

DEFENDING PAINE’S *AGRARIAN JUSTICE* AND THE “GROUND-RENT”

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Thomas Paine’s *Agrarian Justice* deserves more attention than it has received, for in it Paine provides a foundational case for a broad social welfare program that is absent in his better-known *Rights of Man*. In this paper, I explain Paine’s case in *Agrarian Justice*, and consider the objection that the main revenue source Paine proposes—the “ground-rent”—is insufficient to fund the social welfare programs he proposes because in the production of value the contribution attributable to natural resources is insignificant. I argue that the ground-rent justifies levying a tax not just on the value of the natural resources used in the production of value, but on a portion of the value of the labor applied to those resources, and therefore can be a significant revenue source. Similar considerations apply to resource-based taxation schemes suggested by others, including Henry George, Thomas Pogge, and some modern “left-libertarians”.

Keywords: Thomas Paine, *Agrarian Justice*, Resource Taxation, Left-Libertarianism

A *Justiça Agrária* de Thomas Paine merece mais atenção do que aquela que até agora lhe foi dedicada, pois nela Paine estabelece um argumento fundacional para um programa abrangente de bem-estar social que não se encontra no seu mais famoso *Os Direitos do Homem*. Neste artigo, explico o argumento de Paine em *Justiça Agrária* e considero a objeção segundo a qual a principal fonte de receitas aí proposta – a “renda fundiária” – seria insuficiente para financiar o programa de bem-estar social que propõe, na medida em que a contribuição dos recursos naturais para a produção de valor é insignificante. Argumento que a renda fundiária justifica a imposição de um imposto não apenas sobre o valor dos recursos naturais usados na produção de valor, mas sobre uma porção do valor do trabalho aplicado sobre esses recursos, e que, portanto, ela pode ser uma fonte significativa de receitas. Considerações similares são aplicáveis aos sistemas de taxaço baseados em recursos naturais propostos por outros autores tais como Henry George, Thomas Pogge e alguns libértários de esquerda contemporâneos.

Palavras-chave: Thomas Paine; *Justiça Agrária*; Taxação de Recursos; Libértarismo de Esquerda

Introduction

In the United States, Thomas Paine is probably best known for his pamphlet *Common Sense* (1776), which advocated for and significantly influenced the American colonial independence movement. In the United Kingdom, and Europe more generally, his *Rights of Man* (1791) is probably best known.¹ His pamphlet *Agrarian Justice* (1797) is not nearly as well-known on either side of the Atlantic. Indeed, some call it “neglected”.² This is perhaps an overstatement, or simply not as apt as it once was, as *Agrarian Justice* has garnered a certain amount of attention in certain quarters in recent years. For instance, it is often cited in the burgeoning literature on a universal basic income (UBI), even though technically Paine does not argue for a UBI in *Agrarian Justice*.³ Be that as it may, *Agrarian Justice* is worthy of more attention than it gets, as it offers an interesting and powerful case for a social welfare program to largely eliminate poverty, funded by an inheritance tax. In the second part of *Rights of Man*, Paine also advocates for a broad social welfare program. However, in *Agrarian Justice* he offers a systematic, principled defense of his social welfare program, while in *Rights of Man* he does not provide anything similarly philosophical.⁴ For this reason, *Agrarian Justice* deserves careful, systematic analysis, which is what I offer here, first explaining Paine’s principled case in *Agrarian Justice* for a broad social welfare program, and second addressing some concerns about it, in particular that his main argument cannot justify taxes sufficient to pay for it.

The main argument in *Agrarian Justice* is for what Paine calls a “ground-rent” to fund his proposed social welfare program. The ground-rent is a tax equivalent to the value of the land, and natural resources more generally, used in cultivation and other productive enterprises. This tax, he thinks, is justified because the land and its associated natural resources are properly the

¹According to Robert Lamb (2010, p. 511), Paine is correspondingly viewed differently on opposite sides of the Atlantic. In Britain, he is widely regarded as an egalitarian, as *Rights of Man* is a critique of monarchy and the associated inequality, while in the United States he is often seen in libertarian terms, as *Common Sense* emphasizes individual liberty.

² Brent Ranalli (2020, p. 168), Adrian Little (1999, p. 63), and Gregory Claeys (1989, p. 196), all call it “neglected”. Much of the attention that has been paid to it is primarily in an historical or biographical context. There are a few exceptions which address the philosophical arguments in *Agrarian Justice*, e.g., Lamb (2010, 2015), Elizabeth Anderson (2016a, 2016b), and Sean Monahan (2015). Lamb (2010, p. 484) notes that Alasdair MacIntyre famously dismissed Paine as “not a source of philosophical argument”. This may be due to a focus on *Rights of Man*, and inattention to *Agrarian Justice*.

³ See, e.g., J. E. King and John Marangos (2006), Michael Munger (2015), and Philippe Van Parijs and Yannick Vanderbrocht (2017). Crucially, Paine is not arguing for what is today called a Universal Basic Income (UBI), because he includes no provision for those of “working age” who are capable of supporting themselves, as Van Parijs and Vanderbrocht acknowledge (2017, p. 72). Nonetheless, it is appropriately seen as a progenitor of the modern conception of UBI.

⁴ This is noted in the entry in the *Stanford Encyclopedia of Philosophy* (SEP) on Paine (<https://plato.stanford.edu/entries/paine/>), where his advocacy for social welfare programs in *Rights of Man* is described as “ad hoc”, while his defense in *Agrarian Justice* is “principled”.

common property of the human race, and, thus, its value must be returned to the general population by those who employ it in productive enterprises. However, this approach is in jeopardy if the revenue the ground-rent can generate is not sufficient to pay for the required social welfare programs. And it has been powerfully suggested that the revenue will be inadequate, on the grounds that the value of undeveloped land and raw natural resources is negligible. John Locke, for instance, suggested that the value of undeveloped land represents as little as 1% of the value of what is produced in cultivation (1689/1988, chapter II, section 40). More recently, Dan Moller (2017) has argued that in the modern service economy value-production is largely independent of natural resources, and, thus, a tax on the value of natural resources used in the production of value will generate very little revenue at all. Paine, and some on his behalf, have suggested increasing revenue by taxing, additionally, non-landed private property and/or inherited wealth. (Lamb, 2010; Anderson, 2016a) However, I argue that the fact that those who employ the land and associated natural resources to produce wealth deny others the opportunity to do so themselves justifies a tax not just on the value of the land and its associated resources, but on a portion of the value produced by labor. As such, the potential revenue of the ground-rent is greater than skeptics suggest, and the need for additional taxes to support the social welfare program may not be so great. Accepting this argument requires rejecting the powerful idea that people have a strong right to the “fruits of their labor”, a right that Paine himself seems to endorse in *Agrarian Justice*, as Robert Lamb (2010) notes. However, I think that this may well be the only way to preserve the significance of the ground-rent if it is accepted that natural resources make only a negligible contribution to the production of value. As such, preserving the significance of the ground-rent may depend on weakening the libertarianism that Lamb and others, including some so-called left-libertarians, attribute to him.⁵

1.

