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The Foundational Economy as a Cornerstone for a Social–Ecological Transformation

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Abstract: This theoretical paper synthesises research on the foundational economy and its contribution to a social–ecological transformation. While foundational thinking offers rich concepts and policies to transition towards such transformation, it fails to grasp the systematic non-sustainability of capitalism. This weakness can be overcome by enriching contemporary foundational thinking with feminist and ecological economics. Whereas the feminist critique problematises foundational thinking’s focus on paid labour, the ecological critique targets Sen’s capability approach as a key inspiration of foundational thinking, arguing that a theory of human needs is better suited to conceptualise wellbeing within planetary boundaries. Based on this, we outline a novel schema of economic zones and discuss their differentiated contributions to the satisfaction of human needs. By privileging need satisfaction, such broadened foundational thinking demotes the tradable sector and rentier economy, thereby revaluating unpaid work as well as respecting ecological imperatives. This empowers new articulations of social and ecological struggles to improve living conditions in the short run, while having the potential in the long run to undermine capitalism from within.

Keywords: foundational economy; feminist economics; ecological economics; social–ecological transformation; social reproduction; planetary boundaries; consumption corridors; provisioning; human needs; wellbeing

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1. Introduction

Since its 2013 *Manifesto for the foundational economy* [1], the Foundational Economy Collective (FEC), a group of (mainly) European researchers, has challenged mainstream thinking about the character of our economy as well as economic policy making. Drawing upon the work of Fernand Braudel [2,3], the FEC argues for an understanding of the economy as composed of different zones, with the foundational economy vital for our everyday life. This includes inter alia provision of electricity and water, garbage disposal, food supply, education, health, care, social housing, and police. These activities constitute capitalism’s non-capitalist foundation, the “everyday communism” that sustains and enables it (Streeck, foreword in [4]).

In this article, we distinguish between the foundational economy as an empirical reality (henceforth: foundational economy) and foundational thinking as a specific thought-style disseminated by the Foundational Economy Collective (henceforth: FEC) as a thought collective. (For the notions of thought collective and thought styles, see [5].) Our goal is to discuss the potential of foundational thinking for a social–ecological transformation, defined as a comprehensive change of society–nature relations in the 21st century, enabling a good life for all within planetary boundaries. We argue that the ability to shape such desired changes hinges on comprehending the systematic non-sustainability of cap-

italism, deriving from how it subordinates use value to exchange value, thereby organising the economy around profit and not the satisfaction of human needs (the profit imperative); and the way that capital, as “self-expanding value” [6] (p. 334), forces capitalist producers to strive for growth to out-compete others (the accumulation imperative). Although accumulation does not necessarily mean increasing resource use and emissions, decoupling capitalist growth from resource use has hardly been achieved [7]. Accumulation continues to be linked to expansionary dynamics, which are the key drivers of human-made planetary disasters. Therefore, transformative ways of thinking must engage with these social–ecological contradictions, as they lead not only to a crisis-prone mode of production, but make capitalism inherently self-destructive, especially by eroding social reproduction and transgressing planetary boundaries.

Whereas the foundational economy provides the inputs and values on which capital accumulation depends—and is thus part and parcel of capitalist society—it simultaneously has a character and weight of its own, for it represents a proper economic zone with a specific logic of operation that provides existential goods and services. As in all other social orders, the foundational economy enables everyday life and human flourishing in capitalism. This makes it a privileged entry point to transition towards a desired social–ecological transformation. In the short run, strengthening the foundational economy is not only possible here and now, i.e., within capitalism, but also highly popular, as it immediately improves living conditions: better care facilities, better public transport or nearby leisure facilities. At the same time, empowering the foundational economy strengthens economic principles other than market exchange and has the potential to invert capitalism’s structural hierarchy that subordinates social reproduction and ecological imperatives to profit and capital accumulation. Hence, in the long run, it also offers pathways to undermining capitalism from within.

The article is structured as follows. Section 2 offers a narrative literature review on foundational thinking, tracing its developments from the past to the present. Section 3 conceptualises capitalism’s social as well as ecological contradictions, and Section 4 evaluates achievements and shortcomings of foundational thinking in dealing with those contradictions. Section 5 explores the potential of foundational thinking for social–ecological transformation. Section 6 concludes.

2. Literature Review: The Genesis and Development of Foundational Thinking

In 2013, the *Manifesto for the foundational economy* offered a conceptual toolkit to think about the foundational economy as a “new economic entity” [1] (p. 3). By focusing on a mostly unglamorous economic zone that produces and distributes “goods and services consumed by all (regardless of income and status) because they support everyday life” [1] (p. 7), the manifesto made the plural character of contemporary economy visible. Therefore, it argued, policy priorities should shift from high-technology tradable sectors that employ few towards the “foundational economy” that employs around 40 per cent of the workforce in European countries—a workforce that is almost entirely locally and regionally anchored and operates “in more or less sheltered areas of economic activity” [1] (p. 7). The manifesto criticised business models based on privatisation, public austerity, financialisation, and short-termist point-value logics, which underestimate temporally and spatially distant costs and benefits. An adequate business model of the foundational economy must take up societal obligations in return for the privilege “to extract cash from a territory in sheltered sectors, rather than expecting sweeteners to operate locally” [1] (p. 18). Hence, apprehending the foundational economy as embedded in, enabled by, and protected through political territory, the manifesto highlights the necessity for social franchises to balance the relations between consumers, workers, and local residents in the provision of mundane goods and services. These ideas have been refined and further developed in a series of working papers, public interest reports, journal articles, and books (cf. <https://foundationaleconomy.com/>, accessed on the 15th of August 2021).

A milestone in foundational thinking was the systematisation of economic zones in the 2018 book *Foundational Economy*, which was further refined in later publications (e.g., [8,9]): (1) the *core economy* (family and community) constitutes a form of provisioning outside market-exchange and public provisioning because “we must love one another and die” [9] (p. 3). Austerity policies have increasingly shifted work to this economic zone of everyday life, though often under the pretext of volunteering. (2) The *foundational economy* is composed of (a) provisioning systems for material services, operating through “pipes and cables, networks and branches which continuously connect households to daily essentials—like water, electricity, retail banking and food” [4] (p. 20) and (b) provisioning systems for providential services such as health and care, education, and social housing. Both are essential for human flourishing but take culturally and historically specific forms. They differ from the tradable sector by offering low risk, low return economic activities with long-term horizons. Since the 1980s, foundational provisioning has been increasingly privatised or outsourced to not-for-profit organisations, spreading financialised business models [10,11] and downgrading social obligations. (3) The *overlooked economy* of “lifestyle and comfort support systems” [4] (p. 28) includes mundane cultural necessities (e.g., haircuts, holidays, bars, restaurants, gyms) where purchase can be postponed and occurs on an occasional basis. (4) The *tradable and competitive economy*, including (aspirational) private purchases (e.g., cars, electronics), has been at the centre of economic policies, promoting “business-friendly” structural reforms and “asset-based” welfare strategies, also known as ‘privatised Keynesianism’.

