WaA

# Cultural Political Economy and Critical Water Studies: An Introduction to the Special Themed Section

## Peter P. Mollinga

SOAS University of London, London, UK; pm35@soas.ac.uk

ABSTRACT: The attraction of taking a Cultural Political Economy (CPE) perspective in the analysis of questions related to water use, management and governance is threefold: (i) CPE is an effort to capture the multidimensionality of social dynamics by emphasising the cultural dimension of political economy and then investigating the internal relations of these different dimensions; (ii) CPE addresses both the structure and agency dimensions of social reproduction and transformation; it proposes a particular (strategic-relational) way of studying the two in an interlinked manner; (iii) the object of (most) CPE analysis – the state – is highly relevant to water studies, as the state is a, if not *the*, central actor in water governance, with state action as regards water resources increasingly set in the context of globalisation and neoliberalisation.

KEYWORDS: Critical water studies, Cultural Political Economy

## INTRODUCTION

The past few decades of scholarship and policy debates on freshwater governance – increasingly conducted in globally networked epistemic and professional communities and in the context of globalisation – have added significantly to an imagery of water being 'multidimensional'.[1] Water is no longer seen to be only $H_2O$ and a resource to be harnessed, which was the key perspective of colonial, socialist/communist, as well as capitalist developmentalism.[2] An instrumentalist approach to water as a resource has dominated state-led and state-facilitated development processes in the past centuries, as captured in the evocative phrase 'hydraulic mission' (Allan, 2006). In recent decades the different functions and meanings of water, the carriers of such meanings, and their logics, interests and purposes have been documented in considerable detail, and the policy landscape of water resources has broadened. Examples of this expanded policy landscape are the World Commission on Dams report and related debates, and the (in)famous notion of Integrated Water Resources Management (IWRM), both of which have been the subject of special issues in this journal.[3] The IWRM discourse has morphed and broadened into water security and nexus thinking;[4] water policy debates are increasingly set in the context of climate change policy, while rights-based approaches have made some headway, particularly in the water supply and sanitation domain.

Simultaneously, the past few decades have been a period of neoliberalisation, starting from structural adjustment policies in the 1980s that sought to redefine the relationship between state and market;

---

[1] I dedicate this themed section to Ben Crow (1947-2019), dear friend and mentor, whose guidance was invaluable for my exploration of critical development studies and the interdisciplinary study of water.

[2] For a Central Asia–focused historical account using Scott's concept of 'high modernism', see Obertreis (2017).

[3] See *Water Alternatives*, Volume 3(2) on the World Commission on Dams, and *Water Alternatives*, Volumes 3(1)/9(3) on Integrated Water Resources Management.

[4] See *Water Alternatives*, Volume 8(1).

particularly after the Rio de Janeiro summit in 1992, there was an emergence of global environmental governance attempts and a strong thrust in policy and practice towards the marketisation – including privatisation – of (sustainable) natural resource management and service provision. Global water resources policy debates in the 1990s were dominated by the advocacy of tradable property rights in water (Rosegrant and Binswanger, 1994) and similar market-focused approaches, as attempted in Chile most prominently (Bauer, 2012). Presently, public-private partnerships are an important theme in mainstream water-policy thinking (Deekshit, 2019) with financialisation being an upcoming theme and concern (Reis, 2017). Critical perspectives have focused on, among other topics, water grabbing and remunicipalisation (again, both have been topics of special issues of this journal),[5] and on public-public partnerships, within an overall perspective focusing on rights and justice.

These developments have generated a flowering of the critical analysis of water. With (critical) water studies, I refer to the area of scholarship that looks at water use, management and governance, with a 'social' perspective that is broader than the more long-established technical water sciences, including hydrology, hydraulics and other specialisations (Mollinga, 2008). 'Critical' refers to studies that explicitly address the social relations of power that are inherent to water use, management and governance, and to an explicit normative stance that seeks to address equity, justice, sustainability and other problems in water situations while remaining conscious and reflective of the social positioning of the research and the researcher. (Box 1 summarises my own mental map of the different strands of social science critical water studies.)

Box 1 suggests the plurality and richness of critical water studies. Any observation that the listing is not exhaustive and can be extended and enriched would be correct, and reinforces the point about the vibrancy of critical water studies. The listing simultaneously raises the question of the potential usefulness and possibility of trying to frame a more encompassing critical water studies approach, making use of the diversity of scholarship and considering that diversity to be a strength. Such a direction was contemplated in the very first issue of this journal.

Intellectual work for crafting a more encompassing perspective is going on in several ways. There are normative declarations in the form of manifestos, an example of which is the Santa Cruz Declaration on the Global Water Crisis (2014). *Water Alternatives* is trying to contribute modestly to the consolidation of the critical water studies epistemic community, not only though the publication of academic papers but by also gradually adding additional activities to our platform. Study programmes teaching critical water studies have also emerged; an example of a programme in the Global South is the Masters in Water Policy and Governance at the Tata Institute of Social Sciences (TISS) Mumbai.

There have also been efforts at framing general theoretical perspectives within critical water studies. Considerable efforts have been made to link the material and social dimensions of water, including by theorising the relationship between water, infrastructure and power,[6] through the notion of urban metabolism (Heynen et al., 2006; Newell and Cousins, 2015), and through the concept of the 'hydrosocial cycle'.[7]

On the social science side of critical water studies' plurality (the focus of this essay and themed section), there are evident paradigmatic differences and distinct disciplinary communities. With a broad brush, paradigmatically there are those on the interpretivist/constructivist/relativist side of the philosophical spectrum, and those adopting approaches akin to a (critical) realist philosophical location;

---

[5] See *Water Alternatives*, Volume 5(2) on water grabbing, and *Water Alternatives*, Volume 12(2) on remunicipalisation.

[6] See contributions in *Water Alternatives*, Volume 9(2).

