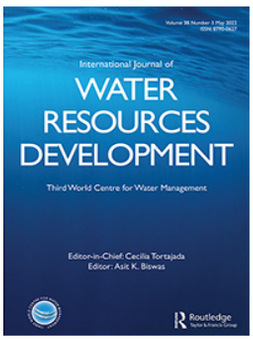
Institutional bricolage in community-based water management: some insights from non-representational theory



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Institutional bricolage in community-based water management: some insights from non-representational theory

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ABSTRACT

Drawing on non-representational theory, using as an example the work of Gilles Deleuze, we offer a complementary perspective on critical institutionalism. We examine four case studies of community-based water management in the Upper West Region of Ghana, which has empowered communities and encouraged democratically accountable approaches, while also underpinning discriminatory practices. We find this can be attributed to institutional bricolage, but we argue that non-representational theory also provides an alternative orientation to our data. It allows the agency of disempowered individuals to be recast as acts of hope.

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Introduction

The state-led drive towards a community-based water management (CBWM) approach to water governance in Ghana has been premised on its potential to facilitate communities' greater access to, and control over, the management of water resources. The idea of a socio-technical transition to CBWM has been seen by the Government of Ghana and other states as fostering a sense of ownership, promoting trust, reducing the cost of implementation and contributing to transformative outcomes in line with better overall performance measures (cf. McCommon et al., 1990; Opare, 2011; cf. also Hölscher et al., 2018, on transition versus transformation; and Whaley & Cleaver, 2017).

The drive towards CBWM in Ghana, which was launched through the National Community Water and Sanitation Programme (NCWSP) in 1994, has significantly impacted water resources management in small towns and rural areas. It has resulted in increased access to water from 27.0% in 1990 to 62.1% in 2017, and further to 74.4% in 2021 (CWSA, 2019; Ghana Statistical Service, 2022). In the process, much attention has been paid to the sustainability and performance of these CBWM systems. However, this concern over sustained performance (cf. Abanyie et al., 2019; Lane, 2018), looking back to progress forward, tends to take issue with the lack of training, and the level of state promotion and support. Moreover, while there is some doubt about whether it is the communities or the state that have actual 'ownership' or influence over these systems

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(Fielmua, 2020), there is also a continuing appreciation for the customary relations between communities and chiefs and other elders in water governance arrangements (cf. Adjakloe, 2021).

We find the linear causal relations inferred in such performance-based assessments of water governance arrangements cannot fully embrace the complexities of transitioning to CBWM. We also find that these new state-decentralized modes of governance continue to exhibit traces of influence and control at both the state and community levels. The latter suggests a need to examine the institutional bricolage of interdependent relations within/between the state, the communities, and other actors. And finally, the representational focus of performance-based reviews risks disregarding the aspirational struggle for change.

While it is possible to examine the existing and emergent properties of institutional change relative to path dependencies and paradigm shifts – driven mainly by exogenous causes that represent vested and embedded powers or hierarchical relations of power (Whaley & Cleaver, 2017) – there is a need to acknowledge the emergent and experimental properties, processes and performances that signify change but exist before any structured conscious, reflective of routine, thought. We argue there is scope for examining not only what can be *represented* through identified norms and routines – an ontology of *being* – but also those acts that signify a sense of *becoming* and desire (*for* change).

Considering Cleaver and de Koning's (2015) case for furthering critical institutionalism, we offer some insights from non-representational theory, using as an example the work of Gilles Deleuze (Deleuze & Guattari, 1977, 1987; Deleuze, 1995; see also Thrift, 1997, 2004, 2008; Anderson & Harrison, 2016; McCormack, 2010). We offer a complementary appreciation of institutional bricolage with an attention to *affect* – moods, passions, emotions, intensities and feelings – which transcend the human and conscious ways of doing/knowing. Lorimer concisely captures non-representational theory as 'an umbrella term for diverse work that seeks to better cope with our self-evidently more-than-human, more-than-textual, multisensual worlds' (Lorimer, 2005, p. 8; cf. also McCormack, 2019, on actor–network theory and spaces of affect).

Attempts at implementing CBWM can trigger new social tensions among individual households when penalties for non-payment are introduced, especially when its enforcement has been devolved to the communities themselves – meaning that members of extended family networks often have had to scrutinize and/or report each other. The strength of social bonds has meant that the enforcement of a community-wide accountability to water tariffs on household water use has been contentious, evoking community opposition to the lack of transparency and double standards that often have ensued. More interestingly, still, we find community-level allegiances to traditional authorities suggest that the community embeddedness of these social bonds has been largely resilient to the institutional change reflected in the attempts to implement CBWM. For example, we identify how community chiefs' and other elders' attempts at elite capture (see also De Koning, 2011, on 'articulation') have helped them retain some influence over water governance arrangements at the community level (Hall et al., 2014).

Altogether these practices amount to 'institutional bricolage' (De Koning, 2011, 2014; Cleaver, 2012; cf. also Douglas, 1986; and Lévi-Strauss, 1966, on 'intellectual bricolage'), whereby a collection of interdependent activities among chiefs and other elders, female water vendors, and other operational staff and their respective

communities span the institutional planes of stability and change, blurring the boundaries between them in the process. That is, CBWM is as much about what it means or *represents* regarding the structure and influence of institutional arrangements of the past as it does the desire for how to achieve a fairer future regarding common-pool resources and its management.

This prompts the following question: What happens when a *bricoleur* seeks to share his way of acting with someone else? (Duymedjian & Rüling, 2010, p. 142). We take institutional bricolage to be the 'process through which people, consciously and non-consciously, assemble or reshape institutional arrangements, drawing on whatever materials and resources are available, regardless of their original purpose' (Cleaver & de Koning, 2015, p. 4). Within this institutional space of bricolage, we observe individual acts of reciprocation between actors, such as women being offered the role as vendor by the community water and sanitation management team (WSMT), in recognition of their support in mobilizing the funds needed to finance water infrastructure, only to be discriminated against by the same teams – select members of which in collusion with their traditional authority.

Notions of institutional bricolage are set within critical institutionalist approaches, which seek to uncover or unpick the complex interplay of meanings and values driving practice (Cleaver, 2001, 2002, 2012; Cleaver & de Koning, 2015; Whaley, 2018; Whaley & Cleaver, 2017). From a socio-historical perspective, critical institutionalism strives for an institutional representation of the structuring forces of these values and the meaning or significance it holds for the actions observed. Yet, despite its attention to complexity, to a post-structural emphasis on diversity and creativity, it remains set on elucidating as coherent an interpretation of the *past* as possible – drawing on the assumption that social life is constituted by social actions that are meaningful to actors and other participants.

In the remaining sections of this paper we provide a brief theoretical background to critical institutionalism and institutional bricolage before offering some insights from non-representational theory. We then outline our methodological approach before an analysis and discussion of our case study results.

Background

We examine the decentralization to a CBWM approach to water governance in Ghana, beginning in 1994 with the launch of the National Community Water and Sanitation Programme (NCWSP). The launch of the NCWSP, with support from the Community Water and Sanitation Agency (CWSA) – established by Act of Parliament, Act 564 of 1998 – significantly impacted how water resources were managed in small towns. Under the NCWSP, the CWSA sought to facilitate an 'accelerated and equitable delivery' of improved water and related sanitation services to communities and small towns – namely through community ownership and management, community decision-making over the planning and design of water infrastructure, the involvement of women, and private sector involvement together with public sector promotion and support (CWSA, 2005, p. 1). The transition to this decentralized water governance model – CBWM – consisted of both the introduction of new organizations and institutional relations over the provision, regulation and management of water resources as a common good. This shift included

efforts to deinstitutionalize some community norms to ensure coordinated approaches between state regulations and the community-based operation of small-town water systems.

The state's decentralization programme consisted of reforms to existing informal arrangements led by community chiefs and other elders. A gender sensitive community-based WSMT, representing all geographical sections of small-town communities, was introduced to provide strategic direction to the operations and maintenance of water systems. These WSMTs employed operators and vendors, who were responsible for the day-to-day operations and maintenance of water systems. Regional community water and sanitation agencies (CWSAs) and district water and sanitation teams (DWSTs) were additionally introduced to monitor community-level operations, enforcing state laws and offering a bridge between state agendas and diverse community needs.