The social welfare program that Paine argues for in *Agrarian Justice* has two parts. The first is a universal annual stipend for the aged and those who are younger but “totally incapable of earning a livelihood” (Paine, 1797/2019, p. 20).⁶ The second is a universal, one-time grant to

⁵ Peter Vallentyne and Hillel Steiner (2000) note that Paine is, or at least should be, recognized as a progenitor of left-libertarianism.

⁶ Paine (1797/2019, p. 15) settles on age 50 for the age people begin to receive the annual stipend. We might well think that in the modern era, with greater healthy life-expectancy, the age of eligibility should be increased.

all young people so that they have sufficient means to become economically self-sustaining (Paine, 1797/2019, pp. 15-16).⁷ For the latter, he provides a particularly charming description appropriate to the age:

When a young couple begin the world, the difference is exceedingly great whether they begin with nothing or with fifteen pounds apiece. With this aid, they could buy a cow, and implements to cultivate a few acres of land; and instead of becoming burdens upon society, which is always the case where children are produced faster than they can be fed, would be put in the way of becoming useful and profitable citizens (Paine, 1797/2019, p. 22).⁸

Paine's argument for implementing such a social welfare system, and for funding it through an inheritance tax, begins with an empirical claim that both extreme poverty and extreme wealth are the product of "civilized life", in particular by the system of private ownership of the land, with so-called "landed property". In the "natural and primitive state," he claims, "[t]here is not any of those spectacles of human misery . . . present to our eyes in the towns and streets of Europe . . . The life of an Indian is a continual holiday, compared with the poor of Europe" (Paine, 1797/2019, p. 11). Paine thinks that life in the so-called "natural state" is without poverty primarily because there is no "landed property"—no large, income-generating, privately-owned lands or estates that monopolize productive land.⁹ Instead, the earth is the "common property" of the human race, with each person a "joint life proprietor with the rest in the property of the soil, and in all its natural productions, vegetable and animal" (Paine, 1797/2019, p. 12). As such, every person has the right to occupy and use the earth to provide for themselves— to hunt in what he calls the first state of man, and to shepherd livestock in the second state. And the earth provides enough for the small populations characteristic of the so-called "natural state". With cultivation, he claims, came landed property, which strips other individuals of their right to occupy and use the earth to sustain themselves. As a result, some, namely those without property, fall into extreme poverty, while others, those with landed property, can improve the land and become rich by means of "those advantages that flow from agriculture, arts, sciences and manufactures" (Paine, 1797/2019, p. 11). For this reason, "the

⁷ Paine argues that both should be universal – made to every person, rich or poor -- a) to "prevent invidious distinctions", and b) because they are owed to every person "in lieu of the natural inheritance, which, as a right, belongs to every man". He notes that "[s]uch persons as do not choose to receive" a benefit can "throw it into the common fund." (Paine, 1797/2019, pp. 15-16)

⁸ In the modern era, Anderson (2016a) has noted that the favored mechanism for giving young people the means to sustain themselves in adulthood is to provide state-funded education. Whether that system adequately serves that function in the United States, and serves it equally, is an open question, to say the least.

⁹ In Rousseau's *Discourse on the Origin of Inequality* (1755/2004), he similarly associates severe inequality with the introduction of private ownership of land.

most affluent and the most miserable of the human race are to be found in the countries that are called civilized” (Paine, 1797/2019, p. 11).¹⁰

Next, Paine asserts a normative premise, the “first principle of civilization”:¹¹

. . . the first principle of civilization ought to have been, and ought to still be, that the condition of every person born into the world, after a state of civilization commences, ought not to be worse than if he had been born before that period. (1797/2019, p. 12)

Combining the empirical claim about the origin of poverty with this normative claim, Paine concludes that in “civilized” society every person ought to be provided with the means to avoid poverty, and that the funds for such social welfare measures should come from a tax equivalent to the undeveloped value of the same privately owned lands that deny people their original right to occupy and use the land and its “natural productions” to sustain themselves. The tax owed on landed property he calls a “ground-rent”, and is owed back to the community because the private owner of the land deprives others of what “was, and ever would have continued to be, *the common property of the human race*”, and their associated right to use the land and its resources to sustain themselves (Paine, 1797/2019, p. 12).¹² As such, the owner who cultivates the land can lay claim only to his own contribution to the production of value—to the “value-added” to the land through his labor—and not the contribution of the land itself.¹³ Paine says that “it is the value of the improvement only, and not the earth itself, that is individual property.” (1797/2019, p. 12) Thus, the value of the earth itself, must be paid back to the broader community.¹⁴

Paine emphasizes cultivation and the use of land for two reasons. First, he thinks that the origin of private ownership of land is to be found in agriculture (Paine, 1797/2019, p. 12). Second, in his time agriculture was a dominant method of generating value. However, his argument is not limited to the agricultural context, because other forms of generating value

¹⁰ In *Rights of Man*, Paine similarly claims that poverty and great wealth are the product of civilization, and repeats the claim that the condition of the poor in Europe is “far below the condition of an Indian.” (Paine, 1791/1999, p. 146). However, he attributes poverty in the civilized state to different factors: i) governments being “almost continually at war” and the associated taxes required (p. 146), and ii) unequal taxation that unfairly burdens the less well-off, e.g., consumption taxes, the “consequence of which has been a constant increase in the number and wretchedness of the poor” (p. 157).

¹¹ Paine does not argue as sequentially as this suggests.

¹² Henry George (1879/1987) proposes a “single tax” that is quite similar. More recently, Thomas Pogge (2002) has proposed a global resource tax to be used to combat world poverty.

¹³ This is a common view amongst so-called “left-libertarians”.

¹⁴ Paine (1797/2019, p. 14) emphasizes that the private owner of lands who adds value through his labor has a right to the “value-added”—to the “fruits of his labor”. As such, he is neither a strict egalitarian nor a radical skeptic of private property.

depend on the products of the earth—on natural resources more generally. Paine’s ground-rent, then, can be thought of in broader terms, as a tax on natural resources more generally.

Paine argues that the rate for the ground-rent should standardly be 10%. He also thinks the tax should be levied on all personal property, not just on landed property. The former I will address here; the latter will be returned to below. On Paine’s view, in the “natural state” where people survive by hunting, subsistence requires “ten times the quantity of land to range over . . . than would support him in a “civilized state”, where the earth is cultivated” (Paine, 1797/2019, pp. 11–12). This means that cultivation increases productivity “tenfold”: cultivation “has given to created earth a tenfold value” (Paine, 1797/2019, p. 14). Thus, 10% of the value created by cultivation can be attributed to the value of the land, and it is this that is owed back to the broader community. This tax, he argues, should be levied in the form of an inheritance tax. He favors an inheritance tax largely for pragmatic reasons: it is administratively easy to collect the ground-rent through an inheritance tax, and in this way no living property-owner will have to sell or otherwise lose his property to pay the tax—it will “operate without deranging any present possessors” (Paine, 1797/2019, p. 16)¹⁵. He also favored a higher tax rate of 20% for bequests that do not go to direct heirs because “man is always related to society, [and] that relationship will become comparatively greater in proportion as the next of kin is more distant” (Paine, 1797/2019, p. 18).

2.