Today, re-orienting public policies towards the foundational economy is a challenge, due to the restricted public budgets and degraded capacities of public administrations [12]. Affordable and high-quality provisioning of foundational services is a public task but does not require service delivery by the central state; intermediary institutions, such as housing associations and water cooperatives, and “coalitions of local and regional actors” [4] (p. 153) will be more sensitive to local contexts and citizens’ needs. Besides public provisioning, social licensing can impose social obligations upon private foundational service providers [13]. Such obligations include ecological considerations, working conditions and wages, treatment of suppliers, reinvestment of limited profits into socially relevant spheres, and ending tax abuse. As foundational providers have in effect “a territorial franchise through their networks and branches”, they should, “quid pro quo”, offer “something social in return” [14] (p. 9).

Since metrics drive policy making, foundational thinking seeks alternatives to GVA/GDP frames, which are biased towards individual market income, impose a unitary identity upon regions and economic zones, and fallaciously assume that higher productivity solves low-wage problems. Foundational frames of liveability overcome these shortcomings and recognise diversity and unevenness in wellbeing [8]. Residual income is a preferred alternative metric, measured as post-tax disposable household income minus the inescapable costs of household essentials such as utilities, housing, and transport [15]. It strikes a balance between market-income-based private consumption and infrastructure-based collective consumption and reframes differences between and within cities and regions across four dimensions. First, housing costs vary substantially between different tenure groups (e.g., social renters, private renters, owners, mortgage payers), thereby taking differentiated slices out of post-tax income. Second, residual income acknowledges households as units of consumption, pooling income rather than individualising consumption. Third, it balances between basic service provisioning and income available for overlooked services such as restaurants or hairdressers, thereby rejecting “either-or” dichotomies in favour of “as-well-as” thinking. Lastly, it problematises what constitutes a winning region, as success in terms of GVA/GDP does not deliver liveability if housing, transport, or utility costs are disproportionately high. Better metrics alone are, however, insufficient. To make sense of what really matters to citizens, metrics and indicators (*techne*) must be enriched by local, specific, and granular knowledge (*metis*) to understand

peculiar social fabrics and inquire into what people collectively value in their communities, e.g., social infrastructure such as libraries or parks [16]. Therefore, new democratic devices, such as citizen juries and assemblies, help to make sense of what citizens, rather than experts, value [4].

The most recent advancement of foundational thinking happened with respect to social–ecological transformation. The FEC proposed a shift from foundational thinking 1.0, “which focuses on meeting social needs without explicit concern for the environment”, towards foundational thinking 2.0, “which relocates the foundational project within the environmental limits” [17] (p. 3). In this sense, the foundational economy is re-conceptualised as “an assemblage of reliance systems specific to time and place which ... collectively secure the well-being of current and future generations” [17] (p. 17), avoiding the transgression of planetary boundaries. This is today’s key challenge, because “some (but not all) foundational activities are environmentally burdensome” [17] (p. 7). Foundational thinking 2.0 seeks, first, to extend low-carbon services such as education, health, and care [17] (p. 8). Second, it aims at “cleaning-up” the high-carbon foundational sectors of food, mobility, and housing, which inter alia “means diet reform, housing decarb, zero-emission cars and fewer cars” [17] (p. 9). Third, it proposes “new kinds of foundational systems designed intentionally to promote low-carbon material substitution, tackle carbon sequestration and support biodiversity”, e.g., through afforestation [17] (p. 9). (For a report about building a new resource reliance system, the wood economy, in Wales, see [18].)

3. Conceptual Framework: Two Contradictions Facing a Social–ecological Transformation

In this section, we explore the implications of capitalism’s systematic non-sustainability, particularly capital’s self-destructive tendencies, by drawing upon Nancy Fraser’s [19] expanded Polanyian-Marxist understanding of capitalism. Fraser conceptualises capitalism as an “institutionalised social order” [20] (p. 66) that encompasses not only capitalism’s core productive dynamics but also their conditions of possibility, i.e., capitalism’s reproductive background conditions. Hence, our analytical focus lies on the *necessary* opposite to capital accumulation: the contradictory social and ecological “*conditions of capitalist production*” [21] (p. 16).

Social contradictions in capitalist reproduction encompass the gendered division between commodity production and social reproduction, relegating the latter to the private, domestic sphere, thereby obscuring its social importance and structurally subordinating those who supply the necessary preconditions for waged labour to those who themselves earn cash wages [20] (p. 62). Hence, whereas capital accumulation depends on social reproduction, it tends to erode it, generating gendered precariousness as well as relations of dependency and exploitation, to the detriment of those working outside the circuit of commodity production. Mainstream economic theory, by framing the “economic” as “productive” and the “non-economic” as “unproductive”, creates a hierarchy of economic zones, which is at the centre of capitalism’s systematic non-sustainability. *Ecological contradictions* designate the costless annexation of nature, both as input and sink, which increasingly causes ecological cataclysm, although functioning ecosystems are a precondition not only for a good life, but for capital accumulation as well. Potentially transformative ways of thinking must therefore problematise these contradictions, which are inherent in crisis-prone capitalism and incite different forms of social and political struggles.