In the following paper we examine the relationship between the formal rules that the Government of Ghana has sought to impose on local institutional practices, and how the communities of four small towns have responded. We closely scrutinize the extent to which these practices account for the frameworks of rules set down by government, as well as the interplay between the adaptation to these state-mandated rules and those embedded in the social conventions of these communities. We approach the focus of this study from the perspective of critical institutionalism (Cleaver, 2001, 2002, 2012). Unlike mainstream commons research, critical institutionalism will not reduce the above observations of institutional change to a set(s) of rules that dictate action situations (Ostrom, 1990, 1995, 2005). Rather, it will embrace the complexity and uncertainty associated with studying the interplay of multiple 'layers' of institutional logics in practice (Van der Heijden, 2011), and the associated power inequalities off which these practices feed – as existing/new, formal/informal institutional forces resist and/or influence change.

In this vein, we recognize that institutional bricolage can advance our understanding of the stability found in relations based on negotiated and/or predetermined conventions, and of the change inherent to those processes of institutional adaptation, of learning to make do with whatever resources are at hand in any given situation. Critical institutionalism can help to explain the associated complexities of these institutional practices as 'naturalized' (Douglas, 1986) norms and routines at the community level. However, it is less likely to address the moods, passions, emotions, intensities and feelings that are not directly represented or evident in these actions or its associated desires or hopes for an alternative future.

Non-representational theory has much to contribute in this regard. Whereas critical institutionalism places its onus on the univocal human subject – as Cleaver and De Koning note when they argue that 'the individual is highly relational' (Cleaver & de Koning, 2015, p. 9; cf. also Burkitt, 2012), non-representational theorists seek to engage political regeneration and other possible worlds through an exploration of a renewed politics or ethics of hope (cf. Amin & Thrift, 2005; Anderson, 2006). This appreciation of the ontology of *becoming* allows us to momentarily transcend the conscious/non-conscious (individual), and factor in the power of a pre-cognitive world imagined. We find this appreciation can contribute to furthering critical institutionalism and the scholarship on institutional bricolage (Cleaver & de Koning, 2015, p. 6), namely, where it concerns alternative readings of the multilevel social embeddedness of natural resource management practices.

CBWM is a cross-boundary, multi-actor space where there is enough stability for the institutions of community relations to remain recognizable, but not entirely stable because it sustains continuous change. Change in this 'institutional panarchy' (May, 2021; see also Kraatz & Block, 2008) constitutes minor incremental adjustments that cumulatively amount to significant change over time. CBWM represents adaptations to water governance to which critical institutionalism has much to contribute (Whaley & Cleaver, 2017), but it also evokes a constantly emerging, fluid, outward-facing state of desired change to which non-representational theory can provide complementary insights (Burkitt, 2012; cf. also Lecoutere, 2011; Saunders, 2014; Venot, 2011).

Institutional bricolage in water governance: a critical institutionalist perspective

Hassenforder and Barone (2018) identify three promising neo-institutionalist approaches to the study of institutional arrangements for water governance. These approaches include examining the processes of institutional *design* – crafting new institutions; institutional *fit* – adjusting to new socio-cultural contexts; and institutional *bricolage* – sourcing from a repertoire of existing institutional mechanisms, and individual and organizational capacities to form new modes of engagement. In this paper we draw on the last of these three promising approaches, with emphasis on institutional bricolage (Cleaver, 2012). We adopt a critical institutionalist lens on the practice of institutional bricolage (Cleaver & de Koning, 2015; Hall et al., 2014; Whaley, 2018), departing from the game-theoretic logic of rule-bound rational choice theories of behaviour in institutional analysis. We are particularly inferring the work of Eleanor Ostrom (1990) – the Institutional Analysis and Development (IAD) framework from which notable departures include the *Critical* Institutional Analysis and Development (CIAD) framework (Whaley, 2018, p. 141).

The CIAD framework departs from attempts to 'model decision-making between individuals and groups in any definitive sense' (Whaley, 2018, p. 140). It is fundamentally an adaptation of the original IAD framework (see also Ostrom, 1995, 2011) and later readings of the 'political' into this work (Cleaver, 2001; Clement, 2010; Whaley & Weatherhead, 2015), drawing also on the earlier work of Douglas (1986) (cf. Cleaver & De Koning 2015, pp. 4–5). However, Whaley (2018, pp. 157–158) proposes that CIAD ought to be a template: a 'framework for frameworks'. Whaley argues that such a template should allow critical institutionalist scholars to adopt and adapt it in accordance with their disciplinary training, subject area and research agenda (cf., e.g., Saravanan, 2008; Moglia et al., 2011; Rahman et al., 2012, 2017; Mehta et al., 2016, for frameworks that can be expressed through the CIAD framework).

Among some adaptations (e.g. Rahman et al., 2017), there is generally a concern with how to operationalize decentralized resource management to scale. Such concerns echo Cleaver and De Koning's call for a better understanding of how change occurs at the 'messy middle', which comprises of several interfaces between organizational levels, sets of values, lay/professional knowledge, and individual, community and state action. They claim that most bricolage practices occur at these interstitial spaces, navigating competing interests and negotiating discrepancies between regulation and practice (Cleaver & de Koning, 2015, p. 6; see also Ingram et al., 2015). In the following section we offer some complementary insights from non-representational theory, drawing mainly on Deleuze, (1995) and Deleuze and Guattari (,1977, 1987).

Institutional bricolage: some insights from non-representational theory

CIAD builds on the long-established thinking that institutions for governing common resources is achieved through the process of 'crafting' and 'design' (Dietz et al., 2002; Feeny et al., 1990; Ostrom, 1999). Its critical institutionalist dimension extends this understanding by stressing the 'messy complexity of institutional life' that is ingrained in 'everyday practices' (Whaley, 2018, p. 139; see also Peters, 1987) through the processes of institutional bricolage (cf. Cleaver, 2001, 2002, 2012; Douglas, 1986). Cleaver and de Koning (2015, p. 4) describe these processes as 'people [who], consciously and non-consciously, assemble or reshape institutional arrangements, drawing on whatever materials and resources are available, regardless of their original purpose' (cf. also Whaley, 2018, p. 139). Whaley (2018) and Cleaver (2001, 2002) argue how institutional bricolage also encourages differentiated multilevel power relations across these new modes of engagement.

Institutional bricolage offers useful insights on the complex, fluid and uncertain contexts of social practices, but it is not a constant or pure form of practice according to Duymedjian and Rüling (2010, p. 139). To advance their notion of '*collective* bricolage' (emphasis added), the authors call attention to Lévi-Strauss' differentiation between the *ingénieur* and *bricoleur* to stress that 'real world' actions are situated somewhere in *between* the two (cf. Carstensen, 2011, for other contrasting ideal type considerations). This differentiation is rooted in Lévi-Strauss' notion of 'intellectual bricolage' (Lévi-Strauss, 1966), which can be seen to foreshadow seminal works such as *How Institutions Think* by Mary Douglas (Douglas, 1986) and its later influence on commons scholarship, and critical institutionalism and institutional bricolage. De Koning (2011) aptly clarifies this distinction between the *ingénieur* and *bricoleur* as an appreciation of how an individual may adapt an umbrella for a lampshade, but knows that the same cannot be made into a space shuttle. In this way we are encouraged to appreciate the pragmatism of the *bricoleur*, while also recognizing that the everyday practices of bricolage can be messy when factoring in individual/collective value sets and the situations that lead to their negotiation and compromise (e.g. Nunes & Parker, 2021).

The notions of the *ingénieur* and *bricoleur*, as originally juxtaposed by Lévi-Strauss (Lévi-Strauss, 1966, p. 17), designate 'two opposed but *complementary* ideal-typical regimes of action' (Duymedjian & Rüling, 2010, p. 139, emphasis added). Whereas the former operates pragmatically through relations based on negotiated and/or predetermined conventions, the latter is attributed to a pragmatic response of making do with whatever resources are at hand through personal or familiar relations with others. That is, whereas *ingénieur*-type responses would seek to uphold some degree of conventional practice in the present, *bricoleur*-type responses draw upon different social and cultural resources (including individual and organizational capacities, as well as existing institutional mechanisms embedded in conventional practice) to piece together new modes of engagement towards desired alternative futures.