A number of objections to Paine’s argument for an anti-poverty social welfare program funded by a tax on personal property come quickly to mind. The idea that originally the earth is common property might be thought problematic, perhaps dependent on some kind of theism, and that it is therefore better to think of the earth as initially unowned rather than commonly owned.¹⁶ It also might be argued that while those without property *may* fall into poverty, they needn’t, as they can always support themselves by laboring—by working for others who own the natural resources typically necessary for the production of value. As such, they do not require social

¹⁵ There is a disadvantage—a possible source of unfairness—to an inheritance tax: some estates will be taxed more often than others, because of greater “turnover”—more frequent deaths of the owner.

¹⁶ See, e.g., Ranalli (2020), Vallentyne and Steiner (2000, p. 7), and Claeys (1989, pp. 199–201).

welfare programs, or at least not extensive social welfare programs, to avoid poverty. While these are important objections, there are two other objections that I find particularly compelling and will focus on here.

First, it could plausibly be argued that his suggestion that poverty and the associated human misery does not exist in the “natural state” is a naïve, romantic fantasy.¹⁷ Surely there is material want and other sources of human misery in some if not all societies in the (prior to the establishment of a system of private (landed) property). And if this is right, then even if we accept Paine’s “first principle of civilization” that no one ought to be worse off in the “civilized state” than in the “natural state”, there is no requirement for civilized societies to ensure that all can avoid material want and other forms of misery.

Second, Paine’s basic idea is that a tax equivalent to the value attributable to the natural resources employed in the production of value is justified. However, this tax may be insufficient to fund the social welfare programs required to ensure that all can avoid poverty. In a recent discussion of *Agrarian Justice*, Elizabeth Anderson (2016a, p. 9) has emphasized this concern:

Paine’s funding scheme faced the difficulty of proving that the value of privately appropriated natural resources matched the amount needed to provide all with sufficient social insurance and start-up capital to enable nearly all to avoid poverty. There is no *a priori* reason to think that these two amounts matched, and indeed Paine’s calculations of each person’s entitlements were perhaps too low to do the job.

Of course there is no *a priori* reason to think that there is a match, and Paine did not think there was. Indeed, he went to considerable pains to show that there was an *a posteriori* match. (Paine, 1797/1999, pp. 16–20). Anderson’s worry about Paine’s calculations is that the amount of the grant for young persons and the annual stipend for the elderly might be too little, or that additional measures might be required to prevent poverty, and, thus, Paine underestimates the costs.¹⁸ But there are other, perhaps stronger reasons to worry, but on the revenue side. Paine assumes that when natural resources are utilized to produce goods and services, 10% of the value

¹⁷ One might also worry that it is racist to describe people, e.g., indigenous North Americans, as being in a “natural state” or “primitive state” while others are described as in a “civilized state”. For this reason, throughout this discussion I will put these terms in quotations.

¹⁸ Ranalli (2020, p. 176) notes that Paine’s contemporary Thomas Spence shared this concern, arguing in his *The Rights of Infants* (1797) that *Agrarian Justice* is “insufficiently radical”. Paine recommends more extensive social welfare measures in *Rights of Man*. It seems unlikely that these additional measures could be paid for by the ground-rent as calculated by Paine, as Paine’s own calculations in *Agrarian Justice* show that the revenue is just adequate for the basic measures called for there.

is attributable to the value of the natural resources.¹⁹ But this figure might be thought too high. As Anderson (2016a, p. 8) points out, many, including Locke and Herbert Spencer, claim the value of undeveloped land is “vanishingly small” compared to what is ultimately produced through cultivation, perhaps just 1%. Locke makes the point in his *Two Treatises of Government* (1689/1988, chapter II, section 40):

. . . 'tis *Labour* indeed that *puts the difference of value* on everything; and let any one consider, what the difference is between an Acre of Land planted with Tobacco, or Sugar, sown with Wheat or Barley; and an Acre of the same Land lying in common, without any Husbandry upon it, and he will find, that the improvement of *labour* makes the far great part of *the value*. I think it will be but a very modest Computation to say, that of the *Products* of the Earth useful to the Life of Man 9/10 are the effects of *labour*: nay, if we will rightly estimate things as they come to our use, and cast up the several Expences about them, what in them is purely owing to *Nature*, and what to *labour*, we shall find, that in most of them 99/100 are wholly to be put on the account of labour.

In recent work, Dan Moller (2017) argues that even if, contra Locke and Spencer, natural resources contribute significantly towards the production of value in an agrarian period—in agriculture—the same is not true in the modern economy, which is primarily a service economy. According to Moller, the modern economy is dominated by the service sector, which is constituted by “tertiary sector output not the result of primary resource extraction, farming or secondary manufacturing including construction. It includes fields such as banking, retail, hospitality, dining, entertainment, law, healthcare, education, design and computer programming . . . About 80% of the value of American economic output (by GDP) derives from *services*” (Moller, 2017, pp. 5–6). And in the dominant service sector, Moller claims, wealth is created largely independently of natural resources—without depending on appropriating resources oneself or acquiring resources from others by transfer: “. . . in modern service economies, wealth is overwhelmingly the product of services, not of the initial acquisition of resources” (2017, p. 2). As such, Moller concludes, levying a tax on the contribution of natural resources to the production of value in a modern service economy “is directed, so to speak, at plundering an empty bank vault” (2017, p. 13).

Consider first the objection that it is naïve to think that life in the “natural state” is without material want and other sources of human misery. The obvious response to this starts by noting

¹⁹ Although Paine goes with the 10%, he also sometimes casts doubt on the idea that the relative contributions of natural resources and labor can be determined (1797/2019, p. 9).

that the defense of Paine’s view does not require denying that there is material hardship in the “natural state”. Indeed, it doesn’t even require denying that such hardship is the norm. All that it requires is that some are worse off in the “civilized state” than in the “natural state”—that the worse-off in the “civilized state” suffer more than the worse-off in the “natural state”. For the “first principle of civilization” requires that no person born into the “civilized state” is worse off than if born into the “natural state”. Drawing extensively on empirical work in anthropology and archaeology, Karl Widerquist and Grant S. McCall have persuasively shown that it is indeed the case that the worse-off in the “civilized state” typically suffer greater material want than the worse-off in the “natural state”. With regard to material well-being, they argue, there can be no doubt that the average level is higher in the “civilized state”—that many, perhaps most, are far better off. However, typically “increases for the average have not been shared by everyone” (Moller, 2017, p. 192). Citing the work of anthropologist Richard Lee, they point out that the “movement from band to modern society eliminated both a ceiling to the accumulation of wealth and also a significant floor” (Widerquist and McCall, 2017, p. 187). The “civilized state”, then, is characterized by much greater inequality in terms of material wealth. And, as many have pointed out, such inequality (relative deprivation) has significant negative impact on the less fortunate. Robert Frank (2007) has documented how relative deprivation negatively impacts both physical and mental health. Others, following a suggestion by John Rawls, have emphasized how relative deprivation negatively impacts the fundamental moral capacity of self-respect for those lower on the scales.²⁰ One need not paint a romantic picture of the so-called “natural state”, then, in order to establish that in the “civilized state” the worse-off have a poorer living standard than the worse-off in the so-called “natural state”. Life in the “natural state” could typically be pretty rough, and still it is the case that the worse-off in the “civilized state” fare worse than the worse-off in the “natural state”.