Problematizing these contradictions, however, is structurally impeded in capitalist societies, as matters defined as “economic” tend to be expelled from political agendas [20] (p. 67) separating polity and socio-economy. To pretend that not only the capitalist economy but also its enabling background conditions have nothing to do with politics is one of “the most effective defence mechanism[s] available to capital” [22] (p. 67), as it delegitimises democratic agency, while big business is able to capture political regulations [23]. It frames precarious and exploitative relations of social reproduction as private, and un-

sustainable society–nature relations as the result of individual lifestyle choices or technocratic solutions. Providing sustainable energy or mobility systems thus becomes a merely individual and technical issue, restraining the political space to collectively shape social–ecological transformation. Therefore, transformative ways of thinking must acknowledge that economies are always cultural political economies [24] and problematise the privatisation and individualisation of capitalism’s enabling conditions, as this deprives a polity of deciding collectively how and what to produce, how to shape society–nature relations, and how to organise social reproductive work as well as its relations to production. As such, transformative ways of thinking require open democratic spaces that enable the political articulation of capitalism’s social and ecological contradictions. For Laclau and Mouffe [25] (p. 137–138), progressive political articulation can reframe hitherto naturalised relations of subordination as oppressive and susceptible to change, thereby encouraging collective action. In what follows, we discuss foundational thinking’s achievements and shortcomings in problematising capitalism’s contradictions.

4. Insights on Foundational Thinking’s Engagement with Capitalism’s Contradictions

4.1. Social Reproduction and Time-Politics: Reframing the Core Economy as Part of the Foundations of a Good Life

Separating production from reproduction obscures the decisive importance of unpaid reproductive work, often invisible, executed outside the circuit of commodity production and performed according to different logics of time and in non-wage social relations [26,27]. Activities of social reproduction sustain everyday life in any social order as well as capital accumulation in a capitalist social order. However, whereas capitalism depends on this reproductive sphere, it induces reproductive crises through shifting care tasks from richer to poorer families within and between countries [28], and externalising care work on to cheaper migrant workers who face highly precarious working conditions and lack of basic citizenship rights, including insecure residence authorisations. This precariousness has been demonstrated during the COVID-19 pandemic.

Foundational thinking offers political strategies to address this contradiction. First, it proposes to shift the focus of economic policies from high-technology and tradable sectors towards foundational goods and services which also “provide the infrastructure for the production and reproduction of global capital” [29] (p. 315). As such, it acknowledges that “labour power ... is not simply replenished at home” [30] (n.p.) (cf. also [31]), but needs healthcare, education, housing and other social infrastructures that strengthen communities and enable recreation [16,32]. Second, it problematises the intrusion of capitalist logics (e.g., in the form of extractive business models) into foundational sectors. This has not only exacerbated exploitation of paid care workers but also appropriated the work of unpaid caregivers, increasing work burdens and thus time stress, particularly among women, and further worsening working conditions in professional care. Third, foundational thinking offers promising ways to lessen the highly unequal distribution of care burdens on the unpaid and underpaid domains of society by promoting high-quality and accessible foundational services, produced under good working conditions. In this regard, the policy framework of universal basic services (UBS) [33] is a close ally to foundational thinking, shifting “the focus from transfers to public services” [34] (p. 1). UBS scholars stress that sustainable social reproduction depends on the fulfilment of shared human needs, which can be realised via universal access to collectively provided services [34,35]. Furthermore, foundational thinking and UBS make a strong case for guaranteeing access to affordable and high-quality universal basic services provided via the foundational economy. This constitutes a form of social citizenship not only for those who have the proper nationality or are entitled to vote, but for all those inhabiting and working within a certain territory, thereby improving the often-precarious civic rights, including residence conditions, of (migrant) workers in general, and care-workers in particular.

Hence, foundational thinking ignites vital debates about social reproduction. Therefore, it challenges the neoclassical market-price theory of value, which assumes that individual consumer preferences determine demand and, as a result, price. Since price, in this view, is further equated with value, the latter is reduced to exchange value. Foundational thinking, on the contrary, is about social use values, and therefore problematises which activities contribute to human flourishing and which hinder it [36].

However, the potential for collective action resultant from foundational thinking remains limited, if unpaid work and its subordination to paid labour are not adequately grasped and conceptualised. Residual household income as an alternative metric for well-being illustrates this shortcoming. Although measured at the household level, it obscures the core economy of self-organised caring, often occurring within households. Residual income, therefore, masks the uneven distribution of unpaid work *within* the household, which is at the root of gender inequality.

Marx declared of the “economy of time” [37] (p.173) that “to this all economy ultimately reduces itself”. Unpaid activities—ranging from household upkeep and care work to unpaid voluntary services—comprise more than 40 per cent of total work time, with three-quarters of that attributed to women and one quarter to men [38,39]. Adequate metrics of time use must thus complement residual income to make unpaid work visible, measuring time spent on activities that enable everyday life and human flourishing. Regular time-use surveys provide important insights for progressive political articulations of this contradiction in term of time politics.

For example, Frigga Haug’s [26,27] “Four-in-One Perspective” articulates a political vision for an equitable distribution of socially necessary work. Her synthesis of decades of feminist–Marxist research puts work at centre stage by proposing a fair partitioning of the working day into four activities of equal length (four hours each per day with the remainder reserved for sleep): (1) *Remunerated work* in exchange for individual income, which can occur in all economic zones, except the core economy, and is currently predominantly performed by men; (2) *Reproductive work*, which occurs in both the unpaid core economy and the paid providential foundational economy, and is mainly performed by women who face the double burden of being both paid caregivers and fulfilling most unpaid care work [40] (p. 40); (3) *Cultural work*, as a precondition for self-development, includes lifelong learning to develop one’s own ideas about *vita activa* [41], an active and flourishing life: “It should no longer be accepted that some speak four languages, dance, make music, write poetry, paint and travel to hone themselves, while others have to be happy if they can read and write at all. The point is that all people have the potential to develop” [26] (p. 34, our translation); (4) *Political work* enables the shaping of society, as well as one’s neighbourhood, workplace, school, or university, including new democratic devices for participation to shape foundational provisioning. While Haug’s “Four-in-One Perspective” calls for reducing remunerated work, it acknowledges that “we have not too little, but too much work” [26] (p. 72, our translation), from caregiving and ‘care of the self’ to political participation. However, with a highly unequal distribution of different forms of work, and thus of time, comes a highly unequal distribution of precariousness, social burdens, potential for self-development, and possibilities for political self-determination.

This leads to a broader conception of wellbeing that not only balances market income and collective infrastructures, but also includes the equal distribution of different forms of work. It problematises the varieties of unpaid forms of work and thus time. In capitalism, work is separated from other activities of life – which, following Polanyi [42] (p. 171), is constitutive of labour’s subjection “to the laws of the market”, thereby annihilating “all organic forms of existence” and replacing “them by a different type of organization, an atomistic and individualistic one” – and unpaid work is subordinated to those activities that generate market income. Enlarging the concept of work, however, has the potential to articulate new social struggles to undermine the dominant hierarchy, that prioritises

production (in the sense of producing exchange values) over reproduction (in the sense of sustaining the potential to be productive).

