have intended but also unintended consequences beyond the intentions of its organizers and actors (Koschmann and McDonald, 2015; Anand and Jones, 2008). In this sense, rituals should not simply be seen as part of a management toolkit or cookbook (Kunda, 1992). Moreover, attention must be paid to the ‘multivocality’ of ritual, indicating they have complex and multiple meanings for different actors (Turner, 1969). For example, builders expressed a frustration towards rituals practiced exclusively by VIPs which are seen as ‘fancy parties’ for the delight of state officials who are less involved in the construction process than they are, as shown in Chapter 3. Another example from the news is the official opening of a highway where the
minister spent over 130,000 Euros of state capital to throw a party with excavator machines that danced to classical music. This caused a public debate because of the high costs and extravagance of this ritual (NRC Handelsblad, 6 April 2011). With such unintended consequences, rituals can become debatable, take on a different or ‘empty’ meaning, become inauthentic, lose their value, or backfire. Therefore, ritual organizers must always be aware of the drawbacks and pitfalls (i.e. rituals do not always ‘work’), and decide carefully on how the ritual is scripted and framed, on who is involved and invited, and on what is appropriate to express within a particular context. In short, though rituals may be useful, the extent to which they are is limited and negotiated, depending on manifold factors and circumstances which should be addressed when researching the practice and meaning of rituals in any organizational context.

Theoretical contributions

This research makes several main theoretical contributions in the fields of project management and organization studies, which will be enlightened below. Thereafter, I will discuss how the conceptual lenses, introduced in Chapter 2 of this dissertation, have contributed to a more in-depth understanding of rituals in the life cycle of construction projects and to theory development in various sub-fields of organization studies.

Project management studies

This research makes several important theoretical contributions in the field of project management. Firstly, as established in Chapter 3, this research contributes the conceptualization of transition rituals as important symbolic and strategic practices in the life cycle of complex infrastructure projects. Specifically, a focus on transition rituals offers an alternative to traditional perspectives on temporal structuring and organizing, such as an emphasis on temporal models and pacing devices for planning and control (e.g. PLC model). Traditional, instrumental perspectives often neglect the social and symbolic facet of time and transition in projects which must be taken into account (Cicmil, 2006; Eskerod and Blichfeldt, 2005; Löfgren, 2007). Importantly, an interpretive study of transition rituals addresses this facet. Additionally, the concept of transition rituals helps us understand the management of projects from a processual perspective (Söderlund, 2013), where change is seen as a continuous and dynamic process that project actors must oversee and cope with. For example, rituals can play an important role in crossing invisible boundaries (Sillince and
Barker, 2012) which are largely symbolic but nonetheless valuable for organizing time, dissipating ambiguity and uncertainty, enacting transitions, and exhibiting progress.

Secondly, this study contributes the understanding of ritualization as a strategic practice (Bell, 1992; 2009) for authorization, legitimization, external communication and realizing transitions in the project process. For example, in Chapter 4 rituals are conceptualized as strategic practices that legitimize the project through symbolic performance and catalyze transitions by enacting a ‘point of no return’. Moreover, this study has shown that the strategic implementation of rituals is considered especially valuable at the interface between a project organization and its environment. In Chapter 6 this is referred to as the ‘transitional platform’ where the project organization invites and involves stakeholders, especially residents and citizens, to celebrate milestones and experience the construction process during ritual events. Because the project process is complex, lengthy and fragmented, it is important to mark milestones and to share and communicate this explicitly with the (urban) community. This confirms that projects cannot be delivered with closed governance systems and that attention needs to be directed to the context as an interpretive framework for the environment of actors in the project process (Engwall, 2003).

The traditional understanding of projects as isolated, technically-defined activities cut off from their social environment is too limited (Kreiner, 1995; Söderlund, 2013; Engwall, 2003). Therefore, this dissertation explored the project context from an interpretive perspective to see how project actors cope with this context, and aim to communicate with and include their environment in the implementation process. A focus on a project’s interface with its environment is becoming more relevant in the field of project management (Maaninen-Olsson and Müllern, 2009; Söderlund, 2005; Cicmil and Hodgson, 2006). This dissertation adds to this growing area of research by showing how project actors approach this interface with the use of platforms that mediate between a project organization and its environment, being the informative platform, interactive platform, participatory platform, and transitional platform as outlined in Chapter 6.

Organization studies
This dissertation contributes to ritual theory in the field of organization studies. Before carrying out this research, the theoretical review indicated that ritual studies in organizations usually focus at the individual, team/group, and organizational level. For example, studies have focused on initiation, training and socialization (Van Maanen, 1975; Van Maanen and
Schein, 1979; McNamara et al., 2002; Vaught and Smith, 1980), partnering and teamwork dynamics (Eskerod and Blichfeldt, 2005; Brooks, 1996; Cova and Salle, 2000), and (strategy) meetings and workshops (Johnson et al., 2010; Peck et al., 2004; Mechling and Wilson, 1988; Catasús and Johed, 2007). The typology of Trice and Beyer (1984), too, focused on the individual or team level in organizations such as rituals of degradation (e.g. firing, replacing), enhancement (e.g. promotion), conflict reduction (e.g. collective bargaining) and integration (e.g. office Christmas party). Conversely, this research has contributed to ritual theory in the sense that it focusses on rituals at the organizational, institutional and societal levels. That is to say, this study addresses the practice of rituals beyond the organizational periphery, thereby offering a more external focus at the interface between an organization and its environment. This is because the majority of rituals studied were publicized and mediatized, performed for wider institutional and societal audiences. This is especially relevant for project organizations because of its interface with the environment. However, I argue that such ritual performances may be equally relevant for organizations in general because they, too, are parts of larger social systems, functioning within, depending on, and interacting with their environment.

In line with this, this research contributes to ritual studies integrating the micro, meso and macro levels of organization studies (e.g. Smith and Stewart, 2011; Anand and Jones, 2008). Specifically, Anand and Jones (2008: 1057) argue that ritual enactment at the micro level has meso-level constitutive impacts, as well as macro-level field-configuring impacts over time. Thus, rituals can permeate different levels, occurring in micro and macro forms (Smith and Stewart, 2011). In a similar vein, rituals are linked to aspects such as organizational legitimacy, reputation management and institutionalization (e.g. Anand and Watson, 2004; Sillince and Barker, 2012). This should be taken up in future research to be explored further.

Additionally, this research contributes to ritual theory with a more critical perspective that accounts for the strategic and performative dimensions of rituals (see Chapters 3 and 4). In this way, this research addresses issues of power, politics and strategy thereby departing from research that tends to focus solely on the integrative and unifying aspects of ritual such as enhancing solidarity and equality. Moreover, the interpretive approach goes beyond a purely instrumental perspective on rituals in organization studies (Kunda, 1992). Rather, in this dissertation I argue that while rituals may be purposeful and useful to meet certain ends, this process is limited and negotiated because rituals have
intended and unintended consequences, elusive or hidden meanings, and different implications for different actors.

**Contribution of conceptual lenses**

To gain a more in-depth understanding of the meaning of rituals in the project life cycle, this dissertation utilized four main conceptual lenses, introduced in Chapter 2 of this dissertation, which together form a kaleidoscopic lens (see Figure 5 p. 40): a practice lens, strategy lens, performative lens, and sociomateriality lens. Below each lens will be revisited and I will argue how each lens has been valuable for understanding the deeper meaning of rituals in the project process and how they have contributed to theory development in various sub-fields of organization studies.

**Practice lens**

When applying a practice lens to the study of ritual, it shifts the understanding from ritual as a concept to ritual as a practice (Bell, 1992). This is important due to the difficulty in establishing what ritual is or is not. Hence, rather than ascribing categories to determine the definition of ritual, Bell (1992) proposes to study ‘ritualization’ as a practice that strategically differentiates itself from others. Here, the researcher must look at how and why people act so as to give some activities a privileged status over others by unearthing the strategies for setting certain social activities apart from others. Accordingly, this study focused on how and why project actors perform rituals in a strategic way to privilege and distinguish them so as to give them significance and purpose. Namely, in Chapter 4, the demarcation of time and space, the symbolic performance of authoritative figures (VIPs) and children, and the catalysis of a point of no return via the use of certain gestures and materials (such as smashing a bottle or pressing a switch), are strategies which privileged rituals from ordinary everyday practice. Herein resides the power of ritual, which is able to enact qualitative distinctions that are subsequently ascribed to reality, such as legitimizing the initiation of a project during a kick-off or attributing special significance to a completed tunnel or railway during a milestone celebration.

This contributes to practice theory in the field of organization studies because a ritual can be conceptualized as a, what I call, ‘practice made special’, differentiated from ordinary practices. In this research, the rituals are highly symbolic, aesthetic and poetic such as the use of symbolic gestures to manifest a transition, the exhibition of impressive imagery and
art to sketch a vision of the project, or the performance of children who recite poetry. This attracts the attention and rouses the awareness of its participants to that which is or should be regarded as significant (Anand and Watson, 2004). Importantly, within the demarcated time and space of ritual practice lies its ability to enact transitions (Johnson et al., 2010), which typifies it as an extraordinary and transformative practice in construction projects.

