

Manuscript version: Author's Accepted Manuscript

The version presented in WRAP is the author's accepted manuscript and may differ from the published version or Version of Record.

Persistent WRAP URL:

<http://wrap.warwick.ac.uk/146113>

How to cite:

Please refer to published version for the most recent bibliographic citation information. If a published version is known of, the repository item page linked to above, will contain details on accessing it.

Copyright and reuse:

The Warwick Research Archive Portal (WRAP) makes this work by researchers of the University of Warwick available open access under the following conditions.

Copyright © and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable the material made available in WRAP has been checked for eligibility before being made available.

Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

Publisher's statement:

Please refer to the repository item page, publisher's statement section, for further information.

For more information, please contact the WRAP Team at: wrap@warwick.ac.uk.

Public value and the planet: accounting in ecological reconstitution*

Purpose: This paper explores the role of accounting in ecological reconstitution and draws attention to public value as a topic of strategic interest for developing it.

Design/methodology/approach: The process of ecological reconstitution described by Latour in the “Politics of Nature” is traced towards a distinct set of accounting practices. These accounting practices, designated here as full-tax accounting, offer indications of the changing shape and role of accounting in ecological renewal.

Findings: Full-tax accounting extends the planetary public towards the inclusion of nonhuman planetarians. It establishes matters of care in multimodal accounts and haunts constitutional processes with the spectre of exclusion. Starting with full-tax accounting, public-value accountants emerge as curators of matters of care.

Research limitations/implications: The association of accounting in ecological reconstitution with matters of care highlights the mediating and immersive effects of accounting practice, inviting accounting scholars to explore these effects more systematically.

Practical implications: Accountants need to reconsider their stewardship role in relation to the fundamental uncertainties implied in planetary public-value accounting, support the process of ecological reconstitution by associating themselves with matters of care, and develop an ethics of exclusion.

Social implications: Broad alliances among planetary accountants are needed to extend the terms of ecological reconstitution, to gain and preserve attunement to matters of care, and defend these attunements, in the atmospheric politics of ecological renewal, against regressive tendencies.

Originality/value: In problematising public value, the paper draws attention to a convergence of interests among scholars in accounting, public sector research, and the environmental humanities. It presents a case for planetary accounting in ecological reconstitution that calls for participation from across disciplines, professions, arts, and environmental activists.

Keywords: public value; social and environmental accounting; political ecology; public management; ecological reconstitution; environmental humanities.

* The paper has benefitted greatly from ongoing discussions of socio-ecological accounting in a group of scholars brought together by Jan Bebbington on a regular basis since 2019. Previous versions of this paper were presented at the 30th International Congress on Social and Environmental Accounting Research in St Andrews in 2018, the Wards Seminar at the University of Glasgow, the Alternative Accounts Europe conference at the University of Leicester School of Business, and the Joint Research Seminar in Interdisciplinary Accounting of Tampere University and the Turku School of Economics. I am particularly grateful to Kari Lukka who acted as a discussant at the seminar in Tampere in early 2020, and the two anonymous reviewers of this journal.

“Conventional constitutions externalize the country on which they bestow order; they ignore the non-human fellow inhabitants of the country that are necessary for the human ones; they lack an eye for the atmospheric conditions in which and on which the coexistence of citizens and the things around them takes place.”

Peter Sloterdijk, *Foams* (Sloterdijk 2016: 311)

“Abstractions, which require our best calculations, mathematics, reasons, are built in order to be able to break down so that richer and more responsive invention, speculation, and proposing – worlding – can go on.”

Donna J. Haraway, *When Species Meet* (Haraway 2008: 93)

Our constitutions, our ways of maintaining, understanding, and organising how we live, are having a bad-press century. Discourses of ecological crisis have been revealing, in ever quicker succession, the flaws in how we have set up our communities, industries, markets, governments, epistemologies and ontologies. Accounting broadly considered, from balance sheets to birth and mortality tables, maps, inventories, population, disease, and climate readings, has underwritten these revelations. Accounting scholars have played some part in this (e.g., Gray 1990, 1992, 2010; Hines 1991, 1992; Cooper 1992; Milne 1996; Bebbington, Gray, & Owen 1999; Bebbington & Unerman 2018); the keynotes have generally been delivered by others (Leopold 1949; Carson 1962; Lovelock 1979, 2006; Shiva 2005; Klein 2014; see also Russell, Milne, & Dey 2017: 1428-1430).

More recently, a new type of constitutional discourse has been emerging around writings Latour (2004, 2017, 2018), Stengers (2010, 2011, 2015), Morton (2007, 2016, 2017), Haraway (2008, 2016), Wolfe (2010, 2013), Puig de la Bellacasa (2017), Connolly (2013, 2017), and the broader intellectual movement of the environmental humanities (see only Rose et al. 2012;¹ DeLoughrey, Didur, & Carrington 2016; Hartman et al. 2017). This new constitutional discourse builds on earlier forms of “ecocriticism” (Clark 2019). Practical interests in ecological renewal had been a prominent aspect of environmental discourse for some time (e.g., Schumacher 1973), but authors such as Haraway, Stengers, or Latour have been drawing these interests towards a deeper conceptual, epistemological and ontological, in short: constitutional level of engagement. This new constitutional discourse translates the general interest in ecological renewal into questions of constitutional process, trying to establish the terms and procedures for reconstitution to get us out of our present

¹The inaugural paper of the journal *Environmental Humanities* (www.environmentalhumanities.org).

constitutional predicaments. Latour's prominent description of the "Politics of Nature" (Latour 2004), one of the most explicit attempts to spell out a comprehensive programme of ecological reconstitution, will perhaps stand out for readers of this journal as it gives accounting a conspicuously explicit role in the constitutional process, one which accounting scholars have begun to follow up on (Vinnari 2013; Malsch 2013; Vinnari & Dillard 2016).² The present paper aims to contribute to these efforts by applying Latour's suggestions about the due process of ecological reconstitution and accounting's role in it to one particular problem of contemporary political and managerial practice – the problem of public value.

The problem of public value – what it is that servants of the public shall produce and whom it shall benefit – seems somewhat removed from both the broad constitutional discontents of ecocriticism and the thoroughgoing foundational aspirations of the new constitutional discourse. Concerns with public value have been associated with a politically progressive but constitutionally somewhat conservative approach to political and public life, aligned with the institutional framework of political liberalism, managerialism, and public sector reform (Moore 1995; Bozeman 2007; Meynhardt 2009). The concept of public value, in this particular guise, presents a business-case approach to public management and government, but it also draws attention to yet another serious crack in our current constitutional architecture: our growing uncertainty of who the public are. In this paper, I will argue that there are forms of "interstitial" accounting (Gray, Brennan & Malpas 2014: 259), accountings that are sprouting in this crack, widening this crack, indicating an opening for ecological renewal to take place. I will be using the moniker *full-tax accounting* to address these accountings.

Full-tax accounting, similar to full-cost accounting, presents the promise of a more comprehensive accounting of ecological detriments. It involves accountings that are happening and developing on a significant scale as I write and you read, affecting how decisions are being made and policies are drawn up. These accountings do not indicate an end point of ecologically reconstituted accounting practice; as with full-cost accounting the "full" marks the ambition of filling gaps that are always larger than what a currently realised accounting practice would cover and tend to instantly outgrow attempts at covering them (see also Bebbington 2009; Russell, Milne, & Dey 2017: 1434). But I hope to persuade you that the very pressure on the re-articulation of public value animated by full-tax accounting, incomplete as it is, indicates a distinct role for accounting in ecological reconstitution, a

² This is not to suggest that Latour would be alone in indicating connections between ecology and accounting on a foundational level of collective activity. Among the many others which the present paper does not manage to pursue, the contributions by Barad (2007) and Serres (1995, 2020: 4-13) seem particularly conspicuous.

distinct shape assumed by accounting in the process, and a distinct calling for the broad community of accountants who will be needed to extend the terms of ecological renewal.

The public, the potential beneficiary of public value that is summoned by full-tax accountants, is not integrated by common identity, language, or discourse, and certainly not by nation-state boundaries, laws, or international accounting standards. Full-tax accounting does not mind much the publics which had been associated with the nation-state and its constituencies. Instead, it commits itself to the planet as the assembly of all who pay, in one form or another, for what had once been called “development”. This is why full-tax accounting is a form of planetary accounting that is prone to challenge and haunt any articulation of public value with the intuition that, ultimately, any such articulation will never be quite good enough.

Full-tax accounting thus indicates how planetary accounting comes to be at odds with the legacy of the accounting professions: a shape of accounting concerned with “matters of care” (Puig de la Bellacasa 2017) rather than with matters of fact, creating engagements among planetarians unlike “government at a distance” (Miller & Rose 1990). The re-articulation of public value in the service of the extended planetary collective that full-tax accounting is asking to be recognised cannot but be haunted by its own deficiencies. Yet it provides a sense of direction for a project of ecological renewal burdened many times over by the ecological debts to the planetary assembly of taxpayers. It indicates how matters of care can be extended from full-tax accounting towards a planetary public-value accounting developed in collaboration with activists, scientists, and artists.

Rolling out this argument in the below takes us back, in the next section, to Latour’s constitutional overtures in “Politics of Nature” and his wide-ranging appeal to accounts and accountings. The subsequent section explores how discussions of public value by Moore and others end up making appeals that are remarkably congruent, leading to an initial characterisation of full-tax accounting based on a range of empirical examples. In the third section of the paper, the role of full-tax accounting in the constitution of a planetary public, as a medium and spectre of constitutional processes, and as a harbinger of matters of care will be considered. The paper will conclude by pulling together these observations in a view of ecological reconstitution in which accounting, in the broad sense considered here, assumes a crucial role in extending the terms of ecological renewal and rallies a broad alliance of planetary accountants.

The politics of nature: ecological reconstitution as due process

Overcoming the dissociation of the political space

Overcoming the divide between human communities on the one hand, and nonhuman worlds on the other, each traditionally lumped together, respectively, to create a divide between “society” and “nature”, has been a pervasive theme of ecological discourse. The concern with bridging this divide has been evident in works such as Donna Haraway’s “Manifesto for Cyborgs” (Haraway 1985, 1991), Latour’s “We Have Never Been Modern” (Latour 1993), Stengers’ “Cosmopolitics” (Stengers 2010, 2011) and the broad stream of writing in science and technology studies, feminism, and philosophy, now often referred to as the “new materialism” (e.g., Kirby 2018). The genealogy of the divide between human and nonhuman spaces has been traced time and again, from the history of modernity to the rise of techno-science in contributions such as Haraway’s and Latour’s. Other contributions relate the divide to what happened thousands of years earlier when humans turned to permanent settlements (Morton 2016: 38-59), perhaps the “worst mistake in the history of the human race” (Diamond 1987). In relation to these historical scales ranging from 500 to 12,000 years, Latour’s timeframe in “Politics of Nature” (Latour 2004) might well seem middle range. His reference point for understanding the human-nonhuman divide is the history of political constitutions leading back to the Greek polis, recalled through Plato’s allegory of the cave.

The allegory of the cave is considered by Latour (2004: 10-18) as symptomatic of the dissociation of the human space, the cave, from the nonhuman space outside of the cave. According to this allegory, it takes a special person, a philosopher in Plato’s time, a scientist in ours, to deliver knowledge about the world outside to the cave dwellers. The cave is dominated by the politics of human affairs; the outside is a realm governed by laws beyond human discretion; in the cave, society and politics, a world made of human whim, subject to political mending and bending; outside, something else entirely: for Plato, a world governed by eternal regularities and ideas, for modern science, a nature progressing under its own laws, unfazed by the politics of the cave, a realm of facts. It takes a philosopher, then a scientist to rise above the political bickering, to speak of facts, and trump political opinion.

