Cyborg uterine geography: Complicating ‘care’ and social reproduction

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Abstract
Most geographers have sided with ‘cyborgs’ (technonatural subjects) against ‘goddesses’ (e.g. Mother Earth) on questions of embodiment. In itself this provides no justification for the relative dearth (in geography) of theorizing ‘with’ the uterus as a site of doing and undoing; what I propose to call uterine geography. ‘Uterine’ relations are fundamentally cyborg, animatedly labouring and not only spatial but spatializing: they make and unmake places, borders, kin. This includes not only abortion, miscarriage, menstruation and pregnancy (whose transcorporeal and chimeric character is well documented in medical anthropology) but also other life-enabling forms of holding and letting go that do not involve anatomical uteri (such as trans-mothering and other alter-familial practices). Despite our discipline’s ostensible interest in co-production, hybridity and the more-than-human, the ‘doing’ aspects of intra and interuterine processes have tended to be black-boxed in accounts of care economies and social reproduction. The proposed remedy is deromanticization: an approach that critically politicizes uterine relations as historically contingent and subject to amelioration through struggle. Potential aides include Maggie Nelson’s idea that ‘labor does you’, Suzanne Sadedin’s account of gestation’s mutual hostility and the concepts of ‘sym-poiesis’ and ‘metamorphosis’. One notable consequence of this expanded concept of the uterine is that ‘assisted reproduction’, as it is characterized today, ceases to be categorically separate from other kinds of reproduction.

Keywords
gestation, maternal, matrixial, reproductive technology, reproduction, sym-poiesis, staying with the trouble, transcorporeal, trans reproductive justice, uterus

Cyborg gestation
In determining how best to conceptualize the chimeric character of human, or rather, ‘more-than-human’ embodiment, many geographers have intuitively opted for the impure, partial agent Donna Haraway (1989) called ‘cyborg’, over the powerful and pure mother-goddess archetype of ecofeminism (namely, Kirsch, 2014; Lorimer, 2011; Schuurman, 2002; Whatmore, 2006; Wilson, 2009). ‘I would rather be a cyborg than a goddess’ – the immortal closing lines of the Cyborg Manifesto – had, after...
all, not only articulated but resolved this choice (Haraway, 1989). It is in the critical field of geography that the notion of a monstrous, hybrid, ‘cyborg urbanization’ has principally been elaborated (Gandy, 2005; Swyngedouw, 1996). Yet, in ways also inspired by Haraway – whose latest work appeals to a litany of Indigenous mother-goddesses such as Tangaroa, Naga and Pachamama (Haraway, 2016: 101) – feminist geographers have also found room for ‘goddess’-inspired ecologies as part of the broader assault on modernity’s nature/culture binary or else rejected the cyborg/goddess dichotomy in the first place (Gergan, 2015; Jacobs and Nash, 2003; Nesmith and Radcliffe, 1993; Sundberg, 2014). But for those of us unnerved by what appears to be at best a latent rehabilitation of eugenic and populationist thought in multispecies feminism (‘make kin not babies’; Haraway, 2016), the figure of the cyborg is likely to remain an eminently preferable heuristic to the ‘goddess’ – precisely because of its potential for deromanticizing the politics of mothering, care and reproduction, where it is usually not the one (of the two) to be deployed. Neither pro- nor anti-natalist, neither pro- nor anti-maternal, the cyborg was and remains an account of a historically specific proletarian labourer, an anti-racist feminist subjectivity that is hybrid: network-situated yet antagonistic vis-à-vis capitalism, colonized yet complicit, more-than-human yet corporeal and avowedly ‘non-innocent’ (Haraway, 1989). In misrecognized surrogate ways, the cyborg labours. She (not necessarily a ‘she’) makes and unmakes babies, identities, cities. Cyborgicity is thus far more conducive to spatial–historic thinking than any vitalist, pro-maternal figuration of the human animal as tragically divorced from (yet innately reconcilable to) the web of life. Moreover, as this article argues, it is far more conducive to thinking uterine labour and uterine labour geographies, specifically, in an anti-capitalist way.

While the monopolizing of womb-related matters by various either pro- or anti-natal mythologies suggests an explanation for the relative dearth in feminist geography of theorizing with the uterus as a site of doing – what I propose to call uterine geography – it does not really provide an excuse. Myra Hird is right, I think, to identify wariness of biological determinism as the reason why feminists in this field have ‘tend[ed] not to study pregnancy, birthing and breastfeeding as material processes’ (Hird, 2007: 3). Hird herself has ventured to describe these material processes anew – and many others along the way – in terms of ‘gifting’ and ‘corporeal generosity’: ‘the literal and metaphoric giving of our selves’ including dust, DNA, viruses, white and red blood, myriad other cells and bacteria (Hird, 2007: 14). The intervention in question is highly instructive but, in my reading, nevertheless persists in sweetening the account of uterine relationality somewhat – implying that the gifting is more or less symmetric, while leaving out moments of refusing, devouring and killing that, as will see, also characterize this deeply intimate bedrock of interpersonal care.

It was non-fiction literature that first elicited in me the desire for an unromantic, or cyborg, uterine geography. In her memoir The Argonauts (2015), Maggie Nelson describes the endpoint of her own uterine labour as an event that ‘runs you over like a truck’ (Nelson, 2015: 134). She recalls receiving sobering advice during her pregnancy: ‘You don’t do labor. Labor does you’ (Nelson, 2015: 134) (Emphasis is added). Reading this passage, it struck me that a long line of anti-work thinkers, from the Wages for Housework Committee onwards, have described all alienated labour – particularly the work of love under capitalism – in this way. Notably, in the eyes of the militants who sought to pit wages against housework, ‘every miscarriage is a workplace accident’ (Federici, 1975). What kind of workplace are talking about? Nelson continues:

If all goes well, the baby will make it out alive, and so will you. Nonetheless, you will have touched death along the way. You will have realized that death will do you too, without fail and without mercy. (Nelson, 2015: 134)

In The Argonauts, there are two survivors of pregnancy, and one – cyborg – subject. If the work of pregnancy is desired by its bearer, the impossible job of the cervix becomes, first, to stay shut and thereafter, as Nelson reflects (since her delivery was vaginal) to ‘go to pieces’. The moment of
parturition, this subject tells, ‘demands surrender’ and brings you psychically to your knees. Extrapolating from this encounter with death, Nelson suggests there is a social necessity for humans to forget gestation. She notes, by way of evidence, that hegemonic narratives about pregnancy tend to subsume any and all suffering (the individual’s heroic means) under ends (the baby). As the wrecked anonymity of a British news article of December 2016 confirms – collecting testimonies from ‘Parents who regret having children’ (BBC, 2016) – most morally prescribed scripts gloss over post-partum trauma and not only presume but demand happiness (Ahmed, 2010). In Nelson’s memoir, death, birth, parenting and gender transition are each described in terms of asymmetric but mutual forms of holding and letting go. I attempt to stay with this insight in what follows.