[7] On the concept of the 'hydrosocial cycle', see Linton (2008) and the special issue in *Geoforum* (Volume 57, 2014). Complex systems theory on water, outside the domain of critical water studies, may perhaps provide clues for further operationalisation of the notion (cf. Cabello Villarejo et al., 2015 who suggest that "[t]he representation and analysis of river basins as complex SES [social-ecological systems] is still incipient, although some important works have been developed recently").

---

Box 1: A taxonomy of some of the main strands of (social science) critical water studies

A) Political economy approaches that look at access, distribution and class relations in water use, management and governance. Within this, specific themes include the relationship between irrigation and colonisation; irrigation and capitalist accumulation in agriculture; water access and distribution in water supply and irrigation; economic analysis of water privatisation; and the analysis of water markets, including financial markets.

B) The Harvey-inspired 'urban metabolism' literature in geography, mainly focusing on water supply in (mega)cities.

C) Institutional approaches that aim to incorporate power and politics into their analysis. This includes recently articulated frameworks for 'critical institutionalism' and 'politicised IAD' (Institutional Analysis and Development), as well as longer-standing 'policy as process'/politics of policy analysis, the analysis of global water politics/governance, and critiques of the glorification of 'community' in water management policy and analysis.

D) The analysis of transboundary water governance – or 'hydropolitics' – in critical international relations analysis.

E) Political ecology approaches using a 'water justice' vocabulary, often concerned with (indigenous) community-level water resources management and threats thereto, which has the conceptualisation of 'rights' as a key focus.

F) Critical (historical) investigations of water knowledges and discourses (including approaches to imperial water knowledge), and analyses of water policy knowledge systems.

G) Critical anthropological studies; this includes a focus on critiquing notions of community; a focus on documenting (local) knowledge; a focus on mapping the multiple meanings of, and associations with, water; and recent work on 'ontological politics'.

H) Gender and water studies; this includes a focus on making women's 'water work' visible; female participation in decision-making; the gender dimension of water and poverty; gendered dimensions of privilege and exclusion; masculinity and water.

Echoing the CPE framework, this eightfold taxonomy of critical water studies can be forced into a threefold classification of approaches with an economic (A and B), institutional (C and D), and cultural (E, F and G) centre; H is a separate field, which can be seen as a crosscutting, or as itself distributed over cultural, institutional and economic strands.

---

positivist (social science) critical water scholars are a rare breed.[8] In terms of disciplinary communities, geographical, historical, anthropological, sociological, political science, legal, and political economy interests and approaches are quite distinct. Gender studies and environmental studies (including political ecology), when focusing on water, are fields that are potentially more interdisciplinary in nature but that have clear paradigmatic cleavages within them.

These differences seem not to be the subject of much reflective social-theoretical debate. The critical dimension of critical water studies, for good reasons, is primarily organised around *issues* ('rights and justice', for example; cf. Boelens et al., 2010) or *regions* (countries, for example; cf. Joy and Janakarajan, 2018). Political process tends to be organised around issues and is often, though not necessarily, territorially grounded (examples of these are: resistance against the building of a large dam or the privatisation of a particular municipality's public water supply; the adoption of a new state-level water policy; and advocacy regarding degraded urban wetlands). Critical water studies selectively borrows theoretical constructs and approaches from parent disciplines, but its concrete analyses feed less into abstract, reflective social theory debates than they could.[9] I suggest that disciplinary

---

[8] For a brief description of the philosophy of science spectrum sketched here, see Grix (2004). Disciplines harbour different approaches, varying across the positivism–critical realism–interpretivism spectrum.

[9] and have done in the past. Examples are the 'irrigation civilisations/hydraulic societies' debate (Steward, 1955; Wittfogel, 1957) and Geertz's social theoretical usage of Balinese irrigation (cf. Geertz, 1980). Ostrom's (1990) work on the governance of the commons is also to a large extent based on the study of (farmer-managed) irrigation, though it is perhaps not part of the critical

---

compartmentalisation, with its variegated intellectual accountabilities, helps reproduce the relatively weak articulation of a reflective social-theoretical academic discourse that is internal and specific to critical water studies.

There are obviously many social-theoretical questions that are relevant to critical water studies, two of which, in my opinion, are central: the relationship between structure and agency, and the cultural turn in the social sciences. I consider these questions to be central because they capture some of the paradigmatic divides hinted at above; that is, they express these divides in more concrete terms than the general abstractions of the philosophy of science. To caricature the analysis of water issues as a binary: political economy approaches emphasise the structural features of contemporary capitalism, while agency/process/practice – oriented approaches seem to abstract from – or even contest the existence of – such structural features in their explanatory pursuits. Those studying discourse, knowledge, identity, performativity and related matters as key elements of water realities seem to be worlds apart from more sociological and political-economy analyses of the social relations of water use, management and governance.

Cultural Political Economy, as developed in the so-called Lancaster School (Sum and Jessop, 2013), exactly addresses the structure-agency and cultural-turn questions, making it worthwhile to ask whether CPE thinking, developed mostly in the context of advanced industrial capitalism, can be usefully mobilised in the analysis of water issues in the Global South. In the remainder of this introduction to the themed section's collection of five papers, this essay provides a general discussion of the (potential of a) CPE perspective for productively engaging with structure-agency and discursive- and cultural-turn questions. It then discusses how and to what extent the papers in the collection illustrate this potential, followed by a brief conclusion.

## CPE AND CRITICAL WATER STUDIES: THE POTENTIAL

In the years preceding the writing of this introductory essay and the convening of a conference panel on CPE and critical water studies,[10] the PhD researchers I supervised became increasingly interested in critical realism as a philosophy of science and in the Cultural Political Economy orientation of the Lancaster School (itself having critical realist bearings) as an approach to analysing water governance and other issues.[11] The attraction derived to a large extent from the struggle to combine into a single explanatory analysis the different causalities at work in water use, management and governance. Taking a non-reductionist view of water resources dynamics (emphasising its complexity) immediately raises the question of how (in critical realist language) the different 'mechanisms' that are at work in a given water situation combine and interact to produce particular logics and outcomes.