This differentiation between the *ingénieur* and *bricoleur* helps to bookend the '"real world" actions [that] are situated somewhere in between the two – in concrete, empirical terms, there is no such thing as "pure" bricolage' (Duymedjian & Rüling, 2010, p. 141). This distinction particularly helps to address the transition to CBWM, which, as an emerging product of institutional change, is neither linear nor fixed but

rather exists as a set of practices in tension – between the stability of predetermined conventions and the changes they undergo. In other words, as already suggested, institutional bricolage exists somewhere between the stability or *fixity* of organized, regulated activity and the continuous change inherent in the *fluidity* of consistently emergent everyday occurrences.

Duymedjian and Rüling's (2010) attention to collective practices of institutional bricolage is concerned with what happens when one *bricoleur*'s actions are shared or intersect with that of another (see also Berkes, 2007). Like Cleaver and de Koning (2015; see also Whaley, 2018), these concerns draw attention to negotiations and compromises between *bricoleur*s and their hybrid institutional arrangements (e.g. Booth, 2012). This association of bricolage with hybrid and/or plural institutional arrangements also leads some to proffer critical institutionalism can provide a useful perspective on studies of 'adaptive governance' (Cleaver & Whaley, 2018; see also Frick-Trzebitzky, 2017). Yet we find these recent developments can be complemented with insights from non-representational theory (Deleuze, 1995; Deleuze & Guattari, 1977, 1987; see also Thrift, 1997, 2004, 2008; McCormack, 2010, 2019), which we already see paralleled to some extent in May's research on the 'institutional panarchy' of adaptive governance arrangements (May, 2021; see also Holling et al., 2002) (Table 1).

Following Deleuze (1995) and Deleuze and Guattari (1977, 1987), we are reminded how the *bricoleur* navigates competing interests, negotiating discrepancies between regulation and practice within the interstitial spaces of a 'messy middle' – one that comprises of several interfaces between organizational levels, sets of values, lay/professional knowledge, and individual, community and state action (Cleaver & de Koning, 2015, p. 6; see also Ingram et al., 2015). Critical institutionalism helps to explain how these action situations for the *bricoleur* arise, acknowledging historical trajectories and incremental change; the role of relatively stable informal and formal institutional factors; and the embeddedness of socio-cultural drivers of knowledge production and its association with vested and hierarchical relations of power (Table 1). There is an ontology of being in this socio-historical reflexivity, which according to Deleuze and Guattari is attributed to a 'point' – a 'stratum' [level or plane] from which departure is possible through experimentation and/or the disruption of current practices (Deleuze & Guattari, 1987, p. 161).

This suggested metaphor of incrementalistic institutional change, however, is not reformist. Deleuze and Guattari's (1987, p. 473) political praxis is directed at revolutionary, transformative change (Purcell, 2013, p. 27) – a concern shared widely among critical institutionalists and critical commons research scholars (Quintana & Campbell, 2019). As such, the 'line' is then contrasted with that of the point to argue for 'lines of flight' (Deleuze & Guattari, 1977). Whereas the point is fixed, the line is associated with motion between points – an ontology of *becoming*, moving along a line towards something other or new. It is a metaphorical understanding of processes of change that can factor in the emotional, symbolic, or moral dimensions of agency.

However, these lines of flight are risky because the usual fate of these *bricoleur*s is that they are recaptured within the structure of existing practices (Deleuze & Guattari, 1977, p. 316; 1987, p. 54). Purcell likens this to a prison break whereby the 'prisoner [*bricoleur*] escapes, but quickly finds s/he lacks the resources to remain free for long and is eventually apprehended' (Purcell, 2013, p. 26). In this way, these lines of flight are acts of hope (Thévenot, 2001; Thrift, 2004; see also Nunes & Parker, 2021), encouraging subsequent

Table 1. Appreciating the non-representational in institutional bricolage.

	View on institutional change	View on institutional structures	Focus on knowledge	Focus on power
Institutional analysis development (IAD) (Ostrom, 1990, 1995, 2005, 2011; Feeny et al., 1990; Dietz et al., 2002)	• Strategic interactions • Actors maximizing their utility	• Rules that contribute to the calculation of actors and make their behaviour predictable • Networked relations are hierarchical	• Collective action dilemmas • Different levels of rules (operational, collective choice, constitutional) • Formal and informal rules	• A-political consensual power
Critical institutionalism (institutional bricolage) (Lévi-Strauss, 1966; Douglas, 1986; Cleaver, 2001, 2002, 2012; Hall et al., 2014; Cleaver & de Koning, 2015; Whaley, 2018)	• Historical trajectories and paradigm shifts – driven mainly by exogenous causes • Incremental change due to changes in the structure of policy ideas or to an accumulation of small endogenous changes • Change as a process of bricolage	• Formal (the state) and informal institutions • Relatively stable and persistent • Self-reproductive • Influence and are influenced by power inequalities	• Cultural aspects of formal and informal rules, and norms of behaviour	• Vested and embedded powers • Hierarchical relations of power
Non-representational theory (Deleuze, 1995; Deleuze & Guattari 1977, 1987; Thrift, 1997, 2004, 2008; Anderson & Harrison, 2016; McCormack, 2010)	• Direction is not fixed • Experimental • Adaptive • In flux • Ontology of becoming (as opposed to one of being) • Contingent • Uncertain	• Fluid • Unpredictable • Post-structuralist; (rhizomatic) • No central organizing structure – institutional panarchies • Multiple, plural connections/networks; networks organize themselves	• Impossibility of definitive knowledge • De-prioritizes what can be represented through identified norms/routines as the means through which knowledge is produced and structured	• Recognizes power differentials and power plays, with a stress on partial or uncertain knowledge • Comprises of both existing, and emergent and experimental properties, processes and performances

Source: Authors.

attempts. These lines of flight are not taken up by one actor; they are shared and soon form complex collective multiplicities through 'revolutionary connections' (Deleuze & Guattari, 1987, p. 473; cf. Kraatz & Block, 2008), whose elements remain distinct but move together to evade recapture.

Given their acts of mutual augmentation, Deleuze and Guattari compare these lines of flight to rhizomes – as a-centred, non-hierarchical network structures whereby each member can communicate horizontally, unlike an arboreal structure where communication must first pass through a single coordinating trunk (Deleuze & Guattari, 1987, p. 17, tab. 1; cf. Jensen, 2019, on actant–rhizome ontology and actor–network theory). As such, these collective lines of flight are akin to a swarm of acts in concert or, as Purcell suggests, a flock of starlings where 'despite its great mass, it can change direction [and shape] in less than a second [... and] disappears in an instant. And then before you can process what you are seeing, it re-emerges again as fast as it vanished' (Purcell, 2013, p. 28). Deleuze and Guattari are optimistic of the emergent and unpredictable nature of these connections or 'new lands' (Deleuze & Guattari, 1977, p. 318) – that is, as enough lines of flight manage to flow together to form a critical mass, they can progressively form a consistent space of potential transformative impact albeit fluid and immanent.

This distinction sets apart studies seeking to represent what it means to be at a point of capture – of adaptive institutional stability, of structured conscious and non-conscious thought, as opposed to the more-than-representational lines of flight where connections have yet to be known. The opposition between these two ontological planes is abstract because the actant continually and unnoticeably passes from one to the other (cf. Lévi-Strauss, 1966, on 'intellectual bricolage') – between the actual action situations and the plausibility of organization. As actants, we occupy both planes simultaneously (see Hillier, 2005, 2008, for a reading of Deleuze and Guattari). With insights from non-representational theory, we examine what can be represented through identified norms and routines – an ontology of being – but also those acts that signify a sense of becoming and desire (for change).