From antiquity to modernity, the situation of these special people seems to have “greatly improved” with “sizable budgets, vast laboratories, huge businesses, and powerful equipment” allowing “researchers to come and go in complete safety” (Latour 2004: 11) between the cave and the outside. However, the fundamental dissociation between the cave and the outside world has remained in place. True knowledge of the world is taken to require breaking “free of social determiners to understand what things themselves are” (Latour 2004: 12) as otherwise “(n)ature and human beliefs about nature would be mixed

up in frightful chaos” (ibid.). In the modern constitution, this divide must be upheld for true knowledge about the world to be possible (see also Gray & Milne 2018: 831).

The construction of nature as a force external to the political space, an authority untouched by the politics and ideologies of the cave, has thus been the result of a dissociation that, if anything, has been strengthened by the rise of modern technoscience and its “epistemology police” (Latour 2004: 38-39). The division between nature and society has been aligned with a distinction between facts and values (Latour 2004: 95-102), with nature speaking in the voice of facts and cave dwellers speaking in the voice of values. This alignment allows the authority of nature to be invoked in the politics of the cave in order to settle disputes. The ecological movement has at times been trying to do just that, and Latour (2004: 19-20) criticises this. In his view, by undercutting the level of reflection accomplished in the discourse of ecological reconstitution (e.g., Haraway 1991: 8-9; Morton 2007; Neimanis 2017: 181-186), the dissociation of nature and society creates an obstacle for meaningful ecological change (see also Forsyth 2015; Hern & Johal 2018: 90-94); appealing to the authority of nature reinstates this obstacle (see also Debaise et al. 2015: 172-173; Everett 2004). Envisaging a common world in which nonhuman beings can enter the political space without restrictions emerges as the only way of overcoming the divide (see also Stengers 2011: 358-362; Gray & Milne 2018: 828-829). Reconstituting the political space outside of the cave, in a mingling of human and nonhuman beings, nature and society, becomes the goal of ecological reconstitution.

If ecological reconstitution cannot mobilise the power of facts to settle debates, how could we expect the new assembly of human and nonhuman constituents to find unity? For Latour, any unity will be risky because as it could lead back to the politics of the cave once an assembly distinguishes itself from the rest of the world (Latour 2004: 93-95). This is how the question of ecological reconstitution turns into a question of the due process. It is also how the constitutional process soaks up a dose of uncertainty that proves impossible to shake.

The role of accounting in due constitutional process

One of the surprising aspects of Latour’s attempt of outlining due constitutional process is the insistence that the open space outside of the cave once again be divided. The “old bicameralism” of the two houses of nature and society is replaced by a “new bicameralism” of two houses with distinct procedural powers (Latour 2004: 115): the power of “taking into account” (Upper House) and the power of “arranging in rank order” (Lower House). The due process of reconstituting a common world for the planetary collective suggested by Latour produces a procedural loop that starts in the Upper House with taking things into account, then continues in the Lower House, ranking and prioritising what has been accounted for,

back to the Upper House reconsidering the accounting, then down again to institutionalise and rank accordingly, up again to revise institutions and rankings, and so forth (also see Vinnari & Dillard 2016: 29-33). If this process is properly looped, no human or nonhuman being will ever be evicted from the political space for good: the Upper House, the higher constitutional power, can always reactivate any claim for being taken into account that has been side-lined (Latour 2004: 187-188). This process is constitutionally robust in the sense of superseding any prior constitution of the collective. The separation of the two Houses is a means of supporting this process by a separation of powers that creates a continuous constitutional cycle.

Latour identifies two distinct steps which the Upper House will have to take when exercising its power of “taking into account”: the first step is “perplexity”, the second is “consultation”. Perplexity makes the Upper House “all ears” (Latour 2004: 166) when re-opening the list that constitutes the collective. Exercising perplexity means asking “How many are there of us to be taken into account?” (ibid.) without foreclosing questions of inclusivity on the basis of prior constitutions. Perplexity starts a process of articulation in which entities enter the collective through being recognised in its language (Latour 2004: 168). Once this recognition has been accomplished, the process of consultation begins to entangle new entities in the collective, joining up old and new entities, remaking configurations and alliances. Whereas perplexity discovers new entities, consultation ties them into the constitutional process by establishing to whom they matter and how, and who matters for them and how (Latour 2004: 169-170). Once consultation has taken place, the constitutional process is taken over by the Lower House, which will rank the claims of relevance that result from consultation, grant entities constitutional roles with the purpose of making and seeing through decisions, and formulate decisions and policies until the process starts afresh.

In their discussion of Latour’s due constitutional process, Vinnari and Dillard (2016) are particularly interested in the Lower House: its more applied role in the constitutional cycle potentially complements the agonistics of dialogical accounting that characterise much ecologically-minded social and environmental accounting practice (Vinnari & Dillard 2016: 26). Latour sometimes refers to accounting in a narrower sense, associating it with skills prevalent, allegedly, among economists (Latour 2004: 150-154); for example, observing that economists would render the collective “describable” through “the circulation of its traces” (Latour 2004: 154; see also Vinnari & Dillard 2016: 31). Latour, however, also maintains that this skill is characterised by an ability “to dramatize, to theatricalize *the general accounting of the collective*” (Latour 2004: 150; italics are mine). This general accounting is given the constitutional Upper-House role, and it is evident from Latour’s description of perplexity and consultation that all kinds of professional skills – Latour (2004: 137-164) is listing

economists, scientists, politicians, and moralists³ – are contributing to the constitutional charge of “taking into account”.

There are therefore at least two accountings in the “Politics of Nature” and the due constitutional process it lays out: one “general accounting” that is associated with the perplexity and consultation steps of the constitutional process in the Upper House, and one accounting that is reductive in character, associated with skills among economists and with the charges of the Lower-House. The first accounting might remind us of the “agonising” character of social and environmental accounting (Brown & Dillard 2013), the second accounting perhaps more of the commensuration involved in cost-benefit analyses (Latour 2004: 152), likely more prominent in the closing-down-for-the-moment stages of due constitutional process (Vinnari & Dillard 2016: 33).

Latour insists that his “Politics of Nature” does *not* describe a utopian constitution but wants to offer a sense of current political practice. His stated aim is to help readers overcome inherited difficulties of recognising the ecological reconstitution that is presently ongoing (Latour 2004: 163, 235; see also Vinnari & Dillard 2016: 41). Against this background, the Upper-House charge of “taking into account” and the “general accounting of the collective” seem surprisingly underspecified by Latour, particularly when compared to what he has to say, in more specific terms, about economists’ alleged “bottom line” accounting skills. Not least since these skills notoriously struggle with the wicked problems of political ecology (e.g., Samiolo 2012: 399), much more needs to be said about accounting’s association with the perplexity and consultation stages of the constitutional process. If we wish to convince ourselves that Latour’s Upper House is indeed in session, we will need to pin down the Upper-House activities of “taking into account” a bit more. The problem of public value provides an opportunity to do this by indicating a role for accounting that turns out to be patently Upper-House. By leading us to consider a particular form taken by the “general accounting” of the collective”, the problem of public value offers a sense of what accounting becomes once constitutional processes play out in the open and a planetary public is being assembled.

Public value: perplexity, consultation, and full-tax accounting

If we follow Latour’s intuition that the “Politics of Nature” have started sprouting, we can find them in unlikely places. The public sector in its current historical condition is such a place, scarred by a seemingly never-ending procession of public management reforms

³ Evidently not your classical professions such as law, medicine, theology, or accounting, as discussed by Abbott (1988) and many others.

associated with “cruel, cruel disappointment” (Lapsley 2009: 18; see also Steccolini 2019: 259). More particularly, the problem of public value, by invoking a sense of value associated with a public traditionally imagined as an assembly of human citizens seems to lead us back into Plato’s cave. Curiously, however, it turns out that the assembly which public value theorists have been considering, following Moore (1995: 118-132; 2013: 114-117), as the “authorising environment” for the creation of public value (see also Hartley, Alford, & Hughes 2015: 27-34), nowadays is anything but an assembly of cave dwellers. Nowadays public value cannot be value for cave dwellers alone, and the “general accounting of the collective” has opened the books accordingly.

The quest for public value, and for public-value accounting

When Moore broached his notion of public value in the 1990s, he did so with the idea of reviving the “managerial imagination” in the public sector (Moore 1995: 13-20). Public managers, in his view, had been holding on too dearly to “the mindset of administrators and bureaucrats rather than of entrepreneurs, leaders, or executives” (ibid.: 17). Moore’s original appeal to the managerial imagination in the name of public value was careful to not put itself too much at odds with the by then dominant forms of new public management (NPM) discourse in the USA and elsewhere. Moore was meaning to rush to the public manager’s defence (see also Benington & Moore 2011b: 12-20): “My research on the idea of ‘public value’ began in (...) a time when the techniques of private managers, such as focusing on customers and using quantitative performance measures, were being pressed on government managers (...)” (Moore 2014: 465). He wanted public managers to be “closer (but by no means identical) to the image society has of managers in the private sector” (Moore 1995: 20). The concept of public value intended to provide meaning and direction for public managers grappling with “much more complex problems than NPM could explain or resolve” (Benington & Moore 2011b: 16-17). It was meant to offer “a simple idea” (Moore 1995: 28): that public managers might “create *public* value just as the aim of managerial work in the private sector is to create *private* value” (ibid.; italics by Moore).

Moore’s defence of government and public management presents itself as a business case, and you would look in vain for a direct line of attack on political liberalism in Moore’s original statement of the concept of public value. However, with the increasing circulation of the concept and, particularly, its further development by Bozeman (2002, 2007) and Meynhardt (2009; see also Bryson, Crosby, & Bloomberg 2015: 4-13) it gradually came to be seen “as a response to the neo-liberalist agenda” (Steccolini 2019: 263; see also Mazzucato 2018). Moore himself seems to have adopted this view when, looking back at his initial statement of the public value concept in 2014, he observes: “The word *value* implicitly rejected neoliberal ideas that sought to limit government’s concerns to technical efforts to counter various forms of market failure.” (Moore 2014: 465-466; his italics) To associate

neoliberalism with the idea of limiting government to “technical efforts” and reject it on these grounds in a paper on “the philosophical basis” of public-value accounting (Moore 2014) indicates what kind of accounting Moore wants his public-value accounting *not* to be. Once again, as in Latour’s “Politics of Nature”, we are confronted with two accountings – here, one that embodies the box-ticking, benchmark and spreadsheet chasing spirit of neo-liberal new public management, and another, rather different accounting that Moore is trying to put in place to support a broader public value agenda.

The examples of public value accounting offered by Moore (2013: 43-56, 128; 2014: 469-470) can hardly be considered unconventional in format, ranging from the use of cost-benefit analysis to public value scorecards based on blended versions of T-accounts.⁴ The “general form” of the public value account (Moore 2013: 113) places the use of public assets and associated costs (left-hand side) opposite of the “achievement of collectively valued social outcomes” (right-hand side). The “managerial imagination” side of public value accounting would have to be concerned with “the various dimensions of value that public agencies produce in the form of social outcomes” that “are ultimately *enjoyed or endured* by the collective public” (Moore 2013: 53; italics mine).

Moore is insistent that any such outcome accounting must *not* to be confused with the kind of customer and client satisfaction surveys prominent in new public management (Moore 2013: 52-53, 112-114). He further clarifies that “(t)he ‘customers’ of government - those whom it must satisfy for practical and philosophical reasons - include individuals in many different social positions. They are not only service *beneficiaries* but also client *obligatees*, not only clients but also taxpayers, and not only taxpayers but also voters and citizens (...).” (Moore 2014: 470; his italics) Public value accounting thus requires a recognition of both enjoyment and endurance among a public composed of those who are to benefit from public value creation as well as those with an obligation to contribute to it. It is on this side of public value accounting that, according to Moore, a philosophical and normative framework is required to establish how public resources shall be utilised (Moore 2014: 472-474). On this right-hand side of public value accounts and public value scorecards, the managerial imagination extends the list of entries beyond “technical efforts” (see Moore 2013: 240, 288, 365, 396, 419).