Theoretic treatments of uterine (non-)productivity as collective and political are overwhelmingly initiated in subjects like English (Handlarski, 2010), history (Murphy, 2012) and cultural studies (Tyler in Ahmed and Stacey, 2001). Feminist science scholars, too, have emphasized the two-way, microchimeric character of gestation and its aftermath (Hird, 2007; Martin, 2010; Kelly, 2012; Vora, 2015): the co-production of gestators by fetuses at the genetic and epigenetic level. These microchimerism researchers position gestation as a model of universal identity plasticity, permeability and often unwelcome fusion. They insist that, through pregnancy, maternal anatomy becomes a chimera, having been permanently infiltrated by fetal DNA. And, as these theorizations suggest, it is not simply a baby that is birthed during a birth, but rather, two unequal beings who are both survivors of their own matrixial sym-poiesis. Desiring that this preoccupation be elaborated in geography, my starting point is the contention that ‘uterine’ relations are fundamentally cyborg, animatedly labouring and collectively spatial. This includes not only abortion, miscarriage, menstruation and pregnancy (whose transcorporeal and chimeric character is well documented in medical anthropology, namely Alaimo, 2010; Hird, 2007; Kelly, 2012; Martin, 2010; Vora, 2015) but also other life-enabling forms of holding and letting go that do not involve anatomical uteri, such as trans mothering, end-of-life care, adoption, foster care and other practices that provide for births, better deaths or survival.

In my opinion, despite our discipline’s ostensible interest in co-production, hybridity and the more-than-human, the relational animacy of these processes has often been black-boxed in accounts of ‘care’ and social reproduction. The remedy, I believe, begins with deromanticization: an approach that critically politicizes uterine relations as historically contingent and subject to amelioration through struggle. If ‘care’ and ‘social reproduction’ are the (newly re-popularized) words we have at our disposal to describe this business of (re)making and of being made, then they require thoroughgoing deromanticizing in our discipline. Some materials of interest to this end include the following variations on the idea that ‘labor does you’ back, consisting of a weave of holding and letting go that moves us through each other’s bodies: the molecular biologist Suzanne Sadedin’s account of gestation’s mutual violence (Sadedin, 2014); the concept ‘sym-poiesis’ (i.e. making-with; Haraway, 2016); and ‘copoiesis’ (i.e. making-together; Ettinger, 2006), also referred to as ‘metramorphosis’.

A shared consequence of these various relocations of uterine matters beyond the borders of ‘womanhood’ is that ‘assisted reproduction’, as it is characterized today, ceases to be categorically separate from any other kinds of reproduction. All reproduction reveals itself as, in a sense, ‘surrogate’. Given Haraway’s predilection for making precisely this point, and notwithstanding her commentary, which I will revisit, on the artist Patricia Piccinini’s sculptures of transspecies gestator-Surrogates (Haraway, 2011a), it surprises me that the author of The Cyborg Manifesto has never directed her acumen substantively towards gestation per se (except, lately, to recommend that her readers don’t do it in Staying with The Trouble: Making Kin in the Chthulucene) but colluded in the tendency to leave the nitty-gritty of gestating-ness out of discussions of care and social reproduction. In Haraway’s accounts of earthly life, eating one another and being eaten is simultaneously an inescapable reality and a conscious art to cultivate responsively (response-ably) (Haraway, 2011b, 2016). But
gestation – human or non-human – is never spotlighted as an example of this. Perhaps relatedly, the ‘companion species’ turn in Haraway’s theorizing has correlated with a diminution in the grappling with exploitation, asymmetry, oppression and inequality that characterized the 1980s Manifesto. Regardless, her eye for ‘sympoiesis’ and ‘symbiogenesis’ (‘becoming-with’) is what I am proposing is part of what I think is missing from geographies of mothering and childhood. Finitude is not scarcity, Haraway suggests; eating one another need not imply competitive individualism; and saying ‘no’ (killing, even) is not necessarily cruel (Haraway, 2011b, 2016). As mentioned, however, I have concerns about Haraway’s new turn to populationist anti-natalism. Meanwhile, though an alternative name might be ‘matrixial’ geography, following the philosopher Bracha Ettinger (from ‘matrix’, meaning ‘a place or medium in which something is originated’), this comes from psycho- and schizoanalysis and is beyond my power to justify transposing into geography. I lean, therefore, towards calling my intervention ‘cyborg uterine geography’.

The agonism of gestation

The theoretical biologist Suzanne Sadedin is adamant that normal human gestation is a site of considerable, species-exceptional violence. Unlike almost all other animals, humans die because of their pregnancies every year in their hundreds of thousands, making a mockery of UN millennium goals to stop the carnage. Many survivors of pregnancy suffer a range of health problems including hyperemesis gravidarum, gestational diabetes and cholestasis. Unless aggressively contained, human placental cells ‘rampage’ through every tissue they touch, the genes that are active in embryonic development are also implicated in cancer. But this is not the only reason that pregnancy among *Homo sapiens* has evolved – in her account – to be a perpetual biological ‘bloodbath’. It is the specific, rare type of placenta we have to work with (*hemochorial* placenta) which ensures that fetuses truly dominate the process. Rather than simply interfacing through a filter or contenting itself with freely proffered secretions, this placenta ‘digests’ its way into its host’s arteries, securing full access to her tissues. ‘Mammals whose placentae don’t breach the walls of the womb [in this way] can simply abort or reabsorb unwanted foetuses at any stage of pregnancy’, Sadedin notes (Emphasis is added). For them, ‘life goes on almost as normal during pregnancy’ (Sadedin, 2014). Conversely, a human cannot rip away a placenta (because they’ve changed their mind or, say, found themselves in a drought or war zone) without risk of fatal haemorrhage. The embryo has hugely enlarged and paralyzed her arterial system while at the same time elevating (hormonally) blood pressure and sugar supply.

Although feminist forms of lay science, healthcare activism and medical anthropology have parsed pregnancy ambivalently for many decades (Murphy, 2012), Sadedin’s denaturalization of these ‘biological’ realities is still capable of generating a strange dissonance in vis-à-vis the affects of uncritical celebration associated – hegemonically – with childbearing. It unsettles vestigial habits of unthinking acceptance and vague adulation of gestating, whose sheer necessity every thinkable politics seems to take for granted but never seeks to explicitly organize. Sadedin’s is not a somehow ‘anti-pregnancy’ intervention. True, in her account, when we gestate, we are battling to place acceptable limits on our own colonization, forced to work absurdly hard to stop a fetus from taking more than we are willing to give. But placed within a framework within which the exceptionalism surrounding pregnancy is reversed, this understanding might sharpen our understanding of the concrete contradictions we have to navigate on every walk of life as we struggle to build something better than capitalism. On the left, there is growing awareness that culturally sacralized work – such as nursing – is still work and can be subject to strategic withdrawal (e.g. the motherhood, midwives’ or sex strike). So, what geographies of gestated-ness, gestating-ness, aborting and miscarrying might become imaginable if a wider range of ongoing social labours were felt to be ‘uterine’, and the uterine made seriously comparable to other labours? Whereas accounts of agentive multi-actant ‘hybridity’ and ‘care’ studies alike can sometimes flatten power relations, implying
that phenomena are desirable simply because they exist and are ‘co-produced’, the drama of gestation pace Sadедин poses a drastic challenge to such acquiescence.