Methods

This paper is based on the doctoral research of the co-author (Fielmua, 2016), which generated empirical findings from a comparative study of CBWM practices in the Upper West Region of Ghana between December 2013 and June 2014. In this paper, we revisit our analysis of those results from a non-representational perspective that offers an alternative approach and arguably a different reading of events. We re-present our previous analysis of the data with less of a focus on the *past* of knowledge, how it unfolded and our obligation to capturing or representing it. As Vannini aptly notes, 'the key [to a non-representational theory perspective] lies in a different *orientation* to 'data' (Vannini, 2015, p. 12, emphasis added). In other words, the non-representational researcher is not distinct from others in their choice or rejection of a particular method. Like others, non-representational researchers will conduct fieldwork where data are collected using a mix of different methods – as outlined below; that is, there is no unique non-representational method.

The merits of a non-representational perspective on our record of previous events are less concerned with reflecting on what they represent for some current understanding of a 'reality' of water governance practices. Rather, this alternative approach is more concerned with making sense of an action–situation in time and what it may suggest about what happens next. That is, it draws on an ontology of becoming, rather than one of being. In this way, we approach our consideration of CBWM as an evolving *idea* or model for common pool resource management, examining actors' responsibilities and powers of authority, and their contribution to its evolution. Rather than taking CBWM as a known against which practices are examined and represented, we argue that an alternative reading of past events is possible through this non-representational perspective. An impression of the future, of becoming, of a 'politics of hope', can be evoked in the reader instead.

The fieldwork took place in the four small towns of Daffiama, Gwollu, Busa and Babile in Ghana's Upper West Region. There are varied definitions of what constitutes a small town in different countries (Tumusiime & Njiru, 2004). In Ghana they are settlements with populations between 2001 and 50,000 people (CWSA, 2010). The selection of these case study community water systems was based on their year of establishment, and on annual performance reports by the Upper West regional CWSA. The water systems at Daffiama and Gwollu were constructed before the 1994 water sector reforms, which decentralized water management with an onus on communities. The water systems at Busa and Babile were constructed in 2010 after the reforms, requiring them to pay towards the capital expenses of their systems. The selection of these systems was also informed through preliminary informal discussions with staff of the CWSA; these discussions were not recorded as they were administered for the sole purpose of identifying the case studies prior to obtaining ethical clearance for the fieldwork.

Our principal data collection methods included: (1) a review of legislative instruments, and the financial documents, audit reports, constitutions and by-laws of the WSMTs; (2) separate focus group discussions with the DWSTs, local WSMTs, and operating staff and the vendors in each community; (3) a household survey of 150 households across all four communities; (4) physical observations; (5) one key informant interview in each community; and (6) informal discussions with female WSMT members in three communities: three women in Daffiama, one in Gwollu and one in Babile – there was no female representative on the WSMT in Busa. The number of households surveyed (% of sample size = 150) consisted of 40 (26.7%), 50 (33.3%), 23 (15.3%) and 37 (24.7%) at Daffiama, Gwollu, Busa and Babile, respectively. See Table 2 for a summary of data-collection tools, documents reviewed and participants.

Key informant interviews targeted individuals who were knowledgeable of water management, including ex-chairpersons of the WSMTs, retired pump operators and individuals who played major roles during the mobilization phase of the community water projects. Official documents, informal and focus group discussions, and key informant interviews were recorded using digital voice recorders and hand-written notes that later were analysed using content analysis. All focus groups involved actors responsible for water governance. Several repeat visits to the communities, following up on issues that emerged during the compilation of field notes and the transcription of audio recordings, were administered with the help of NVivo.

Table 2. Summary of the data collection tools, and study documentation and participants.

	Operational dimension (community-based water management – CBWM)				
Data collection techniques	Babile	Busa	Gwollu	Daffiama	Regulatory dimension (state)
Review of official documents	• Financial records of the water systems • Billing records • Water production and consumption records • Constitution and byelaws (WSMT, 2010a)	• Financial records of the water systems. • Billing records. • Water production and consumption records. • Minutes of the water and sanitation management team (WSMT) • Constitution and byelaws (WSMT, 2010b)	• Financial records of the water systems • Billing records • Water production and consumption records • Constitution and byelaws (WSMT, 2008a)	• Financial records of the water systems • Water production and consumption records • Constitution and byelaws (WSMT, 2008b)	• District medium-term development plans • Annual reports • Audit reports (Busa and Gwollu) • Operational manuals • Legislative Instrument LI 2007 • CWSA Act, Act 564 • National water policy
Focus group discussion and group discussion	• WSMT • Operating staff • Vendors • Women's group • Elders of Konyukuo	• WSMT • Operating staff • Vendors • Women's group • Elders of Dawdiyir	• WSMT • Operating staff • Vendors • Youth group	• WSMT • Operating staff • Women group	• Four district water and sanitation teams (DWSTs)
Household survey (*n*)	37	23	50	40	Not applicable
Physical observation	Observation of stand-posts, indoor taps, distribution lines, high-level tanks and official work environment	Observation of stand-posts, indoor taps, distribution lines, high-level tanks and official work environment	Observation of stand-posts, indoor taps, distribution lines, high-level tanks and official work environment	Observation of stand-posts, indoor taps, distribution lines, high-level tanks and official work environment	Participation in the launch of new water projects in Sissala West District
Key informant interview (*n*)	1	1	1	1	5

Source: Field study, 2014.

Small town case study communities and their water systems

The four small town case study communities of Daffiama, Gwollu, Babile, and Busa are in the Upper West Region in Ghana (Figure 1). Gwollu is in Sissala West district and has a population of 4854, comprising 50.5% males and 49.5% females. Daffiama is in Daffiama–Bussie–Issa district and has a population of 3519, comprising 48.9% males and 51.1% females. Babile is in Lawra municipality and has a population of 4061, comprising 46.3% males and 53.7% females. Busa is in Wa municipality and has a population of 3256, comprising 49.1% males and 50.9% females (Ghana Statistical Service, 2013a, 2013b). The gender compositions of these and other small-town community populations have significant implications on decision-making. Females are responsible for drawing water from community-managed boreholes and managing it at the household level (Fielmua, 2018; Giné & Pérez-Foguet, 2008) and, as such, there is a mandate for women's active involvement in decision-making. Legislative Instrument LI 2007 addresses these concerns, requiring that at least one-third of the WSMT members should be reserved for women (CWSA, 2011).

Typically, pump operators and revenue collectors were employed by the then Ghana Water and Sewerage Cooperation (GWSC) and the district council (now district assembly) to manage the water systems. Revenue mobilization at the community level was less of a challenge because the communities were small, and the operators had the support of the traditional authority. These authorities enforced rules on the payment of water fees until water sector policy reforms decentralized the state control of water supply in 1994, and

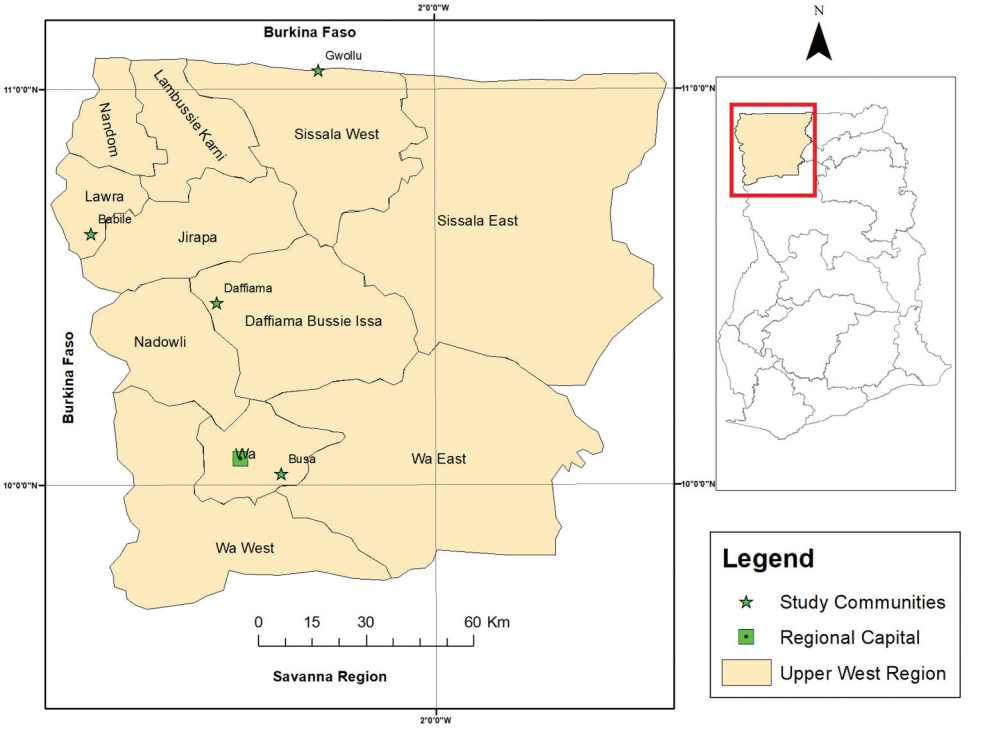

Figure 1. Small town case study communities in the Upper West Region, Ghana.
Source: Department of Planning, SD Dombo University of Business and Integrated Development Studies, Wa, Ghana.

empowered communities. After these reforms, the communities of Daffiama, Gwollu, Babile and Busa assumed full responsibility for the operation and maintenance of their water systems, with the district assemblies providing complementary functions. They relied on these water systems with intermittent breakdowns until the Government of Ghana secured funding from the World Bank to rehabilitate and expand their water systems (Figure 2).