Arguably then, on the side of “social outcomes”, a crack opens into which the idea of public value attempts to draw “public managers as explorers” (Moore 1995: 20, 299), makers of public-value cases. And it is right there that we can recognise Latour’s Upper House in session as public managers extend the list of who and what is to be taken into account,

⁴ See also Meynhardt (2015) for another approach towards creating public value scorecards.

“grappling with much more complex problems than NPM could explain or resolve” (Benington & Moore 2011b: 16-17).

The authorising environment

Questions about the constituents of the public (e.g., Benington 2011; Crouch 2011) or the possibility of “new civic politics” (Boyte 2015) have been recurrent in the discourse of public value but have only rarely been connected with analogical considerations in political ecology (such as Rocheleau 2015). In his contribution to the collection on “Public Value: Theory and Practice” edited by Benington and Moore (2011a), Swilling concludes his deliberations about the potential of “greening public value” with an impassioned plea for an “enlargement of the deliberative boundaries of the public sphere to include the dynamics and logics of the ecosphere” (Swilling 2011: 110) – a phrase that evokes both the get-out-the-cave direction of the “Politics of Nature” and the deliberative spirit of the Upper House in the “new bicameralism”. Looking at the two prominent exponents of political ecology and public value discourse considered here, it is indeed only a small step from Moore’s appeal to the use of the “managerial imagination” within a “political authorising environment” (Moore 1995: 118-132; 2013: 114-117) to the perplexity and consultation raised in Latour’s Upper House.⁵ Where Moore refers the public manager to consider “political superiors, legislative overseers, and overhead agencies” (Moore 1995: 118-120), “the media” (ibid.: 120-122), “interest groups” (ibid.: 122-125), “courts” (ibid.: 125-6) as well as “public ideas and conventional wisdom” (ibid.: 128-130) in their imaginations of public value, Latour (2004: 108ff.) simply asks “How many are we?” on his quest toward an “enlargement of the deliberative boundaries” (Swilling 2011: 110). “No one knows what an environment can do”, writes Latour (2004: 80), and with Moore (1995: 131) we may add, somewhat more verbosely: “The political coalitions that once sustained a policy or an organizational strategy often erode as political power ebbs and flows, and as political actors take up different issues. Groups whose interests were initially ignored may gather strength. New groups with interest in the way government operates may suddenly come into being.” The environment in which Moore’s public-value cases have to be authorised thus turns out to be anything but caved in.

⁵ This is not to deny the considerable differences between Moore and Latour, for example in relation to what each of them would consider, on quite different grounds, due constitutional process. The focus here is on uncertainties shared by Latour and Moore about the environment and the public, reflected in Latour’s invocation of the Upper House and Moore’s summoning of the authorising environment. A more thorough-going exploration of differences and commonalities of the underlying positions, for example, against the background of what is discussed below as full-tax accounting, is beyond the scope of the present paper.

Looking at this environment from the perspective of due constitutional process, we can recognise the perplexity and consultation sessions of the Upper House as the political space opens towards a more embracing articulation of the collective (Latour 2004: 75-87, 102-107). Once the border between the natural and human world is lost, voices of nonhumans can be heard (per Latour 2004: 69) that may have been “initially ignored” (Moore 1995: 131) in the authorising environment. Politicians will learn a thing or two from scientists who interact with and listen to nonhumans joining the assembly (Latour 2004: 169-172): “The social democrat can finally learn from scientists how to treat foreigners with respect” (Latour 2004: 170). Perplexity and consultation thus add to the scope and complexity of an authorising environment which for Moore had already seemed uncertain, if not “chaotic” (Moore 2013: 116; longer quote below). Moore’s public-value approach explicitly encourages public managers to further engage and, in Latour’s terms, consult, with this environment:

“Public managers could react to the chaotic nature of this ‘authorizing environment’ by throwing their hands up and refusing to act until the political world gets its act together and gives them a clear, coherent mandate. But it might be a better strategic move to keep making public value propositions to these authorizers (...). Choices made to add or subtract dimensions of value could be seen not only as a process of learning about which values the public and their representatives deem important but also as a way of responding to new concerns and engaging the public in ways that add legitimacy and support to the enterprise.” (Moore 2013: 116)

On the one hand, such advice to public managers rehearses a business-case logic that has been associated with hegemonic discourses that are not per se conducive to meaningful constitutional change (e.g., Spence 2007). On the other hand, this advice indicates the scope of the constitutional cracks in which public-value cases are taking root: These cases are to be made just where the “political world” (Moore 2013: 116, quote above) is not entirely clear “which values the public and their representatives deem important” (ibid.). Moore’s characterisation of the public, his list of public value stakeholders – customers, clients, taxpayers, voters and citizens (Moore 2014: 470) – certainly follows a currently hegemonic political, broadly liberal, discourse of public management. But this hegemonic discourse is full of holes that attract perplexity and consultation (see Crouch 2011; Morton 2017: 14f., 90-95, 104; Lyotard 2010), interstitial accountings (Gray, Brennan, & Malpas 2014: 259), and the public-value cases of imaginative public managers (Moore 1995: 20-21).

Moore’s public-value accounting is meant to support public managers to make their cases and get authorisation for what “collectively valued social outcomes” (Moore 2013: 113) they wish to offer. Once social democrats have begun to learn from scientists, it is hard to see how the public-value accounting envisaged by Moore could retreat back into the cave:

nonhumans have already begun to matter. But it is equally hard to miss that the public-value case of the public manager will have to appeal to prior political habits. So, who shall benefit from public value? In the new public management context, “the taxpayer” would be the most common response, which is why Moore is at pains to include clients, voters, and citizens (Moore 2014: 470), to crack open a broader space for public-value cases. But even the taxpayer, frequently invoked to chase the public manager in the name of “value for money” (e.g., Power 1999: 43-52), can be subject to reimagination if the authorising environment wills it.

Full-tax accounting in the open

The extent to which stakeholders can be reimagined has been evident in new public management reforms reformatting citizens as customers and taxpayers, criticised by Moore and many other commentators (e.g., Wiesel, Modell, & Moll 2011; Fox 1996). Previously, in the expansion of the welfare state, the scope for reimagining stakeholders had been apparent in the reshaping of citizens as clients (e.g., Luhmann 1990). The joint work of professionals, politicians, interest groups and public managers in curating lists of constituents to be concerned about, described as “welfarism” by Rose and Miller (1992: 192-198), will retrospectively appear, once again seen through the prism of Latour’s due process, like a series of Upper and Lower House sessions – mostly with a view to extending the list of clients. The same could be said about public-value cases that bid to extend the range of public services (e.g., Entwistle, Andrews, & Guarneros-Meza 2019). Now, once the Upper House assembles outside of the cave, the list of stakeholders to be concerned about will exceed the human collective, once more extending prior habits of considering stakeholders in terms of clients, citizens, or taxpayers.

Consultations over granting legal privileges to nonhumans, for example in debates over animal rights (see Wolfe 2013) or the legal status of rivers (e.g., O’Donnell & Talbot-Jones 2018) have been prominent examples of seeking such extensions. The extension of status attributes that used to be reserved for humans exclusively is where Upper-House consultation has been most evident, and it continues to be an area of active constitutional exploration (Bradshaw 2020). Further extensions of perplexity and consultation, however, become apparent when we consider cases in which Upper-House accounts are being extended towards the inclusion of nonhumans in lieu of any institutional route towards rights and entitlements. Most notably, a broad range of nonhuman stakeholders has become subject of perplexity and consultation through the recognition of the burdens placed on them by an unsolicited and yet to be fully accounted for inclusion in the collective as involuntary taxpayers.

This internalisation of previously external entities through accounting is reminiscent of the internalisation of externalities brought about by full-cost accounting. Much like full cost accounting tries to recognise cost despite the fact that it has not been incurred in monetary terms, the extension of the list of taxpayers recognises taxes even where they have not been formally charged; much like cost is to be recognised in full even where there has been no decision to spend it, tax is being recognised even where there has been no decision to impose it. Full-tax accounting seems like an apt phrase to capture these practices.⁶

Similar to the extension of formerly exclusively human rights to select nonhumans, human-centred precedents of full-tax accounting practices can be found in the history of the welfare state where inflation has been recognised as an informal tax on people who would formally be paying very little or no tax at all (Turvey 1961; Naar 1979). Such implicit taxes have been regarded as by-products of economic development, perhaps accepted and to some extent facilitated by government action yet administered without involving a tax collector – as if the unfolding of the socio-economic process itself was collecting the dues.

Recognised in an analogical manner, accounting for burdens on nonhumans often centres on specific species or groups of species, from birds in Rachel Carson’s “*Silent Spring*” (Carson 1962) to recent concerns about pollinators (Atkins & Atkins 2016). Aldo Leopold’s remarks about the effects of agriculture on the land, in particular the decreasing fertility of the soil, indicate the variety of nonhuman entities recognised as burdened (Leopold 1949: 217-223). Accounting for these burdens has taken place over a wide range of eco-critical narratives as well as in a variety of “non-glottographic”, not speech-tracking, writing practices (Bassnett, Frandsen, & Hoskin 2018): tallies, balances, tables, calculations, graphs, metrologies. Some instances of full-tax accounting affiliate themselves with the latter and offer periodic environmental reports, others do not follow human reporting periods and make only moderate use of numbers. Perhaps the most common types of full-tax accounts are ad-hoc, non-periodic, one-off accounts that combine glottographic (narrative, speech following) and non-glottographic forms of writing with audio-visual materials, typically in the form of brief interventions on social media. Let us briefly consider examples from across this range.

Biodiversity accounting has become one of the established banners under which full-tax accounting takes place, easily recognised as accounting by virtue of formal, mostly non-glottographic, numerical appearance (Jones & Solomon 2013; Jones 2014; Weir 2018). There is much to be said about the epistemological and metrological issues besetting biodiversity accounting (e.g., Jones & Solomon 2013: 672-675) and about its problematic affiliation with

⁶ There is no space here to engage in a discussion of the concept of tax. Given that taxes are almost ubiquitously found across human collectives, tax has remained a curiously under-researched notion. Even where tax is a thematic focus of investigation, investigators tend to refer to dictionary definitions (e.g., Murphy 2015: 30-32).

economic decision-making habits (Weir 2018). Biodiversity accounting produces lists, ranks, graphs, tables, and accompanying narratives that offer accounts of a range of taxes levied on populations of nonhumans who are affected by human activity in terms of their decreasing ability to reproduce and survive. The Red List of Threatened Species offers an example:

“The Red List device, as part of an assemblage of assessors, computer hardware and software, and an array of research databases, achieves a form of calculability for species extinction (...). First, the material reality of relations between humans and non-human species are identified in terms of human actions inflicting extinction risk upon non-human species. Second, the related agents are identified in terms of species: that is, the collective human species is responsible for inflicting extinction risk upon each evaluated non-human species. Third, the metrological framework comprises a hierarchical structure whereby evaluated species are differentiated and compared in terms of being exposed to greater, lesser, or equal levels of extinction risk.” (Cuckston 2018a: 860)

The tax-like character of extinction risk is established by correlating a collective force (“collective human species”) with charges on “each evaluated non-human species”, much like accumulated economic activity imposes inflation taxes on human households in an unequal manner. Just like evidence of the impact of inflation on human taxpayers has been used to make the case for inflation tax credits (e.g., Plecnik 2011), conservationists have been using the Red List to demand affirmative action compensating endangered species (Cuckston 2018a: 860-867). Analogical to low-income humans as potential recipients of affirmative tax actions to compensate for inflation taxes (Plecnik 2011: 928-931), the burden imposed on “keynote species” (Simberloff 1998) has served as a reference account for mobilising remediation efforts in relation to specific ecosystems (see also Atkins & Maroun 2018: 759).