Further, Widerquist and McCall show that what is true in the case of material well-being is also true with a wide variety of other measures associated with well-being, including cultural satisfaction, health and longevity, and freedom. In these cases too, while the average level is typically higher in the “civilized state”, not all reap the benefits of the higher average. With respect to these measures, as with material being, there is both a higher ceiling and a lower floor in the “civilized state” (Widerquist and McCall, 2017, chapter 10).

²⁰ See, e.g., Kollar and Santoro (2012).

It could be argued, however, that the empirical evidence is not conclusive, because the “floor” is higher in the “natural state” only in virtue of the fact that the harsh realities of the “natural state” are such that many of the most dependent members of society—the old, the sick, and physically and mentally disabled—simply do not survive. As such, the population remains small, and the natural world provides sufficient resources for those who remain. In other words, the fact that small populations are characteristic of the “natural state” in which people depend on what nature provides is not an exogenous fact. Rather, populations are small because limited resources keep it small—through reduced fertility and increased morbidity. Indeed, evidence suggests that infant-mortality in hunter-gatherer societies is 30 times greater than it is in the United States, and early-child-mortality is 100 times greater (Widerquist and McCall, 2017, p. 194). If this is right, then it doesn’t seem true that the impoverished in the “civilized state” fare worse than the worse-off in the “natural state”, as the worse-off in the “natural state” die of disease, malnutrition or some other malady. If so—if increased morbidity explains the lack of material want in the “natural” state—then the “first principle of civilization” could be satisfied in the “civilized” state by similarly letting the worse-off perish.

There are several reasons not to be convinced by this line of argument. First, it paints an inaccurate picture of life in the “natural state”. Infant- and early-child mortality rates may well be greater in the “natural state”, but life-expectancy for those who survive childhood is not dramatically different from life-expectancy in the “civilized state” (Widerquist and McCall, 2017, p. 194). It seems a mistake, then, to imagine that in the “natural state” it is only those who are young, strong, and capable of providing for themselves and others who survive. Communities in the “natural state” are typically a mix of young and old, more and less healthy, more and less strong and capable of contributing to society. As such, high levels of infant- and early-child mortality are not enough to account for a higher floor in terms of material well-being and other measures relevant to well-being in the “natural state”, because securing the higher floor for all members of the community, including those less able to contribute to society, requires norms and practices of sharing resources such that all members are adequately provided for.

It might be argued that such a rosy picture of things in the “natural state” may be accurate in many cases, but surely in some non-negligible number of cases the circumstances are more dire, and there simply are not sufficient resources to adequately provide for all members of the

community, and the less-able—the elderly, the sick and incapacitated—inevitably perish. Even if this is true, however, there is a crucial difference between cases like this in the “natural state” and the situation in the “civilized state”. In cases like this in the “natural state”, *ex hypothesis*, there are inadequate resources to provide for the most vulnerable members of the community. But this is not typically the case in the “civilized state”. The great affluence made possible by private property and “the advantages of agriculture, arts, science, and manufactures” generally makes it possible to provide for the most vulnerable—the young and the old, the sick, and the incapacitated. This is disputed by some (on the political right, largely), but I will not make the required case here, as it will take things too far afield. But if I were to make the case, I would certainly begin with Amartya Sen’s famous argument that 20th century famines around the world were largely not the result of inadequate food supplies, but the result of people having inadequate resources to acquire the food (Sen, 1981).²¹ In the “natural state”, then, all members of society are typically provided for so long as there are sufficient resources to do so. “As long as food was available in camp,” Widerquist and McCall note, again citing Lee, “no one in the camp would go hungry” (2017, p. 187). Paine’s first principle of civilization, recall, requires that “the condition of every person born into the world, after a state of civilization commences, ought not to be worse than if he had been born before that period (Paine, 1797/2019, p. 12). Plausibly, then, it requires that if people in the “natural state” are provided for so long as there are sufficient resources to do so, then they must be similarly provided for in the “civilized state” if there are sufficient resources to do so. And thus, insofar as there are sufficient resources to provide a decent standard of living for all in at least most modern “developed” countries—a floor comparable to the typical floor in communities in the “natural state” —it is required by the first principle of civilization. This requires a perhaps broader reading of the first principle of civilization, where a person’s “condition” is not limited to their actual state in terms of resources provided to them or their state of well-being, but applies to what their condition would be if circumstances were different—if, most significantly, greater resources were available. In other words, a person’s condition is understood to include the social norms and practices that apply to them. Perhaps this is an extension of the first principle of civilization beyond how it is typically understood. But I see no reason not to so extend it.

²¹ Widerquist and McCall (2017, p. 188) also note Sen’s point that famines tend to be caused not by a lack of food availability, but instead by a lack of entitlement.

Let us return, then, to the objection that the revenue from the ground-rent will be inadequate to pay the costs of the proposed social welfare programs because the value of undeveloped land and associated natural resources constitute only a minute fraction of the value of what is ultimately produced. Some think this objection is unfounded on theoretical grounds, while others think it is on empirical grounds. The theoretical objection is that just as land and other natural resources without labor are of little value without being labored upon, as Locke suggests, so too is labor without land or natural resources to be labored upon. The point can be put in rather extreme terms: a person with the capacity to labor but without resources—without a place to stand or air to breathe—will die in a matter of minutes. The point is just that the kind of argument Locke uses to establish that natural resources do not make a significant contribution to the production of wealth can be used equally to show that labor makes no such contribution.²² On the empirical side, Gary Flomenhoft, for instance, paints an optimistic picture on the revenue side for a tax on “common assets” even in a state with relatively little resource wealth such as Vermont. He estimates that taxing common assets would generate between \$1.2 billion and \$6.5 billion in additional revenue. Given Vermont’s population, estimated to be 623,050 in 2005, the annual revenue per capita is between \$1,972 and \$10,348. (Flomenhoft, 2012, p. 121)

There are, however, at least two reasons to resist sharing Flomenhoft’s optimism. First, the low estimate seems inadequate to all-but eliminate poverty in Vermont. Such optimism requires confidence in the higher estimate. Second, Flomenhoft’s estimates are based on two distinct types of common assets: i) those created by nature (natural resources), e.g., water (ground and surface), minerals, air (to breath, and as an atmospheric sink), and fish and wildlife, and; ii) those created by society as a whole (social resources), e.g., infrastructure (which contributes to land value), the financial system, and the internet. The ground-rent proposed by Paine is a tax on natural resources, on those created by nature. So, only the potential revenue from natural resources should be considered in an evaluation of the revenue prospects of the ground-rent. According to Flomenhoft, the estimated revenue from socially-produced assets in the case of Vermont is between \$665 million and \$2.9 billion. If these amounts are deducted from the low and the high estimates, respectively, of increased revenue, the poverty-reducing potential of the revenue generated is considerably reduced. Phillipe Van Parijs and Yannick Vanderbroght are similarly pessimistic about funding robust anti-poverty measures, in their case a UBI, based on

²² Thank you to a reviewer of this journal for pointing this out to me.

revenues from taxing natural resources alone, except perhaps in the case of privileged states that sit on particularly valuable natural resources (2017, pp. 149–152).