In Gwollu and Daffiama, the rehabilitation and expansion process was completed in 2007, and the water systems were handed over to these four small towns for management in 2008. The make-up of water supply sources varies across the four different communities from public hand-dug wells, community-managed boreholes with hand pumps and private mechanized water supply systems – some of which is powered by hydroelectricity via the national grid (Fielmua, 2018). Later, additional funding was secured by the government to expand access to potable water through the construction of new piped water systems in Busa and Babile. In these two small towns, new boreholes were drilled, mechanized and commissioned in May 2010 – the first time that each of these communities had a piped water system. Busa and Babile now each have a concrete water reservoir with a 60 m^3 capacity. Prior to the construction of the water systems, these communities relied on boreholes with hand pumps, ponds and hand-dug wells for their water needs.

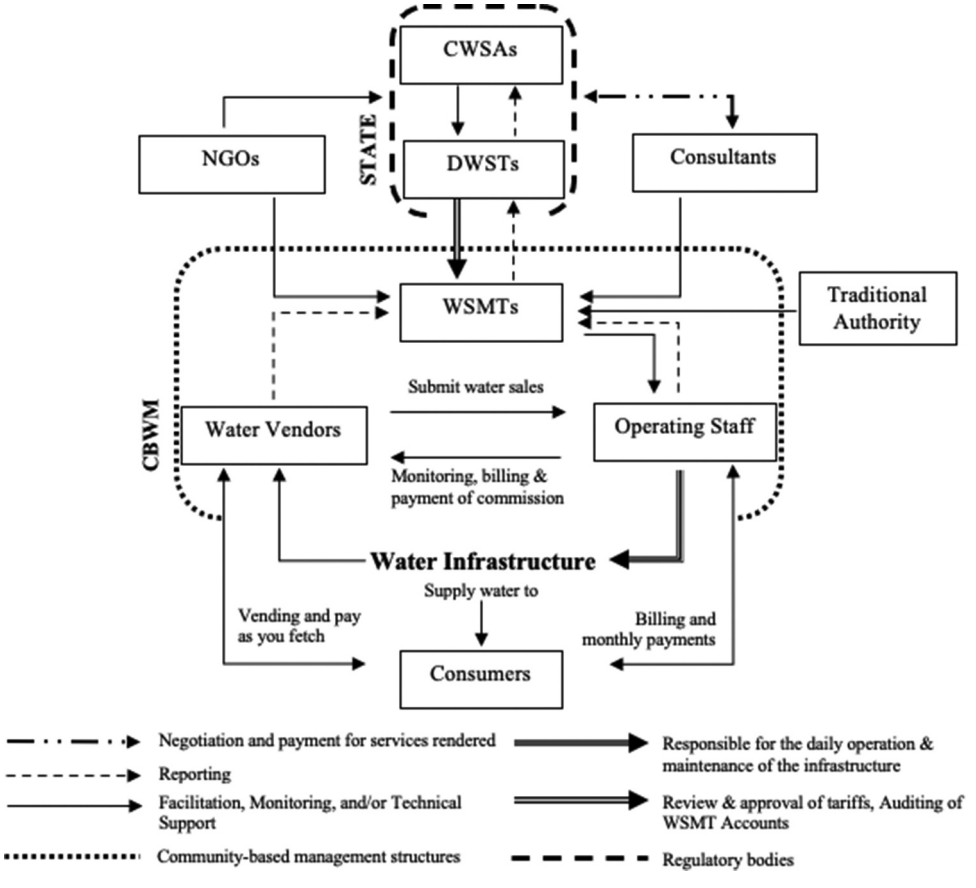

Figure 2. Institutional and management arrangements of small-town water systems.
Source: Authors.

Results

The CBWM consists of three management structures: the WSMTs, (female) vendors and operating staff. These actors manage water systems on behalf of their respective communities and local government or district assemblies. The regional CWSA and DWSTs provide technical support to WSMTs, monitoring compliance and imposing sanctions as required (CWSA, 2010; Mansbridge, 2014).

There are legislative instruments that legitimize the execution of the above functions of these individuals and organizations. CBWM rules are jointly prepared by WSMTs at the community level, and the CWSA and DWSTs at the regional and district levels, respectively. There are power imbalances in the composition of these actor groups that are meant to co-design institutional arrangements for water governance, but the presence of high-profile consultants and district assembly staff have limited the active participation of community level actors (Table 3 and Figure 2). According to one of our case study WSMTs, for example, the final drafting of CBWM arrangements was completed by an external consultant to the associated DWST, despite the process having been preceded by a participatory community workshop.

Meanwhile, state-mandated conditions for the constitution of CBWM maintains that socio-cultural considerations must be factored into the design of institutional arrangements for water governance. Our review of all such constitutions in each of the four small towns (WSMT, 2008a, 2008b, 2010a, 2010b) has shown that the content mainly reflects regulatory frameworks for water quality and supply without any such considerations. This governance failure reflects varying acts of collective institutional bricolage by the chiefs and other elders of these communities, female vendors and other operational staff of the WSMTs in response to the community implications of state-mandated institutional arrangements. Below we outline some of our observations of this institutional bricolage where these arrangements have run up against established community practices or social bonds, including most predominantly the control and exertion of power by some community elders over others and the role of women in water resource management.

Institutional bricolage and power plays for representation in CBWM: the role of community chiefs and other elders

Community sections, composed of select family households, are constitutionally required to submit candidates for election to WSMTs. The aim of forming a WSMT prior to commencing with the construction of community water supply infrastructure enables these teams to oversee everyday occurrences. This basic requirement was met in all the four small town case study communities. The community sections presented their preference for representatives. The selection was based on the section households' own criteria, including a duty to cooperate, individual availability and trustworthiness.

However, our focus group discussions with WSMT members confirmed that community chiefs colluded with other elders over the nomination and selection of community representatives onto the WSMTs. Key informant interviews at each community also revealed how elders felt they were better placed to know community members' behaviours and commitment to select duties. As such, they claimed they were in a better position to select individuals who would better serve the water sector. This mode of

Table 3. Responsibilities of the state and community-based water management (CBWM)-level actors.