On the side of glottographic variants of full-tax accounting, eco-critical writing has been united, across literary genres, by a shared understanding that humans need to assume greater responsibility for the burden which their activity imposes on other species (Clark 2019: 36-37). Eco-critical narratives have presented instances of full-tax accounting that substantiate such burdens, from Clare’s “enclosure elegies” composed in the early nineteenth century (Clark 2019: 7-11), to the seminal accounts by Carson (1962), Leopold (1949) and Shiva (2008) on the burdens on birds, land, and soil, respectively. Over the last two decades, “material ecocriticism” (Clark 2019: 111-136; Iovino & Oppermann 2014a) has been overlapping with the constitutional discourses championed by Haraway and Latour whilst keeping the emphasis on narrative: “Stories Come to Matter” is the slogan adopted by Iovino & Oppermann (2014b) introducing their collection. These streams of writing are

animated by the conviction of the distinct power of narrative in articulating and politicising ecological issues (James 2015).

Van Dooren's "Flight Ways" (van Dooren 2014) presents a paradigmatic instance of glottographic full-tax accounting. Van Dooren draws the reader into the ways of life, the flight ways, of five bird species: albatrosses, vultures, penguins, cranes, and crows. These accounts are informed by systematic scientific evidence, yet the writing remains glottographic throughout, including when it refers to numbers and calculations, and the emphasis is on the aggregate impact of both quantifiable and less quantifiable factors on the life of birds:

"Millions of years of albatross evolution – woven together by the lives and reproductive labors of countless individual birds – comes into contact with less than 100 years of human 'ingenuity' in the form of plastics and organochlorines discovered or commercialized in the early decades of the twentieth century. (...) In their current forms, these human-engineered products linger and accumulate to play their part in the undoing of the intergenerational achievement that is the albatross flight way."
(van Dooren 2014: 32)

Glottographic instances of full-tax accounting like van Dooren's draw their readers close to nonhuman taxpayers and immerse them in their lifeworld by telling stories of exposure to ecological degradation (Stearns & Stearns 1999; van Dooren & Rose 2016): albatrosses feeding on toxic human waste, crows grieving the loss of their companions. Van Dooren's accounts also demonstrate synergies between non-glottographic writing and the telling of compelling stories; in fact, references to numbers, as in the quote above, serve to increase the poignancy of the narrative. These accounts differ from list-and-table-driven accounts such as the Red List not in their intentions or messages but in their style of expression, the relative dominance of glottographic over non-glottographic writing in the full-tax account.

The use of drawings, pictures, and other visual materials is an almost ubiquitous element across the styles of full-tax accounts; photographic images of nonhuman suffering in particular can be found almost universally. There are also instances in which the photography becomes the dominant medium of a full-tax account such as in McArthur's "We Animals" (McArthur 2014). "We Animals" captures the burden placed on animals in human-dominated spaces on camera, with additional writing mainly serving as contextualisation of photographs, similar to narrative complementing non-glottographic accounts like the Red List.

Figure 1 presents full-tax accounts drawn from the social media platform Twitter, showing a centring of visual (including audio-visual) materials, with writing underscoring and accentuating the account that is being delivered with and around an image.

Figure 1: Sample of full-tax accounts from social media⁷



Social media posts such as in Figure 1 are nowadays perhaps the most widely circulating types of full-tax accounts. These seemingly impromptu accounts combine expert and non-expert material from a variety of sources, often complemented by comments and emotional

⁷ Retrieved from <https://twitter.com/CenterForBioDiv/status/1184922170335608832?s=20> (garbage patch), https://twitter.com/sus_topics/status/1189001605057830912?s=20 (seal), <https://twitter.com/jmcappiello/status/1169673917960732673?s=20> (turtle), <https://twitter.com/joinpureplanet/status/939460890356781056?s=20> (albatross); screenshots taken 10 April 2020.

sentiments from those publishing the posts. The examples in Figure 1 relate to the issue of plastic pollution in the oceans. Like many other examples of full-tax accounts they utilise visual, often photographic representations of nonhuman suffering. Read clockwise from the top left-hand corner, the images in these four examples zoom in on suffering from the map and landscape to the intimacy of feeding. The sequence traces plastic pollution from the geospatial scale to the beach, to individual non-humans and into their bodies, showing various degrees of closing in on sufferers. Much like accounting for inflation taxes makes a connection between a macro-economic phenomenon and the financial balance of the individual taxpayer, these instances of plastic pollution accounting move from the accumulated burden placed on a geographical area to the plastic intake of the individual.

These examples show a range of instances of full-tax accounting, not a representative distribution of full-tax accounts or their types. For the present purpose, they are indicative of the general scope and heterogeneous composition of these accounts. Given the different media, genres of writing and distribution networks involved, it would be difficult to generate an estimate of the overall prominence of full-tax accounts in the collective (and compared with what?). These instances indicate that constitutional processes as described by Latour are in session, more specifically, processes of perplexity and consultation, associated with the power of the Upper House of “taking into account” and receiving new constituents (Latour 2004: 115, 166-172). What can we learn from these Upper-House deliberations about the role of accounting going forward once the constitutional cycle proceeds from perplexity and consultation to the institutionalisation and ranking of concerns in the Lower House (Latour 2004: 172-180) and the following-through of public-value cases by public managers?

Full-tax accounting and planetary public value

Upper-House full-tax accounting points to the reconstitution of a planetary public – one that relies greatly on an extended range of accounting practices to find a common ground (1); it illustrates the broad scope of accounting mediations that contribute to making this planetary public happen (2); it indicates how any articulation of public value remains haunted by the spectre of exclusion in attempts at ecological reconstitution (3); and, finally, on this basis we can get a sense of our bearings from full-tax accounting to public-value accounting and further action towards ecological renewal (4). The trajectory of accounting practice that emerges from these four vectors can be characterised by its transition from dealing with matters of concern to dealing with matters of care (Puig de la Bellacasa 2017). After considering each of these vectors in turn, I will conclude the paper with a speculative assessment of accounting’s emergent role in ecological renewal and the participation it invites among planetary accountants.

1 The planetary public and its problems

By extending the collective of taxpayers, full-tax accounting contributes to the reconstitution of the public. This reconstitution happens in the open in more than one respect: The public is reconstituted outside of the human cave; this reconstitution is out of the hands of formally enfranchised political operators or public managers; and the public is not bound by territorial boundaries or legal constitutions. Full-tax accounts are recognisably variants of what has been called “external accounting” (Dey & Gibbon 2014: 108; Russell, Milne, & Dey 2017: 1437-1438) in several ways: They are often offered by outsiders – by academics and political activists, journalists, by people who have seen Richard Attenborough on the BBC and decide to post about it, or by those remixing and recirculating combinations of accounts; they are offered on behalf of outsiders (nonhuman taxpayers), on the outside (of institutional frameworks), and of the outside (of what was once called nature).

At the same time, this outside is no longer peripheral or marginal. Having left our caves, the outside is where now we all are. In this sense, full-tax accounting is planetary and comprehensively internalist. It is not concerned with graciously granting inclusion in the collective to previously excluded entities but with discovering co-tenants and recognising their planetary tenancy. Both Latour (2004: 151) and Moore (2014: 474) take inspiration from John Dewey (2016, originally 1927) whose classic treatise on “The Public and Its Problems” insisted that the public, particularly in times of crisis, requires a deliberate effort to be brought into being: “Till the Great Society is converted into a Great Community, the Public will remain in eclipse. Communication alone can create a great community.” (Dewey 2016: 170; see also Marres 2005) We might say that full-tax accounting contributes to such communication by trying to instil solidarity and community among those who have been exposed, often violently drawn in, to planetary cohabitation.

Narrative accounts like van Dooren’s place their hope in the “ethical work that these stories may do in the simple act of making disappearing others thick on the page, exposing readers to their lives and deaths in a way that might give rise to genuine care and concern” (van Dooren 2014: 9). In a similar way, Cuckston (2018a: 864) argues that “new sets of relations between humans and non-human species – with collective capabilities to conserve species and prevent their extinction” are facilitated by the Red List of threatened species. The attempt by full-tax accounts to bring about alliances among humans and nonhumans is also evident in the four social media posts in Figure 1, in particular where they bring viewers close to nonhuman animals. The potential strength of such planetary alliances may be illustrated by the outrage that followed the killing of Cecil the lion by a US dentist in Zimbabwe in 2015 (Morton 2017: 30-33). This outrage, expressed over both social and mainstream media, prompted criticism from politicians who questioned, pointing to the

value of trophy hunting for local (human) economies, why middle-class activists would feel more solidarity with a lion than with their fellow human planetarians. Such criticism demonstrates the strength of alliances between human and nonhuman planetarians which in this case side-lined the interests of fellow humans, cross-species solidarity trumping intra-species solidarity (Morton 2017: 33).

“[T]he ‘threatened species’ identity, constructed by the Red List, creates the conditions for conservationists to be able to speak for these species in ways that are conducive to their conservation”, observes Cuckston (2018a: 863), much like activist full-tax accountants might speak for lions or albatrosses. But is it not a problem that such solidarity, much like the initial inclusion in our collective, is extended unilaterally by that species which most planetarians would be better off not ever encountering? Is this not a case of human planetarians making a case for nonhuman planetarians based on the assumption that the latter will not talk back (Ackermann 1980: 70-74)? Is the resulting relationship, rather than one of community, not “*necessarily* authoritarian” (Ackerman 1980: 102; emphasis right there)? Is this planetary public, in the last instance, not one entirely created by human effort, articulating the planetary collective by recycling human terms?

Latour’s point about social democrats learning from scientists is that politicians have often not been doing too well in listening to and consulting with their human constituents whilst scientists have been liaising with all kinds of nonhumans – and have learned to listen and consult more carefully (Latour 2004: 170-171). For him, this relationship among human and nonhuman planetarians is emphatically *not* meant to be authoritarian. Where the traditional constitutionalist would want to “empower a supreme court to review legislation to make sure that the disenfranchised are given their proper weight in the overall accounting” (Ackerman 1980: 315), Latour (2004: 172) tells us that “all collectives are and will always be ill-formed” – in other words, that there will never be one “proper weight”. Curiously, these positions are united in invoking an “overall accounting” (Ackerman 1980: 315) through which the public would resolve its problems of recognition and consultation. We need to close in on this accounting to establish how it might overcome authoritarian forms of inclusion with “genuine care and concern” (van Dooren 2014: 9), on the basis of “solidarity with nonhuman people” (Morton 2017) and a “serious and profound attempt at thinking *with* nonhumans, and not only for them” (Tironi 2020: 187; emphasis right there; see also Giraud 2019: 26-31).

2 Accounting for mediation: from representation to worlding

Full-tax accounts rally a public by establishing connections between human and nonhuman planetarians. When considering accounting’s ability to make connections, accounting scholarship has often associated this ability with action at a distance (e.g., Robson 1992;

Corvellec, Ek, Zapata, & Campos 2018). The notion of representation is one way of addressing the stand-in character of accounts for something or somebody remaining at a distance to be acted upon, usually by the numbers (Robson 1992: 690-691, 701). Mainstream accounting scholarship has generally considered keeping such distance beneficial (Hines 1992: 331-332), and this preference for distance has chimed with the idea of liberal government at arm's length (Miller & Rose 1990). Against this background, Latour's investigation of "science in action" (Latour 1987) has provided a widely used terminology to explore accounting's role in management and government at a distance (see also Robson & Bottausci 2018). In "Politics of Nature", Latour is once more keen on making representation "play again, explicitly, its ancient political role" (Latour 2004: 41). However, the way in which full-tax accounts establish connections among planetarians indicates practices of mediation that run counter to the very idea of keeping a distance. Furthermore, they question the legitimacy of aligning such distance with an "ancient political role" of representation that would end up privileging human planetarians.