4.2. Ecology and the Reframing of Wellbeing: Provisioning for Human Needs in a Safe and just Space

While capital has been a key driver of social progress in material aspects and of expanding individual freedoms over the last two centuries, it has caused uneven development, increased social inequalities, and trespassed ecological limits [43]. This has resulted in a dramatic ecological overshoot with regard to climate change, biodiversity loss, and land use, as well as nitrogen and phosphorus loading [44].

Therefore, capitalism's second contradiction concerns ecology, i.e., our "external physical conditions" [45] (p. 562). These are often "bought and sold and utilized as if they were commodities" [21] (p. 23), turning nature into a "fictitious commodity" [42], while at the same taking a human-friendly climate for granted. Assuming this, however, is an illusion, as all that seems solid can melt due to unrestrained capitalist growth that results from "a positive re-enforcing feedback loop that inevitably leads to planetary overshoot, if nothing is done to break it" [46] (p. 11). This makes apparently productive and efficient capital "a problem-generating structure" [46] (p. 11), impairing not only the basic conditions that sustain human life on Earth, but also its own preconditions. This endangers any transition towards socially and ecologically sustainable economies. Such transitions lack role models or best practices, as no country currently occupies a "safe and just space" [47,48], i.e., a space that is characterized by neither ecological overshoot nor a deficit in the satisfaction of human needs [49,50].

The shift from foundational thinking 1.0 to foundational thinking 2.0 enriches strategies for a social–ecological transformation. First, foundational thinking's substantive metrics of liveability escape the dogma of compulsory economic growth as the ultimate yardstick of policy making. As such, it is consistent with proponents of a-growth [51]. Foundational thinking does not reject economic growth per se, but considers mere GDP increase a misleading indicator of wellbeing, and therefore calls for a more sustainable policy paradigm. Second, foundational thinking urges the rebuilding of public administrative capacities to tackle collective challenges, such as climate change, which connects well with innovative policy proposals for the re-municipalisation of existential provisioning, which provides public services (e.g., services of general interest in EU jargon) [52], the European Green Deal, and other eco-reformist plans (e.g., [53]). Third, foundational thinking at the same time maintains undogmatic and context-sensitive principles, as reliance systems are "specific to time and place" and therefore require "different forms of intervention" [17] (pp. 17, 22) (cf. also [54]). This is consistent with the more comprehensive system of provision approach (SoP) [55], that denotes an interdisciplinary framework to, inter alia, identify "how resource use is impacted by a very specific system of provision in each place and time" [56] (p. 5). Therefore, "no 'optimal' System of Provision" exists and "sustainability solutions require close attention to material culture in each case" [56] (p. 5). Finally, foundational thinking does not join "techno optimists" [17] (p. 8), but instead stresses the need for "social change" (e.g., diet reform, fewer cars) to accompany technological innovations. The question of how to achieve such change, however, reveals potential inconsistencies in foundational thinking 2.0 and associated limits in politically articulating ecological contradictions.

Whereas the FEC acknowledges that "choices of human subjects are inconsistent and judgments depend on the framing of choice" [4] (pp. 91, 129) and criticises how "environmental responsibility is too often represented as a puritan individual consumption choice", it consistently rejects "intrusive measures" and privileges "choice" over "prohibition", e.g., in substituting energy-intensive activities [17] (p. 8). What is needed, the FEC [4] argues, is not "a template of objectives" (p. 155), but simply to ask citizens what they want (p. 130). Foundational citizenship, Calafati et al. [17] (p. 15) continue, is about "active choice and voice, not a list of entitlements".

This line of reasoning is based on Sen's [57] capability approach (CA) (cf. [4,58]). Sen problematises utility conceptions of wellbeing, arguing that levels of goods consumption must not serve as a measure of wellbeing, as commodities are only a means to an end. Instead, wellbeing must be judged in terms of ends, i.e., by the kind of life that a person is able to live. Sen defines wellbeing in terms of opportunities and freedoms for individuals, i.e., *capabilities*, which in turn rest on people's *functionings*, i.e., "what she or he manages to do or to be" [59] (p. 12). Sen famously rejects listing universal functionings, as the FEC rejects listing entitlements. Therefore, a person's capabilities "represent all the combinations of functionings that are feasible to that person—that she could choose. The larger the set of choices, the greater the level of wellbeing" [60] (p. 41). Although criticising consumerism and the neoclassical concept of utility, Sen's CA remains "preference-based" [61] (p. 308). Sen [62] (p. 508) articulates his reliance on preference theory explicitly. As such, it does not provide a "means for identifying *basic* functionings or capabilities common to a group of people, let alone to all people" [60] (p. 41). Thus, contrary to what the FEC [4] (pp. 90, 99) claims, CA can neither identify "an irreducible core to foundational provision that is detachable from local territorial choices", nor extend the meaning of citizenship to become "part of the very essence of being human and social".

Once planetary boundaries require societal boundaries [63], CA leads to impasse. As CA views people's freedom of choice, whether living today or in the future, as its immovable standard, it "does not prescribe a certain type of life for either the current or future generations and in consequence does not schedule sustaining a certain state of the world" [64] (p. 58). This offers only "a very thin protection for future generations in a current world where present actions are wreaking environmental devastation and unconstrained consumption of natural resources" [65] (p. 1211). Exnovating, recomposing, constraining, and ending certain forms of provisioning (e.g., combustion engines) are prerequisites to tackle the ecological crisis. Freedom of individual choice in consuming goods and services will not achieve this; only political decisions on restructuring complete provisioning systems will [55,66]. The latter is also in accordance with the FEC's [4] (p. 130) own reasoning, arguing that taking "environmental responsibility seriously" presupposes redesigning the systems that underpin social consumption. However, their reliance on Sen's CA provides an insufficient answer to questions over what grounds such redesigning would occur. Relying on citizens' consumer preferences and avoiding limits on individuals' choice fails to make sense of the "systematic mechanism by which habitual, social or cultural phenomena would influence preferences" [61] (pp. 308–309). This legitimises problematic concepts such as "authentic preferences" and "agency without structure" [61] (pp. 308–309).