Level	Actors	Responsibilities
Regulatory dimension (state)	District water and sanitation teams (DWSTs) (district authority)	• Monitor water activities in their jurisdiction • Provide technical advice/support on water related activities • Build the capacity of WSMT/operation staff • Carry out audit of the water systems
	Community water and sanitation agency (CWSA) (Regional Coordinating Council)	• Monitor and coordinate all water activities in the region • Set standards for the water sector • Build the capacity of DWSTs and other stakeholders in the district and community level
Partners in water services delivery	Non-governmental organizations (NGOs)	• Global Water Initiative (GWI) delivered water quality toolkits to support water quality tests in Nadowli and Lawra districts • Supplied boreholes to communities • Built the capacity of the DWST. Sponsored DWSTs in a different country (Niger) to learn about water management
	Consultants	• Provide services, including training, facilitate the preparation of constitutions, water, and sanitation related education to the regulatory and the operational levels
Operational dimension (CBWM)	Water and sanitation management team (WSMT)	• Employ and determine operating staff salary • Review and monitor the activities of the operating staff • Oversee the functioning of the water system • Set the tariff to cover operation and maintenance, replacement, and expansion costs • Purchase, hold and manage/dispose of any property in conformity with existing laws
	Operating staff and vendors	• Answerable to the WSMTs and to report the status of the water system to the WSMT • Production and distribution of quality water • General maintenance of the water system to reduce water loss • Where applicable, pay for the services of area mechanics • Billing and water revenue collection • Prepare the system towards expansion. This includes the preparation of facility management plans together with WSMT • Vending of water through stand posts
Community residents	Consumers	• Payment of water bills based on quantity of water consumed • Report breakdown or fault to operating staff
	Traditional authority (community chiefs and other elders)	• Provide backstopping in enforcing water management byelaws • Support WSMT to convene community meetings • Release land for expansion of the water • Settle water management related disputes

Source: Authors.

forming the WSMTs was further confirmed by the fact that 80.7% of the households surveyed did not participate in determining the selection of WSMT members. About 12.5% could not indicate whether or not a household member participated in the selection process, while only 6.8% clearly indicated that they had participated in the selection of sectional WSMT representatives. In effect, there was unsurprisingly limited household participation in the selection and nomination process.

Moreover, state-mandated rules for CBWM arrangements prevent the chiefs from sitting on WSMTs; community elders and section heads are not prevented from sitting on WSMTs, but they rarely take part. This institutional design seeks to prevent community chiefs, who customarily have had a significant influence on community affairs, from interfering with the intended democratization of community-based water governance. Also, according to Legislative Instrument LI2007, at least one-third of WSMT members should be women (CWSA, 2011). In our review of CBWM constitutions (2010a, 2010b) we

confirmed this condition *was* honoured. Discussions with operators and regulators at the WSMTs and DWSTs, respectively, revealed that the required gender balance was met by the time each of the WSMTs were launched with the ratification of their respective constitutions in 2010 and 2008. However, three years later (in 2013 and 2011, respectively; prior to this field work in 2014), no WSMT had a female member.

Our focus group discussions confirm evidence of compliance with institutional arrangements that have sought to prevent collusion and ensure the fair representation of women on WSMTs. For example, the restriction on chiefs' involvement in WSMTs has been aimed at creating a level playing field for the members of these teams. However, we found that the absence of community chiefs on WSMTs has not stripped them of their influence. The chiefs have had personal contacts on the WSMT, including section heads, who often have spoken on their behalf. That is, despite having been prevented from sitting on the boards of the WSMTs, community chiefs facilitated and consorted with other elders and members of WSMTs in covert institutional arrangements; they combined their powers of community influence, embedded in the cultural vestiges of their authority, with newly acquired resources and management structures made possible through CBWM arrangements at the community level (i.e. WSMTs). In an informal group discussion, a WSMT member noted that women's voices were hardly heard during meetings:

> If you want to raise an issue and the management staff know vividly that they are at fault on that issue, they will cover it up with another topic and that issue may never be revisited [. . . another replies] Leave that issue for now, leave that issue for now!!! These statements will not help us.(excerpts from an informal group discussion, 12 March 2014)

Altogether, these observations illustrate the failure of top-down institutional measures, such as the exclusion of community chiefs from the boards of WSMTs, which assumed their influence over water governance could be institutionally *designed* out and replaced with more transparent or democratic decision-making processes at the community level. The community chief emerges as a key *bricoleur*, operating at the institutional liminality of new regulatory structures instituted through the state's decentralization to CBWM.

Accountability in institutional bricolage: the role of women as vendors and female representation in CBWM

The recruitment of vendors in the four small town case studies was made open to the public. Yet men in the community continue to perceive water vending as a woman's role, often encouraging women to apply for the positions. In principle, all prospective vendors were required to apply for the position, and to be appointed following an interview. According to the WSMTs and its operating staff, the criteria used in vetting applications and conducting interviews included: (1) good public relations; (2) a willingness and duty to cooperate; (3) literacy; and (4) proximity of the applicant's residence to the standposts. Although willingness and commitment were subjective, the WSMTs and operating staff maintained that they were familiar with the community members and, as such, were able to identify eligible candidates.

In contrast, the discussion with vendors showed that some of these candidates were not literate, and even some of those who were had no knowledge of reading water meters. Literacy was used as a criterion in all case study communities apart from Busa, and interestingly all candidates were not able to read or write. This was confirmed during the focus group discussion with vendors. The communities at Daffiama, Gwollu and Babile placed a stress on literacy because they wanted the vendors to be able to read and record daily water consumption. Further discussion with vendors revealed that the candidate who could not read the meters did not adhere to established vending protocols, raising questions about compliance with CBWM procedures.

During the inception phase of rolling out the community water infrastructure at each of the small-town communities, women representatives were selected to help mobilize funds for the community contribution to the capital costs of water infrastructure. According to the WSMTs, and further confirmed by interviews with vendors and the household survey, women made do with the resources they had and gathered stones and shea nuts to raise funds for the costs; communities were required to pay 2.5% of the capital cost of the water systems, leaving women to mobilize the resources needed to make up this share in response to elders' requests.

Upon completion of the water system, the WSMT decided to reward the women, who led the resource mobilization effort, by appointing them as vendors of the public stand-posts. The discussion with the vendors revealed that it was only in Babile and Busa where vendors submitted applications and were interviewed; not all processes of appointing women to the WSMTs publicly satisfied state-mandated institutional requirements because the WSMTs already had a list of preferred vendors. In Daffiama and Gwollu, the vendors were selected either by the sectional heads or by individual WSMT members. Social bonding factored in as relatives or friends were selected into water vending positions. Yet, in these two communities, the vendors were later replaced because the WSMTs preferred others.

We were able to confirm from other discussions with female members in Daffiama, Gwollu and Babile – there was no female representative on the WSMT in Busa at the time – that they had been sidelined in water management and that WSMT meetings had been dominated by their male counterparts. This compelled the women to leave and disassociate themselves from the outcomes of WSMT decisions. The factors influencing select board members' lack of response is unclear, as suggested by a female vendor:

> Community members alleged that the chairman and the Board members spend water money. So, we are also called, 'Money spenders'. We wanted to take some steps to redeem our image. We wanted to mobilise ourselves to find out from the Chairman, why he has not been convening meetings. [. . .] But some members within the Board asked that we should hold on. We are still waiting. (excerpts from a discussion with aggrieved WSMT members, 2 March 2014)

The role of women as vendors and female representation on WSMTs presents a fascinating example of institutional bricolage. First, the female members in the four case study communities demonstrated an ability to bring their communities together in the hope of raising the cash needed to fund the costs of new water infrastructure. The women were then consequently rewarded with the opportunity to apply as vendors in accordance with mandatory state procedures towards which they worked to crowdsource

the necessary funds. Though select male members of WSMTs, under the influence of community chiefs and other elders, intervened and undermined these institutional arrangements which were designed to empower and give voice to women in day-to-day CBWM operations.

Institutional bricolage bordering on established socio-cultural norms and new regulatory mechanisms for CBWM: the role of operational staff

Regional and district regulators at CWSAs and DWSTs, respectively, confirmed that a typical operating staff membership for a CBWM system should include: (1) a system manager; (2) a technical operator who may double as the plumber; (3) an accounts officer; (4) a revenue collector; (5) security personnel; and (6) vendors. Operating staff are required to apply for their positions and be employed following an interview. We observed an institutionally embedded transition in the recruitment processes of the four small-town communities of Daffiama, Gwollu, Babile and Busa, despite the operating staff having to apply for their positions. This was partly due to the friendships made during the construction of water infrastructure in these communities. Some individuals volunteered to work closely with the contractors during this construction phase, later resulting in their employment as operating staff amidst criticism from some community members.

In our interviews of operating staff, at the four small-town communities, they argued the volunteers were qualified and employed fairly despite the criticisms. The criticisms revolved around the extent to which these posts were representative of community sections – albeit not a requirement of operating staff. Further discussions with district regulators (DWSTs) and community-level WSMTs revealed how it was felt that the employment of these volunteers would ensure a higher degree of commitment when later recruited by WSMTs as operating staff. They equally stressed how the volunteers would possess more adequate technical knowledge of the water systems, including the location and distribution of transmission lines.