Certainly, using the Red List "creates the conditions for conservationists" (Cuckston 2018a: 863) also by offering itself as a device to manage and control populations of nonhuman planetarians from afar. However, the relationship between conservationists and their nonhuman allies would not seem to be fully captured by a managerial use of full-tax accounts. Action and government at a distance might well be what many full-tax accounts end up inducing when they are taken forward to inform reconstitutive action. But, rather than sleek and efficient inscriptions travelling lightly back and forth across distances in order to get things done (Robson 1992; Vollmer 2007: 580), full-tax accounts are often, in van Dooren's (2014: 9) words, "thick on the page", as if trying to immerse their readers in an alter-species view of environmental degradation. Full-tax accounts overcome distances between human and nonhuman planetarians but do not generally seem primed for managerial or governmental circulation. Rather, what unites them is their attempt to make an impression on a variety of human planetarians. Full-tax accounts such as those in Figure 1 combine and compound, if not to say stack up, signs, pictures, messages, and media in their attempts to trigger perplexity and consultation.

The full-tax accounts in figure 1 appear to zoom in, read clockwise, from distant inspection and assessment of plastic pollution towards empathy and solidarity with individual albatrosses. In the most general terms, they are trying to bring about the "togetherness of something with something in something" (Sloterdijk 2011: 542). They are asking not for a theory of government and action at a distance but for "what is known in current terminology as a 'media theory'" (ibid.). As media facilitating immersion and togetherness, these accounts circulate as complex combinations of signs and media, as messages that are "multimodal" (Chouliaraki 2006: 72-83; Vinnari & Laine 2017: 5-6). By stacking up narrative, numbers, visualisations, pictures, and emoticons, they do not deliver neatly tidied up pieces

of information but try to impress on human readers the situation of nonhuman sufferers as fellow planetarians. The variation of full-tax accounts from sleeker calculative devices like the Red List to messages that are “thick on the page” might then perhaps be best understood in terms of variations in their recipient design, tailored to make an impression on diverse types of human planetarians. Full-tax accounting overlaps with more recognisably bookkeeperish practices of representation just as much as with pieces of ecological art that mix up documentation, collection, and aesthetic arrangement in putting environmental degradation on display (Bloom 2015; Belina et al. 2015; see also Gallhofer & Haslam 1996). What unites the diversity of full-tax accounts as instances of mediation is their attempt to bring about togetherness among human and nonhuman planetarians.

The accounting required to help the planetary public come together in this manner might accordingly be most appropriately appreciated in terms of the mediations it brings about, the “aesthetic sense of environment” (Berleant 1992: 14-24) that results, and the mobilisation of alliances that follows. Rather than an accessory to management and government, full-tax accounting would be an accomplice of what Haraway (2008: 92-93; 2016: 97) and Descola (2013: 78) have called worlding: the constitution of a common world. These accountings contribute to the worlding of a planetary public and towards a “richer and more responsive invention, speculation, and proposing” (Haraway 2008: 93). In that respect, their primary characteristic is not representation but mediation, not action and management but immersion and articulation of cohabitation. If a constitutional regress towards an authoritative use of full-tax accounts by human speakers on behalf of voiceless nonhumans is to be prevented, this mediating, immersive role of accounts would have to prevail in planetary public-value cases to build on them – and in any further extension of planetary public-value accounting to support such cases.⁸

3 Haunting public value

Such public-value cases follow once the burdens on nonhuman taxpayers are being addressed, for example in efforts at conservation. In Latour’s words, the Lower House will rank and prioritise concerns and, in Moore’s terms, public value, thus authorised, will be realised through the creation of public services. Constitutionally speaking, the deliberative cycle will approach an interim closure (Vinnari & Dillard 2016: 26-29) in order to see through collective action. In the first instance, the mediations effected by full-tax accounting aggravate the problems of accomplishing such closure: If now decisions are to be made

⁸ One direction in which to extend the investigation of emergent forms of public-value accounting, including how they get mixed up in various governmental, managerial, or entrepreneurial projects, would be to trace them in contemporary biopolitics. Instructive examples may be found in what Helmreich (2009) and recently Lorimer (2020) have investigated as “symbiopolitics” (Helmreich’s term).

about who to help out in what order among all the taxpaying planetarians, there is likely to be “indignation, as we affirm that powerful parties have neglected to take into consideration certain associations of humans and nonhumans; we accuse them of having put a *fait accompli* before us, in too small a committee, with too few people; we are indignant that they have omitted, forgotten, forbidden, renounced, or denied certain voices” (Latour 2004: 106).

Even where attempts have been made to deliver public value to human taxpayers on much narrower terms, the observation of “poor value for money” (Lapsley 2009: 9) has been a recurrent theme (see also *ibid.*: 12). Talk of public-value failure has been ubiquitous (Bozeman 2002), particularly where the meanings of public value have proliferated and multiplied (Alford & O’Flynn 2009: 179-187). Moore (2013: 116) cautions conspicuously: “There might be other authorizers demanding an account whose support could be enhanced by paying a bit more attention to the values they would like to see expressed in the organization’s operations.” Mindful of such diversity, Meynhardt (2009, 2015: 151-155) tries to contain the public value problem by treating public value as a psychological fact, which underhandedly reduces the authorising environment to human troublemakers. But where are the human planetarians who would stick to human troubles? Even if we persuaded ourselves, for whatever reason, that we would only want to listen to human taxpayers, how could we even begin to isolate their voices (see also Connolly 2017: 168-174)? Their accounts will already have been thoroughly hybridised with the voices, lives, and concerns of other animals, weathers, viruses (see also Russell, Milne, & Dey 2017: 1438-1439). Public-value failure will not be prevented by trying to plot our way back to humanist constitutions once the Upper-House has sat in the open and our worldings have been irredeemably altered.

If the planetary public is now faced with requests to seemingly “take everything into account” (Latour 2004: 198), birds and cats, bird-lovers and cat-lovers, grey and red squirrels, this can certainly be paralysing. For Latour, the way out of paralysis is for the public to declare itself provisional and keep track of itself such as to be able to retrace its steps in closing a constitutional cycle on the promise of soon starting another (*ibid.*: 199-200). In a similar way, Moore’s public-value accounting presents itself as a tool to help public managers keep track of themselves in articulating the value of public services on the basis of specific accounting cases (Moore 2014: 465-466). “As public interest and public value are decided upon, planned and accounted more out of a specific tangible space, and in abstract political space, accounting can still provide the processes and operational ways in which this happens, and through which general values and ideas are translated into day-by-day decisions and actions” (Steccolini 2019: 262). In this sense, public-value accounting is required not because politicians and public managers would generally know what to do in

order to serve the public but because they have no such knowledge and need to work through and substantiate their public-value cases step by step.

Once out of the cave, the public is hard to get hold of for anybody seeking confirmation for public-value cases. It becomes a “phantom public” (Latour 2005b: 37-39) that haunts the planetary accountant as much as the manager of public services. Public-value accounting cannot establish goals or benchmarks with which public services could be immunised against the charges of the “omitted, forgotten, forbidden, renounced, or denied” (Latour 2004: 106). Any articulation of public value in the “authorising environment” will be spooked by the prospect that some concern has been missed, some voice has been unheard, some debt has been neglected (see also Stengers 2011: 393-394). In fact, being haunted in this manner tends to be a good indicator of ecological awareness (Morton 2017: 64-67). Therefore, to haunt and be haunted, despite its uncertainties and irritations, constitutes an outright virtue of ecologically reconstituted public-value accounting practice: Starting with full-tax accounting, public-value accounting haunts the constitutional process with debts yet to be repaid, the prospect of stakeholders yet to be discovered, and the ghosts of stakeholders who might have been forgotten. The role of public-value accountants cannot be to rid the constitutional process of such hauntedness. Instead, it is their role to maintain and amplify the hauntedness, all the way to where planetary public services – cleaning up oceans, protecting nonhuman breeding grounds, rebuilding common worlds – are rendered, always with the spectre of having excluded, once more, many a planetarian.

For planetary accountants invested in supporting the “operational ways” (Steccolini 2019: 262) of ecological renewal through this constitutional process, an appropriately sensitised “hauntology” (Blackman 2019: 17-27) would seem to be required. As new worldings are mediated in rich streams of accounts that immerse and at times outright “infowhelm” (Houser 2020) the planetary public, public-value accountants charged with keeping track of constitutional processes need to attune to not yet fully realised ghostly presences and absences, and this is a methodological as much as an ethical charge (Blackman 2019: 18). This charge points towards an “ethics of exclusion” (Giraud 2019) thrust upon public-value accountants, who practise an art that suspends itself in the making: As the constitutional cycle starts, closes, and restarts, accounts of public value are destined to continuously question and undermine themselves, tending to find themselves guilty of neglect. That does not imply that planetary public-value accountants will be clueless – quite the contrary: they will be immersed in an excess of clues, in mediated togetherness with well-recognised and ghostly presences and absences. Once again, full-tax accounting is where they will pick matters up – as somewhat less than matters of fact and somewhat more than matters of concern: as matters of care that haunt the planetary public and its accountants.

4 Matters of care: planetary public-value accounting in the making

Full-tax accounts set out to raise “genuine care and concern” (van Dooren 2014: 9) and create togetherness and solidarity, often through exposure to misery, much like in cases of intra-species solidarity among human planetarians (Morton 2017: 33; Chouliaraki 2006). Accounting here is evident as an “affective technology” (Boedker & Chua 2013) that is as much about generating emotional arousal among its users as it is “about desiring and then creating a different future” (Boedker & Chua 2013: 265). The basis offered by full-tax accounting for such desiring and creating cannot be composed of matters of fact – a register of worlding irreparably compromised at the point of leaving the cave (Latour 2004: 95-105). Matters of fact have been replaced, in Latour’s terminology, with matters of concern (Latour 2005a: 115-119). However, the affective character of “genuine care” channelled through full-tax accounts goes further than a reference to what is “of concern” – on closer inspection an expression with a curiously governmental ring to it – would indicate. Once we are “adding care to our concerns” (Puig de la Bellacasa 2017: 42-48), we enter a space of matters of care which, rather than merely redirecting concerns towards previously disregarded planetarians, “problematizes the neglect of caring relationalities” (Puig de la Bellacasa 2017: 56) more generally.

Once we have entered this world of “affectionate knowing” (Puig de la Bellacasa 2017: 62-67), we “re-affect objectified worlds” (ibid.: 65), and this changes our accounting of and for them. If we want to avoid having our “operational ways” lead us back to the human cave and a regress to invoking divides between nature and society, fact and value, we need to let ourselves be haunted. Puig de la Bellacasa (2017: 161; emphasis retained) explains that “[w]e need to disrupt the subjective-collective behind the ‘we’: care is everything that *is* done (rather than everything that ‘we’ do) to maintain, continue, and repair ‘the world’ so that all (rather than ‘we’) can live in it as well as possible”, modifying a quote from Tronto (1993: 103). Tronto’s point about care was that care has remained largely unrecognised as “a species activity” (Tronto 1993: 103), marginalised not least because of its highly gendered, raced, and classed character (Tronto 1993: 111-122). Puig de la Bellacasa escalates the recognition of care further towards “imaginaries of care” that “can help to expose how many other than humans are involved in the agential intra-activities that together make ‘our’ worlds” (Puig de la Bellacasa 2017: 220).