CPE's central concern is how to integrate the cultural or discursive dimension into a political economy perspective. It describes this dimension as semiosis, defined by Jessop and Oosterlynck (2008: 1155) as "the production of intersubjective meaning". It is a broader category than discourse and is close to Archer's understanding of culture (Archer, 2005). Archer defines culture as "referring to all *intelligibilia*, that is to any item that has the dispositional ability to be understood by someone" (ibid: 24); intelligibilia are structured into what she calls 'cultural systems'. A cultural system is defined as "a corpus of ideas,

---

tradition. Arguably, critical water studies is making general contributions to the (re)theorisation of the society-nature binary, but discussion of this is outside the scope of this paper (see, for example, Gandy, 2004; Ekers and Loftus, 2008; and Von Schnitzler, 2013, on infrastructure-related thinking; for a very different approach to the role of culture in water and sustainability transitions, see Tàbara and Ilhan, 2008).

[10] The first drafts of the papers in this collection were mostly written for, and presented at, a panel session that was part of the Inaugural Conference on Cultural Political Economy at the University of Lancaster, UK, in September 2015.

[11] Papers found particularly useful by them were Jessop and Oosterlynck (2008), Yeung (1997) and Bygstad and Munkvold (2011). The key introduction to critical realism used was Sayer (1984).

---

known or available in a society at a given moment" (ibid). The intelligibilia can, and often do, take the form of (spoken and/or written) text, but also take other forms.

Box 2 outlines the main characteristics of the CPE perspective as developed by the Lancaster School. It quotes from Jessop and Oosterlynck's (2008) summary description of CPE's ontological, epistemological, methodological and substantive premises. In plain(er) language the key elements are the following: CPE, with critical realism, looks at reality as historical; there are no 'given' or 'essential' characteristics of the real objects and processes that compose reality; their contextual emergence and change must be grasped. Among the real objects are (structures of) meaning; they are real because they generate effects, that is to say they act as causes in societal transformation. (Economic and other) imaginaries – produced in a process called 'semiosis' – are such sets of meanings that act causally in society. CPE considers simplified understandings of the world (such as, for example, imaginaries) to be unavoidable and necessary for social action. Which imaginaries become dominant/hegemonic or marginal is determined

---

Box 2: Main characteristics of CPE as described in Jessop and Oosterlynck (2008)

"*Ontologically*, semiosis has a key role in the overall constitution of specific social objects and social subjects and, a fortiori, in their co-constitution and co-evolution in wider ensembles of social relations. Thus CPE rejects two related tendencies in orthodox political economy: (a) the tendency to naturalize or reify its theoretical objects (such as land, machines, the division of labour, production, money, commodities, the information economy); and (b) the tendency to offer thin accounts, at most, of how subjects and subjectivities are formed and how different modes of calculation emerge, come to be institutionalized, and get modified. For CPE, technical and economic objects are always socially constructed, historically specific, more or less socially embedded in – or disembedded from – broader networks of social relations and institutional ensembles, more or less embodied and 'embrained' in individual actors, and require continuing social 'repair' work for their reproduction. (…) CPE involves a form of political intervention that goes beyond *Ideologiekritik* (which serves at best to uncover the ideal and material interests behind specific meaning systems and ideologies) to explore the semiotic and extra-semiotic mechanisms involved in selecting and consolidating the dominance and/or hegemony of some meaning systems and ideologies over others (…).

*Epistemologically*, (…) CPE (…) emphasizes the contextuality and historicity of all claims to knowledge. It follows that a self-consistent CPE calls for reflexivity on the part of social scientists about the conditions of their own practices. At the same time, in stressing the materiality of social relations and their emergent properties, CPE aims to avoid the temptations of pure social constructivism, according to which social reality is reducible to participants' meanings and understandings of their social world. (…) In short, CPE notes both the constitutive role of semiosis and the emergent extra-semiotic features of social relations and their impact on capacities for action and transformation.

*Methodologically*, CPE combines concepts and tools from critical semiotic analysis with those from critical political economy. Semiosis is an umbrella term for different approaches to the cultural turn insofar as they assume both that semiosis is causally efficacious as well as meaningful. This implies that actual events and processes and their emergent effects can be explained, at least in part, as well as interpreted in terms of semiosis. Thus CPE studies the role of semiotic practices not only in the continual (re-)making of social relations but also in the contingent emergence (variation), privileging (selection), ongoing realization (retention), and subsequent reinforcement through structural coupling (consolidation) of their extra-semiotic properties. It is the continuing interaction between the semiotic and extra-semiotic in a complex co-evolutionary process of variation, selection, and retention that gives relatively successful economic and political imaginaries their performative, constitutive force in the material world.

*Substantively*, CPE affirms the overall complexity of the social world and the cognate importance of complexity reduction as a condition of social action. Adopting a strategic-relational approach to this process, it assumes that complexity reduction involves discursively-selective 'imaginaries' and structurally-selective institutions. Imaginaries are semiotic systems that provide the basis for the lived experience of an inordinately complex world; institutions provide the means of embedding lived experience in broader social relations and, perhaps, rendering it consistent across different social spheres" (Jessop and Oosterlynck, 2008: 1156-7) (emphasis added).

---

in a process of political and economic conditioning; selection takes place from among the varied set of meanings/imaginaries that always exist in society. This selection, and the subsequent retention and consolidation, is shaped by (extra-semiotic) political and economic factors; the cultural (semiotic), political and economic dimensions of reality thus coevolve. Further discussion of the approach can be found in the five papers that form this collection.

Firstly, CPE's focus on culture/discourse/semiosis in explanatory analysis is as relevant to water studies as it is to other fields. Water resources have prominent cultural dimensions (as the study of Balinese irrigation iconically shows; cf. Lansing, 2009) and a pertinent symbolic role (as evident, for example, in the advocacy of, and resistance to, the building of large dams; cf. Baviskar, 1995). Critical water studies, like critical environmental studies in general, have been increasingly concerned with the cultural turn and the discursive turn in social science analysis (Mehta, 2005; Bakker, 2012), including analysis of hegemonic/dominant discourses (cf. Zeitoun and Warner, 2006) and with the study of water knowledge (Linton, 2010; Fernandez, 2009).