Contrary to the harmful fantasy of human maternal generosity as idealized boundlessness – retheorized pragmatically by Myra Hird (2007) – Sadедин notes that our anatomy is perpetually decreasing sugar and blood pressure in response to the fetus signalling for more (Sadедин, 2014). Human mothers are thus technically ‘less generous’ than most non-human mothers, she explains. This is because human fetuses, ‘tunnelling towards the mother’s bloodstream’, fight and override her ‘no’ throughout. For instance, they disable her immune system with floods of cortisol and constrict her blood vessels (if necessary) with the help of toxins, causing kidney or liver damage and stroke. In short, the unborn routinely deploy all manner of ‘manipulation, blackmail and violence’ (Sadedin, 2014) as their contribution to being made. Yet, to infer from this that to gestate willingly is an irrational embrace of violence and thus actually ‘bad’ – or to take offence because of this implication – is to miss the point of Sadедин’s retelling. Sadедин, who has gestated full terms herself, may feel that her counternarrative is guaranteed to be widely unpopular. Ironically, it shouldn’t necessarily be, since it is possible to read Sadедин as calling upon some of the very same metaphors of combat, competition and complementarity that prevail in hegemonic stories about sexual reproduction, as famously analysed by Emily Martin in The Woman in the Body (Martin, 1990).

Sadедин’s evolutionary account ultimately coheres with a narrative of fetal–maternal antagonism Martin pinpointed in scientific and medical fields, whereby the fetus represents the binary ‘otherness’ of the father’s genetic difference from the mother. As Monica Casper has in turn convincingly argued, this narrative underpinned notions of the fetus as subject (Casper, 1998) which have, to date, been deployed exclusively to women’s detriment. Nevertheless, Sadедин’s tacit insistence on the agonism of gestation does not strike me primarily as a subjectification (or vilification) of the fetus but rather as a clear call to (in Haraway’s phrase) ‘stay with the trouble’. Martin’s and Casper’s interventions have been invaluable, and to me it follows from rather than contradicts them to say that a way of articulating gestational labour still needs to be found that both acknowledges violence and does something progressive with that acknowledgment. As elsewhere on earth, conflicts of interest mediated in the placenta always coexist with confluences of interest; elements of antagonism must be acknowledged and addressed, rather than denied. Indisputably, Sadедин leaves to others the task of contemplating a possible affirmative politics informed by her claims. ‘How did we humans get so unlucky?’ is the pivotal evolutionary question for Sadедин. ‘What do we do about this?’ is one that could be taken up in the critical social sciences and humanities.

**Care and the human matrix**

In geographic engagements with the myriad labours that provision basic emotional and biophysical human and proto-human needs intergenerationally, there has been a tendency to refrain from criticism or even close assessment. This is well-motivated: ‘care’ and ‘social reproduction’ are, after all, tantamount to mothering, and mothering – together with the desire to abstain from it – is already structurally subject to a barrage of punitive coercion and policing (Longhurst, 2008; Martin, 1990; Murphy, 2012). Those of us who are would-be critics of capitalist White-supremacist patriarchy perceive that mothers (particularly mothers of colour) are not primarily culprits of systemic evils but rather, primarily, victims. As a result, critical geography occasionally waxes a little schizoid: excoriating ‘the’ family while at the same time valorizing it as a site of ‘care’.

Rather than helping in advancing scholar-reproducers through these very real contradictions, the genre of social reproduction study with which I identify can in my view sometimes become disjointed and disorienting, keenly focused on divisions of familial labour that cross micro- and macro-borders, for example, yet warped by the assumption that mothers perpetrate little or no structurally consequential violence. As thinkers of
reproduction’s world-shaping power, we paradoxically want not to implicate mothers as harmful agents. Perhaps this move damns mothers by failing to gesture towards a better mothering horizon for everyone. It is for these reasons, I believe, that Marion Werner suggested that the turn animated by ‘care’ and ‘social reproduction’ sometimes obscures more than it reveals (Werner, 2016). Inseparable from ‘production’, she said, social reproduction perpetually risks collapsing into ‘life’ and becoming an unwieldy ‘everythingism’ whose analytic affordances are not clear. ‘Care’ geography, then, is futile if we do not draw distinctions between good and bad care, conscious and unconscious abuse, and acceptable and unacceptable structural familial violence (from gestation onward).

Sticking with the challenge of thinking ‘care’ and ‘social reproduction’ in meaningful ways remains for me an important route to apprehending the extent and (more importantly) the limits of capitalism’s penetration into life, body and soul. At its best, theorizing these matters encourages multifaceted consciousness of the intertwinement of capital with our intimate lives and provides a perpetual reminder of the ability we possess collectively to not reproduce capital (and to reproduce not-capital). The difficulty of apprehending the difference between social reproduction and capitalist reproduction (except analytically) guarantees confusion, certainly, but also reflects the framework’s depth. When we engage with social reproduction’s normative stakes (rather than, as sometimes happens, simply naming various things and phenomena as ‘part of social reproduction’) without at least gesturing at how that could be otherwise or explaining why it matters) we are goaded, in a way I find uniquely thoroughgoing, to remake life in a liveable mould.

Kendra Strauss distinguishes three constitutive parts of social reproduction: ‘[1] biological reproduction, [2] the reproduction of the labouring population, and [3] provisioning and caring needs’ (Strauss, 2013: 182). They are not distinct. (Where does ‘biology’ end and ‘care’ begin?) Still, it is possible to say that interdisciplinary Marxian feminists and ‘surplus population’ studies have focused extensively on the second of these (McIntyre and Nast 2011; Nast, 2011); while meanwhile, the third rubric, ‘care’, has taken off conceptually across the social sciences, especially in geography, where calls for ‘geographies of care’, ‘geographies of intimacy’, ‘care politics’ and ‘landscapes of caring’ have been legion (Lawson, 2007; Lewis, 2016; Parr, 2003; Valentine, 2008). By and large, however, as I argue in the two subsequent sections, when geographers have thought about number [1] they have neglected the qualitative dimensions of the uterine, for instance, the ways in which that labour and its various outcomes can be collectively constituted. It is certainly safe to say that there have not been many conversations framed about gestating, not gestating, refusing to gestate, ceasing to gestate, and gestating ‘otherwise’ (perhaps sharing, delegating or automating it) all together, in one breath. Viewing these matters together could highlight uncomfortable political imperatives: strategically non-provisioning and non-caring; not-reproducing certain labouring populations as labouring populations; and placing an embargo on the very idea of ‘biological’ reproduction. The result of the trinity articulated explicitly by Strauss, anyway, has been that scholars mostly hold back from talking about the actual labour of Strauss’s first component as social reproduction.