In contrast to CA, human need theory [67] offers moral justifications and, accordingly, the analytical underpinning for such decisions. It identifies needs that unite us as human beings: health, autonomy, and social participation. Those human needs are grounded in objective psychological and physiological requirements. They are plural (because they are not summable), non-substitutional (since they cannot be traded off against others), satiable, and cross-generational (they remain consistent across generations) [60] (pp. 45–46). Above all, they are universal, because if they are not satisfied "then serious harm of some objective kind will result", implying "obstacles to successful social participation" [60] (p. 42). Nevertheless, despite their universality, human needs can be satisfied in different ways, which vary across space-time and cultures. This refers to Max-Neef's [68] "need satisfiers", which can take a great variety of forms, but differ from capabilities or functionings in that need satisfiers are explicitly linked (and linkable) to universal human needs [35].

Human need theory, replacing the understanding of wellbeing as an increasing set of choices by limited and objective human needs, offers pathways for a progressive political articulation of wellbeing within planetary boundaries. It highlights that how needs are satisfied affects other people's possibilities to satisfy *their* needs, today and in the future. As such, it makes "moral demands on agents that preferences do not" [69], thereby

demonstrating the inevitability of collective duties and obligations [65] (p. 1206). Hence, need satisfaction cannot be reduced to an individual's free choice, let alone to an ever-increasing set of choices; it is a political question, integral to organising a polity in a sustainable way. "Thus, similar to the feminist politicisation of family life, which was long perceived as archetypically belonging to the private sphere, politicising (private) everyday life, including its societal and planetary implications, is certainly crucial to pursuits of more sustainable nature-society relations" [70] (p. 9). Such politicisation of 'private' everyday life articulates ecological contradictions in new ways. Hence, "asking citizens what they *want*" [4] (pp. 130–131, emphasis added) is insufficient for a social-ecological transformation. It settles responsibility for climate action on the individual, thereby construing the persistence of non-sustainable provision of goods and services as morally wrong *individual* choices. This has to be problematised, as collective needs, not individual wants or preferences, must take priority in transforming provision systems. This has implications for democratic empowerment, to which we now turn.

5. Discussion: Foundational Thinking for a Social–Ecological Transformation

5.1. Democracy and Collective Empowerment in the Era of Social–ecological Transformation

Foundational thinking is committed to democratic decision making and the collective empowerment of citizens. It interprets this objective consistent with CA. The FEC [4] (p. 130) proposes a shift from "top-down agendas" towards "simply asking citizens about their foundational priorities". However, consider this: the FEC has cited a UK national survey from Populus showing that respondents gave top priority to essential services and utilities—which is certainly reassuring—but *what if* armed forces had ranked higher than food and water? Should policy makers follow this preference? The same survey ranked private car ownership above public transport subsidies. Again, should this popular preference guide policy makers, although it endangers climate goals? The FEC [4] (p. 155) seems to argue that they should, because only through "surveys and focus groups" can one "figure out whether public transport is a high priority". Such reasoning, however, instigates a vicious circle. It disregards key insights from SoP (e.g., [55,66]), environmental psychology (e.g., [71]), and practice theory (e.g., [72,73]), all critical of theories "in which behaviour is taken to be a matter of choice" [72] (p. 141).

Hence, as Hansen [74] (p. 6) recognises, "it is perhaps not 'blindingly obvious' that foundational priorities should be established by 'asking citizens what they want'. However, taking environmental sustainability seriously in the foundational economy may require a more elaborated engagement with processes of priority setting and questions around hierarchies of needs". In this sense, designing democratic decision making consistent with human need theory can improve the quality of democratic policy making in a way that Sen's CA cannot [75].

First, human need theory provides a solid theoretical and moral commitment for a good life for all within planetary boundaries, that can be democratically codified. While the SDGs share this vision, their lack of a comprehensive theory has resulted in sustainable development goals that almost entirely target material aspects, thereby omitting vital components of human wellbeing such as social affiliation, physical security, and critical autonomy [60] (p. 56). Moreover, not all of them find a parallel in human need theory: lumping need-related goals together with economic growth is a questionable way to satisfy them [60] (p. 56). Second, human need theory based on objectives for social–ecological transformation highlights the necessity for contextualised deliberations on need satisfiers, beyond merely "asking citizens what they want". Better engagement with societal priorities and universal needs presupposes a systematic assessment and comparison of stock-flow-service outcomes from different provisioning systems and allows for recognising certain forms of provisioning to be inconsistent with a good life for all within planetary boundaries, and for experimenting with alternatives that provide these services with fewer material flows [76] (p. 11), thereby enabling distinctions between better and worse

need satisfiers. Car ownership, for example, due to high financial costs, air pollution, accidents, and related sedentary lifestyle, can affect needs satisfaction negatively [77–79]. It is the art of politics to take decisions, supported by sufficiently powerful interests, that will enable better need satisfiers and contest those that do not. Success in such political struggles is not a given, but it is a decisive democratic task to win the hearts, minds, and votes of citizens—probably the single most important contribution to a social–ecological transformation. It is essential to curtail provisioning systems unassociated with human needs (e.g., rent extraction) and to contest provisioning systems that encourage eco-socially unsustainable need satisfiers (e.g., car-dependent infrastructures, excessive meat consumption). To clarify the former, Reinert [75] (pp. 68–69) argues that “while an individual might claim a ‘need’ for tobacco or cocaine, objective scientific evidence would dispute this and obviate inclusion of these items”. The same can be said for many other aspects of life: the “need” for a sports car, the “need” for a retail therapy, the “need” for a new smartphone or a holiday flight every year, etc. Although there are certainly grey areas, it is plausible to assume that objective human needs not only exist but can, *in principle*, also be distinguished from mere subjective wants.

While the FEC rejects templates of objectives [4] (p. 155) and a constraining central state [4] (p. 157), it has to be acknowledged that an effective enabling state has to pursue common objectives via political rule making [80]—and this always implies constraining certain behaviours with the clear objective of redistributing resource use. To take an example, 70 per cent of vehicle purchases, 76 per cent of package holidays, and 75 per cent of energy for air transport are consumed by the world’s top 10 per cent [81]. Being aware of distributional consequences of constraints leads to different problematisations and, therefore, different solutions [82]. Focusing on choices, such as Sen does, can systematically sidestep decision making on these and other important topics.