Of course one might propose to tax all common assets, both the naturally- and the socially-produced, as Flomenhoft and others, including Van Parijs, suggest (Van Parijs, 1995, esp. chapter 4; Van Parijs and Vanderbrocht 2017).²³ Indeed, near the end of *Agrarian Justice*, Paine makes a suggestion along these lines, a suggestion I will discuss in more detail below. Be that as it may, it does not seem unreasonable at this juncture to be concerned that the revenue potential of taxing natural resources—the revenue potential of the ground-rent—is insufficient for the kind of robust anti-poverty measures required to all-but-eliminate poverty.

Anderson thinks that Paine himself anticipated such a shortfall—a gap between the revenue generated by the ground-rent and the costs of his proposed anti-poverty measures—but also provided a solution (Anderson, 2016a, p. 9). The solution, presented in a few short paragraphs near the end of *Agrarian Justice*, is to levy the inheritance tax on all personal property, not just on landed property. By taxing all personal property, the revenue generated will be greater than the amount associated with the value of undeveloped land and the associated natural resources. Paine says explicitly that the rationale for taxing all personal property above and beyond landed property is distinct from the rationale for the ground-rent: “. . . the reason for taking personal property into the calculation is equally well founded *though on a different principle*” (1797/2019, p. 24, my emphasis). The different principle is that the accumulation of significant personal property is impossible “without the aid of society”:

Personal property is the *effect of society*; and it is impossible for an individual to acquire personal property without the aid of society, as it is for him to make land originally.

Separate an individual from society, and give him an island or a continent to possess, and he cannot acquire personal property. He cannot be rich . . . All accumulation, therefore, of personal property, beyond what a man’s own hands produce, is derived to him by living in society; and he owes on every principle of justice, of gratitude, and of civilization, a part of that accumulation back again to society from whence the whole came. (Paine, 1797/2019, p. 24)

Gregory Claeys (1989, p. 202) calls this the “social debt” principle.

²³ Van Parijs (1995, chapter 4) emphasizes that jobs are a (social) asset, and that taxing employment rents would generate significant revenue to pay for a UBI or other measures to combat poverty.

The social debt principle, Anderson suggests, is still appealed to today. She cites Senator, and recent-candidate-for-the-Democratic-nomination-for-President, Elizabeth Warren as an example, as she (Warren) gave the following argument for increasing taxes:

There is nobody in this country who got rich on his own . . . You built a factory out there? Good for you. But I want to be clear: you moved your goods to market on the roads the rest of us paid for; you hired workers the rest of us paid to educate; you were safe in your factory because of police forces and fire forces that the rest of us paid for . . . Now look, you built the factory and it turned into something terrific, or a great idea? God bless. Keep a big hunk of it. But part of the underlying social contract is you take a hunk of that and pay it forward for the next kid who comes along.²⁴

Seen in this light, the social debt principle seems to be akin to the suggestion that socially-produced common assets should be taxed in addition to those naturally-produced. And when seen this way, one might think that, contrary to Paine's own explicit statement, there is not such a great difference in principle between the ground-rent and the social debt principle, as both are grounded in an appeal to common assets.²⁵

Be that as it may, there are several reasons to be less-than-satisfied with defending Paine by appeal to the social debt principle. First, it is disappointing for so much weight to be placed on taxing non-landed personal property by appeal to what Paine himself regarded as an additional measure based on an alternative rationale. For Paine's discussion of the social debt principle consists of just a few short paragraphs at the very end of *Agrarian Justice*, while the ground-rent is the centerpiece of the work, occupying the vast majority of the text. This is especially true if Locke, Spencer, and Moller are right that the contribution of natural resources to the production of value is exceedingly small, for then ground-rent is rendered entirely insignificant in terms of generating revenue, and all the heavy lifting is done by the tax on non-landed personal property justified by the appeal to the social debt principle.

Second, those of a more libertarian bent have a reply to Warren's version of the social debt principle, which is that it would be better to have roads, education, police and fire, etc., provided by the private sector, in which case consumers of these goods would pay for them directly. In other words, those who have accumulated personal property might say that they didn't ask for

²⁴ Elizabeth Warren, quoted in Anderson (2016a, pp. 9–10). She could have also quoted former President Barack Obama, who famously (or infamously, depending on your political persuasion) said that “If you’ve got a business – you didn’t build that”, by which he meant that you didn’t build it alone, not that you didn’t build it at all. See https://en.wikipedia.org/wiki/You_didn%27t_build_that

²⁵ Lamb (2010, pp. 507–510) also suggests that the principle may not be so different.

the government to provide roads, public education, etc., and therefore shouldn’t be taxed for using them. It might be argued that it is impractical to have such public goods provided by the private sector. But even so, this would only justify taxation sufficient to pay for these specific public goods. It seems, then, that to be successful the argument requires showing that the accumulation of personal property depends on society in other, deeper ways than those identified by Warren.

Third, it is not at all clear that Paine himself was thinking along the same lines as Warren. For immediately after he argues that all accumulation of personal property “beyond what a man’s own hands produce” is “derived to him by living in society”, Paine offers a proto-Marxist explanation for this instead of appealing to the dependence on public goods such as roads, public education, fire and police, etc.:

This is putting the matter on a general principle, and perhaps it is best to do so; for if we examine the case minutely it will be found that the accumulation of personal property is, in many instances, the effect of paying too little for the labor that produced it; the consequence of which is that the working hand perishes in old age, and the employer abounds in affluence. (Paine, 1797/2019, p. 24)

Of course it is possible that the accumulation of personal property is dependent on society in a variety of distinct ways. Warren’s appeal to public goods and Paine’s own proto-Marxist point about the exploitation of labor are mutually compatible.²⁶ Nonetheless, it is important to see what Paine himself chose to identify.

3.

Consider further, then, the objection that the ground-rent, which is the primary focus of *Agrarian Justice*, is largely irrelevant if the contribution of natural resources to the production of value is insignificant, as Spencer and Locke claim that it is in the agrarian context, and Moller claims it is in the modern service economy. Perhaps it could be argued that the value of natural resources relative to total value produced is more significant than what these critics suggest. Still

²⁶ In *Rights of Man*, Paine also emphasizes that the accumulation of wealth requires society, on what he calls there the “great chain of connexion.” However, here the emphasis is on the importance of commerce, and the work of comparative advantage and the division of labor: “The mutual dependence and reciprocal interest which man has upon man, and all the parts of a civilized community upon each other, create that great chain of connexion which holds it together. The landholder, the farmer, the manufacturer, the merchant, the tradesman, and every occupation, prospers by the aid which each receives from the other, and from the whole” (Paine 1791/1999, p. 107).

it would not be unreasonable to think that a shortfall is likely—a gap between the revenue generated from taxing natural resources and the costs of a robust set of anti-poverty measures. Therefore, I would like to suggest an alternative response that I think is more promising, and which similarly re-establishes the significance of the ground-rent as an important piece of Paine’s overall plan. Paine’s view, in short, is that the earth’s natural resources ultimately belong to all people, and, thus, those who appropriate such resources (and combine it with labor) to produce value owe the value of those resources back to the people; they can only lay claim to the value of the labor they contributed. I think, however, that a case can be made, using a home-spun example, that at least some of the value of the labor that is combined with natural resources to produce value can similarly be justifiably taxed.²⁷