To take Sadedin’s anti-romantic description of gestation and extrapolate from it about the nature of care might begin something like this: there is inevitably a lot of boundary violation and reciprocal non-consensual use, and it is always asymmetric. Too few of us are equipped to know how much of it is inevitable or to generalize about what is acceptable. Reproducers seldom confront the unacceptable in the people they reproduce (or love). There is a tendency among people – and the many entities that compose them – towards unconscious self-defence and extraactivism as well as towards cooperation. Humans come into the world with astonishingly resource-intensive, brain-heavy bodies, expensive to manufacture and to maintain, so much so that giving us life is fatal to many other beings. Holding us is hard and letting go of us is even harder. The cyborg matter of uterine (matrixial) praxis is all about this bloodstained and productive care; this holding and letting go, whether or not an actual uterus is involved.

The assumption here is that a somewhat unbounded uterine site exists of historically
contingent, technological and biological encounter; something a little more specific than the new Harawayian sympoetics, yet broader than Ettinger’s copoetics. The trampling-nurturing-and-growing-out-of-one-another I have in mind generates an immanent more-than-human politics. Thinking about how we and others are manufactured, in this spirit, may allow us to remember that the manufacturing was never singular nor completed at birth – and to treat even seemingly distant humanity accordingly. For, if they can reject bioessentialist and gynocentric feminisms, ‘geographers’ are well placed to inquire normatively into the ferociously intimate uterine relationships in which all human identity is grounded. They are skilled at tracking ‘transcorporeal’ traces and could develop politically necessary resources by spatializing the gestation-abortion-surrogacy-miscarriage-menses-adoption-foster care continuum in relation to borders, classes, racial categories and myriad (human or more-than-human) parents.

I have suggested so far that the relationship between uterine activity and a ‘feminist care ethic’ – indeed, the relationship between the uterus and feminism generally – should not be assumed to be unidirectionally ‘generous’ but instead treated as open to determination within a new geographic account of how the world is populated. I’ve stated but not yet defended my perception that qualitative and normative issues around uterine labour – the making, not making and unmaking of humans – has been neglected within critical geography’s (broadly anti-capitalist) project. I now propose complicating the ‘care’ framework by looking at literal gestation geographically and, later, bringing in what I think could be seen as gestation-like features of other forms of sociality. Social reproduction and labour theory will benefit if duly ambivalent attention is given to the unfree, both mingling and mangling, destructive and regenerative, relationality that is modelled in that dark, wet arena of care (a word that, after all, is also synonymous with trouble and grief).

Inter/intrauterine: A missing matrix
Robyn Longhurst has written that ‘we have all occupied interuterine space’ (Longhurst, 2001: 128). It seems clear in context that she means ‘intrauterine’, but the accidental posit of interuterine space has the potential to stimulate appreciation of the geographical valence of the uterine – a web of holding and letting go that transcends corporeal boundaries – that I am interested in pursuing. We do in fact all occupy interuterine space and, as I see it, combining interuterine with intrauterine geography at the analytic level is the challenge we face: extending Longhurst’s account of ‘fluid boundaries’ so as to encompass and adopt unlikely (adult) gestator-gestatees. Bracha Ettinger forges a relevant path in a very different disciplinary context, namely psychoanalysis, proposing – in relation to artistic copoiesis – that one must think gestational-formation as ‘metamorphosis’ (metra, like matrix, derives from the Greek for uterus and denotes a kind of antonym of meta, i.e. non-transcendence). Her idea that human becoming happens in matrixial ‘border-space’ is an intra and interuterine imaginary (albeit a highly abstract version). For her, ‘The womb, fetus, pregnancy and gestation [are seen both] as corpo-Realities and image’, they are ‘supports for a matrixial field of theorisation’ (Ettinger, 2006: 182). Ettinger demands that matrixial consciousness go beyond ‘the’ womb and refuse to separate what goes on ‘inside’ from the rest of social existence, since the constant opening up of borders and surfaces between social individuals is historically continuous. Transposed back to the fleshy contexts I’ve touched upon, in other words, one may say: it’s sympoiesis, entanglement, and chimerism all the way down.

Ettinger claims that the constant metamorphoses in which people participate (by living, caring, and dying together more or less consciously, more or less well) produce emergent ‘trans-subjetivities’. None of us is exempt; as Ettinger clarifies: ‘the idea of the matrix should not be identified with the womb, nor Woman with Mother’ (Ettinger, 2006: 183). And, just as mothering is not limited to ‘mothers’ (narrowly defined), the stakes of matrixial ethics are also more-than-human. Grounding personhood in the ‘matrix’ draws attention to the contingent and artificial but also conscious and fragile character of kinship, identity and relatedness, undermining the ‘natural’ accretions of power,
entitlement and inequality that go along with them. It also invites us to mess with genealogy and biogenetics by tracing vertical (temporal) and horizontal (spatial) relationships between uteruses, their containers and their contents: hormonal flows, endocrinal, epigenetic and milk bonds linking various more or less animate matrixial producer-products across homes, continents and generations. Geography and related fields have, for the most part, yet to think about the cyborg affordances of the uterine in this way explicitly.

The underrepresentation of gestating-ness within critical post-humanities, technopolitics, ecomarxisms and new materialisms is most obviously attributable to the desire to repudiate a widespread caricature of second wave feminist womb-celebration. Kathi Weeks has carefully argued, in her reappraisal of the feminist 1970s, that this desire betokens not only ‘inattention…shame and disavowal [but] a more active mode of forgetting’ at the heart of feminism’s own historiography (Weeks, 2012: 735). Gynocentrism was and remains a hugely flawed part of feminism’s history. Ironically, the instrumentalization of women as wombs is only now finding a kind of literal expression in history, namely in the gestational outsourcing (commercial surrogacy) industry where affirmations of worker autonomy are slowly making themselves heard (Krolokke and Pant, 2012; Lewis, 2015). Even as gestation becomes partially professionalized, so-called ‘fetal rights’ acts and other anti-abortion legislative strategies are flourishing around the world. And, unfortunately, as touched on in the introduction, the simultaneous discursive success of a rightist technophobic wing within feminism – the so-called ‘radfem’ (‘radical feminist’) school and its ecoprinist affiliates (Lewis, 2017a) – has resulted in an oddly authoritarian organicist stranglehold (which passes as progressive) on the meaning of ‘the’ womb and what ‘the’ womb ‘wants’.