Strategy lens
Akin to the practice lens, the strategy lens conceptualizes rituals as practices that are strategically appropriated through their situated and orchestrated performance to have certain outcomes. Specifically, they are episodic and purposeful practices that have spatial, temporal and aesthetic properties that account for their strategic power (Kornberger and Clegg, 2011). Chapter 4 has shown that they are performed strategically a certain time and space, with predetermined actors and audiences, and particular words, gestures and materials that (re)construct meaning and reality. With this perspective, this research contributes to the field of Strategy-as-Practice in organization studies because it is a micro-level, interpretive study that goes beyond mainstream, management-centric approaches that focus mainly on planning and control. Specifically, by drawing from social theory and focusing on the process of strategizing at the local level of observation during ritual performances, this study sheds light on the space, symbols, materials and aesthetics of strategizing in line with the research suggestions of scholars in the field (Carter et al., 2010; Kornberger and Clegg, 2011; Johnson et al., 2010). Examples include the underground construction space that was ritualized during the machine baptism rituals, the Queen inaugurating the railway with her royal train, and the use of balloons, banners, flags and champagne to celebrate the milestones in Delft. In this way, this study exhibits strategy in the making, capturing what words on their own cannot capture (Kornberger and Clegg, 2011).

This study also adds to strategy research that transcends the organizational periphery. Specifically, it sheds light on ritual performance as a strategic practice at not only the organizational level but also the institutional and societal levels, involving multiple actors such as project members, state officials and residents. In line with the research suggestion of Vaara and Whittington (2012), this helps to bridge the gap between strategy research at the micro-/organizational-level (e.g. Johnson et al., 2010), meso-/institutional-level (e.g. Suddaby and Greenwood, 2005), and macro-/societal-level (e.g. Alexander et al., 2006). In short, and as previously mentioned, studying ritual performances contributes to integrating
research at the micro, meso and macro levels in organization studies (Anand and Watson, 2004; Anand and Jones, 2008).

**Performative lens**

The performative lens follows directly from the strategy lens because strategy is a performative practice the *does* something (Kornberger and Clegg, 2011) such as communicating messages, involving stakeholders, or realizing transitions. Consequently, as strategy episodes, rituals are performative practices that are not only performed in a theatrical sense but which also *do* something by ascribing qualitative distinctions to reality. In other words, a performative lens underlines how rituals are performed strategically so as to (re)construct certain meanings and realities. This ‘way of acting’ has been of special interest to this dissertation and informed by performativity theory. Drawing from the works of Butler (1993) and Barad (2007), performativity is conceived as practical and active, where words, gestures and materials ‘act’ (Butler, 1990; Bell, 2009) such as launching a project by giving a speech, signing a signature, or pressing a switch. Herein, the emergent and transformative quality of rituals has taken into close consideration, referring to what a ritual is able to establish or manifest (Bell, 1992), particularly transitions in the life cycle of complex construction projects. This confirms that rituals not only mark transitions but also realize them (Alexander, 2006). In simpler terms, a transition is made *because* it is performed into reality, shifting from an abstract idea or plan into something tangible.

Furthermore, this research adds to performativity theory by applying a post-humanist approach (Barad, 2003) that includes both social and material factors in studying how meaning and reality are enacted in practice (see Chapters 4 and 5). Initially, performativity theory focused on speech acts (Searle, 1962), performative utterances (Austin, 1963), and discourse (Butler, 1988; Foucault, 1980) to show how language could do or produce something beyond merely representing something existential. However, scholars have criticized the dominance of language and discourse in performativity theory: “Language matters. Discourse matters […] There is an important sense in which the only thing that does not seem to matter anymore is matter” (Barad, 2003: 28). Hence, it has recently been suggested that factors such as the material, the spatial and the visual, too, should be seen as performative in the construction of meaning and reality so as not to privilege typically ‘social’ or ‘human’ factors (Loxely, 2007; Jacucci and Wagner, 2007; Butler, 1993; Gregson and Rose, 2000; Orlikowski and Scott, 2008; Leonardi, 2013). Indeed, in this study it was found
that rituals are, in fact, very tangible, material, corporeal and spatial which goes beyond the focus on ‘social’ aspects such as the actors and language used. In sum, by going beyond traditional approaches, this research adds to a growing field by integrating social and material factors that should be addressed in organizational theory and analysis (Barad, 2007).

**Sociomateriality lens**

Studies that integrate social and material factors and demonstrate their entanglement – i.e. sociomateriality – are lacking in organization studies (Orlikowski, 2005). This research contributes to sociomateriality theory as it exhibits how the social and material are entangled. According to a post-humanist approach, sociomateriality is seen as a joint (re)configuration of entangled agencies, thereby collapsing the social-material divide (Barad, 2003; Orlikowski and Scott, 2008). Here, performativity theory underlines how boundaries between the social and material are not pre-given or fixed, but continually enacted in practice (Orlikowski and Scott, 2008). Nevertheless, the theory of sociomaterial entanglement is difficult to apply empirically (Mutch, 2013; Faulkner and Runde, 2012; Leonardi, 2013). Therefore, this research has attempted to exhibit this theory by showing how the “social” and “material” are entangled – i.e. sociomaterial – and (re)configured over time and in practice (see Chapter 5). Moreover, the findings of the study show that boundaries between the social and material are not only enacted in practice, but also blurred during ritual performances which exhibit an innate entanglement between social and material entities. In this research, empirical examples that exhibit sociomateriality include the blessing and naming of the machine, smashing a bottle of champagne against the wall of a finished tunnel, raising flags at the highest point of a new building, or the Queen opening a new railway with her royal train. Therefore, this research contributes to bridging the gap between theoretical and empirical research on sociomateriality (Leonardi, 2013; Faulkner and Runde, 2012).

**Practical contributions**

This research makes a practical contribution for project managers and practitioners in the field as rituals can be used for certain purposes. As previously pointed out, the practical use or application of rituals in the field is limited and negotiated. Rituals may not always ‘work’ (Kunda, 1992) and they can have latent meanings and unintended consequences beyond the purpose of its organizers and actors (Koschmann and McDonald, 2015). This must be taken into close consideration when seeking a pragmatic understanding of or approach to rituals.
To name several practical prospects, rituals can be used to help coordinate and structure the project process, organize time, mark and enact transitions, celebrate milestones, involve multiple target groups and stakeholders, gain public support, embed a project in its environment, and help rebalance the disturbance caused by a project’s impact. During this research, workshops were given for practitioners in the field (from KING\textsuperscript{7} and IPMA\textsuperscript{8}) based on the findings presented in Chapters 3 and 4. Here, practitioners could learn about the kinds of rituals there are, when they are practiced in the project life cycle, and how to organize and practice them, such as deciding on the means (i.e. time, space, actors, audiences, words, gestures, and materials) and purposes of ritual. Interesting to note is that the workshops made practitioners more aware of the rituals they habitually practice, which they usually took for granted or perceived as something they did because it is traditional or the normal thing to do. It follows that this research can help practitioners to become mindful of the rituals they practice and to practice them mindfully in turn. Additionally, I currently participate in a grassroots, collaborative platform together with public artists, anthropologists, and project actors to help implement transition rituals in construction projects, both small- and large-scale, in various communities in the Netherlands (see \url{www.bouwritueelen.nl}). This initiative was officially launched in May 2015.

For change consultants, this research is relevant as it provides the concept of transition ritual as a practice that can be appropriated in such a way to enact transitions and bring about (cultural) change. As Bresnen et al. (2005a) mentioned, change is difficult to achieve in projects due to the fragmented and complex nature of construction work. Importantly, this research found that rituals can play a role in helping to achieve change as a strategic practice that has performative power. For communication advisors, this research is also valuable as rituals can be used to communicate important messages and involve the environment of the project, especially residents in urban areas. This is necessary to legitimize the project and enhance its public reputation or image. Projects frequently disturb their environment which may cause political and social unrest, as was the case in Amsterdam with the political groups that resisted the North-South line project. To help rebalance this disturbance and gain support, communication advisors can implement rituals at the transitional platform, as well as use other platforms such as the informative, interactive and participatory platforms as elaborated in Chapter 6. In short, rituals can be

\textsuperscript{7} KING stands for ‘Kennis in het Groot’ a Dutch collaborative platform aimed at sharing and building knowledge in project management. 

\textsuperscript{8} IPMA stands for International Project Management Association

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used – with caution – to engage a diversity of means and codes to communicate with or involve participants or an audience for particular purposes.

Moreover, for organizational researchers this research offers a practical contribution by applying a post-humanist approach to performativity and sociomateriality elaborated in Chapters 4 and 5 respectively. As mentioned before, though these theories are theoretically enlightening they are also difficult to apply empirically. To help apply these theories in a practical way, this research offers particular methodologies (e.g. ethnography), analytical frameworks (e.g. multiple levels of analysis), and provides empirical examples which exhibit these theories in practice. Specifically, in Chapter 4 a post-humanist approach to performativity is operationalized by integrating both human and nonhuman factors (i.e. time, place, actors, audience, words, gestures, materials) which enact meanings and realities. Subsequently, in Chapter 5, a framework is devised to study the process of sociomaterial entanglement over time at the contextual, organizational and practice level.

Critical discussion
One interviewee told me that once a project is finished everyone will be happy and satisfied, but that until that time the majority of people, mainly residents, will complain or resist rather than be supportive. This is because a project produces disturbances in the public living space affecting many stakeholders, as this dissertation has delineated. Many structural changes have to be made to a city and the environment to receive a project because there is usually no space for it yet. This is followed by the emergence of construction sites, hindrance, noise, dust, machines, trucks, cranes, etc., which further impede the space. Thus, the material and spatial transformation a project can instigate in public living space is telling.