Hausknost [83] helps to grasp the limits of an understanding of democracy that conflates it with the search for consensus and unanimity. He distinguishes three “agentic operators” that determine “the ways in which societal reality is reproduced and changed”: *choice*, *solution* and *decision* [83] (p. 358). *Choice*, at the core of market economies, is performed in undecidable situations, i.e., in a field of incommensurable alternatives, but does not eliminate options, thereby producing “aggregate results outside the political system” [83] (p. 367). Sustainable consumption is an example (e.g., choosing organic coffee). *Solution* is the generic operator of science and technology as well as of public administrations. It eliminates options in decidable situations, i.e., in a field with different but commensurable alternatives. Based on clear criteria, the best, i.e., most efficient, option is taken, for example, a decarbonised energy mix. Finally, *decision* concerns the elimination of options within an undecidable field of incommensurabilities, selecting “between different political rationalities and world views” [83] (pp. 366–367), such as financing railways rather than motorways. Contemporary representative mass democracies, Hausknost argues, tend to avoid *decisions* and thus depoliticise the path towards transformation. As both *choice* and administrative rationality (*solution*) favour regime stability over transformative potential, empowering decision making is crucial for creating new forms of provisioning [83] (p. 371). Politics, in this sense, is about deciding between incommensurabilities in situations of uncertainty.

Constraining is a precondition of enabling and empowering: only by closing doors will others open. This is called “choice editing”, i.e., an active process of limiting, controlling, and enabling individual choices to reach common goals. If we aim for a sustainable food system, politics must *decide* against intensive animal farming to enable organic arable farming. If we aim to change mobility habits, politics must discontinue fossil-fuel subsidies, restrict flights, and redistribute habitation space while investing heavily in public transport. If we aim to distribute forms of work more equally, politics needs to set absolute floors and ceilings on waged working hours as well as on wages.

A democratic system willing to take and accept tough decisions must be compromise-based. Inherent in democracy are collective decisions about collective self-limitation

("you must not violate private property; you must not drive through traffic lights at red"). Democratic systems thus entail, by definition, certain limits on individual choices to ensure social freedom. Hence, democracy does not imply unlimited individual freedom, but remains a form of domination, albeit the least oppressive. Authority and democracy are not opposites; on the contrary, the latter cannot exist without the former, because "where the 'you ought' of the social imperative is conditioned by the 'if and what you want' of the addressee, order loses all social meaning" [84] (p. 56, our translation). "Power and compulsion", as Polanyi [42] (p. 266) argues in his plea for the conception of freedom in a complex society, are part of reality. "An ideal that would ban them from society must be invalid. ... No society is possible in which power and compulsion are absent, nor a world in which force has no function" [42] (pp. 266–267). Those who oppose implementing new limits as oppressive tend to hide the fact that the current eco-social order is based on prohibitions, limits, and constraints: It is prohibited to use someone else's property; the freedom to walk and play is severely limited by road traffic regulations privileging cars; commodified access to need satisfiers constrains consumption by low-income groups. Prohibitions, limits, and constraints are part of any social order. The respective rules are imposed by means of coercion, not necessarily violent, e.g., private property is protected by police and courts, those not using a car behave according to road traffic regulation, whether for children wanting to play or elderly wanting to cross the road. The real political question is what form prohibitions take and which activities are restricted to enable others. Hence, social–ecological transformation would simultaneously enable and restrain; it would lift certain (currently "naturalised") prohibitions, e.g., with respect to the use of public spaces that have long been monopolised by car-friendly regulations and with respect to the affordability of social services, while introducing choice architectures that limit available options to sustainable ones. The resultant social and political struggle will be at the core of the social–ecological transformation. Changing unsustainable provisioning systems will not happen without struggle, as difficult decisions must be taken.

Therefore, our broadened foundational thinking challenges both overly technocratic forms of bureaucratic provisioning as well as overly enthusiastic pleas for bottom-up participation. To sum up: experientially grounded knowledge and empowerment of citizens has to be combined with the acceptance of majority rule, minority rights, and a strong science-policy nexus. The design of democratic governance is a challenging task and needs democratically legitimated policy makers willing to take decisions to shape provisioning systems via political-economic regulations.

This "dual strategy" [60] (p. 93) does not imply paternalistic blueprints, but a political commitment to "design principles of systemic change" [46] (p. 12), which must then be translated to local contexts by local actors via citizen participation: Do we want centralised care centres with highest medical standards or small-scale and decentralised care homes in the neighbourhood? How can abandoned property in the district be brought to use? Democratic empowerment for necessary social–ecological transformations delimits the framework within which cooperative, experimental, and grassroots democratic activity occurs, but nevertheless allows for diversity in what is desirable within a given framework. This is compatible with diverse conceptions of a good life *within the 'planetary feasible'* [85].

In what follows, we propose transformational design principles which combine foundational thinking, democratic decision making, and human need theory, and would, as framework conditions, need to be translated into concrete policies in local contexts through innovative forms of citizen participation and collective action.

5.2. Design Principles for Social–Ecological Transformation: A Zonal Transition Schema of Contemporary Economies

Foundational thinking provides a “strategic entry-point” [17] (p. 8) for transition towards a social–ecological transformation, focusing on extending low-carbon foundational activities, decarbonising others, and exploring new sustainable foundational systems (cf. Section 2). However, due to a sometimes-limited grasp of capitalism, foundational thinking tends to underestimate systemic restraints in order to prioritise the foundational economy in capitalist economies in which the tradable and rentier economy dominates and social–ecological reproduction is *structurally* subordinated to commodity production. To overcome this weakness, combining foundational thinking’s differentiated understanding of economic zones with human need theory allows for conceptualising new forms of democratic priority setting that create further potential for inverting the capitalist hierarchy of commodity production over social–ecological reproduction. It nourishes a new conceptual field of possibility for political articulations and associated policy proposals that distinguish foundational forms of provisioning from others, thereby prioritising objective human needs, and eliminating where possible unsustainable need satisfiers from choice architecture [60,77,86,87]. Strengthening the foundational economy is not a simple win-win policy but has implications for other economic zones. It requires weakening the dominance of non-foundational economic zones, and thus the capitalist mode of production. Hence, raising the share of collective, decommodified, and ecologised foundational provisioning must be combined with sufficiency strategies, thereby constraining certain forms of private consumption. (Lacking a better term, we use “ecologise” to explicitly go beyond a too narrow focus on decarbonisation. Ecologising provisioning systems includes, but cannot be reduced to, decarbonisation, since it also addresses other planetary boundaries, especially biodiversity and land use [44].) Prioritising the foundational economy (and the core economy, cf. Section 4.1) means curtailing other economic zones which have either to shrink (if they hardly serve human needs) or be converted (if they enable provision by means of harmful need satisfiers); that is, they must be consistently treated as adjuncts to sustainable reliance systems. To orient decision makers, table 1 outlines a zonal transition schema of contemporary economies, based on foundational thinking and compatible with decision-oriented human need theory (This schema is based on preparatory work by [8,40]):

Table 1 Zonal transition schema of contemporary economies.