Among those who have pitted pregnancy per se against patriarchy, alienation, technology and capitalism in the west is the international network Feminist International Network of Resistance to Reproductive and Genetic Engineering (FINRRAGE) (Lewis, 2017a). Besides opposing all forms of assisted reproduction in the 1980s, FINRRAGE activists were on the other side of the fracas over the valence of cybernetics crystallized for posterity by the Cyborg Manifesto. Certainly one of the targets of Haraway’s text at the time was a Euro-American feminism that relied too uncritically on the emancipatory value of a transhistoric ‘procreativity’ of ‘the mothering class’. Haraway was not alone in pointing out that such Euro-American goddess-feminism often tokenized indigenous, colonized, poor and low-caste gestators in their gestures towards centering those groups in their analysis (Lewis, 2017a). It sometimes violently policed the definition of ‘womanhood’ and the bounds of participation in its liberation, cleaving to the physicalist assumption that belonging to an oppressed and exploited category depends on particular (unclassed, unraced) body-parts. Yet the rejection of anti-reprotech purism – as far as geographers are concerned – unexpectedly resulted in the disappearance of even the situated, cyborg uterus from geography.

In ‘Speculative Fabulations for Technoculture’s Generations’, Haraway (2011a) takes up the nurturing yet menacing figure of the gestating wombat-alien sculpted in various different iterations by the artist Patricia Piccinini. These sculptures of fictional humanoids have marsupial-like pouches and are glossed appreciatively by Haraway as companions who ‘nourish indigestion’; their gestation technodigests, she says, categories like kinship, family and sex (Haraway, 2011a). But noticeably, Haraway has dedicated little or no ink directly to today’s actually existing human surrogates, the gestational labourers who define a new facet of an old global division of reproductive labour, and who in some cases have already ‘nourished indigestion’ by organizing politically as mother-workers to make demands of their contractors (the ‘intended parents’) or clinical surrogacy managers (Lewis, 2016). Thus, while engagement with Haraway in geography is ubiquitous, engagement with the many different loci of the uterus (including tech alternatives to it and speculative or figurative versions of its functionality) has been allowed to remain at extremely low ebb. Simultaneously, the liberal bourgeois feminisms of the establishment – as reproductive justice scholars such as Dorothy Roberts and Michelle Murphy tirelessly show – have thrown the vast majority of
proletarian reproducers under the bus (Murphy, 2012 Roberts, 2009).

Mainstream framings of uterine interests have been limited either to trans-exclusionary and gender-normative ‘natural birth’ ideologies or to pragmatic pro-medicalization messaging framed around ‘choice’ – as long as the consumers are figured as national citizens by default (Murphy, 2012 Roberts, 2009). It is in this context that leading feminist geographers have mostly abstained from theorizing uterine creativity and destructivity per se as the kind of scalar, co-productive and geopolitical affair they perceive in other dimensions of ‘the production of nature’ (Katz, 2001; Pratt and Rosner, 2012). There is no major geographic exploration of demands like Shulamith Firestone’s for a universally available ectogenetic technology (Firestone, 1970) or of the Wages for Housework campaign’s for a militant and utopian interruption of gestational housework on capitalist patriarchy’s terms (Federici, 1975). Most surprisingly of all, geography has not engaged with the aforementioned science around mosaicism, chimerism and epigenetics, even though it is rife with migratory and spatial imagery. Heidi Nast has proposed to geographers that we ‘breach the domain of (procreational) sex’ by returning ‘biology’s centrality to reproduction’ (Nast, 2011: 1463) but it is as yet unclear to me what kind of biology she means, or how it guards against queerphobic effects. The miscarriage-threatening bargaining-power of contemporary ‘gestational assistants’ (surrogates and ‘mothers’ alike) is indeed something one must conceptualize in terms of the ‘necro(bio)power’ Nast and McIntyre have theorized (Nast and McIntyre, 2011). However, I would like to see much more full-throated and explicitly queer-feminist grappling with the creativity and destructivity that characterizes the inter and intrauterine continuum.

The uterus in geography

In my reading, Robyn Longhurst’s Maternities (2008) and Bodies (2001) tacitly demonstrate the subtle difference between studying ‘being pregnant’ – at which Longhurst excels – and thinking geographically ‘with’ the uterus, which I submit is still mostly uncharted territory. Longhurst’s two illuminating books provide a vivid ‘corporeography’ of pregnant embodiment as it seeps into public space, particularly the threat of vomit, sweat, milk, blood or amniotic fluid erupting unceremoniously from the gestating individual. These dynamics are certainly not remote from what gestating is, but they do include a ‘ground zero’ account of gestational relationality on the inside (of the kind Sadedin provides). It is striking to me that neither of Longhurst’s monographs contains the active words ‘gestate’, ‘gestates’, ‘gestating’ or ‘gestated’; the same, however, is true of Catherine Nash’s Genetic Geographies (2015). While it can be argued that the term ‘gestation’ is a medical one, it is nevertheless one of the few active verbs that denote ‘being pregnant’. I consider the epistemic tweak that would animate a gestating-centred uterine corporeography subtle but meaningful, irreducible of course to mere choice of words, but basically absent from these texts. It is the interior of the uterus that is missing from these geographic accounts of kinmaking, and consequently, they fall short of mapping intra and interuterine space. Ironically, Longhurst herself says that this ‘closest of all spaces . . . is seldom discussed in geographical discourse’ (Longhurst, 2001: 128).

The elision thereby indicated occurs even where those influenced by actor-network theory (ANT) are addressing everyday birthing. For example, geographer Katharine McKinnon ‘map[s] birth spaces’, listing ‘coalitions of actants who are human (mother, baby, obstetrician, midwife), non-human (wheelchair, clock, scalpel) and sub-human (hormones)’ (McKinnon, 2016). Yet, here, strangely, organs such as the placenta and the uterus do not figure alongside hormones in the ‘subhuman’ category in this choreography. McKinnon’s multi-sited, multi-actant ethnography quotes post-partum women to great effect and follows a couple of individual labours and deliveries back and forth between home and hospital in the form of a drama involving ideological contestation around ‘home birth’ versus ‘medicalization’. McKinnon successfully evokes a highly contingent co-production featuring many players and agentive objects. Yet this ANT-inflected account of parturition would be further enriched, I maintain, by making explicit its
implicit sense of intrauterine liveliness: the ensemble of hormonally flooded processes coming to a head in the interior of an abdomen, and their complex distribution across the spectrums conscious/unconscious, agentive/non-agentive.