For complex construction projects, like the projects of this study, this structural change and its societal and environmental impact is large-scale and long-term. For this reason, the project organization must enhance public support which Dutch project actors call obtaining ‘draagvlak’; a term literally meaning ‘foundation.’ If there is no foundation to build on, then the project is likely to encounter many hardships and obstacles that are often social and political in nature. This makes the process even more complex, costly and lengthy than it already is. Hence, the project needs to devise practices and platforms to endorse, authorize and legitimize its process at the interface between the project and its environment from the beginning until the end.
In this dissertation, I argue that transition rituals in projects, especially those performed for a public audience, are important practices for helping to build and maintain this foundation. Therefore, rituals are orchestrated and practiced strategically to inform and persuade the audience, to make people believe that the project is necessary, that it is for the benefit of society, that it will make for a better future, and that it is worth the time, investment, and societal and environmental impact. In other words, the rituals of this study tell a story and sketch a vision of the project in an amiable light and imply that the project ought to be so. And rather than imparting practical and technical information about the project process, a ritual event will communicate symbolically, tell the story poetically, and sketch the vision aesthetically to appeal to a wider social audience and the media, in a way that cannot be captured by just details or facts. It is important that the audience recognizes the story, identifies with it, and understands the significance of the event.

Thus, the ritual instances of this research attempt to create a shared meaning or understanding for which the audience is receptive by appealing to the senses. In the cases studied, think of the Queen opening the railway and the children who recited poetry in the Hanzeline project; the use of balloons, flags, champagne and cake to epitomize pride and celebration in Railzone Delft; the holy water, statue of Santa Barbara and the machine baptisms to represent heroism and protection in the Amsterdam metro project; or the sand artist and choir that sang songs to express the significance of the environment in an artistic and poetic way in the Room for the River project. This research argues that ritualizing the materiality of the project privileges and attributes significance to it, exhibiting an inherent interrelation between social and material spheres of life. In this way, people may become more understanding of and receptive to the structural impact of the project. People are generally not sympathetic to the materiality or technicality of a project because this is often perceived as intrusive and inhuman. Rather, people are more receptive to an enjoyable event with performance, music, art, film, photography, food, drinks etc. Such aesthetically appealing events are seemingly more social and human in nature, rather than technical, which the relevant community outside the project can identify with. In this sense, it can be argued that these rituals attempt to get people on the same page and establish a sense of community (i.e. ‘the project is for the benefit of our community’). This has important implications for ritual theory, but it must be discussed critically.

In ritual studies there are two opposing views often positioned against each other; a functionalist perspective that sees ritual as having an integrative and unifying function such
as enhancing group solidarity and establishing a sense of community, and a normative control perspective that sees ritual as staging a reality that particular, usually more powerful, authoritative or dominant agents wish to impose on the social structure (Kunda, 1992; Anand 2008; Bell, 1992). While traditional or instrumental research on rituals underlines its integrative character, more recent or critical research emphasizes its strategic and performative character in reconfiguring and reproducing power and a certain social order (Alexander et al., 2006; Bell, 2009; Turner, 1982; Turner and Schechner, 1988).

A movement towards a performative understanding of ritual can be tracked in its theorization over the past decades. When Victor Turner came to realize that his ritual theory (e.g. ‘liminality’, ‘communitas’) derived from research in more traditional, tribal communities was less applicable to rituals in contemporary, more complex societies, he was keen to revive ritual theory. Initially he did this by introducing the concept of ‘liminoid’ to indicate liminal-like moments in ritual-like practices or social dramas in contemporary societies (Turner, 1982). Consequently, his main theoretical development was made when he turned to performance studies, which can be followed in his books ‘Dramas, fields, and metaphors: symbolic action in human society’ (Turner, 1974), ‘From ritual to theatre: the human seriousness of play’ (Turner, 1982), and ‘The anthropology of performance’ (Turner and Schechner, 1988). In short, ritual and ritual-like behavior in contemporary, more complex societies required a theoretical shift towards a performative understanding of ritual, “featuring more strategic, reflexive, and managed forms of symbolic communication” (Alexander et al., 2006: 537). Essentially, rituals are first and foremost articulations of power (Foucault, 1982) where the act of ritualization establishes a privileged opposition (Bell, 1992). Importantly, this produces forms of order and power beyond community (Bell, 1992) meaning that ritual is essentially concerned with the politics of humanity.

An important political facet is that an agent must privilege and distinguish her- or himself to speak on behalf of the community on the ritual stage (Turner, 1982), such as aldermen, mayors, ministers, political representatives, and the Queen. In this research, these actors are perceived as VIPs who, together with other ritual strategists (usually managers or communication advisors), tell the shared story and sketch the vision of the project. Mainly, VIPs perform these rituals because they are state officials who represent the community and, therefore, authorized to speak on behalf of that community. Turner (1982: 92) explains that ritual performances are “initiated when the peaceful tenor of regular, norm-governed social life is interrupted” and that, during ritual, “redressive means are taken by those who consider
themselves or are considered the most legitimate or authoritative representatives of the relevant community [involving] ritualized action.” In this sense, it can be theorized that rituals in complex construction projects are performed to restore the disturbance or imbalance brought about by the project’s impact. And rather than being purely ceremonial, they are essentially strategic.

The ‘redressive means’ include the script and props used to perform the ritual, as studied in this research. However, the strategic and performative power of ritual performance is limited and highly negotiated (Anand and Jones, 2008; Koschmann and McDonald, 2015), in part depending on the extent to which the performance is impressive and convincing for an audience (Kornberger, 2013). In other words, the strategic effectiveness and performative power of ritual performance is never a given but depends in part on the strategic mastery of the ritual script and props (Kornberger, 2013; Kornberger and Clegg, 2011; Anand and Jones, 2008). Therefore, this research has focused on the carefully orchestrated performance of scripts, symbols, words, gestures, and materials during ritual events which frame and communicate certain issues or messages concerning construction projects and their environment. In doing so, I have aimed to expose the implicit and elusive elements of ritual practice, strategy and performativity by focusing on first-hand observations in the field and analyzing the subjective interpretations of various project actors.

In this research I found that because ritual is highly aesthetic, visual and poetic, it is an elusive and mute form of strategizing which enables it to slip under the radar of control (Meyer et al., 2013). Specifically, it is strategic and manipulative because it remains implicit via the use of scripts, symbols and props. In this way, what might seem like a nice performance by children who recite poetry is, in fact, a strategy for disciplining the future. Ritualization is thus a mode of meaning and reality construction that disguises itself through its orchestration, thereby enhancing its coerciveness. In other words, ritual’s power is embedded in the misrecognition of what it is in fact doing (Bell, 1992). It follows that rituals embody human purposes, means and ends, aspirations and visions, both individual and collective (Turner, 1982), which are performed implicitly rather than articulated explicitly.

Unearthing the more elusive character of ritual is a more critical and interpretive perspective that transcends both the functionalist view and normative control view. Though it considers ritual as an articulation of power, it also considers ritual’s latent or hidden meanings, and implicit forms of power beyond human intentions (Kunda, 1992). Namely, it emphasizes that there are limits to the use of rituals by authoritative figures to achieve certain
ends (Koschmann and McDonald, 2015; Anand and Jones, 2008). This is because rituals “are only partially articulated, understood, or acknowledged by participants” (Kunda, 1992: 94), meaning that they have multiple, ambiguous and complex layers of meaning depending on multiple interpretations. Moreover, recent research (Koschmann and McDonald, 2015) claims that we cannot take for granted the performative aspect of ritual agency in its own right or reduce this agency to the actions and intentions of organizational actors. Thus, rituals are constitutive of reality and can perform or accomplish things that are unpremeditated, which is an understudied facet in organization studies. In a similar vein, Anand and Jones (2008: 1057) contend:

It is important to see rituals as political symbols that are fabricated and controlled by interested and motivated actors […] At the same time, such agency is not unfettered, but becomes self-constraining as the ritual and its concomitant field-level category take, so to speak, a life of their own […] From this perspective, the legitimacy and taken-for-grantedness of ritual is not given, but is an ongoing accomplishment that organizers of the ritual have to constantly strive for.

In other words, the performative power of ritual is not reducible to its actors and organizers. Rather, in this dissertation I argue that ritual researchers should address multiple factors, both human and nonhuman, social and material, that conjointly make up the performative assembly of rituals: i.e. the time, space, actors, audience, words, gestures, and materials. All these factors can be construed as agential and take on a life of their own. Consequently, future research should address multiple performative elements to uncover the multifaceted power of rituals in different organizational contexts.

**Suggestions for future research**

There are various directions for future research and organizational fields of study to which this topic could further contribute. First I will describe two forthcoming papers that I am currently working on, but which have not been included in this dissertation. One article is based on performativity theory and the concept of ‘faith.’ The co-author, Dr. Sander Merkus, also carried out research in the infrastructure sector and studied decision-making by focusing on the story-telling of state officials. For this paper, we combine our findings and explore how the strategic story-telling and ritualization of state officials attempt to inspire faith in others in such a way to bring visions of the future into being, similar to the practice
of divination. This is a novel and innovative topic in organization science that is gaining increasing research attention (e.g. Weick, 2006). The second article, co-authored by Dr. Alex Wright, focuses on rituals as strategy implementation and takes the spatial and temporal dimensions centrally by drawing from the work of Schatzki (2010). Particularly, Schatzki’s concept of ‘timespace events’ offers an original vocabulary for developing the ritualization of strategy implementation. From this perspective, rituals are activities that have the potential to be constitutive of social experience. Though the time and space of ritual were briefly discussed in this dissertation, a full paper dedicated to these factors and to how they are interrelated – i.e. timespace – could generate valuable findings for organizational research concerned with strategy, change, and transition.