A recognition of public value that picks up from full-tax accounting would need to fully recognise and account for the contributions that nonhumans are making to the planetary collective. If full-tax accounting is about “honing our skills at listening for alternative and often ‘unspoken’ stories” and “learning an appreciation for more-than-human practices of meaning and place-making in a disappearing world” (van Dooren 2014: 78), it needs to pass on these skills to a re-articulation of public value that needs to be more than an expansion

of welfarism, now with albatrosses and sea turtles added to the lists of clients. The spectres of unjust exclusion and unequal recognition will not be appeased by the extension of public-value accounting from nonhuman tax burdens to nonhuman contributions, important as these are. With any extension of public-value accounting, more and more ghostly presences and absences will haunt public-value accountants with the prospect of failing to appropriately recognise fellow planetarians, adding to how their “political astuteness” (Hartley, Alford, & Hughes 2015) will be continuously challenged and spooked. Where action to provide public value follows, renewal and restoration projects in particular are often “flashpoints for social conflict” (Goedeke & Rikoon 2008: 112) rather than places of resolution. But we now understand that this is good news: we would want to maintain ecological awareness and no longer seek to appease the spectres of exclusion to begin with; we want to keep them haunting us as we put together our cases for ecological renewal, face its conflicts, and keep the constitutional cycle in motion.

It is the shared burden of all accountants to have an inkling of the silences underwriting their accounts, of what could have landed in the books and did not. We now see that in ecological reconstitution this stewardship of silence (Vollmer 2019: 27-29) loses any recourse it may have had among the cave-dwellers to closing the books as an act of faith in duly settled matters of fact. Planetary accountants are dealing with matters of care that allow for no discharge of duty, no lowering of the guard, for any accountant, or any manager, of public value, ever. The move in the constitutional cycle from the Upper House to the Lower House does not replace matters of care with matters of implementation. It does not present a movement from charge to discharge and it only slightly readjusts the attention to the ethical burdens involved in serving the planetary public – “from valorizing entanglement and towards the ethical implications of cuts” (Hollin, Forsyth, Giraud, & Potts 2017: 934). Planetarians will not benefit equally from public value, and some may be deliberately excluded from benefitting – perhaps because they have been benefitting disproportionately, perhaps because their benefits can only be maintained by burdening others unduly.

Even if certain exclusions will initially seem straightforward – think interests of fast-food chains, coal diggers, or oil drillers – other exclusions will be more difficult – think cats and birds or issues of human population control. The issues are thorny also because new communities – think miners, foragers, cats, grey squirrels – become ecologically entrenched in the ruins of older ones all the time (see only Tsing 2015: 257-264; Hern & Johal 2018). The stewardship role of the accountant cannot be to balance or in any way purify legitimate claims on public value – no basis exists for doing that. Rather, planetary accountants’ role, as evident in practices of full-tax accounting, will be to continue mediating constitutional processes and immerse decision-makers such as to increase ecological attunement. One ethical burden which the accountant will invariably incur is the silencing of voices that

would otherwise drown out the voices of those whose care is at stake. It is in this sense that accounting stands to learn from environmental activism in its practice of an ethics of exclusion (Giraud 2019).

Where does this leave the practical work of contemporary planetary public-value accountants? We have encountered them as authors of full-tax accounts but are now in a position to tentatively generalise from these accountings. From eco-critics to the preparers of biodiversity reports and to activists on social media, public-value accountants emerge as curators of accounts which they mobilise from a variety of sources. What distinguishes them from public accountants of old is that they do not curate receipts, invoices, and account balances, to produce reports for owners, investors, or tax authorities, but broadcasts, reports, messages, and sentiments to establish matters of care among fellow planetarians. We now see that if planetary public-value accounting is to extend itself towards articulating the benefits of, say, conversation areas and coordinated ecological interventions (Cuckston 2018b), it cannot revert to curating matters of fact but has to stay with matters of care, that is, as Donna Haraway (2016) has famously put it, to stay with “the trouble”.

Planetary public-value accountants, starting with full-tax accountants, aim to overcome the traditional deficits of the “accounting eye” (Hopwood 1992: 132-134), to develop an “eye for the atmospheric conditions in which and on which the coexistence of citizens and the things around them takes place” (Sloterdijk 2016: 311). More than that, they attempt to change these atmospheric conditions by mediating constitutional processes, saturating political climates with matters of care, spreading awareness of haunting ecological debts, recognition of ghostly absences, mediating horror and shame but also the longing and joy of planetary cohabitation (Morton 2016: 123-158; Braidotti 2006: 164-165; Puig de la Bellacasa 2017: 157-159). In this respect, public-value accounting cannot but become highly involved in “atmospheric politics” (Sloterdijk 2005). The current frustrations among those feeling homesick to return to the human cave and a world of matters of fact indicate the extent to which the climate has indeed changed. As curators of matters of care and as builders of “care infrastructures” (Wu, Ha, & Tsuge 2020), public-value accountants, will seek out, extend, and nurture alliances among the planetary public that frustrate the retreat into old constitutional habits, including those among accounting practitioners. Is it too bold to suggest that the premises of coordination among accountants have already been shifting, in exactly this manner, right here, where you are reading this, right now?

Conclusion: Extending the terms of ecological renewal

Ecological reconstitution takes place on a crowded planet. Full-tax accounting extends the constitutional terms of our existing political processes and habits towards the creation of a

planetary public much like ecocriticism has rerouted radical politics towards ecological issues (Clark 2019: 2-7), reworking notions of harm (White 2014) and justice (Shiva 2005). Against the background of such continuities, it becomes important to mark passage points, obstacles to be removed and leaps to be made to progress further into ecological renewal, such as from accounting for matters of fact towards accounting for matters of care. The pursuit of ecological renewal through the process of reconstitution introduces new terms and applications on the top of existing political and constitutional habits, concerns, and cares (see also Atkins & Atkins 2019: 395-396). Similar to learning a new language, the process will not be augmented much by replacing familiar terms wholesale with new ones. Rather, it benefits immensely from absorbing already connected yet marginal practices and previously peripheral accounts alongside their own “constituent politics” (Papadopoulos 2010: 191-195), for example among environmental activists (Giraud 2019). In the process of ecological reconstitution, we will not be replacing our constitutional vocabularies from one day to the next, but we will require a sense of direction as we gradually abandon old terms, translate others, and become familiar with new ones (see also Braidotti 2006: 179-182).

This paper has tried to plot a course through several translations of familiar terms and constitutional notions such as the public, tax, care, and, not least, accounting. It has emphasised the creation of new alliances through instances of full-tax accounting by non-state and non-profession actors, activists, and eco-critics. This has provided a window on an emergent planetary public-value accounting that is multimodal in mediating matters of care, motivating and deepening alliances rather than pinning down matters of fact in the name of eyeing them at a distance. Issues of public value present a strategic focal point for ecological reconstitution to proceed and for multimodal accounting mediations to support it. As our constitutional processes continue to accumulate debts to the suffering, the dying, and the deceased (Donaldson 2015: 125-127; Debaise et al. 2015: 174), we increasingly hesitate to refer to any of this as “development”. But development it has to be for reconstitution to proceed, and we need to be able to continuously renew the sense of cohabitation among the planetary public as we keep moving through constitutional cycles. Public-value cases will continue to be made by politicians and managers of public services, and public-value accountants must keep spooking them. Just like full-tax accounting can never declare itself full for good, accounting for public value must remain haunted by the spectre of exclusion. This spectre is what animates the opening of the planetary public, not just where it is owed, but also where it is running wild among us, nonhuman people included (Papadopoulos 2010: 194; Puig de la Bellacasa 2017: 195-215).

A narrower understanding of accounting, much like a narrower understanding of public value, will remain entirely possible, sometimes perhaps even desirable, among sections of the planetary public. But it will be increasingly challenged by fellow planetarians unwilling to see public value reduced (see also Mazzucato 2018: 259-269), unwilling to commit to a diet

of accounts curated and ratified by managers, politicians, or professional accountants according to whatever state of the art they will be claiming to stand on (see also Gray, Brennan, & Malpas 2014: 267). The issue of planetary public value makes apparent a domain of mutual engagement for scholars in accounting, in public sector research, and in the environmental humanities as well as for activists, biologists, geographers, novelists, users of social media, everybody's readers, and everybody's planetary allies. In the quest for ecological renewal, everybody is an accountant now. Accounting scholars and professionals are well-advised to extend their welcomes.

References

- Abbott, Andrew, 1988: *The System of Professions: An Essay on the Division of Expert Labour*. Chicago & London: The University of Chicago Press
- Ackerman, Bruce A., 1980: *Social Justice in the Liberal State*. New Haven & London: Yale University Press
- Alford, John & Janine O'Flynn, 2009: Making Sense of Public Value: Concepts, Critiques and Emergent Meanings. *International Journal of Public Administration* 32 (3/4): 171-191
- Atkins, Jill & Barry Atkins (eds.), 2016: *The Business of Bees: An Integrated Approach to Bee Decline and Social Responsibility*. Sheffield: Greenleaf
- Atkins, Jill & Barry Atkins, 2019: Some Reflections on Extinction Accounting, Engagement and Species. Pp. 389-397 in: Jill Atkins & Barry Atkins (eds.), *Around the World in 80 Species: Exploring the Business of Extinction*. London & New York: Routledge
- Atkins, Jill & Warren Maroun, 2018: Integrated Extinction Accounting and Accountability: Building an Ark. *Accounting, Auditing & Accountability Journal* 31 (3): 750-786
- Barad, Karen, 2007: *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham & London: Duke University Press
- Bassnett, Susan, Ann-Christine Frandsen & Keith Hoskin, 2018: The Unspeakable Truth of Accounting: On the Genesis and Consequences of the First "Non-Glottographic" Statement Form. *Accounting, Auditing & Accountability Journal* 31 (7): 2083-2107
- Bebbington, Jan, 2009: Editorial: Measuring Sustainable Development Performance: Possibilities and Issues. *Accounting Forum* 33: 189-193
- Bebbington, Jan, Rob Gray, & David Owen, 1999: Seeing the Wood for the Trees: Taking the Pulse of Social and Environmental Accounting. *Accounting, Auditing & Accountability Journal* 12 (1): 47-51
- Bebbington, Jan & Jeffrey Unerman, 2018: Achieving the United Nations Sustainable Development Goals: An Enabling Role for Accounting Research. *Accounting, Auditing & Accountability Journal* 31 (1): 2-24
- Belinda, Mirna, Arie Altena, Gideon Kiers, Hilde Methi, Lucas van der Velden, & Annette Wolfsberger (eds.), 2015: *Living Earth: Field Notes from the Dark Ecology Project 2014-2016*. Amsterdam: Sonic Acts Press