Kate Boyer and Justin Spinney (2016), in an overview of feminist geography’s work on public parenting, propose, excitingly, that: ‘motherhood is an accomplishment realised in part through encounters with the more than human’ (Boyer and Spinney, 2016: x). Ultimately they mean baby-related mobility baggage, ‘stuff’, infrastructural friction, a lack of provisioning and access undergirding the world one traverses in the company of babies. Poignantly summarizing the findings of over 15 items of scholarship on caring and mothering, they show how the needs of babies and their carers are systematically ignored in the public realm. None of their source materials address the specificity of actually holding or letting go a fetus, gestating not at all, abortively or ‘to term’, as a topic distinct from becoming a parent. Boyer and Spinney’s article according focuses, like McKinnon’s, less on the uterine than on the public-sphere mobilities of the mother-baby-pram assemblage. Although sympathetic to their project, I contend that the ‘more-than-human’ stakes of human reproduction come into view long before buggies and bottles appear on the scene. I wonder if one could treat prenatal space as continuous with the frictional vicissitudes of public space Boyer and Spinney animate, even stretching the field from intrauterine holding through to assistive technology in elder care and the work of ‘death doulas’ – without romanticizing any of it (just as Boyer and Spinner avoid doing). Public-sphere ‘carescapes’ and caring mobilities are clearly rich and important seams for critical and policy-oriented study. Boyer and Spinney’s insight into the more-than-human and encounter-based composition of ‘motherhood’ invites an extension of itself, inward and outward, as it were, ‘thinking through the skin’ (Ahmed and Stacey, 2001).

Proposals have appeared from geographers to notice ‘placental relations’ (Fannin, 2014). The Antipode collection Life’s Work: Geographies of Social Reproduction has surveyed ‘the interpellation of subjects as life workers’ (Katz, Marston and Mitchell, 2004: 3) and features a chapter on the renaturalization of pregnancy in hospital birthing suites built as simulacrums of a bourgeois bedroom. The author of the latter, Maria Fannin, together with Rachel Colls, elaborate on the need to ‘think geographically ‘with’ the placenta...as a relational organ’ (Fannin and Colls, 2013: 1087). Fannin and Colls compellingly adapt JM Maher’s theorization of the pregnant subject as one that ‘does not depend on closed edges in order to construct itself’ where ‘connection and distinction are not necessarily framed as mutually exclusive’ (Fannin and Colls, 2013: 1089). Hiding in plain sight, placental relations readily ‘serve as a model for thinking differently about the presumptions of boundedness, fixity, stasis, and identity that tend to underwrite more familiar geographical spaces of borders, barriers, territories, and boundaries’ (Fannin and Colls, 2013: 1098–1099). Is this not uterine geography? In some senses yes: the placenta is tracked as an ‘interior surface’ that ‘resurfaces’, exiting the body only to re-enter it (or other bodies) in the form of meals or swallowed capsules (placentophagy), returning to the earth in Māori ceremonial rituals (whenua burial) or seeping through the pores of cosmetics consumers in the form of specialist skin cream. I concur wholeheartedly with Fannin and Colls that, ‘despite a focus on the maternal-fetal relation during and after pregnancy in the feminist literature...there have been limited engagements with the placenta’ (Fannin and Colls, 2013: 1089); my aspiration is that our projects may be coextensive. But the placental is not synonymous with the uterine and does not, I think, lend itself so easily to non-gynocentric political appropriation.

The difference may seem slight but its domain is encroaching, protecting, and filtering rather than holding and letting go. Accordingly, Fannin and Colls do not explicitly acknowledge the reality that the relational result of gestation is not always ‘motherhood’ – as we see in surrogacy, abortion, abandonment and miscarriage – and suggest tacitly that it should be. Indeed, the authors sharply reject, on feminist grounds, characterizations like Sadedin’s of maternal-fetal exchange as violent, preferring, with Myra Hird, ‘generosity’ as the byword for pregnancy. I see no real ‘feminist’ need for this
gesture and plenty of reasons why accounts of pregnancy that equate caring with the good need to be complicated. The method in question implies that the relational result of gestation is normatively determinate and manifestly takes for granted that un-engineered human uterine lining is the optimal environment for nurturing a human embryo. Sadedin (like Firestone in 1971) opens the possibility that it is not. To say so is not a threat to ‘women’ or fetuses.

The further danger of tracking the placenta rather than the whole of the uterus is that it risks overlooking the animacy of the other parties in gestation (i.e. gestator and gestatee), together with the contingency of their doing and their being there. As such, to me, even ‘placental’ geography does not necessarily escape the naturalizing ‘black-boxing’ of procreativity. I do not get a sense, from Fannin and Colls, of the labour that the placenta mediates, through which two beings (or more) emerge as opposite surfaces of one another, on the one hand a being who is already a person, and on the other a speck or lump of pluripotentiality shrouded in endometrial darkness and invisibility, convulsing, erupting, traversed by thousands of frequencies, pressures, proteins, fats and acids. The project on ‘the placenta as a passage to becoming’ is rightly proposed as a (very valuable) ‘supplement [to] a “materialist” account of pregnancy’ (Fannin, 2014: 300) rather than a dedicatedly materialist one.

The term I have now twice deployed, ‘black-boxing’, is glossed by Julie Guthman as the moment when ‘a scientific concept or term is... taken to be objectively established, immutable, or beyond the possibility of human action to reshape it’ (Guthman, 2012: 956). Guthman herself is committed to ‘the imperative to open up the black box of the body and explore it as an ecological, geographical, and historical object’ (Guthman, 2012: 956) – exactly what I desire for the uterus. For example, in her pioneering work on the more-than-human, endocrinal, economically and historically contingent production of corporeal fat, Guthman avers: ‘current geographic perspectives on obesity black-box the human body and treat it as a machine that processes calories in a predictable manner’ (Guthman, 2012: 954). The political ecology of gestation I would like to abet would similarly treat the body’s processes and products – menses, miscarriages, relationships and newborn persons, instead of adipose tissue – as historically open. Tim Cresswell ventures in this direction when he considers a neglected aspect of human uterine activity among other common biopolitical metaphors that posit ‘matter-out-of-place’, namely the still-prevailing ‘view of menstruation as failed production’ (Cresswell, 1997: 334). Cresswell has not pursued uterine geography per se but in his discussion of secretions as metaphors he quotes Emily Martin’s suggestion that ‘Menstruation could just as well be regarded as the making of life substance that... heralds our non-pregnant state, rather than as the casting off of the debris of endometrial decay or as the haemorrhage of necrotic blood vessels’ (Martin 1990: 80 quoted in Cresswell, 1997: 341). Consequently, Cresswell is one of relatively few geographers to have engaged with The Woman in the Body and to make links between Martin’s findings and other forms of spatial organization of lively biology that discipline social ‘pluripotentiality’. Cresswell’s and Guthman’s work immanently gesture towards an innovative approach to the uterus that doesn’t carry a pro-reproduction bias.

‘Assisted reproduction’

Lately, anthropologists and sociologists have busied themselves analysing exceptional terrains of the uterus such as the ‘clinical labours’ (Cooper and Waldby, 2014) mobilized by bioeconomic markets in ‘third-party’ gestational contracts (Lewis, 2016). But the valence of this tacitly accepted ‘exceptionality’ – of outsourced uterine productivity in relation to non-commercial social reproduction, ‘surrogacy’ in relation to non-surrogacy – can become somewhat ambiguous under scrutiny, in the sense that scholars exempt themselves from clarifying whether the distinction they draw is normative or descriptive (Lewis 2017b). In this section, I make the case that while the distinction may be an accurate description of the capitalist organization of directly versus indirectly market-mediated
reproductive spheres, its replication in social–scientific critique has anti-solidaritous effects.