Arguably, CPE's focus on imaginaries and the choice of semiosis as a central category push analytical attention to the textual and the discursive. However, Archer's 'culture as intelligibilia' not only exists as text but also as visual representation (see, for example, the papers in this collection by Büscher, and by Argade and Narayanan). It also is expressed in the configuration of infrastructure and the organisation of the built environment (cf. Sofoulis, 2005, and references in Footnote 9). Furthermore, the intelligibilia do not have to be the subject of active discursive contestation; many, in fact, exist as common-sense ideas and narratives, conventions and routines (cf. Molle, 2008; Jack, 2013). Also the present collection of papers veers towards an emphasis on the textual and on discursive contestation. This is perhaps not surprising given the focus on water politics; however, in a CPE perspective, all forms and incarnations of culture as intelligibilia warrant a strategic-relational analysis of the political economic embeddedness of their reproduction and transformation.

Second, another (older) emancipation in critical water studies – again in parallel with developments in other fields – has been the move away from, and critical engagement with, structuralist modes of explanation. There has been a strong influence in critical water studies of actor-oriented sociological perspectives (following f.i. Long (2003), legal pluralism (following f.i. Benda-Beckmann 2002), actor-network theory and science and technology studies (often in combination, see Acharya 2015), policy process/politics of policy analysis (following f.i. Grindle, 1977), institutional bricolage (Cleaver 2012), and several other perspectives, while the long-standing ethnographic study of water in contemporary development processes has gained prominence (cf. Mosse, 2003; Strang, 2004). This is an incomplete sketch of work characterised by a focus on process, practice and meaning, emphasising the agency dimension of water dynamics, often as an explicit constructivist critique of structuralist accounts. Notions of structure, when employed, are of the formal social-theoretical kind (inspired, for instance, by approaches like Giddens, 1984, and Archer, 1995), rather than of the specific historical and substantive political economy kind.

Simultaneously there has been a continuation and reinvention of (heterodox) political economy analyses, through the emergence of studies of the way in which water is being commodified, dispossessed (and, more recently, financialised) under contemporary neoliberal capitalist development. The field of human and resource geography has made a significant intervention, often inspired by David Harvey's work on capitalism (cf. Harvey, 2005). This approach has been developed particularly for the analysis of urban water, using the notion of urban metabolism (see references above), and generally is located in the diverse field of political ecology. Substantively the surge of water privatisation from the early 1990s has been a strong focus (Bakker, 2008), which normatively has been associated with a water justice perspective, both analytically and politically, in a more strongly political-economy vein, Swatuk (2010) analyses the role of water in South Africa's history using Cox's (1987) neo-Gramscian notion of historic blocs.

Such analyses can be read as a counterpoint to the constructivist tendency described before it: the (heterodox) political economy strand brings home the message that the analysis of process and practice is unsatisfactory when not explicitly contextualised in an understanding of the dynamics of contemporary capitalism. From a constructivist/process and practice perspective, the (heterodox) political economy analysis of water in neoliberal capitalism may read as (still) tending towards structuralism. It is here that CPE's strategic-relational approach to the structure-agency problematic becomes potentially relevant.

A third observation is that the analysis of the state has not been the strongest part of critical water studies (and of, for that matter, mainstream water studies). There is a stream of (critical) water policy analysis in the areas of irrigation reform (for example, see Mollinga and Bolding, 2004), global water governance (Park et al., 2008) and basin approaches to governance (Molle, 2009); there has also been a strong critique of the state and its development projects, such as in, for example, the large dams debate (see the World Commission on Dams issue referred to above) and in discussion of community-based natural resources management (Chhotray, 2004). Analysis of the *internal* dynamics of state and government agencies is relatively scarce;[12] this scarcity is deplorable because, despite globalisation and marketisation tendencies, the state remains central to water resources. Put differently, while institutional analysis is prominently present in (critical) water studies at all levels from local to global, substantive theorisation of the state as it acts at these different levels is not strongly developed.[13]

In summary, I formulate the following three potential strengths of a CPE perspective for critical water studies:

1. CPE is an effort to capture the multidimensionality of social dynamics by emphasising the cultural dimension of political economy and then investigating the internal relations of these different dimensions;

2. CPE addresses both the structure and agency dimensions of social reproduction and transformation, and proposes a particular (strategic-relational) way of studying the two in an interlinked manner;

3. The object of (much) CPE analysis (so far) is the state; CPE's history of emergence is one starting from a theorisation of the capitalist state.

## THE COLLECTION OF PAPERS

The first two papers by Reis and by Büscher address the analytical merits of a CPE perspective at an abstract theoretical level, illustrated with examples from Vietnam's Mekong Delta water supply and sanitation (Reis), and based on a case study of the Dutch Water Sector with Dutch water aid and trade in Mozambique in the background (Büscher). Of the five papers in this section, these two also give the most extensive general summaries of the CPE approach. The subsequent three papers are case study papers that apply elements of a CPE perspective for the understanding of particular water dynamics. Gebreyes and Müller-Mahn analyse irrigation management in northeastern Ethiopia, specifically the Kobo-Girana Valley Development Programme. Peters and Woodhouse focus on discourses of water reallocation in Mpumalanga, South Africa, in the context of South Africa's water reforms, which have been unable to address basic inequalities in access to water. Argade and Narayanan analyse participatory groundwater

---

[12] Although see, for instance, Wade (1982), Reis (2012), Suhardiman (2014), and the themed section in *Water Alternatives*, Volume 2(3).

[13] The critique and criticism of Wittfogel's (1957) grand theory on oriental despotism and hydraulic societies may have predisposed critical water scholarship against theorising the state; for example, critiques of large dams tend to black box the state, and community/state binaries abound in (critical) water studies. More detailed examination of state practices may also have been prevented by the predominance of policy-related funding in the water sector (the scarcity of analyses of corruption practices in the water sector may be a case in point).

governance in rural Jalna, western India, and argue that a CPE perspective can help to address the limitations of both mainstream and critical analyses of existing participatory groundwater governance.