Imagine a pair of roommates, A and B, both of whom are struggling to find work. They agree to buy a car together so that they can pursue jobs in a wider geographic area. They split the cost of buying the car, and, recognizing that one might use it more than the other, agree that each of them will pay a certain amount into a kitty to pay for insurance, gas, repairs, etc. based on the number of miles they drive the car. Now imagine that they both get offered a well-paying, one day job. Unfortunately, both jobs are for the very same day, and can’t be re-scheduled for another day or performed remotely. Also, unfortunately, the two job-sites are distant and in opposite directions from their apartment. Therefore, both roommates would need the car to get to the work-site. Assume that it is not possible for both A and B to drive first to A’s job-site, drop A off, while B then takes the car to his job site, or vice-versa (and in reverse to get home at the end of the day). Assume further that there are no other transportation options—no public transit, no rental cars available, no friends who can lend them a car. So there is no way both A and B can get to the jobs they have been offered; it is one or the other.²⁸ Now imagine that on the day the jobs are supposed to be performed, A gets up early, takes the car and drives to the job he was offered before B even gets up. It seems to me that under these circumstances A owes B not just for the use of the car (owes to the kitty for the miles he drove); he also owes some of what he earned above and beyond that to B, because he, B, could have earned some money himself had

²⁷ If value can be produced without the use of commonly-owned natural resources, no tax on it could be justified in this manner. Michael Otsuka (2003, chapter 1) provides two types of examples of the production of value that does not require the use of commonly-owned resources: i) value that is created without resources all-together, e.g., singing (for an audience), and ii) value that is created using only resources that are the product of one’s body, e.g., weaving clothing from one’s own hair. But these of course are exceptions to the general rule that the production of value requires the use of (external) resources. Further, it might be noted, as I do above, that survival itself requires use of external resources, namely a place to be and air to breathe.

²⁸ This brings out the idea mentioned earlier in criticism of Locke that labor without resources has little value or no value: without access to a car, neither roommate’s (potential to) labor is worth much (just as resources without labor aren’t worth much).

he taken the car instead of A.²⁹ We can easily imagine a more wholesome version of this story, in which A and B sit down together the night before to discuss who gets to take the car. In this case, similarly, it seems that it would only be fair to agree that whichever roommate gets to use the car owes not just for the use of the car, but owes the other roommate some additional fraction of what he earned that day, to compensate the other roommate for what he might have earned.³⁰ The point, I hope, is clear: if a resource is jointly owned, then if one party uses that resource to produce value, and in so doing makes it impossible for the other parties to similarly use that resource, then the first party owes the others who jointly own the resource not just the value of the resource itself, but some portion of the value added by his labor.³¹

If this is right, then Paine’s ground-rent can justifiably exceed the value of the natural resources used in the production of value; it can justifiably tax some of the value added by labor. So even if the value of natural resources is too meager to support the kind of broad social welfare program Paine called for, the ground-rent alone *could be* sufficient because it can exceed the value of the natural resources employed to create value. Even if it is not sufficient, and still requires supplementation by a tax on non-landed personal property justified by the social debt principle, it can carry a significant part of the (revenue) burden. As such, the ground-rent, which is the centerpiece of *Agrarian Justice*, is not rendered irrelevant, and ultimately warrants the pride of place that Paine gives it.

An obvious question at this point is how much of what A (the roommate who uses the shared resource to get to work) earns does he owe to B (the roommate who is unable to take

²⁹ Because this example involves the opportunity to work, it might be thought that the suggestion here is the same as Van Parijs’ suggestion that jobs are a social asset, and, as such, employment rents are legitimately taxed (see fn. 24). However, the example is not intended to make any such argument about jobs as a social asset. Rather, it is intended to make a very different point, namely that if a resource is jointly owned, in this case a car, then if one party uses that resource to produce value, and in so doing makes it impossible for the other parties to similarly use that resource, then the first party owes the others who jointly own the resource not just the value of the resource itself, but some portion of the value added by his labor. The common asset here is not the job A gets, but the car. The example is then leveraged not to show that socially-produced assets such as jobs are a legitimate target of taxation, but rather to show that based on common ownership of naturally-produced assets there are grounds to tax some of the value generated by the application of labor to those naturally-produced assets. As such, the strategy here is not to argue that both naturally-produced and socially-produced assets should be taxed. Rather, it is that appealing to naturally-produced assets can generate more revenue than skeptics suggest, and, as such, the appeal to socially-produced assets may not have to play such a large role. This is not to say that taxing socially-produced assets isn’t justifiable. It is just to say that a move in that direction is perhaps not as urgent as some of Paine’s critics suggest.

³⁰ I don’t think it would be fair to flip a coin, or employ some other random decision-making mechanism, to determine who gets to use the car, with the winner getting to keep all his earnings (less what he owes to the kitty). But perhaps this requires more discussion. It also seems to matter when considering what is fair whether the two roommates are likely to have similarly conflicting job opportunities in the future. If so, then it might be fair for them to alternate using the car when they both need it for work, with each keeping all his earnings (less what he owes to the kitty). But I am assuming, for the sake of simplicity, that the situation is “one-shot” rather than iterated.

³¹ This idea takes its inspiration from G. A. Cohen (1986) and his famous critique of Robert Nozick’s view of just acquisition. Nozick’s baseline is that acquisition of unowned resources is just if and only if others are not made worse off, all things considered. Cohen argues that a much higher baseline is at least equally plausible: acquisition of resources that are previously unowned is just if and only if others are not worse off than they would have been had they appropriated the resources themselves. Seaman (1988, p. 137) has suggested a similar line of thought in Paine’s defense.

advantage of a commonly-owned resource). First, it has to be determined whether how much A owes B depends on what A earns or on what B could have earned, the average of the two, or some other measure. It seems most plausible to me that it should be based on what B could have earned himself. But should he be fully compensated for what he could have earned (100%)? That doesn't seem plausible, for a number of reasons. First, B didn't have to actually work, while A did. B had a "day off". Second, A might not even be able to earn as much as B could have, perhaps because he has less valuable skills. So 50%? 25%? What if A doesn't have similarly valuable skills because he didn't have the same opportunities to increase his own earning potential due to circumstances beyond his control, e.g., he had to forego college because he had to work to support his parents who fell ill and, thus, unable to work? What if, instead, it is simply that B has exceptional natural talents? These are familiar hard questions.

There are further hard questions. It might seem that B doesn't deserve a significant portion of what he could have earned if he spends the day doing something he really enjoys, e.g., enjoying the day surfing in Malibu, or playing video games. But why not? If he can't go to work, why shouldn't he take advantage of the day? Perhaps because there is stuff to do around the (shared) apartment: he could make dinner, do the dishes, mow the lawn, vacuum, fix the leaky sink. If he did some of these things, then he would seem to have a stronger claim to some portion of what A earns. It is like partners raising children together: if they decide that one will work and the other will stay home with the children, the partner who stays at home is reasonably expected to take on a greater share of the domestic labor.³² If the partner that stays home does very little of what needs to be done around the house, and the working partner has to do the bulk of it when she gets home after work, or over the weekend, then the working partner has a legitimate gripe. But what if the partner who stays home can't get much of what needs to be done around the house done because the kids are simply impossible?