The ambiguous yet taken-for-granted siloization of ‘assisted reproduction’ in relation to (simply) ‘reproduction’ is a habit human geographers should not acquire. The division of conceptual labour that puts care and social reproduction studies to one side and ‘reprotech’ on the other, I argue, risks itself becoming part of the unthinking reproduction of capitalist, heteropatriarchal, cis-normative and racist reproductive stratification. I urge instead that scholars in geography, once they have embraced the uterine, should proliferate queer and counter-intuitive examples of reproductive assistance, which is to say, desirable and utopian praxes of life- and death-enabling holding and letting go that provincialize (without rejecting) the normative biogenetic model of family. I will visit a couple more theoretic fellow travellers and then give two perhaps unexpected examples to kick things off.

Literary critic Stacy Alaimo carves an instructive path. Marking the concern that ‘the potent category of ‘mother’ threatens to engulf the entire range of identities that women inhabit’ (Alaimo, 2010: 104), Bodily Natures nevertheless refuses to shy away from discussing pregnancy. The discussion in question operates in Alaimo’s signature ‘transcorporeal’ mode whose focus – although race- and gender-sensitive – is not gender, nor even sex, but the production of nature. An instinctive interuterine thinker, Alaimo ably captures the entanglement of creative labour and unconscious vitality in gestation, while pluralizing ‘natures’ and distinguishing between them normatively. Examples of potentially undesirable as well as desirable uterine relations become clear as she charts a series of toxin flows that connect the amniotic womb-habitat with the wider environment’s fluid reservoirs, topsoils, hot- and cold-blooded animal bodies, plant nectar and oceans: a moist chemical world, a matrix of our bodies for which we are collectively responsible. If pregnancy is an ‘inland ocean with a population of one’ (Alaimo, 2010: 103), it is in the sense that an ocean can never be a ‘sealed chamber, apart from water cycles and food chains’ (p. 106) or for that matter markets and states. Likewise, the geographer Becky Mansfield sees evidence of fetal harm caused via seafood consumption, and the porosity of gestational bodies, ‘as a lesson in the potential openness of all bodies to all environments, with recognition of how different people are imbricated differently in this open environment’ (Mansfield, 2012: 976).

The differential character of imbrication, which the more euphoric theorizations downplay, is everything. Social co-imbrication may sound polymorphously sexy and exciting to many of us, but let it not be forgotten that – as in gestation – it is too often unconsensual. For some, to simply be ‘imbricated’ without the mitigating help of boundaries, barricades and weapons is simply to be unsupported, exposed and vulnerable. In the late 1960s and early 1970s, Sylvia Rivera and Marsha P Johnson, two trans-women of colour active in gay liberation, managed to set up an open family home in a building in New York’s East Village. This was the STAR house, for STAR ‘kids’, the survival wing of their organization Street Transvestite Action Revolutionaries. The commune’s primary provisioning strategies were sex-work (in the mothers’ case) and shoplifting (in the kids’). STAR house was a response to the annihilation of its initiators’ queer comrades – ‘brothers and sisters’ – by the police, the state, poverty, AIDs and a violently queerphobic society. Although we do not usually use the term this way, this was clearly a moment of ‘assisted reproduction’:

We got a building at 213 East 2nd Street. Marsha and I just decided it was time to help each other and help our other kids. We fed people and clothed people. We kept the building going. We went out and hustled the streets. We paid the rent. We didn’t want the kids out in the streets hustling. They would go out and rip off food. There was always food in the house and everyone had fun. It lasted for two or three years. (Rivera, 2011)

The STAR House may not have experienced much conventional gestation or menstruation. But the focus of a uterine geography need not be a narrow conception of uterine space. As ‘uterine’ agents in this sense, Rivera and Johnson enabled surviving and managed dying, holding up a star in the city, a space for living, while regulating what they were willing to give across the intimate interface of the House,
holding, then letting go, its constituent adult children and their obdurate trajectories of becoming.

In a different wing of transfeminist reproductive theory and practice, the biological uterus is now a primary raw material for a bio-hacking cooperative in Catalonia called ‘GynePunk’. These DIY engineers specialize (semi-ironically) in ‘witchcraft’ and call themselves a ‘hackteria’ (hacker collective) (Thorburn, 2016). Another way of describing them would be: uterine scholar-activists. While its members write in Spanish about the trust and collective holding that undergirds their scientific praxis, the lab is also currently emphasizing the ability to expertly let go – of fetuses. Barcelona’s GynePunks are reviving the bottom-up knowledge of secret herbal emmenagogues unearthed in the West Indies in Plants and Empire (Schiebinger, 2007). They declare themselves on their tumblr and wiki to have hybridized these methods with mechanical, synthetic, in vitro and even biogenetic techniques in order to recompose themselves as a class (Thorburn, 2016). The vision of GynePunk is, thus, one other template for those who wish to socially reproduce themselves via the most mutually desirable forms of care they can discover ongoingly through experiment and métis (bricolage-based lay knowledge production).

The two models of trans-inclusive reproductive praxis alluded to here take for granted that all reproduction is assisted reproduction. Like other contemporary calls for reproductive freedom, voiced by trans- or cis-people alike, they frame themselves as a fight for the right to live, a fight channelled via direct actions seizing communized healthcare, user-directed research methods and universal free access to (i.e. common ownership of) the ‘means of reproduction’ (Murphy, 2012). I believe a ‘uterine’ politics may be one way of finding conceptual purchase on the contours of this reproductive freedom struggle. A ‘uterine’ and ‘matrixial’ conceptualization of care and social reproduction – in which we become through each other, asymmetrically holding and letting go – should attend to the plethora of reasons why given bodies do not literally gestate, from contraceptives to lifestyle to not having a uterus, appreciating that their bearers all too often literally transmit life and/or help mediate death. These geographies must include such things as migrations of wet nurses, surrogates and au pairs, as well as the removal, recrafting and redistribution of uteri (through transplant technology).