In performativity theory there is growing research interest concerning the corporeal, visual and aesthetic dimensions of strategizing (e.g. Meyer et al., 2013; Gregson and Rose, 2000; Glass and Rose-Redwood, 2014). Though this dissertation was able to explore these to a certain extent, future research should aim to explore them more in-depth. For example, Meyer et al. (2013) focus on the performative nature of the visual and show how visual manifestations, just like language and discourse, not only represent reality but also construct it. Consequently, they suggest more research should be done on visual and/or aesthetic discourse and framing in managing organizational communication with key audiences and the media. They also link this to themes of legitimacy and reputation management.

In strategy theory, another area that should be explored further is how a study of ritual performances can help fill the perceived gap (Vaara and Whittington, 2012) between strategy research at the micro-/organizational-level (e.g. Johnson et al., 2010), meso-/institutional-level (e.g. Suddaby and Greenwood, 2005), and macro-/societal-level (e.g. Alexander et al., 2006). Because the ritual performances of this study also involve public audiences beyond the organization, this can generate valuable findings regarding strategic practice at multiple levels of analysis concerning topics such as organizational legitimacy, reputation, and image. In order to study how audiences are influenced, interviews should also be held with these audiences, such as with residents in the project area. In this way, the research could specify not only the strategic process and performance of ritual as this research has done, but also the public interpretation of its power effects.

In ritual theory in organization studies, an idea for an upcoming paper is the shift from the concept of liminality to performativity in explaining how transitions are enacted. Liminality is a concept derived from research on rituals in traditional and tribal communities
(Turner, 1969). However, Turner realized that traditional ritual theory was less applicable to contemporary, more complex societies. Therefore, a shift needed to made towards a performative understanding that underlines the strategic and political facet of the ritual process such as influencing and persuading an audience, creating a certain social order, and (re)producing status and authority structures (Tambiah, 1981; Turner and Schechner, 1988; Turner, 1982; Alexander et al., 2006; Bell, 2009). Since various organizational studies have applied the concept of liminality to explain ritual and ritual-like practices (e.g. Sturdy et al., 2006; Howard-Grenville et al., 2011), a relevant topic would be to trace the theoretical development from liminality to performativity in explaining ritual dynamics in organizations. Akin to the concept of performativity is agency, which recent organizational research on rituals has started to address (e.g. Koschmann and McDonald, 2015). This explores the unintended consequences and latent meanings and effects of ritual which are often taken for granted. Though this research emphasized this aspect of rituals, future research should research this more in-depth in the field.

Furthermore, since this study mainly focused on formal, front-stage ceremonial events in construction projects, a relevant topic would be to compare these kind of external events with the internal, back-stage, more informal ritual events. Though the interviews of this research inquired about the latter as well, as demonstrated in the first article, it would be interesting to gain access to the back-stage rituals by carrying out ethnographic research in a single project for a longer period of time and by participating in the research site more intently. This dissertation is a multi-sited ethnography concerning short term research at multiple sites in four different projects. Therefore, many other kinds of ritual practices or events could not be attended. In short, future research should aim to explore the multitude of ritual practices within a single project context to find a wider range of ritual instances.

Another main question asked by fellow academics about this research on rituals is what the difference is between ritual and routine in organizations. Therefore, an appropriate theoretical paper would be to compare these two concepts to see what distinguishes them in organizational settings. Social theory already implies that even though formality, repetition and serialization are frequent qualities of ritual, they are not intrinsic to ritual as they are to routines. Ritual, which is situational and strategic, is not just a matter of routine, habit or tradition. Rather, routinization and habitualization may be strategies in certain situations of ritual (Bell, 2009).
**Methodological reflection**

Throughout this research, my attention was brought to the uncertainty about the ‘ethnographicness’ of this study. I studied eight momentous transition rituals in four different projects in the Netherlands, where I have ‘zoomed in’ on each ritual followed by a process of ‘zooming out’ to relate the ritual observations back to each project and its unique history, prospect and context. Though I engaged in participant-observation during each transition ritual, I could not do so to the same extent at each project and their diverse settings as they are large-scale, multi-sited organizational constructs. I also could not gain full access to each project, especially considering safety issues at the construction sites and the dispersed and fragmented nature of construction work itself. Other issues were related to the social or political sensitivity of the projects, especially in the North-South line where it was difficult for me to gain access and find interviewees willing to participate.

Therefore, I had to accept that I could not be everywhere at once and had to make conscious decisions concerning my research sites and sources of data. Because the rituals are the main focus of this study, the research can be considered as largely phenomenon-driven (Schensul et al., 2013) which ‘carries’ the research process. The rest of the research entailed conducting interviews with a wide variety of ritual organizers, actors and participants, and obtaining sufficient information about each project via a desk study and by visiting information centers, open days, and project tours and excursions. In other words, I have not conducted ethnographic research in the traditional sense as my research was temporally and spatially diverse and interspersed. This raises questions and doubts concerning the legitimacy of my ethnographic method. Some might call it ‘hit-and-run ethnography’ whereas others claim this form of multi-sited research is a development of ethnography that better suites our contemporary, globalizing societies and more complex research sites (Hannerz, 2003; Marcus, 1995; Marcus, 1999).

This led me to question; what is it that makes a research ‘ethnographic’? What is a research site? Are sites territories or social constructions? What is the local? What about multi-local or translocal? Can one study local practices in conjunction with structural processes? These queries are necessary to acknowledge because it is the case that the single-site ethnographic method still has dominance in (organizational) anthropology. Single-site supporters argue that this long-term, situated method is the most fundamental quality that sets (organizational) anthropology apart from other disciplines and which legitimates an ethnographic research. However, others have suggested that societies and socio-cultural
processes worldwide are changing and becoming more complex and that the ethnographic method must adapt itself respectively (Hannerz, 2003; Marcus, 1995).

For example, Hannerz (2003: 202) observes “it is fairly clear that a great many anthropologists, especially those no longer in the first phase of their careers, have long, but perhaps a bit more discretely, been engaging in a greater variety of spatial and temporal practices as they have gone about in their research.” Or as Marcus (1995: 95) argues, rather than focusing on single sites and locales, researchers should focus on “multiple sites of observation and participation that cross-cut dichotomies such as the global and the local, the lifeworld and the system.” Common research areas that do these arguments justice are ethnographic studies on migration, networks or networking, virtual space, media and telecommunication, to name a few examples. But what about research areas that are less obviously suited for multi-sited ethnographic research? Can they still be multi-sited?

Some authors contend that all ethnographic research is multi-sited to some extent, depending on how one defines ‘site.’ For example, Wogan (2004: 133) conveys that the question should be whether a researcher or an author can provide interesting (new) insights into a culture and that insights are not only gained from one site per se. He also argues that traditional long-term ethnography may not be restricted to just one site and that “some ethnography may not move around literally but may nonetheless embed itself in a multi-sited context” (133). Further, Massey (1991: 6) adheres that there is no single sense of place as people can occupy different positions within one community. Thus, “instead of thinking of places as areas with boundaries around, they can be imagined as articulated moments in networks of social relations and understandings.” These arguments suggest that our understanding of ‘site’ needs to be reconsidered. Particularly, sites are not necessarily fixed or stable entities but may comprise complex and multi-sited social and cultural time-spaces (Marcus, 1995). This must not be overlooked when conducting ethnographic research at any place and any time.9

Relating to the ‘ethnographicness’ of this research is the extent to which I could share the richness of my fieldwork experiences in the chapters above which are based on research articles. In most journal articles in the fields of organization and management studies, the practices of fieldwork remain largely invisible to the reader, including the sharing of fieldwork experiences and challenges, how the process of data collection

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9 This methodological reflection above is based on an article on multi-sited ethnography I published on an anthropology Weblog StandplaatsWereld: http://standplaatswereld.nl/2013/05/15/workshop-multisited-ethnography/
developed over time, and fieldwork reflections more generally. Every fieldworker has their own story to tell, with their own challenges and experiences in the field. There is a continuous (re)negotiation of the research process, between researchers, research subjects, organizations and their interests and demands. In short, doing fieldwork is a negotiated process which is never straightforward. This stays largely obscure in research articles while it is in fact very important to the process of data collection, and knowledge and theory generation.

For example, in this research there were considerable differences between the project cases concerning access and the people I could interview. I always went about gaining access via the communication advisors of the project organization since they usually organize ritual events and can act as gatekeepers to the rest of the organization. In the Room for the River project, access was easier as the communication advisors were very helpful by introducing me to relevant project members and state officials from Deventer and Zwolle who were all willing to participate. The interviews I held with these members were also lengthier and more enjoyable; the interviewees were generally very open about the project and the roles they played during the ritual events, to which I also gained full access as a social researcher. In the Railzone Delft project, access was also straightforward. This was in part due to the fact that my promotor, Alfons van Marrewijk, had done research in this project organization before, so they were keen to help me with my research and the interview process from the start, and allowed me to gain access to all the necessary events and excursions.

In the North-South metro line, however, access was more difficult. This project had received much public criticism so the communication advisors were initially skeptical when I introduced myself as a researcher and asked to gain access to the machine baptism rituals. Originally, I could not gain access so I went to the ritual site and stood at the entrance of the party tent asking to gain entrance as a social researcher from the university. First they denied my entry but at the very last minute they decided to let me in, so I was lucky to partake in this event. Later on, however, the communication team became more helpful and open in the research process when they realized my research was not harmful to the organization but socially interesting. It also helped that the communication director of the project organization had studied anthropology which created an affinity with me as an organizational anthropologist. Furthermore, I was not able to interview as many VIPs as I wanted to, such as the project director and the alderman of Amsterdam. Compared to cities
such as Deventer and Zwolle, Amsterdam is bigger and busier making it more difficult to contact VIPs such as state officials. In the Hanzeline railway project, access to the ritual events was also more difficult. I had to do more effort and interview more people prior to the events so I could gain their trust and, thereby, gain access to the ritual events. Access to the external project delivery was especially difficult. They only allowed me to participate as a “member of the media”, so I had to stand in a special square at the ritual site next to all the local and national news channel crews. Like in the North-South line project, I could not interview as many VIPs as I wanted to, but I was able to interview the project director, the president-director of ProRail (responsible for the railway project), and the protocol advisor of the Queen who could tell me more about her role in the event.