Moreover, applying whatever insights are gained from thinking about simple examples like the two roommates to the social level will likely be even more complicated.³³ I don't propose to resolve these complications here. However, even without doing so, it seems to me that it would

³² Of course there are many other complexities here. Most importantly, the expectations on the partner who stays home depend on his staying home being fully voluntary, and the partner who works not controlling or otherwise mistreating the one who stays at home by wielding power in virtue of being the "bread-winner."

³³ Some even doubt that what seems right in the domestic examples—in the "micro"—can be applied to the social level—the "macro"—at all. I am not this skeptical, though there are reasons for caution here, and one must be sensitive to differences between the micro and the macro.

be *conservative* to say that, all things considered, in the case of the roommates, the one who cannot work because the other uses the car to get to his job deserves 10% of what the other earns, and, by analogy, a 10% tax—the very amount Paine called for—is justified. More than 10% might well be reasonable. Whatever the case, it is easy to see the general implications here: the ground-rent can justifiably exceed the value of the natural resources used to produce value by some non-trivial amount, and, as such, the ground-rent can legitimately be a significant source of revenue even if it is allowed that the value of the natural resource used in the production of value is small. Perhaps it can generate sufficient revenue to pay for all of the social welfare programs required to eliminate poverty.³⁴ But even if not, and it is necessary to levy additional taxes by appealing to the social debt principle, the ground-rent could be at least a significant partner in generating revenue.

It might be argued—in the spirit of Locke, Spencer, and Moller—that the example of the roommates and the commonly-owned car is problematic, because a car is a valuable resource, especially relative to a day’s earnings. As such, the example does not mirror the actual situation according to the critics who claim that the contribution of natural resources to the production of value is minimal. The example can be modified, however, to deal with this concern. First, now imagine that both A and B have their own cars, both in good working order, though both are completely out of gas. Second, all gas stations are closed (for some odd reason), and it is impossible to get gas any other way, e.g., a friendly neighbor is willing to siphon some out of his tank to give or sell to the roommates. Luckily, third, A and B have a gallon of gas which they bought together (split the cost of) for their lawn-mower in a container in their garage. Fourth, the round-trip to drive to either job requires a full gallon of gas. So, once again, it is impossible for both to get to the jobs they have been offered; the gas can be used by one to get to the job, but the other will be stuck at home. Here too, it seems to me, the person who uses the gas, whether he takes it unilaterally or the roommates reach an agreement, owes the other not merely (half) the price of the gas bought for the lawn-mower, but some portion of what he earns beyond that, just because his use of the gas prevented the other roommate from earning any money that day. Assuming that a gallon of gas is cheap relative to what the roommate who gets to work that day can earn, then the commonly-owned resource represents only a small percentage of the value

³⁴ If so, then Paine could have been a monist, relying on only one “principle” —the ground-rent justification—rather than a pluralist, appealing to a “different principle” to justify taxing all personal property rather than just natural resources. There is nothing wrong with being a pluralist. However, there is something appealing about the possibility that the ground-rent alone is sufficient for Paine’s purposes.

produced.³⁵ Nonetheless, it still seems that the roommate who gets to use the gas and go to work that day owes the other roommate some non-trivial percentage of what he earns that day (above and beyond paying for the gas). Here too, it seems to me, 10% is a conservative number.

Even if what I have argued so far is right, it might seem insufficient. The annual gross domestic product in the United States is approximately \$20 trillion, according to the World Bank.³⁶ If we take Moller's view that the service sector constitutes 80% of the modern economy, then only 20% is in the primary and secondary sectors that depend on natural resources. Thus, annually, \$4 trillion is attributable to these sectors of the economy. A 10% tax on \$4 trillion is \$.4 trillion, which is a lot of money, but not when considered on a per capita basis. The adult (over 21) population of the United States is approximately 200 million. So the revenue would be approximately \$2000 per capita, annually. This is not insignificant, but is surely not sufficient to pay for programs sufficient to eliminate poverty. It certainly wouldn't be enough to pay for a substantial UBI, which is often pegged at \$1000/month per adult. It would not even be enough to pay for the estimated costs of the so-called "Medicare for All", which range from approximately \$1.3 trillion to \$4.7 trillion annually (Lendner, 2019).³⁷

Perhaps, however, it is a mistake to entirely exempt the service sector from taxation based on the ground-rent, because much of the service sector is closely-linked to the primary and secondary sectors of the economy. For instance, the so-called FIRE sector (finance, insurance, and real-estate), has grown to 20% of the economy in the United States, expanding rapidly since the 1980s (Chen, 2020). The financial industry traffics in land and other resources through investment and trading, while insurance and real-estate are essential to the acquisition and protection of land and other valuable resources. Other large and highly profitable industries such as law similarly support and profit from the resource-dependent sectors of the economy.³⁸

Further, there are other ways in which the service sector is not entirely independent from natural resources. In the modified example of the roommates, recall, the commonly-owned resource required for one or the other to get to work was gasoline—energy to power their

³⁵ If we assume that i) the job pays \$30 per hour, ii) the work is for 8 hours, and iii) gas costs \$2 per gallon, then the value of the gas—the commonly-owned resource—represents less than 1% of the value produced. It becomes less clear if the pay is considerably less, as it often is for workers in the United States.

³⁶ See: <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=US>

³⁷ Of course separate calculations would be required for the United Kingdom and other (economically advanced) countries in Europe and around the world.

³⁸ Thank you to a very helpful reviewer of this journal for noting the significance of the FIRE sector.

existing form of transportation. The value, or cost, of the gas was quite small relative to the income they might earn. Nonetheless, it seems quite plausible that the roommate who uses the gas to get to work owes the other some non-trivial percentage of what he earns. Now consider the service sector, which Moller claims dominates a modern economy. While the service economy may not depend on traditional natural resources such as land, timber, and traditional metal ores, it does depend on energy.³⁹ To illustrate the way in which the service economy does not depend on the use of natural resources, Moller relies on the stylized vignette he calls “Money for numbers” that he thinks exemplifies modern wealth creation and the fact that natural resources play little or no role:

A software developer needs an algorithm that solves some problems for his code, and you decide to supply him with one. Your work consists of sitting on a park bench and thinking for many hours. You then meet the developer and recite a long number representing the algorithm. After you have recited the long number, he then recites a different number, representing the confirmation code for a hefty bank transfer to go through . . . Your transactions thus consist of sitting around and reciting numbers, and getting rich meant finding someone willing to hire you to devise and recite a long number. (Moller, 2017, p. 10)

But, of course, these numbers have to be transmitted using computers and the internet. And while it is possible to work on a park bench under ideal (weather) conditions, most service workers—including high-tech workers who deal only in algorithms—will require some kind of office, which will require artificial light, heating and air conditioning (and coffee!), all of which require electricity.⁴⁰ The costs associated with the required electricity might be small compared to the value produced.⁴¹ But what the modified example suggests is that this does not substantially change things. In the modified example, despite the fact that the value of the commonly-owned resource is insignificant relative to the value produced, a tax greater than the value of the (commonly-owned) natural resource is justifiable. A 10% tax, I suggested, is conservative. Therefore, at least a 10% tax on the service sector seems justifiable, based on its reliance on energy. This would generate an additional \$1.6 trillion in revenue ($\$20 \text{ trillion (GDP)} \times .8 \times .1 = \1.6 trillion).⁴² The ground-rent logic—a tax based on the use of natural

³⁹ It does depend on so-called “rare earth elements” (REE) such as Yttrium, Lanthanum, and Dysprosium.