Below, I discuss how, and to what extent, these five papers illustrate the three potential strengths of CPE for critical water studies: incorporating the cultural; addressing structure-agency dynamics; and theorising the state. Because the collection was initially put together as an effort to explore how 'to get the cultural in', that aspect is most strongly represented in the papers.

## Incorporating culture

Reis's paper develops the notion of political culture as a way to unpack the functioning of the state in water governance. Drawing on Almond and Verba's (1963) work, she distinguishes three dimensions of political culture: system culture, process culture and policy culture. Central to her theoretical approach – and drawing on Jessop's (2008) relational approach to state power and Archer's (2005) understanding of culture as structure – is the (re)production of legitimacy as the sine qua non of state power. Reis states that political culture can be understood as "emergent systems of meaning comprising propositions about political legitimacy". System culture is about the legitimacy of political authority; process culture concerns legitimate behaviour in relationships between political actors; and policy culture relates to questions of legitimacy in policy outcomes. This framing allows, for instance, the identification and characterisation of system culture in Vietnam; it enables an analysis of how the production of the 'state idea' of a benevolent and rational state acting in the interest of the people happens through the administrative planning practices of the state. Simultaneously, the allocation of state resources for water supply projects happens according to a different (political and economic) logic. These two elements of state rule are held together by the communist political party. The relations between the cultural, the political/institutional and the economic moments of state power are thus shown to be internal. Reis also gives examples of process culture and policy culture, suggesting the operational value of her framing.

Water governance (reform) analysis is not usually conducted from such a perspective, but rather from institutional perspectives that are abstracted from the nature of the state and the limits thereby put on governance reform (cf. emphases on participation and social learning in such institutional perspectives). Reis's paper shows that an 'embedded' analysis of water governance can provide new insight on the conditions of (im)possibility of governance reform.

Like Reis's paper, Büscher's paper is situated at the national level of government policy. It discusses the construction of the imaginary of the Dutch Water Sector (DWS), and the international political and economic purposes it serves. Legitimacy looms large here also, in the form of the aid & trade agenda of the Netherlands government. The "[a]nticipated performative effects" of the DWS imaginary are: a) "gaining a competitive edge in the world market for water-related products and services", and b) "an enhanced power position in global water networks". There is an observable relationship between the DWS as a semiotic construct, and the political economy in which it is embedded and which it is meant to act upon.

State legitimacy and its (re)production, or its failure to do so, also play an important role in some of the case study papers. In their analysis of irrigation management practices in northeastern Ethiopia, Gebreyes and Müller-Mahn – taking their cue from Few (2001) – aim to show that "powerful actors in collaborative arrangements use their power and discursive instruments to make sure that a certain pre-planned process is not hampered by competing actors". Legitimising of powerful actors' interests and delegitimising of resistance are part of this process. Gebreyes and Müller-Mahn argue that CPE allows for the unpacking of "the black box of containment and counter-containment strategies".

Irrigation management interventions reflect the political ideology of the Ethiopian state, of which "the economic imaginary is based on hydrological and economic narratives of using existing water resources to solve persistent drought and promote economic growth". The history of this brand of developmentalism is briefly sketched by the authors. This developmental imaginary manifests in three

instruments: the board/decision-making bodies of the project analysed, the local cooperatives formed, and the technology deployed. These give the state centralised control over irrigation management, in principle; however, the state is not very successful in its governmentality attempt. Farmers resist and do not cooperate; they continue to focus on their subsistence agricultural preferences rather than letting themselves be enrolled in the state project. The state project of the 'containing of its subjects' largely fails; the state is not able "to find an appropriate discursive and organisational structure with which to reach irrigation users". The story of containment and counter-containment strategies stops in the early stages of a standoff.

The paper, like Reis's, shows that an 'embedded' approach – in this case to irrigation policy intervention – is warranted. Irrigation management policy and intervention needs to be understood as an effort to concretise a particular state imaginary of development (based on a particular political ideology and grown in a specific historical constellation). While institutional approaches to irrigation reform tend to implicitly assume the legitimacy of such exercises, a CPE perspective helps to unravel the actual processes of (de)legitimisation.

Argade and Narayanan analyse the way in which the Purna Groundwater Management Association (PGWMA) pilot project in western India is implemented; they describe a failed governmentality effort at participatory groundwater governance that is not dissimilar to Gebreyes and Müller-Mahn's case study. Additionally, they show how a state imaginary arrives at the local level in the form of visual representations of its 'main messages'; in their paper they reproduce several of the posters used by the project. The posters are instructive with regard to the features of the state imaginary, but seem rather naïve from the vantage point of the local groundwater management realities. Jessop's 'retention' and 'consolidation' of this specific state imaginary at the local level are not to be found – at least not in the time frame of the project. Peters and Woodhouse's paper on water reform in South Africa contains a similar element: the internationally lauded, progressively phrased post-apartheid water law and water reform stand in dramatic contrast to local water realities. The state's imaginary of water equity, democracy and efficiency seems not to have been translated in, and consolidated, as changed local realities – at least not for a significant section of the (black) population in the Inkomati catchment.[14]

However, the papers by Argade and Narayanan, and by Peters and Woodhouse, have more to offer than documenting the existence of imaginary – reality standoffs. In different ways, the two papers illustrate the importance of 'sedimented' cultural/semiotic entities as causal factors in governance and developmental dynamics, thus providing some new elements for explaining these standoffs. Both papers show that interest-based explanations of inequality leave unaddressed the exact way in which inequality gets legitimised; these exact ways of legitimacy production matter for understanding the standoffs between (emancipatory) imaginaries and local water realities.