Economic Zones.					
Unpaid	Monetarised Activities, Registered in National Account				
Everyday Economy					
Core economy	Foundational Economy		Non-essential local provision	Export-oriented market economy	Rentier economy
	Existential provision (public service & infrastructure)	Essential local provision			
Examples					
Unpaid care of family members, housework, child-rearing or volunteering	Health, energy, education, water, waste disposal, postal service	Food, “boring” banking, pharmacies and drugstores	Restaurant, hair-dresser, bars	Automotive supplies	Stock/real estate market
Spatiality					
Local, small-scale	Local/regional, domestic economy	Local/regional, domestic economy	Local/regional, domestic economy	Global	Global
Temporality					

Long-term (tied to re-production)	Long-term (tied to re-production)	Long-term business models	Both long-term and short-term business models exist	Short-termism	(Hyper-) short-termism
Form of provisioning					
Reciprocity	Redistribution	Market exchange	Market exchange	Market exchange/intra-firm trade	Appropriation
Form of consumption					
Non-monetary consumption outside markets and public provisioning	Everyday consumption of necessities	Everyday consumption of necessities	Consumption of comfort goods necessary for social participation	Private (status) consumption	Rent extraction from productive zones
Transformative Policies					
Revalue, shift to existential provision, and redistribute	Expand, decommodify, ecologise, and improve working conditions		Strengthen, convert, and pursue differentiated policies for different business models	Convert and shrink	Shrink

Decision is the operator of transformation, “the operator of politics proper, by virtue of politics being the name of the *undecidability* of the social” [82] (p. 10). It offers potentials to “transcend capital, rather than feed it” [46] (p. 12), because it allows for political articulations that contest framing the core economy as private, and wellbeing as individual choice. This is a precondition for confronting the social and ecological contradictions facing social–ecological transformation and resonates with discussions on the (moral) economy of time (e.g., [26,88,89]) and sustainable consumption corridors (e.g., [90–95]). The zonal transition schema offers five guiding design principles to tackle social and ecological contradictions by linking social and ecological struggles. These design principles can realise the potential of the foundational economy for undermining capitalism, as they strategically invert capitalism’s structural hierarchy: social reproduction and ecological imperatives would no longer be subordinate to commodity production and profit maximisation. Therefore, they acknowledge that such inversion cannot be reduced to discursive practices, but need material manifestations, e.g., in public budgets, subsidies, taxes, and physical infrastructures. The five principles are:

(1) Problematise the boundary between paid and non-paid work by politicising the localised unpaid sector, i.e., the *core economy*, which comprises more than 40 per cent of total work time, 75 per cent of which is done by women. Adequate metrics, especially time-use surveys, are a precondition to make the core economy (and its distribution) visible, and thus to engender political articulations in terms of time-politics. These must complement residual income and other eco-social indicators of a safe and just space. Time-politics aims at reducing wage labour, an increasingly popular proposal [96], and at an equal distribution of different forms of work (remunerated, reproductive, cultural, and political).

(2) Decommodify (e.g., via UBS as a social guarantee) and ecologise as well as expand (e.g., via a Green (New) Deal) the collective provisioning systems of the *foundational economy*. This means prioritising the satisfaction of human needs and improving working conditions for key workers in this zone. This requires converting unsustainable forms of need satisfaction, e.g., through social licensing and other regulations as well as prohibition. Substantive forms of citizen participation can support democratic conflict resolution. This is of special importance for enabling diverse conceptions of a good life within the “planetary feasible” by shaping the available *sustainable* options contextually, such that innovative forms of provisioning (e.g., commoning, municipalisation, prosuming, sharing) become possible. Together with the core economy, the foundational economy is the key zone

to strengthen resilience in view of potential and ongoing environmental crises [85] (p. 95). Public funding must thus be ensured by measures similar to a “golden rule of investment”, low-interest rates for public investment, eco-sensible regulations by central banks, the establishment of a European bank for services of general interest, or a public climate bank, as well as a solidary contribution by high-income earners and wealth owners (especially through taxing rents and luxury consumption).

(3) Sustain and convert market-based *non-essential local provisioning*, i.e., the overlooked economy, which provides comfort goods that are essential for social participation. Together with the foundational economy, this economic zone encompasses almost two-thirds of all jobs in Europe [4,40], and invariably sustains social meeting places. Its decline in rural areas and on the urban periphery leads to social problems and polarisation. However, non-essential local provisioning is characterised by diverse business models that range from long-term, locally anchored, and non-financialised business models (e.g., the local café or restaurant) to those dominated by multinational capital (e.g., Starbucks, McDonalds, parts of the tourism industry). Better conceptualisation of this rather disparate zone is a prerequisite for effective policies that strengthen small and medium-sized enterprises, while strictly regulating multinational companies, which extract rents from non-essential local provisioning. In this zone as well, political regulations must aim at converting and restricting unsustainable forms of need satisfaction, while promoting sustainable ones (e.g., via restrictions on advertising holiday air travel and promotion of local leisure activities).