In The Argonauts (2015) Maggie Nelson undergoes IVF at the same time as her partner remakes his sex, and meanwhile, her mother-in-law courageously makes the crossing from life to death. The book’s title recalls the mythical Argo, a ship whose parts were all replaced, one by one. Becoming and remaining the Argo were the same thing and, as such, the ship is analogous (on Nelson’s terms) to any human being, the better word for which would in fact be ‘human becoming’, as Paul Channing Adams offers (Channing Adams, 1995). Humans are regenerative fictions who manage to retain identities despite (or because of) the fact that nothing in our bodies stays the same decade upon decade except, possibly, bone marrow. The Argonauts accordingly produces a sense of the self as a relation; an encounter that can only be collective and emergent. While it speaks to almost anyone, this wisdom springs painfully from the experience of transsexual, gender-transitioning and artificially fertilized pregnant bodies. Such are the characteristics of the twin protagonists of The Argonauts: two mutant queers who hold each other and, again and again, let go of each other’s past and present selves. Together, Maggie and Harry’s organs, muscles and endocrinal systems move, shed and morph. A transman who self-administers testosterone transforms his bone mass. A gestator’s body is irreversibly colonized by strange DNA in the form of living fetal cells. Pregnancy is, for Nelson, a quintessentially queer phenomenon, ‘occasioning a radical intimacy with – and radical alienation from – one’s body’ (Nelson, 2015: 14). Maggie wonders:

How can an experience so profoundly strange and wild and transformative also symbolise or enact the ultimate conformity? Or is this just another disqualification of anything tied too closely to the female animal from the privileged term (in this case, nonconformity, or radicality)? (Nelson, 2015: 14)

Have radical geographers, in their non-interest in the mapping of the uterine, colluded in this
mistaking of pregnancy for ‘the ultimate conformity’? Radical scholars tend to be critical (often damning) of the bio-nuclear family, yet they sometimes forget these criticisms when parsing ‘repro-tech’, implying that a special evil inheres in this unsettling ‘exception’. Meanwhile, childless, non-reproductive or ‘found’ families such as STAR House and GynePunk are also excluded from the topic of reproduction. As we can see from these living histories, there are many things, relations and ways to reproduce – including temporary and utopian insufficiencies, experiments and absences. A normal, prosthesis-free family doesn’t exist.

**Conclusion: The more-than-human uterus**

It is odd that the uterine does not feature explicitly in many geographers’ accounts of ‘the carnal body as the mattering forth of discourse and flesh’ (Dellimore, 2010: 250); of the ‘the nature of the person, as a geographic entity . . . spilling over boundaries . . . [via] processes of fluctuating, dendritic extension’ (Channing Adams, 1995: 267). Scott Kirsch seems poised to mention gestation when he asks – in an overview of technocultural geographies – ‘what it means to be formative in the production of nature’ (Kirsch, 2014: 692). Yet he doesn’t. Perhaps the sheer hyperdetermination of the terrain makes it seem fatally difficult to venture any normative account of uterine intra-action without making constant reference to ‘women’ or speaking from that subject-position. Nonetheless, as we’ve seen, it is possible. I would even venture to say that a non-gynocentric gestational politics has always existed in the cracks and underpassages of the prison-house of binary sex/gender. We do not always want to see the violent side of care, the violent side of gestation. We are deeply attached to these processes, and they are indeed almost all we’ve got. They are the strangely undervalued and at the same time fiercely defended contribution of a disproportionately feminized and racialized contingent of humanity. But this in itself does not prove that they are good by default. Alienated low-status carers and multigendered mothers are complicit with and even instrumental in systemic violence.

Whereas ‘caring geographies’ and ‘social reproduction’ studies sometimes merely draw attention to the unpaid love that glues everything together, an critical, anti-violent politicization of these processes would need to radically transform and not just revalue the domains of care and reproduction. Accordingly, we also need to strengthen our defence of non-nihilistic carers who are biologically speaking non-reproducers. In many circumstances, the act of the most oppressed – for instance, the enslaved – has been to refuse participation in uterine creativity altogether, through subversive and secret use of abortifacients, or by committing infanticide in response to circumstances they have judged unliveable (Schiebinger, 2007).

Where does the uterine end? Uterine geography would have no grounds to silo off such presently disparate-seeming issues as indigenous midwifery, surrogacy, underground abortion providers, co-parenting, gamete donation, DIY hysterectomies, mitochondrial transfers (a new technique yielding ‘three-parent babies’), shelters for queer homeless people, womb transplants, polymaternalism and ‘death doulas’, instead gathering them together. Where geographers have studied these things at all they have studied them in isolation and failed to embed them in the theoretic context of long-standing reproductive justice and liberation struggles. ‘Care’ may or may not cover what uteruses do (e.g. menstruate, proliferate, placenate, gestate). Whatever we decide, it behooves us to ask: might not uteri help expose the limits – and thus, better define the value – of the ‘care’ framework? Care may be all we’ve got, but that is no reason, after all, to suppose it doesn’t need thoroughgoing remedia- tion, transformation and automation. Like families, gestating uteruses are often very harmful zones (harmful for everyone involved).

In my somewhat wishful interpretation, the more-than-human turn locates social reproduction in the relations between persons, creatures and things, while at the same time allowing the former to matter more. (The focus, as I see it, is expressible as ‘humans, and more’ in the knowledge that there is no such thing as a ‘just human’.) In the words of Nina Power:
Only a collective, non-nihilistic non-reproduction of certain aspects of the status quo can ensure that we are thinking and acting according to the right scale: the trick is to work out what we can and cannot say no to, together. (Power, 2014)

In this spirit, assuming that it is possible to bracket some of the controversiality that dogs the ‘unborn’, we should be able to appreciate that it would be a great analytic loss to geography to let human intrauterine productivity fall into a gap between our interest in the human, on the one hand, and non-human, on the other. The designation ‘more-than-human’ emerged, as I understand it, precisely to prevent the formation of such a gap. And if anything deserves the moniker ‘more-than-human’, it is the activity of the human uterus. Curiously, though, in our justified enthusiasm to expand our understanding of social reproduction’s purview beyond the human, in order for instance to account for ‘lively commodities’ and to describe the more-than-human genesis of ‘encounter-value’, we have skipped over this salient site of unstable, co-produced and emergent more-than-humanity.

The horizon of uterine possibility, in terms of technofuturistic mobility and hybrid entanglement, has been greatly expanded in the last two decades: successful human uterus transplants have been undertaken since 2014; commercial surrogacy clinics routinely curate pregnancies involving no genetic link between gestator and gestated; neonatal machine-incubators are able to take over from the human body at 20 weeks’ gestation if necessary; and ectogenetic experiments (for fully disembodied gestation) are advancing apace. Not least because these innovations apply strain to the naturalness of ‘unassisted’ reproduction, this discussion has defended the premise that the best place to uncover the weirdest more-than-human fundamentals of social reproduction is everyday pregnancy, as enacted by any old ‘normal’ uterus, thereby demonstrating in the process that there is no such thing. Maggie Nelson’s poietic account of labour ‘doing you’ theorized that, in crafting human life, we touch our own death along the way. So, what kind of care might emerge from gestators’ commitment not to forget that encounter with death? How are we to generate conditions in which not-forgetting it is possible, at the same time as participating in the demands of social reproduction? After all, in Nelson’s pithy, almost accusatory observation, ‘I cannot hold my baby at the same time as I write’ (Nelson, 2015: 37). The structural incompatibility of reproducing and theorizing under present conditions is one of the key concrete as well imaginative limitations of the capitalist form of reproduction, and a clear incentive to build a new form of reproduction premised as much on holding as it is on – simultaneously – making (or unmaking).

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