Important to mention is that the majority of respondents interviewed were communication advisors who also acted as gatekeepers to the rest of the organization. This has had consequences for the subject matter presented in this thesis as it could be argued this research reflects a ‘communication focus’, such as a focus on the strategic use of rituals to gain public support. Therefore, I also aimed to interview a variety of other participants, such as builders and VIPs, though they were generally more difficult to contact than communication advisors. Concerning all the project cases, I was not able to interview as many construction workers as I would have liked. Communication advisors often introduced me to project managers, (sub)project supervisors, and the contractors who represented the builders on the work floor. Though they themselves were also active on the work floor, they still had a managerial or leadership role. When I asked to interview other construction workers they argued that there was no time to interview them due to work load and time pressure. The fact that I was a woman also didn’t help because some construction workers voiced they were too apprehensive or shy to be interviewed by me. What complicated this matter is that construction workers were not always Dutch. In the Railzone Delft project the tunnel construction workers were Italian, and in the North-South line project they were German. These issues influenced my process of data collection in a significant way in the sense that I could not gain access to the more internal, team-level rituals that are held for the builders only.

Therefore, future research should aim to gain access to these more back-stage and small-scale rituals at the team level and preferably in one project organization. I studied four project organizations and eight ritual events with a diversity of actors such as communication advisors, project directors and managers, project supervisors, contractors,
and state officials. Consequently, the scope of this research hampered me from going deeper in to each project organization, such as interviewing the construction workers at team level. There are various other limitations to this research, which have been discussed in the four individual research papers (refer to Chapters 3-6).

In addition to sharing fieldwork experiences, sharing the empirical richness of the research in journal articles is often downplayed due to an overreliance on theoretical contributions in organization and management studies (Alvesson and Sandberg, 2013; Hambrick, 2007; Leavitt et al., 2010). There is limited space permitted in most organization and management journals to reflect on or describe the negotiation of the research process or share the full richness of empirical data, including contextual and historical descriptions which are essential to ethnographic research. This is often not demanded as the main aim or contribution in many of these journals.

For example, the first research article (see Chapter 3) has been published in the International Journal of Project Management for a special issue on temporal organizing. Hence, the aim was to build theory on temporal organizing in projects which influenced how the article was framed, written and developed. The second research article (see Chapter 4), was also aimed to develop theory in the field of Strategy-as-Practice for a special issue on the performativity of strategy in Long Range Planning for which the article was also framed, written, and developed. The third research article (see Chapter 5), also focused on developing theory in the field of sociomateriality. However, the aim of this article was to exhibit this theory empirically and it was submitted to the Journal of Organizational Ethnography. This enabled me to go more in-depth concerning a particular case study and to share the methods, history, context, and empirical richness to a greater extent as this is what the journal asked for. The last paper (see Chapter 6) is a chapter written for a book on urban megaprojects and the management of their self-produced shocks. In line with this focus, the chapter was framed, written and developed to suit the theme of the book and offer a more practical contribution in terms of how project actors can absorb the self-produced shocks. In sum, each journal, special issue, and/or book will influence the aim of each paper, the theory that is developed, the methods and empirical data that are shared, and the contributions that are made, which can vary greatly. Due to the common emphasis on theory development, most research articles will be aimed at making a theoretical contribution which has also been the case for a considerable part of this dissertation.
A discussion point here is what really determines a theoretical contribution in organization and management studies? Though the methods and data collected determine this also, which is the case with grounded theory, many authors rely instead on theoretical approaches such as gap spotting, extending theory, or creating new constructs which is more ‘fashionable’. You could say, in much the same way as the an organization of study restricts and limits the process of data collection, the fields of organization and management studies, too, restrict researchers in how articles should be written and which research components should be shared and to what extent, such as the theory, methods, empirical data and contributions. This is perceived as a growing problem in organization and management studies, which is why we, as organizational scholars, should think of novel, imaginative and innovative ways of doing and reporting research (Alvesson and Sandberg, 2013).

**Final words**

At the start of this research, the transition rituals studied stood out as seemingly irrational, social and symbolic practices against the backdrop of rational, material and technical construction projects. Along the course of this research, however, this discrepancy increasingly subsided as rituals came to reflect the intricate entanglement of construction projects with their unique social and cultural context. In line with this, this dissertation hopes to have provided a more holistic perspective concerning ritual studies by collapsing dichotomies between the social and material, the human and nonhuman, the symbolic and strategic, the communal and hegemonic, and the micro and macro. Rather, rituals can embody and enact both sides of these spectrums, depending on a situational understanding of how, when and why rituals are practiced in a particular organization of study. To gain such an understanding, it is important to conduct ethnographic research that is interpretive, contextual, processual and actor-centered as I have aspired to accomplish in this dissertation.
Photo 34: Champagne bottles in tunnel of RD
Appendix

Research paper titles, aims and questions

<table>
<thead>
<tr>
<th>Article title</th>
<th>Aim</th>
<th>Research Question</th>
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<tbody>
<tr>
<td>1 The ritualization of the transitions in the project life cycle: A qualitative study of transition rituals in construction projects</td>
<td>To gain insight into the practice and meaning of transition rituals in the project life cycle.</td>
<td>What transition rituals can be discerned in the project process, how and when are they practiced, and what do they mean for project participants?</td>
</tr>
<tr>
<td>2 The point of no return: Ritual performance as strategic practice in construction projects</td>
<td>To address the call for a more critical approach to the field of Strategy-as-Practice.</td>
<td>How are ritual performances practiced strategically?</td>
</tr>
<tr>
<td>3 Machine baptisms and heroes of the underground: Performing sociomateriality in the Amsterdam North-South line project</td>
<td>To apply sociomateriality theory to exhibit how the social and material are entangled and (re)configured over time and in practice.</td>
<td>How are the “social” and “material” entangled and (re)configured in a particular organization of study?</td>
</tr>
<tr>
<td>4 Rebalancing the disturbance: Shock-absorbing platforms in urban megaprojects</td>
<td>To understand how project organizations absorb their self-produced shocks.</td>
<td>What are the shocks caused by urban megaprojects and how do project organizations absorb these shocks?</td>
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Table 11: Summary of research paper titles, aims, and questions

Summary

This research aims to gain an in-depth understanding of the practice and meaning of transition rituals in the context of complex construction projects in the infrastructure sector. Complex construction projects are characterized by their high cost, immense scope, inherent complexity and uncertainty, high environmental and societal impact, and the laborious collaboration between public and private partners. The ever-changing, non-linear, and often unpredictable process that typifies the life cycle of such projects is a main concern in organization and project management studies. Moreover, projects are temporary organizational constructs continuously evolving over time, concerning various stakeholders, and embedded in multiple socio-political contexts. Within this complex context, this research takes the ritualization of transitions in the project life cycle as the main research focus. Specifically, I address rituals that mark important transitions and milestones in the life cycle of construction projects, such
as signing contracts, (sub)project kick-offs, project phase launches, celebrating milestones, and (sub)project completions. Using a qualitative-interpretive and practice-based approach, I exhibit how, when, and why these transition rituals are practiced in the context of complex construction projects.

To carry out this research I conducted multi-sited ethnographic fieldwork during eight ritual events in four construction projects in the Netherlands: two project kick-offs for the Room for the River project in Deventer and Zwolle; two phase transitions during the sub-project of tunnel-boring in the North-South metro line of Amsterdam; two milestone celebrations in the Railzone Delft project, one for reaching the end of the tunnel and the other for reaching the highest point of the new municipality building; and two project deliveries in the Hanzeline railroad project, one internal delivery held for the project organization and another external delivery held for the public. Fieldwork was also carried out at various construction sites in the project cases via excursions, private visits and open days. Furthermore, to decipher the meaning of transition rituals, 58 in-depth interviews were carried out with project actors who organized, attended or participated in the ritual events. This sample included communication advisors, project directors, managers, employees, contractors, constructors, as well as state officials and political representatives. The findings, analyses and contributions of this research have been divided into four research papers presented in Chapters 3 through 6 of this dissertation.

Chapter 3 introduces the concept of ‘transition rituals’ in the field of project management and shows how they facilitate and mediate the lengthy and fragmented project process. Specifically, I provide an overview of how, when and why transition rituals are practiced to enact transitions and embed a project in its environment. The wide diversity of transition rituals emerged at three distinct levels. Firstly, at a team level construction workers engage in transition rituals such as shoveling the first earth, laying the first brick, or celebrating milestones and realizing subproject scopes. These smaller-scale rituals have an integrative character and help to build solidarity and commitment within the project organization. Secondly, at an institutional level transition rituals, such as the Queen’s opening of the Hanzeline railway or the contract signed by the minister of infrastructure and environment in the Room for the River project, provide a space for state officials as mediators between a project and its environment. Thirdly, at a societal level transition rituals, such as reaching the end of a tunnel or the top of a building in Railzone Delft, are held for residents to gain citizen support and embed a project in its environment.
In other words, transition rituals can involve different target groups (i.e. ‘Builders’, ‘VIPs’, and ‘Citizens’ in this dissertation) and may have an internal or external focus. The internal and external distinction of transition rituals reflects the dual focus of construction projects which are embedded in multiple contexts. Internal rituals are usually more small-scale and practiced at the back-stage of a project for those who do the ‘real’ work, while external transition rituals are more large-scale and performed on the front-stage for wider institutional and societal audiences. During external rituals, state officials and the media play important roles in exposing the project to citizens residing in the project area. Therefore, I claim transition rituals are closely intertwined with the social, cultural and political dynamics of a project, such as the need to enhance legitimacy, support, involvement, solidarity and commitment. Essentially, transition rituals embody and act upon these dynamics as they serve to inform and involve multiple stakeholders as well as guide the project life cycle in a structured, timely, and inclusive manner. This is vital in helping a project to progress while remaining sensitive to its multi-layered social context.