State-monitored institutional arrangements for CBWM also require operating staff to tender their resignations with a month's prior notice – subject to WSMT approval. However, none of the staff who resigned submitted a resignation letter. Focus group discussions with these WSMTs in all four small-town communities further revealed that sanctions were not applied to individuals who resigned without due process. Our findings also suggest there is evidence of a fundamental clash between the regulators of the CBWM and the communities it is meant to service more efficiently and fairly through institutional arrangements for consultation, collaboration and representation.

On the one hand, the process of decentralizing water governance in Ghana has been motivated by its inability to effectively reach rapidly urbanizing small towns, devolving some conditional powers over water governance from state regional and district regulators (CWSA and DWST) to small-town communities. This institutional change or transition to a CBWM has been prefigured on the potential for a more democratic and transparent mode of water governance. On the other hand, however, the response of WSMTs has been to appropriate these new arrangements in collusion with community chiefs and other elders.

This process of appropriating WSMTs to accommodate established norms of community representation and/or honouring social bonds has been performed through collective forms of institutional bricolage. Community chiefs and other elders persistently emerge as key *bricoleur*s in collusion with other actors – in this case, select members of WSMTs – rekindling their powers of influence. So, when it was anticipated that WSMTs would have been mitigating gender-based discriminatory practices through CBWM arrangements, we find the communities dissatisfied and comparatively longing for previous arrangements – arguing that, under the leadership of traditional authorities, participatory processes were more inclusive:

> You see!! Things fall apart. There are internal management problems. Those good days, things were running smoothly because there were lots of interactions. We used to have top management meetings, sectional heads' meetings and then workers' durbars. With these interactions, concerns were raised and addressed, and the benefits were felt at the communities, the grassroots. Today, it is the opposite. There are no sectional heads meetings, no talk of a workers' durbar, for concerns to be raised and addressed. (excerpts from a focus group discussion, 30 April 2014)

Operating staff also emerge as *bricoleur*s, equally straddling the institutional boundaries between everyday community relations and the state-mandated institutional requirements for CBWM. During a focus group discussion, a member of the operating staff noted:

> As a native, sometimes it is difficult to work with one's community members, especially in a sensitive sector such as water. Is it possible, as a system [member of operating] staff, to disconnect a relative or a community chief's water supply because of non-payment, even though there are laws on the disconnection of defaulters? If one dares, one would be perceived as disrespectful and there may be consequences. (excerpts from a focus group discussion, 27 January 2014)

This positioning at the nexus of the stability found in long-established community relations and state-driven institutional change (albeit in the 'interest' of the communities) leaves operational staff constrained regarding any real powers of influence. Operating staff exhibited a sense of purpose – moving towards CBWM – that was torn eventually between their official duties to the WSMTs and their personal relations with others in the community. This was particularly evident in the premature exit of operating staff from WSMTs, reasons for which included: an inability to adapt to social pressure (public derogatory remarks), and job dissatisfaction.

Furthermore, while one could reasonably expect that social bonding would provide a uniting force behind community members' engagement of CBWM, we find these bonds have led to an unhealthy preferential treatment of community members, consequently circumventing state-led institutional designs intended to mitigate this risk of discrimination and undermining the potential for community empowerment through CBWM:

> Sometimes the actions of some members, especially in the Board, can be discouraging. There was a time that a private subscriber was issued with the monthly bill, and she complained and swore never to pay that huge amount of money, and actually did not pay. [. . .] It was decided that the tap be disconnected, and I was tasked to execute it. The woman went to some Board members to complain about the disconnection that I did. Sadly enough, they told her that they (Board) will meet me on the issue. You see!! This suggests that I disconnected the woman's tap and not that it was a management decision to disconnect her tap. Up to date, the woman does not greet me. (excerpts from an interview, 7 January 2014)

In a further interview with a WSMT chairman, we learned how a member of the operating staff, who doubled as a lead member of his extended family, was suspended for not adhering to the regulatory arrangements for CBWM. The suspended staff member's elder sister confronted and verbally assaulted the WSMT chairman, accusing the chairman of being 'wicked' towards a family member. In other words, the chairman was not perceived as executing a legitimate function in water management because the social bonds that have existed among this extended family had been broken.

Altogether our findings point to a paradoxical relationship that is evident in the point of capture in which communities find themselves acknowledging discriminatory practices and inefficient water resource management practices, yet they still find themselves unable to overcome the strength of social bonds despite their desire to mitigate such circumstances through CBWM. In other words, while social bonds have fostered or reinforced desired institutional norms in the form of local values and customs in these communities, such as those honouring the authority of elders, they also have sustained the discriminatory or preferential treatment of some group members over others through CBWM (Adler & Kwon, 2002; Isham & Kahkonen, 2002). More importantly, our observation of these social bonds is more than one of resilience, and uneven and gendered power relations. It is also about the 'lines of flight' (Deleuze & Guattari, 1977) expressed in the hope/struggle for a more resilient and just form of water resource development in CBWM (cf. Anderson, 2006).

CBWM as institutional bricolage: a non-representational theory perspective

WSMTs must report to district regulators (DWSTs) at least twice a year on the state of their water systems, or as requested by DWSTs; WSMTs must organize a meeting with the communities they represent, informing them about the state of their water systems and its finances. In turn, DWSTs must provide feedback to WSMTs and copy in their regional regulators (CWSAs). However, these institutional arrangements for information-sharing are typically not adhered to. The information gap between WSMTs and its regulators is often due to delays in honouring obligations under their CBWM constitutions (2010a, 2010b). According to the WSMTs, there were instances when the breakdown of water systems was reported to DWSTs and no action was taken.

WSMTs consequently devised new strategies for adjusting to the DWSTs' delays in responding to their concerns, especially where it involved major repairs to the water systems. WSMTs had mechanics attend to the water systems during breakdowns without the prior approval of DWSTs. This strategy was successful, as vehemently stressed in our interviews with WSMTs. However, it also has further weakened information-sharing between WSMTs and DWSTs. Additionally, there is weak information-sharing between WSMTs and their customers. Although WSMTs in all four small-town communities are knowledgeable of their obligation to keep customers well informed about the functioning state of their water systems, it was seldom done in all communities according to focus group discussions.

Once more the role of community elders in collusion with others on WSMTs, and the pivotal role of operational staff in these interactions, weakened information-sharing and accountability between WSMTs and customers – not to mention the operational staff. WSMTs have a duty to their communities and must account for their failure to service

them. However, the institutional relations inherent in social bonds that structured differential power structures and other culturalized practices in the communities in Daffiama, Gwollu, Babile and Busa prevented some community members from holding elders and sometimes relatives accountable. That is, the decisions of management staff – some of whom, as we have learned, were nominated by sectional heads to WSMT positions under the influence of community elders – were insulated from wider community-level scrutiny.

Furthermore, the interrelated practices of community chiefs and other elders, of female vendors, and of operating staff, as *bricoleurs*, stretches between the everyday social norms of their communities and a desire and hope for change through their engagement of new water governance arrangements at the community level. This tension between stability and change in the institutional relations over water resource management evokes a sense of Deleuze and Guattari's (1977) 'lines of flight' – hopeful acts that have been aimed at fundamentally disrupting current practices.

In this institutional context, the above examples of the chief, the female vendor and the member of operating staff as individual *bricoleur*s, simultaneously occupy two opposing planes – what we term a *multiplanar transition praxis* – moving between action situations, embedded in the norms and routines of everyday occurrences, and the plausibility of new connections or a sense of becoming and desire (*for* change). This praxis reflects a consistently emerging space of relational tensions marked by a plurality of institutional logics (Kraatz & Block, 2008), and the conflicting relations between them.