In Argade and Narayanan's paper, sedimentation takes the form of aspirations for a 'better life' as a structure of meaning, grounded in the historical and material realities of a particular place. They observe that "it was not the understanding of water scarcity that was missing, but that a high demand for water was considered legitimate across the community". They analyse that "[t]he over-extraction of groundwater has undergone sedimentation as a shared imagination of the association of better livelihoods with water-intensive crops". Tubewells materially show (temporary) abundance, and the water-consuming crops grown with that water are associated with economic affluence. These (over)extractive practices of high-caste wealthy farmers are embedded in a history of political and economic relations, including government market and pricing policies; they have become a daily visible, shared aspiration.

---

[14] The interpretation of the reproduction of unequal social relations and related unequal access to water through government (supported) projects as being the form that state power, state dominance/hegemony and state rule take is discussed below under 'theorising the state'.

Peters and Woodhouse observe, for their Inkomati catchment case study and for South Africa in general, that existing (mostly white) commercial agricultural interests have largely succeeded in maintaining their access to water at the cost of black farmers and urban water supply systems, despite the emancipatory intentions of the water reforms. By legally deflecting demands for water allocation onto black farmers (particularly through the use of the notion of existing lawful use), the reforms have been subverted. Peters and Woodhouse investigate the ways in which catchment-model-based calculative techniques for quantifying water use and economic value have been used to reinforce discourses rooted in (simplified) narratives of water scarcity, and how these diffuse within the water bureaucracy. This sedimented discourse – competitively selected and retained as the dominant explanation and embedded in broader scientific discourses and political economic imaginaries – comes to define the range of possible expectations about water allocation; it structures allocation decisions and accords legitimacy to a regressive pattern of water allocation. Disadvantaged water users remain outsiders while cast in the role of needing additional supplies.

The five papers thus clearly illustrate the causal role of semiotic constructs in water governance and policy (implementation): meanings are causes (Sayer, 1984). Water as a subject provides ample material for further exploration of processes of variation, selection and retention (SVR) of semiotic constructs – Jessop's evolutionary framework for investigating exactly how certain semiotic constructs become hegemonic and others become or remain marginal, through political and economic conditioning. The water domain is replete with processes of rising and falling policy and governance framings, for instance marketisation, IWRM, water security and global-level nexus thinking; such rises and falls also occur at international basin, national and other levels. The SVR approach could potentially push a general perspective of 'contested discourses' towards a more substantive analysis of how and why certain semiotic constructs become, or do not become, dominant.[15]

## Analysing structure and agency

All three case study papers focus on concrete practices, though in different ways; they empirically illustrate the interaction of structure and agency. In Gebreyes and Müller-Mahn's paper, the (heavy-handed) state intervention in local irrigation in northeastern Ethiopia is stopped in its tracks by the agency – non-cooperation – of local farmers. Arguably, the state effort as a set of control strategies further structurally constrains the manoeuvrability of the local actors in their pursuit of other developmental imaginaries. Peters and Woodhouse discuss how different actors in the Inkomati catchment, and in South Africa more generally, operate within a set of legal, policy and politico-administrative institutional structures, in their efforts to implement and deflect National Water Act provisions. Similarly, in Argade and Narayanan's analysis of their western India participatory groundwater governance project case, both structure and agency figure: as policy and politico-administrative structure framing project implementation practices, and as the structure of agrarian/rural relations framing the practices that help to produce the 'compromises' in project implementation.

What the three papers do not explicitly do is analyse what Archer (1995) calls structural elaboration: an understanding of social change/transformation in which episodes of social interaction reproduce or transform existing structural configurations.

Büscher's paper on the imagineering of the Dutch Water Sector imaginary comes closest to such a strategic-relational attempt. The word 'imagineering' combines imagining and engineering in order to

---

[15] Some institutional approaches exhibit an affinity with CPE, suggesting that so-called gaps can be bridged. The international relations literature on hydro-hegemony analyses the dominance of particular semiotic constructs but could, in my opinion, do with a higher dose of agency in its analysis. Cleaver's (2012) institutional bricolage perspective emphasises existing, historically inherited local institutions and perceptions (as found, for instance, in Argade and Narayanan's case study), and thus resonates with CPE. The difference between CPE and critical forms of institutionalism lies in the way the constraints on local agency and the shaping of local social relationships (the political and economic conditioning of CPE) is theorised; that is, how structure (and power) are differently understood, as discussed above. Also see the next subsection on structure-agency.

emphasise that the hydrosocial imaginaries of waterscapes have an "active relationship with the materiality of waterscapes, both in terms of the existing material structures that act as a basis for the imaginary (its material representation), as well as in a performative sense whereby the imaginary itself has material effects (the imaginary's material realisation)". Büscher argues that "imagineering is a strategic and potentially powerful tool in today's intensified discursive struggles about how water (crises) ought to be seen and treated". He goes on to state that "today's focus on imagineering can also partly be explained as having replaced more coercive tactics (such as tied aid) that were once commonly used in the pursuit of Dutch water interests abroad". He thus analyses the structural elaboration of Dutch (water-related) development aid through the lens of the genesis of the Dutch Water Sector imaginary. The paper also shows that the DWS imaginary does not go uncontested among the actors who are aligned through it.

In this way, water provides a suitable object for further exploration of structure-agency dynamics, not least because it is often inherently episodic, given the seasonal and yearly fluctuations of the water cycle.

**Theorising the state**

The state and its mode of operation are pertinently present in all five papers in the collection.

Theorisation of the state is most clearly present in the papers by Reis and Büscher (and even more so in the PhD dissertations from which the two papers are drawn). As discussed above, Reis gives us a way to look at the internal dynamics of the state by elaborating a threefold concept of political culture, illustrated with examples from Vietnam. Büscher shows the changes in the function and form of Dutch international aid in relation to changes in the global political economy; his paper introduces the notion of imagineering as a new concept for analysing the role of imaginaries in the political economy of water. Political culture and imagineering are two concepts that can help to unpack the black box of the state in CPE fashion, and can transcend state/community and other state-related binaries. They propose two conceptual avenues along which water-specific theorisation of the state can be pursued.