Chapter 4 conceptualizes rituals as strategic practices by showing how they are performed at a certain time and space, with predetermined actors and audiences, and symbolic words, gestures and materials to signal and express meaning. In this way, rituals are performed strategically to construct particular meaning(s), shape reality, and catalyze transitions in the project process. Subsequently, I provide three strategic practices that typify ritual performances. The first is ‘the sanctification of time and space’ which shows how the orchestration of ritual performances sanctifies ordinary time and space as extraordinary. For example, when the Queen opens a railway, a priest baptizes a machine, or a political representative signs his name on a contract before a public audience, these are not everyday, ordinary actions. In this way, by privileging and distinguishing what is being done compared to everyday work practices, rituals are granted their episodic and transformative power.

The second is ‘the legitimization of symbolic performance’ where ritual actors play their roles on stage and attempt to persuade the audience as strategists of orchestrated communication. In this research, it was found that only authoritative figures – which I call ‘VIPs’ – such as mayors, aldermen, provincial representatives, ministers, the Queen, or even a Catholic priest are permitted to perform rituals, entitling them to make important decisions and enact transitions during the life cycle of construction projects. Besides authoritative figures, I observed that school children were given important roles to perform rituals, such as by reciting poetry in the projects Room for the River and the Hanzeline, by ceremonially
welcoming the contractor consortium in Railzone Delft, or by choosing and revealing the name bestowed to each tunnel boring machine in the North-South line of Amsterdam. Children are identified by project actors as important symbols of the future. In this way, the symbolic performance of VIPs and children during ritual events is a strategic practice to legitimate a project and help bring a vision of the future into being.

The third strategic practice is the ‘catalysis of a point of no return.’ Namely, I found that rituals give the impression of irreversibility via a particular ‘point of no return’, manifested by certain gestures and materials such as signing a signature, releasing a banner, raising a flag, smashing a bottle, or pressing a button. This gives rituals a certain magical or self-fulfilling character, allowing them to transform the present and (re)construct reality. Thus, because a certain state of the present and vision of the future are performed during a ritual, this state and vision become a reality through their very performance. Overall, this chapter exhibits how ritual performances not only mark transitions in projects but also realize them, thereby constructing a new situation and reality.

Chapter 5 applies the theory of ‘sociomateriality’ which underlines how social and material entities should be seen as inherently interrelated, rather than as autonomous and separate from one another. In other words, it argues that all processes and practices are simultaneously social and material – i.e. sociomaterial – though what this means precisely remains unclear in organization studies. Therefore, this chapter aims to show how and why social and material entities are interrelated in a specific case study: the North-South Line metro project in Amsterdam. To show this, I devise a multilayered lens to analyze sociomateriality at the contextual, organizational and practice level.

At the contextual level, I ‘zoom out’ on the case and unfold the history and context of the project in the city of Amsterdam more broadly. In doing so, the difficult process of metro construction since the 1960’s is disclosed, such as metro riots in the 1970’s and a resultant metro taboo which remained, yet to be broken. In this context, the North-South line had to be constructed since 2009 which turned out to be a highly sensitive and problematic endeavor, stirring much social and political unrest. Thus, it becomes evident that the materiality of metro construction became increasingly entangled with social and political spheres in the city over time. Then, at the organizational level, I show how engineers and constructors struggled to control or predict the material. Though they claimed to have “state of the art” technology, there were many technical mishaps and problems such as the subsoil leakage at the Vijzelgracht causing various buildings to sink into the ground. This indicates the power of the
material which could not always be ‘tamed’ by human actors. Thirdly, at practice level, I analyze the baptism and name-giving ritual of the tunnel boring machine. Rather than relying on technological calculations for control and predictability, the project organization performed this ritual; to reconfigure the difficult interrelation between the construction process (i.e. the material) and the people of Amsterdam (i.e. the social). Though highly symbolic and seemingly irrational, the performance of this ritual in this project and context was essential to humanize the material. Specifically, by publicly baptizing and naming the machine, an inherent interrelation between social and material entities was performed in an amiable light so that people would empathize with the material rather than fear it. To conclude, I argue that the perception of the interrelation between social and material dimensions depends on the level of analysis.

Chapter 6 focuses on the disturbance caused by urban megaprojects and on how project organizations can mitigate or absorb their ‘self-produced shocks’. Specifically, two similar urban megaprojects in the Netherlands have been studied and compared: the North-South Line of Amsterdam and Railzone Delft. From analyzing the findings, a new term is coined, ‘shock-absorbing platform’, being a practice-based platform used by project participants to rebalance the disturbance of a megaproject in urban settings. Specifically, when comparing these two cases, four shock-absorbing platforms are detected in both projects: (1) an informative platform, including the use of websites, letters, leaflets, posters, news articles, and the information center to inform the public; (2) the interactive platform, such as Facebook, Twitter, Apps, and blogs which enable citizens to interact with the project organization; (3) the participatory platform, referring to project tours and excursions, open days, project lookout points, and the annual ‘Day of Construction’ during which citizens are permitted to visit the project grounds; and (4) the transitional platform, comprising ritual events which invite citizens to celebrate milestones, (sub)project kick-offs, and (sub)project completions together with the project organization.

In this chapter, I claim that urban megaprojects cause significant threats to local quality of city life during their construction. Therefore, to absorb their self-produced shocks and rebalance the disturbance they cause in urban settings, I suggest project organizations can make use of these four shock-absorbing platforms. In particular, these platforms are useful for enhancing project transparency and legitimacy, involving citizens and other stakeholders, and mediating socio-cultural dynamics in and around a project. Thus, the careful crafting of these platforms as a collaborative process that is deemed fair and open to affected stakeholders is an
important means for managing the complexity of megaprojects. Accordingly, the findings in this chapter are especially valuable for project managers, communication advisors, and environment managers to help open up their projects to citizens and other stakeholders. Opening up customarily “gated” megaprojects might be the best way forward to gain citizen support and absorb their self-produced shocks in urban areas.

This research as a whole makes several important theoretical contributions to the field of project management. Firstly, as established in Chapter 3, this research provides the conceptualization of transition rituals as important symbolic and strategic practices in the life cycle of complex construction projects. Specifically, a focus on transition rituals offers an alternative to traditional perspectives on temporal structuring and organizing, such as an emphasis on instrumental models and pacing devices for planning and control. Conversely, an interpretive study of transition rituals addresses the social and symbolic facet of time and transition in projects which has been neglected by traditional approaches. Secondly, this study contributes the understanding of rituals as strategic practices that are significant for authorization, legitimization, external communication, and realizing transitions in the project process. Precisely, the strategic implementation of rituals is considered especially significant at the interface between a project organization and its environment. A focus on this interface is becoming increasingly relevant in the field of project management. This dissertation adds to this growing area of research by exploring how project actors cope with the complex context of construction projects and communicate with and include their environment in the project implementation process.

In the field of organization studies, this research extends ritual theory by addressing ritual practices beyond the organizational periphery, thereby offering not only an internal focus but also an external focus. Namely, this research has been particularly attentive to organizational rituals performed for wider institutional and societal audiences. In this way, this research contributes to ritual studies integrating the micro, meso and macro levels of organization studies. Additionally, this research provides a critical perspective that accounts for the strategic and performative dimensions of rituals where issues of power and politics are addressed. Importantly, this goes beyond research that tends to focus solely on the integrative and unifying aspects of rituals such as enhancing solidarity and equality. Similarly, the interpretive approach used in this study challenges a purely instrumental perspective on rituals in organization studies. Rather, in this dissertation I argue that while rituals may be useful to
meet certain ends, they also have unintended consequences, latent or hidden meanings, and different implications for different actors.

**Nederlandse samenvatting**

 Dit onderzoek, dat tot titel heeft ‘De kracht van rituelen: Een onderzoek naar overgangsrituelen in de levenscyclus van complex bouwprojecten’, heeft als doel diepgaande kennis te ontwikkelen over de uitvoering en betekenis van overgangsrituelen binnen complexe bouwprojecten. Complexe bouwprojecten worden gekenmerkt door hoge kosten, immense omvang, inherente complexiteit en onzekerheid, grote milieu- en maatschappelijke impact en de moeilijke samenwerking tussen publieke en private partners. Het continu veranderende, niet-lineaire, en vaak onvoorspelbare proces dat de levenscyclus van dit soort projecten typeert is een van de belangrijkste onderzoeksonderwerpen binnen de organisatie-wetenschappen en binnen projectmanagement in het bijzonder. Bovendien zijn complexe projecten tijdelijke constructies die voortdurend evolueren in de tijd met steeds weer verschillende stakeholders binnen steeds veranderende sociaal-politieke contexten. In deze complexe context focust dit onderzoek op de ritualisering van transities in de levenscyclus van een project. Dat wil zeggen, ik heb rituelen onderzocht die belangrijke overgangen en mijlpalen markeren in de levenscyclus van bouwprojecten, zoals het ondertekenen van contracten, (deel)project kick-offs, faseovergangen, het vieren van mijlpalen, of (deel)project opleveringen. Met behulp van een kwalitatieve-interpretatieve en praktijkgerichte benadering, laat ik zien hoe, wanneer, en waarom deze overgangsrituelen worden uitgevoerd in de context van complexe bouwprojecten.