- Benington, John, 2011: From Private Choice to Public Value? Pp. 31-51 in John Benington & Mark H. Moore (eds.), *Public Value: Theory and Practice*. Basingstoke: Palgrave Macmillan
- Benington, John & Mark H. Moore (eds.), 2011a: *Public Value: Theory and Practice*. Basingstoke: Palgrave Macmillan
- Benington, John & Mark H. Moore, 2011b: Public Value in Complex and Changing Times. Pp. 1-30 in John Benington & Mark H. Moore (eds.), *Public Value: Theory and Practice*. Basingstoke: Palgrave Macmillan
- Berleant, Arnold, 1992: *The Aesthetics of Environment*. Philadelphia: Temple University Press
- Blackman, Lisa, 2019: *Haunted Data: Affect, Transmedia, Weird Science*. London & New York: Bloomsbury Academic
- Bloom, Lisa E., 2015: Hauntological Environmental Art: The Photographic Frame and the Nuclear Afterlife of Chernobyl in Lina Selander's Lenin's Lamp. *Journal of Visual Culture* 17 (2): 223-237
- Boedker, Christina & Wai Fong Chua, 2013: Accounting as an Affective Technology: A Study of Circulation, Agency and Entrancement. *Accounting, Organizations and Society* 38: 245-267
- Boyte, Harry C., 2015: Creating Public Value: Contribution of the New Civic Politics. Pp. 49-66 in John Bryson, Barbara C. Crosby, & Laura Bloomberg (eds.), *Creating Public Value in Practice: Advancing the Common Good in a Multi-Sector, Shared-Power, No-One-Wholly-in-Charge World*. Boca Raton, London & New York: CRC Press
- Bozeman, Barry, 2002: Public-Value Failure: When Efficient Markets May Not Do. *Public Administration Review* 62 (2) 145-161
- Bozeman, Barry, 2007: *Public Values and Public Interest: Counterbalancing Economic Individualism*. Washington: Georgetown University Press
- Bradshaw, Karen, 2020: *Wildlife as Property Owners. A New Conception of Animal Rights*. Chicago & London: University of Chicago Press
- Braidotti, Rosi, 2006: *Transpositions: On Nomadic Ethics*. Cambridge: Polity Press
- Brown, Judy & Jesse Dillard, 2013: Agonizing Over Engagement: SEA and the "Death of Environmentalism" Debates. *Critical Perspectives on Accounting* 24 (1): 1-18
- Bryson, John M., Barbara C. Crosby, & Laura Bloomberg, 2015: Introduction. Pp. 1-26 in John Bryson, Barbara C. Crosby, & Laura Bloomberg (eds.), *Creating Public Value in Practice: Advancing the Common Good in a Multi-Sector, Shared-Power, No-One-Wholly-in-Charge World*. Boca Raton, London & New York: CRC Press
- Carson, Rachel, 1962: *Silent Spring*. Boston: Houghton Mifflin
- Chouliaraki, Lilie, 2006: *The Spectatorship of Suffering*. London, Thousand Oaks, & New Delhi: Sage
- Clark, Timothy, 2019: *The Value of Ecocriticism*. Cambridge: Cambridge University Press
- Connolly, William E., 2013: *The Fragility of Things. Self-Organizing Processes, Neoliberal Fantasies, and Democratic Activism*. Durham & London: Duke University Press
- Connolly, William E., 2017: *Facing the Planetary: Entangled Humanism and the Politics of Swarming*. Durham & London: Duke University Press
- Cooper, Christine, 1992: The Non and Nom of Accounting for (M)other Nature. *Accounting, Auditing & Accountability Journal* 5 (3): 16-39

- Corvellec, Hervé, Richard Ek, Patrik Zapata, María Jose Zapata Campos, 2018: Acting on Distance: A Topology of Accounting Inscriptions. *Accounting, Organizations and Society* 67: 56-65
- Crouch, Colin, 2011: Privates, Publics and Values. Pp. 52-73 in John Benington & Mark H. Moore (eds.), *Public Value: Theory and Practice*. Basingstoke: Palgrave Macmillan
- Cuckston, Thomas, 2018a: Making Extinction Calculable. *Accounting, Auditing & Accountability Journal* 31 (3): 849-874
- Cuckston, Thomas, 2018b: Making Accounting for Biodiversity Research a Force for Conservation. *Social and Environmental Accountability Journal* 38 (3): 218-226
- Debaise, Didier, Pablo Jensen, M. Pierre Montebello, Nicolas Prignot, Isabelle Stengers, & Aline Wiame, 2015: Reinstating Nature: A Latourian Workshop. *Environmental Humanities* 6: 167-174
- DeLoughrey, Elizabeth, Jill Didur, & Anthony Carrigan (eds.), 2016: *Global Ecologies and the Environmental Humanities: Postcolonial Approaches*. New York & London: Routledge
- Descola, Philippe, 2013: *The Ecology of Others*. Translated by Geneviève Godbout and Benjamin P. Luley. Chicago: Prickly Paradigm Press
- Dewey, John, 2016: *The Public and Its Problems: An Essay in Political Inquiry*. Edited and with an Introduction by Melvin L. Rogers. Athens, Ohio: Swallow Press
- Dey, Colin & Jane Gibbon, 2014: External Accounts. Pp. 108-123 in: Jan Bebbington, Brenda O'Dwyer & Jeffrey Unerman (eds.), *Sustainability, Accounting and Accountability*. London: Routledge
- Diamond, Jared, 1987: The Worst Mistake in the History of the Human Race. *Discover Magazine* (May): 64-66
- Donaldson, Brianne, 2015: *Creaturely Cosmologies: Why Metaphysics Matters for Animal and Planetary Liberation*. Lanham: Lexington Books
- Entwistle, Tom, Rhys Andrews, & Valeria Guarneros-Meza, 2019: Towards Public Value Local Government: Size, Engagement and Stakeholder Efficacy. Pp. 185-199 in Adam Lindgreen, Nicole Koenig-Lewis, Martin Kitchener, John D. Brewer, Mark H. Moore, & Timo Meynhardt (eds.), *Public Value: Deepening, Enriching, and Broadening the Theory and Practice*. London & New York: Routledge
- Everett, Jeffery, 2004: Exploring (False) Dualisms for Environmental Accounting Praxis. *Critical Perspectives on Accounting* 15: 1061-1084
- Forsyth, Tim, 2015: Integrating Science and Politics in Political Ecology. Pp. 103-116 in Raymond L. Bryant (ed.), *The International Handbook of Political Ecology*. Cheltenham & Northampton, Mass.: Edward Elgar
- Fox, Charles J., 1996: Reinventing Government as Postmodern Symbolic Politics. *Public Administration Review* 56: 256-262
- Gallhofer, Sonja & Jim Haslam, 1996: Accounting/Art and the Emancipatory Project: Some Reflections. *Accounting, Auditing & Accountability Journal* 9 (5): 23-44
- Giraud, Eva Haifa, 2019: *What Comes After Entanglement? Activism, Anthropocentrism, and an Ethics of Exclusion*. Durham & London: Duke University Press
- Goedeke, T.L. & S. Rikoon, 2008: Otters as Actors: Scientific Controversy, Dynamism of Networks, and the Implications of Power in Ecological Restoration. *Social Studies of Science* 38 (1): 111-132

- Gray, Rob, 1990: Accounting and Economics: The Psychopathic Siblings: A Review Essay. *British Accounting Review* 22 (4): 373-388
- Gray, Rob, 1992: Accounting and Environmentalism: An Exploration of the Challenge of Gently Accounting for Accountability, Transparency and Sustainability. *Accounting, Organizations and Society* 17 (5): 399-425
- Gray, Rob, 2010: Is Accounting for Sustainability Actually Accounting for Sustainability...and How Would We Know? An Exploration of Narratives of Organisations and the Planet. *Accounting, Organizations and Society* 35: 47-62
- Gray, Rob, Andrew Brennan & Jeff Malpas, 2014: New Accounts: Towards a Reframing of Social Accounting. *Accounting Forum* 38: 258-273
- Gray, Rob & Markus J. Milne, 2018: Perhaps the Dodo Should Have Accounted for Human Beings? Accounts of Humanity and Its Extinction. *Accounting, Auditing & Accountability Journal* 31 (3): 826-848
- Haraway, Donna J., 1985: Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s. *Socialist Review* 80: 65-108
- Haraway, Donna J., 1991: *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge
- Haraway, Donna J., 2008: *When Species Meet*. Minneapolis & London: University of Minnesota Press
- Haraway, Donna J., 2016: *Staying with the Trouble: Making Kin in the Chthulucene*. Durham & London: Duke University Press
- Hartley, Jean, John Alford, & Owen Hughes, 2015: Political Astuteness as an Aid to Discerning and Creating Public Value. Pp. 25-38 in in John Bryson, Barbara Crosby, & Laura Bloomberg (eds.), *Public Value and Public Administration*. Washington, D.C.: Georgetown University Press
- Hartman, Steven, A. E. J. Ogilvie, Jón Haukur Ingimundarson, A. J. Dugmoree, George Hambrecht, & T.H. McGovern, 2017: Medieval Iceland, Greenland, and the New Human Condition: A Case Study in Integrated Environmental Humanities. *Global and Planetary Change* 156: 123-139
- Helmreich, Stefan, 2009: *Alien Ocean: Anthropological Voyages in Microbial Seas*. Berkeley, Los Angeles, London: University of California Press
- Hern, Matt & Am Johal, 2018: *Global Warming and the Sweetness of Life: A Tar Sands Tale*. With Joe Sacco (illustrator). Cambridge, Mass. & London: MIT Press
- Hines, Ruth D., 1991: On Valuing Nature. *Accounting, Auditing & Accountability Journal* 4 (4): 27-29
- Hines, Ruth D., 1992: Accounting: Filling the Negative Space. *Accounting, Organizations and Society* 17 (3/4): 313-341
- Hollin, Gregory, Isla Forsyth, Eva Giraud & Tracey Potts, 2017: (Dis)entangling Barad: Materialism and Ethics. *Social Studies of Science* 47 (6): 918-941
- Hopwood, Anthony G., 1992: Accounting Calculation and the Shifting Sphere of the Economic. *European Accounting Review* 1: 125-143
- Houser, Heather, 2020: *Infowhelm: Environmental Art and Literature in an Age of Data*. New York: Columbia University Press
- Iovino, Serenella & Serpil Oppermann (eds.), 2014a: *Material Ecocriticism*. Bloomington & Indianapolis: Indiana University Press

- Iovino, Serenella & Serpil Oppermann, 2014b: Introduction: Stories Come to Matter. Pp. 1-17 in Serenella Iovino & Serpil Oppermann (eds.), 2014: *Material Ecocriticism*. Bloomington & Indianapolis: Indiana University Press
- James, Erin, 2015: *The Storyworld Accord: Econarratology and Postcolonial Narratives*. Lincoln & London: University of Nebraska Press
- Jones, Michael (ed.), 2014: *Biodiversity Accounting*. Abingdon & New York: Routledge
- Jones, Michael & Jill Frances Solomon, 2013: Problematising Accounting for Biodiversity. *Accounting, Auditing & Accountability Journal* 26 (5): 668-687
- Kirby, Vicki (ed.), 2018: *What if Culture was Nature all Along?* Edinburgh: Edinburgh University Press
- Klein, Naomi, 2014: *This Changes Everything: Capitalism vs. The Climate*. New York: Simon & Schuster
- Lapsley, Irvine, 2009: New Public Management: The Cruellest Invention of the Human Spirit? *Abacus* 45 (1): 1-21
- Latour, Bruno, 1987: *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge, Mass.: Harvard University Press
- Latour, Bruno, 1993: *We Have Never Been Modern*. Translated by Catherine Porter. New York & London: Harvester Wheatsheaf
- Latour, Bruno, 2004: *Politics of Nature: How to Bring the Sciences into Democracy*. Cambridge, Mass.: Harvard University Press
- Latour, Bruno, 2005a: *Reassembling the Social: An Introduction to Actor-Network Theory*. Oxford: Oxford University Press
- Latour, Bruno, 2005b: From Realpolitik to Dingpolitik, or How to Make Things Public. Pp. 14-41 in Bruno Latour & Peter Weibel (eds.), *Making Things Public: Atmospheres of Democracy*. Cambridge, Mass. & London: MIT Press
- Latour, Bruno, 2017: *Facing Gaia: Eight Lectures on the New Climatic Regime*. Cambridge: Polity Press
- Latour, Bruno, 2018: *Down to Earth: Politics in the New Climatic Regime*. Cambridge: Polity Press
- Leopold, Aldo, 1949: *A Sand County Almanac and Sketches Here and There*. Oxford: Oxford University Press
- Lorimer, Jamie, 2020: *The Probiotic Planet: Using Life to Manage Life*. Minneapolis, London: University of Minnesota Press
- Lovelock, James, 1979: *Gaia: A New Look at Life on Earth*. Oxford: Oxford University Press
- Lovelock, James, 2006: *The Revenge of Gaia. Why the Earth is Fighting Back – and How We can Still Save Humanity*. London: Penguin
- Luhmann, Niklas, 1990: *Political Theory in the Welfare State*. Translated by John Bednarz. Berlin & New York: de Gruyter
- Liotard, Jean-François, 2010: *Discourse, Figure*. Translated by Antony Hudey & Mary Lydon. Minneapolis: University of Minnesota Press
- Malsch, Bertrand, 2013: Politicizing the Expertise of the Accounting Industry in the Realm of Corporate Social Responsibility. *Accounting, Organizations and Society* 38: 149–168