(4) Convert and shrink the *export-oriented market economy* to strengthen its serving function, i.e., to treat it as an adjunct to a reliance system. Due to the urgent need for decarbonisation, transformations in this zone are crucial, as it excessively consumes precious resources and emits a disproportionate share of CO₂. In other words, wherever something does not serve the satisfaction of human needs—such as luxury consumption—it must shrink; and wherever something purportedly satisfies human needs in an unsustainable way, e.g., intensive animal farming or the car industry, it must be converted. Strategies of selective (re-)regionalisation and deglobalisation could shorten supply chains and strengthen (macro-)regional economic circuits. At the same time, producers in the Global South must be supported in establishing their own regional economic networks, which have often been weakened by export-oriented policies in the Global North (such as massive agricultural subsidies in the EU). Furthermore, excessive profits should be curtailed; options might include extending social licensing beyond the foundational economy to control social surplus and extending the logic of limited liability for losses to entitlements to profits for capital companies. (Within such a legal form, the company has no external owners, but simply investors with different risks of loss who receive higher or lower interest rates, accordingly. Once a deposit including interest has been paid off, there are no more claims left. Many successful companies (e.g., Zeiss, Saarlöhne, Bosch, ZF Friedrichshafen) already work according to this principle [97]. This legal form recognises what liberal economists, from Smith to Eucken, repeatedly emphasised up until the 19th century: namely, that limited liability companies were originally intended for areas of special public interest only.) This would help replace the impatient capital characteristic of the short-termist point-value logic of financialised capitalism with more patient, stream-value capital, necessary for strengthening and converting provisioning systems.

(5) Shrink the *rentier economy*, i.e., the FIRE sector composed of finance, insurance, and real estate as well as other quasi-monopolists (e.g., on intellectual property rights). (The equation of the FIRE sector with value extraction and the rent economy is only partially applicable. As the example of the Austrian non-profit housing sector shows, rents can also be extracted within the same sector and fed into a socially useful circuit, e.g., via social licensing.) This economic zone is based on unearned income and has led to a dangerous concentration of economic and political power [98] which hollows out democracies and foundational provisioning and stimulates the consumption of energy-intensive lux-

ury goods [81,95]. Fanning et al. [56] (p. 8) conceptualise the rentier economy as an assemblage of “appropriating systems” that, in contrast to provisioning systems, do not satisfy universal human needs but “extract rents to satisfy the *wants* of a small section of society (e.g., a wealthy elite), at the expense of efficient social provisioning”. The rentier economy, in other words, does not provide use values but “reduce[s] the resource efficiency of human wellbeing via rent extraction, and act[s] as a barrier to meeting human needs at a sustainable level of resource use” [56] (p. 1). Following Mazzucato [99], the rentier economy is the central “value taker”, appropriating produced values, e.g., via monopoly profits, stock manipulations or patents. It extracts value via a process of ex- and appropriation, i.e., what Harvey [100] (p. 75) refers to as “the cutting edge of accumulation by dispossession in recent times”.

To sum up, impeding the costless appropriation of time and nature, i.e., to confront the social and ecological contradictions facing social–ecological transformation, requires coordinated political decisions at multiple levels. Considering the lack of role models and best practices to transition towards a safe and just space, no explored paths, let alone blueprints, exist. The design principles of a social–ecological transformation proposed here, however, can serve as a compass, an abstract map that needs to be refined and contextualised, particularly through transdisciplinary research with extra-scientific local actors.

6. Conclusions

In this article, we have synthesised the current state of foundational thinking and discussed its potential for social–ecological transformation, i.e., its ability to confront capitalism’s social and ecological contradictions that are at the root of its systematic non-sustainability. Since capitalist social orders structurally tend to exclude matters defined as “economic” from democratic decision making, they frame these contradictions as non-political, i.e., private and individual. Hence, transformative ways of thinking, aiming to engender effective political contestation and collective action, must strive for progressive political articulations. We have been mindful of this in the discussion of foundational thinking’s achievements and shortcomings.

Regarding social contradictions, foundational thinking’s quest to shift economic policies towards the foundational economy, its critique of extractive business models in foundational sectors, and its promotion of decommodified forms of foundational provisioning are essential elements in problematising capitalism’s ranking of commodity production above social reproduction. At the same time, foundational thinking has not as yet sufficiently problematised capitalism’s structural subordination of unpaid to paid labour, thereby reinforcing the privatisation of the former. Residual income as a key indicator of foundational thinking is a case in point. Hence, opening up the core economy to public debate and deliberation requires time-use surveys as integral parts of the foundational metrics of liveability to make the core economy visible, debatable, and contestable. This is a precondition for emancipatory time politics, which extends the meaning of work (remunerated, reproductive, cultural, and political), reduces remunerated work, and distributes different forms of work (and thus time) more equally. Crucially, time politics offers key potential for linking social–reproductive and ecological struggles, liberating “space for a more equal division of daily caring activities among genders” [101] (p. 160), and potentially reducing unsustainable consumption patterns, especially with regard to food and transport [102–107].

Regarding ecological contradictions, foundational thinking’s innovative metrics of liveability, its plea to rebuild administrative public capacities, its focus on context sensitivity, and its scepticism over techno-optimism are important elements in tackling the collective challenge of climate change and providing a more nuanced understanding of the social and contextual nature of planetary boundaries. However, by cleaving to Sen’s capability approach (CA), foundational thinking has thus far failed to problematise capitalism’s structural hierarchy of economic zones, because CA’s focus on freedom of choice tends to depoliticise need satisfaction and wellbeing. Human need theory, by contrast,

provides a basis for progressive political articulations in highlighting that *how* needs are satisfied affects other people's possibilities for need satisfaction, both today and in the future. This makes democratic governance necessary to shape sustainable forms of provision. In times of accelerating social–ecological crises, there is a need to adapt democratic institutions in the light of the required social–ecological transformation, thereby placing the agentic operator *decision* centre stage. This implies a dual strategy, linking a strong science-policy nexus committed to the design principles of a social–ecological transformation with citizen participation to translate those principles to local contexts. This enables innovative forms of provisioning and diverse conceptions of a good life *within the 'planetary feasible'*.

Finally, linking human need theory and foundational thinking, we have developed a zonal transition schema for contemporary economies, proposing five potential design principles for a social–ecological transformation. Whereas in the short term, strengthening the foundational and core economy improves immediate living conditions within capitalism, the transition schema offers long-term potential to invert capitalism's structural hierarchy subordinating social reproduction and ecological imperatives to commodity production and capital accumulation, thus offering pathways to undermine capitalism from within. However, further research is necessary to refine this schema. This requires, in particular, transdisciplinary approaches and innovative forms of participation to contextualise the framework conditions and make sense of what people collectively value in their communities. As such, this article, essentially theoretical and tentative, provides a starting point for an inter- and transdisciplinary research programme, including theoretical work and empirical research across and beyond different scientific disciplines.

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