Om dit onderzoek uit te voeren heb ik op verschillende locaties etnografisch veldwerk verricht naar acht overgangsrituelen binnen vier bouwprojecten in Nederland: twee kick-offs voor het project Ruimte voor de Rivier, gehouden in Deventer en Zwolle; twee faseovergangen tijdens het tunnelboren binnen het metro project de Noord-Zuidlijn Amsterdam; twee mijlpaal vieringen in het project Spoorzone Delft, de één voor het bereiken van het einde van de tunnel en de ander voor het bereiken van het hoogste punt van het nieuwe stads Kantoor; en twee opleveringen voor het spoorproject de Hanzelijn, een interne oplevering gehouden voor de projectorganisatie en een externe oplevering bedoeld voor het publiek. Veldwerk werd ook uitgevoerd op verschillende bouwplaatsen van de betreffende bouwprojecten via excursies, privébezoeken en open-dagen. Om de betekenis van overgangsrituelen te onthullen, werden er bovendien 58 diepgaande interviews gehouden met
project actoren die de overgangsrituelen hebben georganiseerd of bijgewoond: met communicatie adviseurs, projectleiders, managers, werknemers, aannemers, bouwers, evenals ambtenaren en gedeputeerden. De bevindingen, analyses en bijdragen van dit onderzoek zijn verdeeld over vier wetenschappelijke artikelen, gepresenteerd in hoofdstukken 3 tot en met 6 van dit proefschrift.

Hoofdstuk 3 introduceert het concept van overgangsrituelen binnen het veld van projectmanagement en laat zien hoe deze rituelen het complexe en gefragmenteerde proces van projecten faciliteren en bemiddelen. Ik laat zien hoe, wanneer en waarom overgangsrituelen worden uitgevoerd en hoe ze helpen een project te verankeren in de omgeving. De grote diversiteit van overgangsrituelen kan begrepen worden op basis van drie analysesniveaus. Ten eerste, op operationeel niveau voeren bouwers overgangsrituelen uit, zoals het scheppen van de eerste aarde, het leggen van de eerste steen, of het vieren van mijlpalen bij de realisatie van deelprojecten. Deze rituelen, op kleinere schaal, hebben een integratief karakter en helpen om solidariteit en toewijding binnen een project organisatie op te bouwen. Ten tweede, op institutioneel niveau zijn er overgangsrituelen, zoals de koninklijke opening van de Hanzelijn of het contract ondertekend door ambtenaren in het project Ruimte voor de Rivier, die een ruimte bieden voor ambtenaren om als bemiddelaars tussen een project en de omgeving te fungeren. Ten derde zijn er overgangsrituelen op maatschappelijk niveau, zoals het bereiken van het einde van de tunnel of het hoogste punt van het stadskantoor in Spoorzone Delft, die worden gehouden om burgers te betrekken, draagvlak te krijgen, en een project te verankeren in de omgeving.

Kortom, overgangsrituelen betrekken verschillende doelgroepen (‘Bouwers’, ‘Bobo’s en ‘Burgers’ in dit proefschrift) en kunnen een interne of externe focus hebben. Het onderscheid tussen interne en externe rituelen laat ook zien hoe bouwprojecten zijn ingebed in verschillende contexten. Interne rituelen zijn meestal kleinschalig en geërfd op de ‘back-stage’ van een project voor degenen die het ‘echte’ werk te doen, terwijl externe overgangsrituelen vaker grootschalig zijn en ‘front-stage’ worden opgevoerd voor een breder publiek, en waarbij ambtenaren en de media een belangrijke rol spelen bij het presenteren van een project aan de samenleving. Tevens laat ik zien dat overgangsrituelen nauw verwoven zijn met de sociale, culturele en politieke dynamiek. Een dynamiek die voortkomt uit de noodzaak om legitimiteit, ondersteuning, betrokkenheid en draagvlak voor het project te vergroten. Overgangsrituelen beïnvloeden deze dynamiek omdat ze verschillende stakeholders kunnen informeren en betrekken en zo de levenscyclus van een project kunnen begeleiden op een
gestructureerde, tijdige en inclusieve wijze. Dit is van vitaal belang voor een projectorganisatie om vooruitgang te manifesteren en tegelijkertijd gevoelig te blijven voor de gelaagde sociale en politieke context.

Hoofdstuk 4 conceptualiseert rituelen als strategische praktijken. In het bijzonder laat ik zien hoe rituelen strategisch worden opgevoerd binnen een bepaalde tijd en ruimte, met vooraf bepaalde actoren en getuigen, en symbolische woorden, gebaren en materialen. Op deze manier worden rituelen strategisch ingezet om betekenis te (her)construeren, de werkelijkheid vorm te geven, en om transities te katalyseren tijdens het proces van een project. Vervolgens toon ik drie strategieën die rituelen typeren. De eerste is het ‘heilig maken’ van tijd en ruimte. Dit laat zien hoe door het orkestreren van rituelen de gewone tijd en ruimte strategisch ‘buitengewoon’ wordt gemaakt. Bijvoorbeeld, het is niet alledaags wanneer de koningin een treinspoor opent, een priester een tunnelboormachine zegent, of een gedeputeerde een contract ondertekend voor het publiek. Dus, door een tegenstelling te creëren met alledaagse werkwijzen, krijgt een ritueel zijn episodische en transformerende kracht. De tweede praktijk is de legitimatie van symbolische ‘performances’, waar actoren een belangrijke rol spelen door strategisch te communiceren vanaf hun podium. Uit mijn onderzoek blijkt dat uitsluitend gezaghebbende figuren - wat ik 'VIPs' noem - zoals burgemeesters, wethouders, provinciale vertegenwoordigers, ministers, gedeputeerde, de koningin, of zelfs een katholieke priester rituelen mogen opvoeren. De rituelen legitimeren hen om belangrijke beslissingen te nemen, alsmede om overgangen tijdens de levenscyclus van bouwprojecten vast te stellen.

Naast gezaghebbende figuren observeerde ik dat schoolkinderen een belangrijke rol kregen bij het opvoeren van rituelen: door gedichten voor te dragen in de projecten Ruimte voor de Rivier en de Hanzelijn, door aanigers ceremonieel te verwelkomen in Spoorzone Delft, of door de namen van de tunnelboormachines in de Noord-Zuidlijn te kiezen en te onthullen. Kinderen worden geïdentificeerd door project actoren als belangrijke symbolen van de toekomst. Dus, de symbolische prestaties van VIPs en kinderen tijdens rituelen is van strategische belang voor het verankeren van de toekomst van een bouwproject. De derde strategische praktijk is de katalyse van een ‘point of no return’. Rituelen geven de indruk van onomkeerbaarheid via een ‘point of no return’ gemanifesteerd door bepaalde gebaren en materialen, zoals het ondertekenen van een contract, het onthullen van een spandoek, het hijsen van een vlag, het kapotslaan van een fles, of het indrukken van een knop. Dit geeft rituelen een welhaast magisch of ‘self-fulfilling’ karakter, waardoor ze het heden en de
toekomst kunnen (her)construeren of transformeren. In andere woorden, een bepaalde staat van het heden en een visie van de toekomst worden opgevoerd tijdens een ritueel, waarna deze staat en visie werkelijkheid worden doordat mensen naar die visie gaan handelen. Kortom, dit hoofdstuk vertoont rituelen als een platform voor politiek en strategisch handelen.

Hoofdstuk 5 past de theorie van 'sociomateriality' toe, die toelicht hoe sociale en materiële entiteiten inherent met elkaar verbonden zijn, in plaats van afzonderlijk en autonoom van elkaar te bestaan. Dat wil zeggen, alle processen en praktijken zijn tegelijkertijd sociaal en materieel, maar deze samenhang tussen mens en materie blijft moeilijk te vatten. Daarom wil ik in dit hoofdstuk aantonen hoe en waarom sociale en materiële entiteiten met elkaar verbonden zijn door middel van een specifieke casus: het metroproject de Noord-Zuidlijn Amsterdam. Om deze samenhang aan te tonen, creëer ik een gelaagde lens om de theorie van ‘sociomateriality’ te analyseren op het niveau van context, organisatie en werkpraktijk.

Op contextueel niveau zoom ik uit waardoor de geschiedenis en de context van het project in de stad Amsterdam zich in bredere zin ontplooit. Daarbij wordt het moeilijke proces rondom de bouw van metro’s sinds de jaren 1960 overzichtelijk, zoals de metrotunnel in de jaren 1970 en de metrotaboe die achterbleef. Binnen deze context moest de Noord-Zuid lijn gebouwd worden in 2009. Dit bleek een zeer gevoelige en problematische inspanning te zijn, met veel sociale en politieke onrust. Zo wordt het duidelijk dat de materialiteit van metro bouw op een negatieve manier steeds nauwer verweven werd met de sociale en politieke sferen in de stad. Op het organisatie niveau laat ik zien hoe project actoren moeite hadden om het materiaal te controleren of te voorspellen. Hoewel ingenieurs beweerden over ‘state of the art’ technologie te beschikken, waren er tal van technische incidenten en problemen, zoals de ondergrondse lekkage bij de Vijzelgracht en de verzakking van een aantal panden. Dit laat de kracht van het materiaal zien waarbij actoren het materiaal niet altijd konden temmen. Ten derde, op de praktijk niveau analyseer ik het ritueel van de inzegening en naamgeving van de tunnelboormachine. In plaats van te vertrouwen op technologische berekeningen voor controle en voorspelling, richtte de projectorganisatie zich op het uitvoeren van een ritueel omdat er behoefte aan was om menselijkheid terug te brengen via de humanisering van technologie. Hoewel zeer symbolisch en schijnbaar irrationeel in zijn uitvoering, was de waarde van dit ritueel van essentieel belang. Door de machine publiekelijk te zegenen en een meisjesnaam te geven werd er namelijk een inherente verbinding tussen sociale en materiële entiteiten aangetoond met een positieve betekenis. In conclusie beargumenteer ik dat de
perceptie van de verbinding tussen sociale en materiële dimensies afhangt van het analytisch niveau.