- Marres, Noortje, 2005: Issues Spark a Public into Being. A Key But Often Forgotten Point of the Lipmann-Dewey Debate. Pp. 208-217 in Bruno Latour & Peter Weibel (eds.), *Making Things Public: Atmospheres of Democracy*. Cambridge, Mass. & London: MIT Press
- Mazzucato, Mariana, 2018: *The Value of Everything: Making and Taking in the Global Economy*. London: Allen Lane
- McArthur, Jo-Anne, 2014: *We Animals*. New York: Lantern Books
- Meynhardt, Timo, 2009: Public Value Inside: What Is Public Value Creation? *International Journal of Public Administration* 32: 192-219
- Meynhardt, Timo, 2015: Public Value: Turning a Conceptual Framework into a Scorecard. Pp. 147-169 in John Bryson, Barbara Crosby, & Laura Bloomberg (eds.), *Public Value and Public Administration*. Washington, D.C.: Georgetown University Press
- Miller, Peter & Nikolas Rose, 1990: Governing Economic Life. *Economy and Society* 19: 1-31
- Milne, Markus J., 1996: On Sustainability; the Environment and Management Accounting. *Management Accounting Research* 7: 135-161
- Moore Mark H., 1995: *Creating Public Value: Strategic Management in Government*. Cambridge, Mass.: Harvard University Press
- Moore, Mark H., 2013: *Recognizing Public Value*. Cambridge, Mass. & London: Harvard University Press
- Moore Mark H., 2014: Public Value Accounting: Establishing the Philosophical Basis. *Public Administration Review* 74(4): 465–477
- Morton, Timothy, 2007: *Ecology without Nature: Rethinking Environmental Aesthetics*. Cambridge, Mass.: Harvard University Press
- Morton, Timothy, 2016: *Dark Ecology: For a Logic of Future Coexistence*. New York: Columbia University Press
- Morton, Timothy, 2017: *Humankind: Solidarity with Nonhuman People*. New York & London: Verso
- Murphy, Richard, 2015: *The Joy of Tax: How a Fair Tax System Can Create a Better Society*. London: Bantam
- Naar, Joseph L., 1979: The Inequality of Inflation as a Tax. *American Journal of Economics and Sociology* 38 (1): 59-60
- Neimanis, Astrida, 2017: Nature Represents Itself: Bibliophilia in a Changing Climate. Pp. 179-198 in Vicky Kirby (ed.), *What if Culture was Nature all Along?* Edinburgh: Edinburgh University Press
- O'Donnell, Erin L. & Julia Talbot-Jones, 2018: Creating Legal Rights for Rivers: Lessons from Australia, New Zealand, and India. *Ecology and Society* 23(1): 7. <https://doi.org/10.5751/ES-09854-230107>
- Papadopoulos, Dimitris, 2010: Alter-Ontologies: Towards a Constituent Politics in Technoscience. *Social Studies of Science* 41 (2): 177-201
- Plecnik, John T., 2011: Abolish the Inflation Tax on the Poor Middle Class. *Quinnipiac Law Review* 29 (4): 925-970
- Power, Michael, 1999: *The Audit Society: Rituals of Verification*. Oxford & New York: Oxford University Press

- Puig de la Bellacasa, María, 2017: *Matters of Care: Speculative Ethics in More Than Human Worlds*. Minneapolis: University of Minnesota Press
- Robson, Keith, 1992: Accounting Numbers as "Inscription": Action at a Distance and the Development of Accounting. *Accounting, Organizations and Society* 17: 685-708
- Robson, Keith & Chiara Bottausci, 2018: The Sociology of Translation and Accounting Inscriptions: Reflections on Latour and Accounting Research. *Critical Perspectives on Accounting* 54: 60-75
- Rocheleau, Dianne, 2015: Roots, Rhizomes, Networks and Territories: Reimagining Pattern and Power in Political Ecologies. Pp. 70-88 in Raymond L. Bryant (ed.), *The International Handbook of Political Ecology*. Cheltenham & Northampton, Mass.: Edward Elgar
- Rose, Deborah Bird, Thom van Dooren, Matthew Churlew, Stuart Cooke, Matthew Kearnes, & Emily O'Gorman, 2012: Thinking Through the Environment, Unsettling the Humanities. *Environmental Humanities* 1 (1): 1-5
- Rose, Nikolas & Peter Miller, 1992: Political Power Beyond the State: Problematics of Government. *British Journal of Sociology* 43: 173-205
- Russell, Shona, Markus J. Milne & Colin Dey, 2017: Accounts of Nature and the Nature of Accounts: Critical Reflections on Environmental Accounting and Propositions for Ecologically Informed Accounting. *Accounting, Auditing & Accountability Journal* 30 (7): 1426-1458
- Samiolo, Rita, 2012: Commensuration and Styles of Reasoning: Venice, Cost-Benefit, and the Defence of Place. *Accounting, Organizations and Society* 37: 382-402
- Schumacher, Ernst Friedrich, 1973: *Small Is Beautiful: A Study of Economics As If People Mattered*. London: Blond & Briggs
- Serres, Michel, 1995: *The Natural Contract*. Translated by Elizabeth McArthur & William Paulson. Ann Arbor: University of Michigan Press
- Serres, Michel, 2020: *Branches: A Philosophy of Time, Event and Advent*. Translated by Randolph Burks. London & New York: Bloomsbury
- Shiva, Vandana, 2005: *Earth Democracy: Justice, Sustainability and Peace*. London: Zed Books
- Shiva, Vandana, 2008: *Soil Not Oil: Environmental Justice in a Time of Climate Crisis*. Cambridge, Mass.: South End Press
- Simberloff, Daniel, 1998: Flagships, Umbrellas, and Keystones: Is Single-Species Management Passé in the Landscape Era? *Biological Conservation* 83 (3): 247-257
- Sloterdijk, Peter, 2005: Atmospheric Politics. Pp. 944-951 in Bruno Latour & Peter Weibel (eds.), *Making Things Public: Atmospheres of Democracy*. Cambridge, Mass. & London: MIT Press
- Sloterdijk, Peter, 2011: *Spheres. Volume I: Bubbles: Microspherology*. Translated by Wieland Hoban. South Pasadena, Cal.: Semiotext(e)
- Sloterdijk, Peter, 2016: *Spheres. Volume III: Foams: Plural Spherology*. Translated by Wieland Hoban. Los Angeles, Cal.: Semiotext(e)
- Spence, Crawford, 2007: Social and Environmental Reporting and Hegemonic Discourse. *Accounting, Auditing & Accountability Journal* 20 (6): 855 – 882
- Stearns, Beverly Peterson & Stephen C. Stearns, 1999: *Watching, from the Edge of Extinction*. New Haven: Yale University Press

- Steccolini, Ileana, 2019: Accounting and the Post-New Public Management: Re-considering Publicness in Accounting Research. *Accounting, Auditing & Accountability Journal* 32 (1): 255-279
- Stengers, Isabelle, 2010: *Cosmopolitics I*. Translated by Robert Bononno. Minneapolis: University of Minnesota Press
- Stengers, Isabelle, 2011: *Cosmopolitics II*. Translated by Robert Bononno. Minneapolis: University of Minnesota Press
- Stengers, Isabelle, 2015: In *Catastrophic Times: Resisting the Coming Barbarism*. Translated by Andrew Goffey. Lüneburg: Meson Press & Open Humanities Press. DOI: 10.14619/016
- Swilling, Mark, 2011: Greening Public Value: The Sustainability Challenge. Pp. 89-111 in John Benington & Mark H. Moore (eds.), *Public Value: Theory and Practice*. Basingstoke: Palgrave Macmillan
- Tironi, Manuel, 2020: Soil Refusal: Thinking Earthly Matters as Radical Alterity. Pp. 175-190 in Juan Francisco Salazar, Céline Granjou, Matthew Kearnes, Anna Krzywoszynska, & Manuel Tironi (eds.), *Thinking with Soils: Material Politics and Social Theory*. London & New York: Bloomsbury Academic
- Tronto, Joan C., 1993: *Moral Boundaries: A Political Argument for an Ethic of Care*. New York & London: Routledge
- Tsing, Anna Lowenhaupt, 2015: *The Mushroom at the End of the World. On the Possibility of Life in Capitalist Ruins*. Princeton & Oxford: Oxford University Press
- Turvey, Ralph, 1961: Inflation as a Tax in World War II. *Journal of Political Economy* 69 (1): 70-73
- van Dooren, Thom, 2014: *Flight Ways. Life and Loss at the Edge of Extinction*. New York: Columbia University Press
- van Dooren, Thom & Deborah Bird Rose, 2016: Lively Ethography: Storying Animist Worlds. *Environmental Humanities* 8 (1): 77-94
- Vinnari, Eija, 2013: Politics of Nature: How to Bring the Sciences into Democracy (Book Review). *Social and Environmental Accountability Journal* 33 (2): 124-125
- Vinnari, Eija & Jesse Dillard, 2016: (ANT)agonistics: Pluralistic Politicization of, and by, Accounting and Its Technologies. *Critical Perspectives on Accounting* 39: 25-44
- Vinnari, Eija & Matias Laine, 2017: The Moral Mechanism of Counter Accounts: The Case of Industrial Animal Production. *Accounting, Organizations and Society* 57: 1-17
- Vollmer, Hendrik, 2007: How to Do More with Numbers: Elementary Stakes, Framing, Keying, and the Three-Dimensional Character of Numerical Signs. *Accounting, Organizations and Society* 32: 577-600
- Vollmer, Hendrik, 2019: Accounting for Tacit Coordination: The Passing of Accounts and the Broader Case for Accounting Theory. *Accounting, Organizations and Society* 73: 15-34
- Weir, Kenneth, 2018: The Purposes, Promises and Compromises of Extinction Accounting in the UK Public Sector. *Accounting, Auditing & Accountability Journal* 31 (3): 875-899
- White, Rob, 2014: *Environmental Harm: An Eco-Justice Perspective*. Bristol: Policy Press
- Wiesel, Fredrika, Sven Modell, & Jodie Moll, 2011: Customer Orientation and Management Control in the Public Sector: A Garbage Can Analysis. *European Accounting Review* 20 (3): 551-581
- Wolfe, Cary, 2010: *What Is Posthumanism?* Minneapolis & London: University of Minnesota Press

Wolfe, Cary, 2013: *Before the Law: Humans and Other Animals in a Biopolitical Frame*. Chicago & London: University of Chicago Press

Wu, Chia-Ling, Jung-Ok Ha, & Azumi Tsuge, 2020: Data Reporting as Care Infrastructure: Assembling ART Registries in Japan, Taiwan, and South Korea. *East Asian Science, Technology and Society: An International Journal* 14: 35-59