The three case study papers makes a different contribution to theorising the state. Each deals with an unsuccessful government intervention in water governance and management: the Ethiopian state fails to enrol local irrigators in its developmental imaginary; the South African state fails to implement the strong emancipation language of its post-apartheid water law and policy; the Indian government fails to interest village communities in its imaginary of participatory groundwater governance. An analysis of the structures of meaning at work in these situations – be it in the water bureaucracy (South Africa, Peters and Woodhouse), or in the local communities (India, Argade and Narayanan; and, less explicitly, Ethiopia, Gebreyes and Müller-Mahn) – allows for pushing beyond the common finding that 'unequal social relations are being reproduced', and conceiving the state as a dominant, hegemonic actor that imposes its rule. In fact – and this is a common finding in (critical) water studies – the state is not particularly successful in imposing its explicitly stated goals and desired forms of conduct in freshwater governance, management and use.

Though the stated objectives of state policy should not be taken at face value (as critical policy analysis has abundantly shown), and though different logics may operate 'under the surface', the inequality reproduction + dominant/hegemonic state rule frame is, in my opinion, analytically unsatisfactory. Such analysis easily homogenises the state where homogenisation is not warranted. Peters and Woodhouse's South Africa example shows the benefit of looking more closely into processes within the state. Analysis based on inequality reproduction + dominant/hegemonic state rule may also be blind to the contradictory aspirations of marginalised sections of communities; Argade and Narayanan's India example shows the benefits of unpacking community aspirations and imaginaries more precisely in order to question 'victims and saviours' framings of community water and natural resources management. They find existing institutional analysis and development studies explanations to be wanting in this respect.

## CONCLUSION

At the start of this introductory essay I stated that this collection of papers explores the potential benefit of adopting a CPE approach in critical water studies. In my assessment, that exploration has, first, provided a strong case for the incorporation of the semiotic/cultural dimension into political economy analysis (and vice versa). Second, it has provided a plausible case for the proposition that CPE allows for a fruitful approach to the analysis of structure-agency relations; analysis more explicitly focused on this theoretical challenge is needed. Third, the exploration has provided some concrete examples of the benefits of looking more closely 'inside the state'; it has proposed two analytical tools – the concepts of political culture and imagineering – for further theorising the state in critical water studies.

I hope this inspires others to further develop a CPE approach for critical water studies through elaborating the concepts and analyses as presented in this collection and exploring some of the many other CPE avenues.

## ACKNOWLEDGEMENTS

## REFERENCES

Acharya, A. 2015. The cultural politics of waterscapes. In Bryant, R. (Ed), *The international handbook of political ecology*, pp. 373-386. Cheltenham: Edward Elgar.

Allan, J.A. 2006. IWRM: The new sanctioned discourse? In Mollinga, P.P.; Dixit, A. and Athukorala, K. (Eds*), Integrated water resources management: Global theory, emerging practice and local needs*, pp. 38-63. New Delhi: SAGE Publications.

Almond, G.A. and Verba, S. 1963. *The civic culture: Political attitudes and democracy in five nations.* Princeton: Princeton University Press.

Archer, M. S. 1995. *Realist social theory: The morphogenetic approach*. Cambridge: Cambridge University Press.

Archer, M. 2005. Structure, culture and agency. In Jacobs, M.D. and Weiss Hanrahan, N. (Eds). *The Blackwell companion to the sociology of culture*, pp. 17-34. Oxford: Blackwell.

Bakker, K. 2008. The ambiguity of community: Debating alternatives to private-sector provision of urban water supply. *Water Alternatives* 1(2): 236-252.

Bakker, K. 2012. Water: Political, biopolitical, material. *Social Studies of Science*, 42(4): 616-623.

Bauer, C.J. 2012. *Against the current: Privatization, water markets, and the state in Chile*. Springer Science & Business Media.

Baviskar, A. 1995. *In the belly of the river. Tribal conflicts over development in the Narmada valley*. Delhi: Oxford.

Benda-Beckmann, F. von. 2002. Who's afraid of legal pluralism? *The Journal of Legal Pluralism and Unofficial Law* 34(47): 37-82.

Boelens, R.; Getches, D. and Guevara-Gil, A. 2010. *Out of the mainstream: Water rights, politics and identity*. London and New York: Routledge.

Bygstad, B. and Munkvold, B.E. 2011. *In search of mechanisms. Conducting a critical realist data analysis.* Research Paper.

Cabello Villarejo, V.; Willaarts, B.A.; Aguilar Alba, M. and Moral Ituarte, L.D. 2015. River basins as socio-ecological systems: Linking levels of societal and ecosystem metabolism in a Mediterranean watershed. *Ecology and Society* 20(3).

Chhotray, V. 2004. The negation of politics in participatory development projects, Kurnool, Andhra Pradesh. *Development and Change* 35(2): 327-352.

Cleaver F. 2012. *Development through bricolage: Rethinking institutions for natural resource management*. London: Routledge.

Cox, R.W. 1987. *Production, power and world order: Social forces in the making of history.* Cambridge: Cambridge University Press.

Deekshit, P.M. 2019. *Interrogating the governance stalemate: The politics of urban water PPPs in Maharashtra, India*. PhD thesis, TISS Mumbai.

Ekers, M. and Loftus, A. 2008. The power of water: Developing dialogues between Foucault and Gramsci. *Environment and Planning D: Society and Space* 26(4): 698-718.

Fernandez, S. 2009. Si la Garonne avait voulu… Étude de l'étiologie déployée dans la gestion de l'eau de la Garonne, en explorant l'herméneutique sociale qui a déterminé sa construction. PhD thesis, AgroParisTech, Paris.

Few, R. 2001. Containment and counter-containment: Planner/community relations in conservation planning. *The Geographical Journal* 167(2): 111-124.

Gandy, M. 2004. Rethinking urban metabolism: Water, space and the modern city. *City* 8(3): 363-379.

Geertz, C. 1980. Organization of the Balinese subak. In Coward, E.W. (Ed). *Irrigation and agricultural development in Asia: Perspectives from the social sciences*, pp. 70-90. Cornell University Press.