We conclude that the above individual acts of institutional bricolage prompt others to engage in the same. These collective forms of bricolage are sets of interdependent relations. For example, we have observed how the collusion of community elders and others on WSMTs has reinforced the discrimination of women, lowering the chances (of flight) for female representation on WSMTs. We also see how the operational officers of WSMTs, whose desire to put into practice a professional unbiased duty to CBWM, undergo a similar fate of submission when the double standards of WSMTs force them to place their social and family commitments above that of common – community-wide – interests. While it has been these customary social bonds that have prevailed, it is the power plays reflected in the action–response behaviours of these *bricoleurs*' *desire* to break with established norms or points of capture, and their struggle to do so, which reflects the complex synergistic interdependencies that underpin the institutional stability and change of water resource management practices in these small towns.

Discussion

We have examined four case studies of a decentralization to CBWM in the Upper West region of Ghana, which has empowered communities and encouraged democratically accountable approaches while also underpinning discriminatory practices. Following insights from non-representational theory, we draw attention to an

alternative orientation to our data on these cases by also evoking a sense of things to come – of becoming – with respect to common-pool water resource management practices.

We examine the individual cases of community elders, female vendors and operational officers who are found straddling different institutional demands. The community elders are found engaging in elite capture, the women vendors pushing back the resulting reinforcement of gender discrimination, and the operational staff tormented by the social pressure to place family and community elders above their official duties. All three of these community roles in CBWM operate through WSMTs, which have been institutionally designed to represent and empower the communities they serve. Yet these different roles cumulatively reflect a performance of CBWM that is both emergent and undetermined – relative to the prefigured institutional *idea* of CBWM, which is inherent in the state-mandated rules designed to empower and deliver a more transparent, democratically accountable mode of decentralized water governance.

In this paper we ask: What happens when a *bricoleur* seeks to share their way of acting with someone else? (Duymedjian & Rüling, 2010, p. 142). We find that CBWM – as an emergent and undetermined set of practices compared with the prefigured institutional *idea* that was put forward by the state-led water decentralization programme in Ghana – is a story that is still unfolding. It is continuously emerging with each new 'flight' or hopeful act (Deleuze & Guattari, 1977, 1987) expressed in individual practices of institutional bricolage. Institutional bricolage is a 'process through which people, consciously and *non-consciously*, assemble or reshape institutional arrangements' (Cleaver & de Koning, 2015, p. 4, emphasis added). This stress on the non-conscious is a critical consideration of the complementarity between non-representational theory and critical institutionalism because dominant paradigms of power must countenance the fact that the picture is much more fragmented. In other words, the political praxis of Deleuze and Guattari suggests the *bricoleur*'s exercise of power may not always achieve stated ends (Deleuze & Guattari, 1977, p. 316; 1987, p. 54), but their adoption of an ontology of becoming (or *desire* for change) recognizes that with each performative act or 'line of flight' 'new lands' (Deleuze & Guattari, 1977, p. 318) of possibility – of transformative change – are constituted cumulatively.

We find that power asymmetries and social bonding are the two most prominent sets of institutional factors structuring the practices of institutional bricolage and its effect on the functioning of institutional arrangements for CBWM. The effects of power dynamics on participatory water governance can constrain collective decision-making. This partly supports claims that institutional arrangements are shaped by the dynamics of the power distribution of pre-existing social institutions (Eguavoen & Spalthoff, 2008; Whaley & Weatherhead, 2015). We additionally observe how the space of interactions between community elders, female vendors and operational officers, as *bricoleurs*, and their relations to the WSMTs and the wider community constitute a principal mechanism for such distributions of power at the community level.

CBWM is premised on its contribution to positive community cohesion and more democratically accountable forms of water governance (Blaikie, 2006; Isham & Kahkonen, 2002). It seeks to encourage social cohesion in the four small-town communities of Daffiama, Gwollu, Babile and Busa. Though the pursuit of CBWM reinforces social cohesion as well as paradoxically underpinning the discriminatory manipulation of institutional arrangements for democratically accountable water resource management practices. These power asymmetries are evident when we closely examine the processes of elite capture, which has been made possible through the influence of elders on WSMTs

Considering this observation, our insights from non-representational theory are such that CBWM cannot be represented solely, as a point of departure, from the perspective of an ontology of *being*. Rather, it also exists as a fluid, intersecting set of performative acts of institutional bricolage that move between an existing reality of water resource management practices in the four communities and a socio-technical desire to transition to an ideal form of practice (cf., e.g., Burnett & Nunes, 2021, on the institutional liminality of power in transition). The (re)making and (re)presenting of CBWM takes it to be an evolving process. That is, CBWM can only be fully appreciated through an equally considered perspective that recognizes an ontology of *becoming* as well as that of *being*. This state of becoming is dynamic and constituted through multiple, multilevel institutional interactions and adaptations; it is (r)evolutionary. Therefore, how the *bricoleur* exercises their multi-planar role through collective forms of bricolage over *time* merits further investigation. Such investigations could examine (1) how power and influence is shared and exerted through institutional bricolage; (2) how conflict between *bricoleur*s is mitigated; and (3) how such practices evolve over time.

Conclusions

Drawing on non-representational theory, using as an example the work of Gilles Deleuze (Deleuze, 1995; Deleuze & Guattari, 1977, 1987), we offer a complementary perspective on a critical institutionalist study of CBWM in the four small-town communities of Daffiama, Gwollu, Babile and Busa in the Upper West region in Ghana. Following Cleaver (2001, 2002, 2012) we consider how multiple practices of institutional bricolage intersect and generate new institutional adaptations. More importantly, we also consider how this emerging pluri-institutional space of CBWM is conflictual.

The decentralization towards CBWM in Ghana involved the design of new institutional arrangements that enabled communities to determine water tariffs and the extent or reach of their local water supply. CBWM was seen by the state as an institutionally implementable means towards a more transparent and democratically accountable form of water resource management. Yet we have identified individual community members undermining state-mandated rules for the management of water at the community level. Our findings suggest that socio-cultural norms within these small towns are partly at fault because of its embeddedness in allegiances to community chiefs and other elders.

There are conflicting tensions between the traditional authority and WSMTs; WSMTs and chiefs/other elders and women vendors; and WSMTs and operational staff at the community level – between individual/household level water users, and regional and district level regulators. Within this messy, meso-institutional level of everyday water resource management practices (Cleaver & de Koning, 2015, p. 6; Whaley, 2018, p. 139; see also Ingram et al., 2015; Peters, 1987), we examine how the interdependent activities among community chiefs and other elders, female water vendors, and operational staff and their respective communities span the institutional planes of stability and change, blurring the boundaries between them in the process.

We liken this understanding to an appreciation of the more-than-representational world (Lorimer, 2005) where CBWM is no longer a fixed institutional entity representing or signifying the realities of embedded natural resource management practices. Rather, we take it to constitute a *temporary* fix from which others emerge. In this way, we offer a complementary ontology of *becoming* to our critical institutionalist study of common-pool water resource management in the Upper West region of Ghana.

Considering this complementary perspective, we suggest actants occupy a *multiplanar transition praxis*, moving between points of capture – of adaptive institutional stability, of structured conscious and non-conscious thought – and new fields of possibility where connections have yet to be known. Each performative act of bricolage is a movement between these two points or what Deleuze and Guattari refer to as 'lines of flight' to 'new lands' (Deleuze & Guattari, 1977, p. 318). However, these lines of flight are not always successful – such as when the female vendors were excluded from WSMT decision-making, or the operational staff were given no choice but to resign their posts on the WSMTs. Deleuze and Guattari argue that with each subsequent flight the lines flow together to form a large enough mass or plane (see also Van der Heijden, 2011, on 'institutional layering') where, for example, the emergent qualities of CBWM would merge or become more 'naturalised' (Douglas, 1986) with time.

In all cases, these *bricoleur*s operate at the institutional liminality of organized, state-mandated institutional designs for improving the performance of water resource management practices through WSMTs – inherently blurring the boundaries between the planes of institutional stability and change. In this regard CBWM is in a state of becoming and thus incomplete or emergent, signalling the importance of further research into how the *bricoleur* exercises their multiplanar role, and the extent to which they co-constitute the same space of institutional change and/or mitigate conflict with other *bricoleur*s over *time*.

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Author contribution statement

R.N.: Literature review and theoretical development; analysis and interpretation of data; and critical revision of the paper. N.F.: Conceptualization and design of the study; data collection; analysis and interpretation of data; original draft of the paper; and critical revision of the paper.

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