Hoofdstuk 6 richt zich op de verstoringen veroorzaakt door stedelijke megaprojecten en de manier waarop projectorganisaties deze 'zelfgeproduceerde schokken' kunnen beperken of absorberen. Ik heb twee soortgelijke stedelijke megaprojecten in Nederland bestudeerd en vergeleken: de Noord-Zuidlijn Amsterdam en Spoorzone Delft. Uit een analyse van de bevindingen is een nieuwe term bedacht, 'schokabsorberend platform', een verzameling van praktijken gebruikt door projectactoren om de schok van een stedelijke megaproject te verzachten en de stad terug in balans te brengen. Wanneer deze twee casussen worden vergeleken worden vier typen schokabsorberende platforms onderkend in beide projecten: (1) een informatief platform, zoals het gebruik van websites, brieven, folders, posters, nieuwsartikelen en het informatiecentrum om het publiek te informeren; (2) een interactief platform, bestaande uit websites, Facebook, Twitter, blogs en apps zodat het publiek interactief kan communiceren met de projectorganisatie; (3) het participatief platform, verwijzend naar rondleidingen en excursies, opendagen, project uitkijkpunten, en de jaarlijkse 'Dag van de Bouw' om bewoners uit te nodigen om het project te bezoeken; en (4) het overgangs-platform, bestaande uit overgangsrituelen die burgers betrekken en uitnodigen om mijlpaal , (deel) project kick-offs en opleveringen te vieren samen met de projectorganisatie. In dit hoofdstuk wordt beweerd dat stedelijke megaprojecten significante bedreigingen veroorzaken voor de samenleving binnen een stad tijdens de implementatie en uitvoering. Projectmanagers kunnen deze zelfgeproduceerde schokken verzachten door gebruik te maken van deze schokabsorberende platforms. Tevens helpen de platforms om de transparantie en legitimiteit van projecten te vergroten, burgers en andere belanghebbenden te betrekken, en de sociaal-culturele dynamiek rondom een project te bemiddelen. De zorgvuldige inzet van deze platforms als een proces van samenwerking die eerlijk en open wordt geacht door betrokken groepen, is een belangrijk instrument voor het beheren van de complexiteit en fragmentatie van megaprojecten. De uitkomsten van dit onderzoek kunnen managers, communicatie adviseurs en omgevingsmanagers van megaprojecten helpen hun projecten open te stellen aan de omgeving. Het openstellen van besloten megaprojecten is wellicht de beste weg vooruit om draagvlak vanuit de omgeving te krijgen en om de zelfgeproduceerde schokken te absorberen in stedelijke gebieden.

Dit onderzoek als geheel levert een aantal belangrijke theoretische bijdragen op het gebied van projectmanagement. Ten eerste, zoals vastgesteld in hoofdstuk 3, draagt dit
onderzoek bij aan de conceptualisering van overgangsrituelen als belangrijke symbolische en strategische praktijken in de levenscyclus van complexe bouwprojecten. In het bijzonder, een focus op overgangsrituelen biedt een alternatief voor traditionele perspectieven op het tijdelijk structureren en organiseren van projecten, zoals de nadruk die vaak wordt gelegd op tijdsmodellen en stappenplannen voor planning en controle. Daarentegen, in dit onderzoek richt een interpretatieve benadering van overgangsrituelen zich op het sociale en symbolische aspect van tijd en transitie in projecten die is verwaarloosd door de traditionele perspectieven. Ten tweede, draagt dit onderzoek bij aan kennis over rituelen als strategische praktijken die belangrijk zijn voor autorisatie, legitimatie, externe communicatie en het realiseren van transities in het proces van een project. Dit onderzoek toont aan dat de strategische inzet van rituelen als bijzonder waardevol kan worden beschouwd op het grensvlak tussen een projectorganisatie en zijn omgeving. Een focus op dit raakvlak wordt steeds relevanter voor projectmanagers. Dit proefschrift draagt hieraan bij met een interpretatief perspectief om te laten zien hoe projectactoren omgaan met de complexe context van bouwprojecten en communiceren met de directe omgeving tijdens het implementatieproces.

Binnen de organisatiewetenschappen draagt dit onderzoek bij aan theorie over rituelen door te focussen op rituelen die niet alleen intern worden uitgevoerd maar vooral extern voor de omgeving. De nadruk van dit onderzoek ligt op rituelen die voor bredere institutionele en maatschappelijke doelgroepen worden opgevoerd. Dus, dit onderzoek draagt bij aan de integratie van organisatiewetenschappen op micro-, meso- en macroniveau. Ten tweede biedt dit onderzoek een kritisch perspectief om de strategische en politieke dimensies van rituelen te onderzoeken. Een focus op macht, politiek en strategie biedt een alternatief voor bestaand onderzoek dat de neiging heeft om uitsluitend te focussen op de integratieve en verenigende aspecten van rituelen, zoals het versterken van solidariteit en gelijkheid. Overigens gaat de interpretatieve aanpak van dit onderzoek tegen een puur instrumenteel perspectief op rituelen in. Integendeel, dit proefschrift stelt dat, terwijl rituelen nuttig kunnen zijn om bepaalde doelen te bereiken, dit proces beperkt is omdat rituelen geplande maar ook ongeplande gevolgen hebben, latente of verborgen betekenissen, of verschillende implicaties voor verschillende actoren.
Contribution of PhD candidate and others to this dissertation

As the PhD candidate I declare that I am the only author of this dissertation. This is not undermined by the co-authorship of my promotor (chapters 3, 5 and 6) and co-promotor (chapter 5) for three of the research articles presented in this dissertation. I was the first author of all these research articles, I conducted the methodology of this research autonomously, and presented research papers at conferences independently (see Table 12 below). During the writing up process, my promotor and co-promotor played important roles as editors and reviewers of my work, helping me to develop, refine and focus my ideas and texts. They also helped me to critically reflect on my work from a higher level, to make connections between concepts and ideas, and to stay on track. We had regular meetings about these articles where we, together, would decide on the next steps to develop the paper further. My promotors would provide me with tangible feedback as well as useful literature. In other words, they made significant contributions to these research papers which authenticate their co-authorship. This is a common practice in the Department of Organization Studies at the VU University of Amsterdam.

<table>
<thead>
<tr>
<th>Conferences attended</th>
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<tr>
<td>APROS 2011: Auckland, New Zealand</td>
<td>Article on social construction of cultural differences (not included)</td>
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<tr>
<td>EGOS 2012: Helsinki, Finland</td>
<td>Theoretical frame (see chapters 1-2)</td>
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<td>EGOS 2013: Montreal, Canada</td>
<td>Article 1 (see chapter 3)</td>
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<tr>
<td>Ethnography symposium 2013: Amsterdam, the Netherlands</td>
<td>Article 1 (see chapter 3)</td>
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<td>IPMA congress 2013: Utrecht, the Netherlands</td>
<td>Article 2 (see chapter 4)</td>
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<td>APROS 2013: Tokyo, Japan</td>
<td>Article 2 (see chapter 4)</td>
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<td>EGOS 2014: Rotterdam, the Netherlands</td>
<td>Article 3 (see chapter 5)</td>
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<tr>
<td>Ethnography symposium 2014: Ipswich, England</td>
<td>Article 3 (see chapter 5)</td>
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<td></td>
<td>Article on performativity and faith (not included)</td>
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Table 12: List of conferences attended and papers presented by author
References


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About the author

Leonore van den Ende was born in De Bilt, The Netherlands, on September 20, 1987. After living abroad in Texas, the United States, from age seven to fourteen, she moved back to the Netherlands and attended the International Secondary School in Rotterdam and the University College Middelburg. In the former school she received an IB (International Baccalaureate) and bilingual diploma (Dutch and English) and graduated with honors; in the latter she received a Bachelor of Science with a major in Social Science and graduated cum laude. Subsequently, she attended the VU University of Amsterdam and completed the Master program Culture, Organization and Management in 2010 for which she graduated cum laude. Following her Master she started her PhD research in 2011 on transition rituals in complex construction projects. During this time, she taught an English Writing Skills course for Bachelor students, supervised Master students for their thesis, assisted in the Master course Cultural Change and Intervention, and gave several guest lectures for the Bachelor courses Business Anthropology and Introduction to Anthropology. Furthermore, she was editor of the VU anthropology weblog ‘StandplaatsWereld’ where she authored and published a variety of articles on (inter)national topics from an anthropological perspective. She also gave several webinars and workshops for ‘Kennis in het Groot’ and the International Project Management Association to share research findings with practitioners. Additionally, she is a member of the organization ‘Bouwrituelen’, a grassroots platform where artists, academics and practitioners collaborate to implement rituals in the life cycle of construction projects in the Netherlands. Moreover, she attended various international conferences to present and develop research papers throughout her PhD trajectory. Currently, she teaches the Bachelor course Business Anthropology at the VU with the aspiration of resuming research on cultural phenomena in (project) organizations.