⁴⁰ The office might well be a home office to work remotely, but it too requires heat, light, etc.

⁴¹ Moller emphasizes that the value of oil is insignificant relative to the value created: “Saudi Arabia commands staggering oil reserves, yet its GDP per capita is less than that of Israel or Japan. The value of all known oil reserves is equal to only a few years of the world product” (2017, p. 6).

⁴² This assumes that the tax will involve some combination of income and corporate tax, where Paine favored an inheritance tax. There is no reason the same sum could not be generated through an inheritance tax, though it might require a rate greater than 10% (depending on the sum of personal wealth, the death rate among adults, and other factors).

resources—therefore has the capacity to generate significant revenue, even in a service-based economy in which the dominant economic sector requires very limited natural resources.⁴³

Two additional points are worth making. First, some of the sources of modern wealth creation that might seem far removed from the use of natural resources require tremendous computing power, and therefore consume large amounts of energy. The “mining” of Bitcoin, the most successful cryptocurrency, for instance, consumes huge amounts of energy (Zaremba, 2020). Second, and more importantly, so long as fossil fuels are a significant source of energy, the use of energy involves the “consumption” of additional commonly-owned resources insofar as the negative externalities associated with burning fossil fuels (pollution and greenhouse gasses) destroy the value of the natural environment (the air, water, and “all its natural productions, vegetable and animal”). As such, the service sector depends on the use of natural resources more than it might seem. Of course if fossil fuels are largely replaced by alternative, clean energy sources, then this will no longer be the case. However, alternative, clean energy is still produced using natural resources (the energy of the sun (solar), the heat of the earth (geothermal), the land (bio-fuels), movement of the air (wind) or large bodies of water (hydro), etc.). So the service sector will continue to depend on commonly-owned natural resources, though less so, if alternative energy sources largely replace fossil fuels, the burning of which destroys (the value) of the natural world.

The possibility of alternative energy sources replacing fossil fuels might be thought to show the limits of the defense of the ground-rent that I am presenting here. For while fossil fuels are a limited natural resource, alternative energy sources are not; alternative energy sources are *renewable*. As such, when alternative energy is produced or consumed, it does not “take anything away” from the common stock. In economists’ terms, alternative energy is not a scarce resource. When the energy of the sun is harvested for solar energy, it does not deprive others. As such, the logic of the ground-rent—that users of natural resources must pay for what they have deprived others of—simply doesn’t apply. Therefore, at some future point, when alternative, renewable energy sources replace fossil fuels, the argument for a tax on the service sector—on the dominant sector of the economy—will no longer be applicable. This is an important objection that I can’t

⁴³ I have by no means shown that the revenue that the ground-rent might generate is sufficient, *in absolute terms*, to pay for social welfare measures adequate to all-but eliminate poverty, or that the ground-rent supplemented by the additional tax on all other private property is sufficient, as Paine does in exquisite detail in *Agrarian Justice*. My aim here is more limited: just to show that the ground-rent can be a significant source of revenue.

fully address here. However, as a start, it can be noted that capturing solar energy requires solar panels, which requires use of space (“the land”), and the same is true with other alternative energy sources. So despite the nearly endless supply of energy from the sun, and other alternative energy sources, there is scarcity in terms of capturing it.

There are a few other objections to the defense of the ground-rent that I have suggested that I want to briefly consider here. It might be argued that I have assumed, falsely, that those who do not get the opportunity to utilize natural resources could use them as productively as those who do. If they couldn’t use them as productively, then their claim to the value produced by those who do utilize natural resources is diminished. But I have allowed for this, by suggesting that the tax should be based on what those denied the opportunity to utilize a commonly-owned resource could have made. But this leads to a different objection: it is simply not true that everyone has at least 1/10th the earning potential of others, in which case a 10% tax is unjustified. It may be true that not everyone has 1/10th the earning power of any other person. However, many have more than 1/10th. So it doesn’t seem unreasonable to go with a 10% tax, on the grounds that the more productive are (typically) no more than 10 times as productive as the less productive. I think this is defensible, at least under conditions of equal opportunity, though it is surely controversial.⁴⁴

The last objection that I will consider is that the proposal I have made according to which a tax can be levied on the value-added to natural resources by labor is incompatible with the idea that persons have a right to the “fruits of their labor”. That people have a right to the fruits of their labor is not an uncommon view, and is not limited to one side of the political spectrum. For instance, it is generally accepted by so-called left-libertarians who think that there can be “libertarianism without inequality”. Michael Otsuka, a self-identified left-libertarian, defends a notion of libertarian self-ownership that includes a “very stringent right to all of the income that one can gain from one’s mind and body (including one’s labour)” (2003, p. 15). And Paine himself, as previously noted, thinks that while the person who cultivates the land does not have a claim to the value of the land itself, he or she does have a property right in the value-added by his labor:

⁴⁴ The famous comedy film *Trading Places*, starring Eddie Murphy and Dan Ackroyd, hilariously suggests that anyone can earn as much as anyone else if given the same opportunity.

While . . . I advocate the right, and interest myself in the hard case of all those who have been thrown out of their natural inheritances by the introduction of the system of landed property, I equally defend the right of the possessor to the part which is his. (Paine, 1797/2019, p. 14)

That he or she who labors, thus producing what Paine calls artificial property, has legitimate ownership of the value attributable to his or her labor, is central to Lamb's account of Paine's view in *Agrarian Justice*, and to his characterization of Paine's theory of property as combining a "libertarian concern with private ownership that contains within its logic an egalitarian commitment to the redistribution of resources" (Lamb, 2010, p. 483). I don't disagree with Lamb's reading of *Agrarian Justice*. However, it seems to me that the example of the roommates shows that we should reject such a stringent right to *all* of the income one can gain from one's labor, and correspondingly any conception of self-ownership that includes such a stringent right. Moreover, as I have argued, it seems that rejecting it is the only way to preserve the significance of the ground-rent if it is accepted that natural resources make only a negligible contribution to the production of value. Preserving the significance of the ground-rent, therefore, may depend on weakening the libertarianism that Lamb and others, including some so-called left-libertarians, attribute to him.

4.

What I have said does not provide a full defense of Paine's argument in *Agrarian Justice*, as the objections I address are not the only ones that might plausibly be raised. Nor is it a full defense of left-libertarians and others who follow Paine in arguing that natural resources constitute a common stock, and that this fact can be used to justify the redistribution of wealth against Moller's sustained criticism that this "resource paradigm" is an outdated one in the modern service economy. But it is a start on both, and suggests that *Agrarian Justice* and the ground-rent Paine proposes should not be neglected or quickly dismissed.

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