Giddens, A. 1984. *The constitution of society: Outline of the theory of structuration.* Berkeley: University of California Press.

Grindle, M.S. 1977. *Bureaucrats, politicians, and peasants in Mexico: A case study in public policy*. University of California Press.

Grix, J. 2004. Introducing the key research paradigms. In *The Foundations of research,* pp. 76-99. Houndmills: Palgrave Macmillan.

Harvey, D. 2005. *Spaces of neoliberalization: Towards a theory of uneven geographical development.* Franz Steiner Verlag.

Heynen, N.; Kaika, M. and Swyngedouw, E. (Eds). 2006. *In the nature of cities: Urban political ecology and the politics of urban metabolism*. London and New York: Routledge.

Jack, T. 2013. Nobody was dirty: Intervening in inconspicuous consumption of laundry routines. *Journal of Consumer Culture* 13(3): 406-421.

Jessop, B. 2008. *State power: A strategic-relational approach*. Cambridge: Polity.

Jessop, B. and Oosterlynck, S. 2008. Cultural political economy: On making the cultural turn without falling into soft economic sociology. *Geoforum* 39(3): 1155-1169.

Joy, K.J. and Janakarajan, S. (Eds). 2018. *India's water futures: Emergent ideas and pathways.* London: Routledge India.

Lansing, J.S. 2009. *Priests and programmers: Technologies of power in the engineered landscape of Bali*. Princeton University Press.

Linton, J. 2008. Is the hydrologic cycle sustainable? A historical-geographical critique of a modern concept. *Annals of the Association of American Geographers* 98(3): 630-649.

Linton, J. 2010. *What is water?: The history of a modern abstraction*. UBC Press.

Long, N. 2003. *Development sociology: Actor perspectives*. London and New York: Routledge.

Mehta, L. 2005. *The politics and poetics of water: The naturalisation of scarcity in Western India*. Delhi: Orient Blackswan.

Molle, F. 2008. Nirvana concepts, narratives and policy models: Insights from the water sector. *Water Alternatives* 1(1): 131-156.

Molle, F. 2009. Water, politics and river basin governance: Repoliticizing approaches to river basin management. *Water International* 34(1): 62-70.

Mollinga, P.P. 2008. Water, politics and development: Framing a political sociology of water resources management. *Water Alternatives* 1(1): 24-47.

Mollinga, P. and Bolding, A. 2004. *The politics of irrigation reform. Contested policy formulation and implementation in Asia, Africa and Latin America*. Ashgate.

Mosse, D. 2003. *The rule of water: Statecraft, ecology and collective action in South India*. Delhi: Oxford University Press.

Newell, J.P. and Cousins, J.J. 2015. The boundaries of urban metabolism: Towards a political-industrial ecology. *Progress in Human Geography* 39(6): 702-728.

Obertreis, J. 2017. *Imperial desert dreams: Cotton growing and irrigation in Central Asia, 1860-199.* Vandenhoeck & Ruprecht.

Ostrom, E. 1990. *Governing the commons: The evolution of institutions for collective action*. Cambridge University Press.

Park, J.; Conca, K. and Finger, M. 2008. The death of Rio environmentalism. In Park, J.; Conca, K. and Finger, M. (Eds), *The crisis of global environmental governance: Towards a new political economy of sustainability*, pp. 1-12. London and New York: Routledge.

Reis, N. 2012. *Tracing and making the state: Policy practices and domestic water supply in the Mekong Delta, Vietnam*. Münster: LIT Verlag.

Reis, N. 2017. Finance capital and the water crisis: Insights from Mexico. *Globalizations* 14(6): 976-990.

Rosegrant, M.W. and Binswanger, H.P. 1994. Markets in tradable water rights: Potential for efficiency gains in developing country water resource allocation. *World Development* 22(11): 1613-1625.

Santa Cruz Declaration on the Global Water Crisis. 2014. *Water International* 39(2): 246-261.

Sayer, A. 1984. *Method in social science. A realist approach.* Hutchinson.

Sofoulis, Z. 2005. Big water, everyday water: A sociotechnical perspective. *Continuum* 19(4): 445-463.

Steward, J.H. 1955. *Irrigation civilizations: A comparative study. A Symposium on method and result in cross cultural regularities.* Pan American Union.

Strang, V. 2004. *Meaning of water*. Berg.

Suhardiman, D. 2014. *Bureaucracy and development: Reflections from the Indonesian water sector.* Institute of Southeast Asian Studies.

Sum, N.-L. and Jessop, B. 2013. *Towards a cultural political economy: Putting culture in its place in political economy.* Cheltenham: Edward Elgar.

Swatuk, L.A. 2010. The state and water resources development through the lens of history: A South African case study. *Water Alternatives* 3(3): 521-536.

Tàbara, J.D. and Ilhan, A. 2008. Culture as trigger for sustainability transition in the water domain: The case of the Spanish water policy and the Ebro river basin. *Regional Environmental Change* 8(2): 59-71.

Venot, J.-P.; Turral, H.; Samad, M. and Molle, F. 2007. Shifting waterscapes: Explaining basin closure in the Lower Krishna Basin, South India. IWMI Research Paper. Colombo: IWMI.

Von Schnitzler, A. 2013. Traveling technologies: Infrastructure, ethical regimes, and the materiality of politics in South Africa. *Cultural Anthropology* 28(4): 670-693.

Wade, R. 1982. The system of administrative and political corruption: Canal irrigation in South India. *The Journal of Development Studies* 18(3): 287-328.

Wittfogel, K.A. 1957. *Oriental despotism: A study of total power*. Yale University Press.

Yeung, H.W.C. 1997. Critical realism and realist research in human geography: A method or a philosophy in search of a method?. *Progress in Human Geography* 21(1): 51-74.

Zeitoun, M. and Warner, J. 2006. Hydro-hegemony – A framework for analysis of trans-boundary water conflicts. *Water Policy* 8(5): 435-460.