

Œconomia

History, Methodology, Philosophy

14-3 | 2024

Rawls et l'économie politique

Environmental Economics, 1950s–1970s: to Arcadia (and back)

Marco Vianna Franco



Electronic version

URL: <https://journals.openedition.org/oeconomia/17853>

ISSN: 2269-8450

Publisher

Association Œconomia

Printed version

Date of publication: September 1, 2024

Number of pages: 0-0

ISSN: 2113-5207

This text was automatically generated on October 17, 2024.

Environmental Economics, 1950s–1970s: to Arcadia (and back)

Marco Vianna Franco

REFERENCES

H. Spencer Banzhaf, *Pricing the Priceless: A History of Environmental Economics*, Cambridge: Cambridge University Press, 2023, 281 pages, 978-110879206-6

- 1 The recently published book *Pricing the Priceless* is a comprehensive historical account of “postwar pricing of the environment” (6) in the United States. It covers several decades during which attempts to deal economically with environmental issues gradually led to the formation and consolidation of environmental economics as a policy-oriented scientific field in that country. In addition to a high level of detail and abundant evidence from primary sources, Banzhaf offers well-constructed arguments about how and why related theories and practices have changed over time. His keen eye for what these changes meant in terms of human-nature relations from the standpoint of economic thought is of particular advantage, providing necessary context and thus allowing readers to come to terms with the current state-of-affairs in the field.
- 2 Banzhaf sets out from the tension between views of nature as either wilderness in need of protection or a stock of resources to be rationally used for the sake of human welfare. The latter relates to an anthropocentric, mastery-over-nature, rational-use interpretation dubbed as “Imperial” and contrasted with an “Arcadian” outlook characterized by a deeper emotional relationship with a nature whose value goes beyond the sum of its available resources (9)¹. Such a conflict took centre stage in public discourse during the American Progressive (1890s-1920s), even though this duality was much older and had been a recurring theme throughout intellectual history. To Banzhaf, postwar environmentalism brought these at first irreconcilable views together, aided by a “new economics of aesthetic consumption” (10). The rising

notion of consumer sovereignty in economic thinking extended the logic of choice to public goods and thus turned environmental health into a category belonging to consumer rights. Whereas monetary valuation of environmental goods can, for example, be seen as the quantification of “untraded” nature for the purpose of commodification and ultimately of economic development, the measurement of intangible benefits of the environment is framed in the book as a tool to protect wilderness by means of their integration into benefit-cost analyses of development projects.

- 3 The qualitative and subjective character of environmental health as a public good, on the other hand, made economists reluctant to accept measurements in terms of dollars and cents. The change of heart would only come about in the 1960s, with escalating pressure from an administrative state or what Banzhaf calls “bureaucratic imperatives” (97). Even though economists remained sceptical of such calculations, methods for assigning monetary values to environmental amenities became more and more creative, heading towards the construction of hypothetical markets to infer shadow prices. Debates and internal clashes that evolved from these tensions—which included theoretical as well as political arguments—especially those between the 1950s and 1970s in the USA, constitute the main thread of the book. The implications of these disputes for environmental policy, the intertwining of different strands of economic thought, and the feedback loops between mainstream economic theory and environmental economics as an emerging applied subfield appear as further contributions.
- 4 Banzhaf’s *Pricing the Priceless* is a feat of scholarship to the extent that it delivers a cohesive story with clear arguments despite the fact that its object of research is a messy sequence of events involving a substantial number of individuals, relevant institutions, and changing intellectual and political trends. The author’s decision regarding the scope of the study seems thus justified, with an admitted focus on the question of the “value of scarce environmental resources and amenities, particularly by institutional and neoclassical economists of various strands” (4), and a certain neglect for the effects of production over ecosystems and the notion of absolute biophysical constraints. All the same, it is hard to overestimate the importance of the book for the history of environmental economics, a topic still in need of much further studies².
- 5 *Pricing the Priceless* is chronologically structured. Although each chapter has its own topic and conclusions, combined they convey a broad picture of how 20th century environmental economics emerged and where it stands today. This essay will first offer an overview of the contents of the chapters. In the last two sections, it will then elaborate, first, on the question of the enduring controversy on value incommensurability and, second, on the claim that environmental economics, via the notion of consumer sovereignty and the measurement of intangible benefits, drew closer to an Arcadian view of nature.

The preamble: conservation, agricultural and land economics

- 6 Going back to the 1920s, Banzhaf offers a rich historical account that elucidates the influence of agricultural and land economists in the formative years of the so-called first generation of American environmental economists, countering an alleged

overestimation of the role played by Arthur C. Pigou (Chapter 1). One of the main contributions of the book, according to the author, is the claim that “the humble, applied work of agricultural economists [e.g. Richard Ely and Henry Taylor] played a particularly important role in the formation of environmental economics”. It should not come as a surprise, as they were experienced policy advisors in a context of “messy empirical measurement” (19), which was exactly the type of challenge soon to be posed by the need to measure environmental benefits. A similar point applies to land economists such as George Wehrwein, Frederick Turner, and Lewis Gray, who moved beyond a spatial approach to land to include a diverse set of qualitative traits in their assessments of a given territory³. The synthesis of institutional and neoclassical elements in these fields helped to shape postwar environmental economics and eventually its focus on pricing intangible benefits. By the 1950s, neoclassical economics and constrained optimization would gradually take over, albeit not without a good deal of theoretical and empirical challenges, political involvement, and disciplinary controversy.

- 7 Circling back to the dispute between Imperial and Arcadian views of human-nature relations at the turn of the 20th century (Chapter 2), Banzhaf presents the former as embodied by the American Conservation movement led by Gifford Pinchot. Conservationists, who would soon emerge victorious in the struggle for political support, espoused at first a narrow materialist standpoint, stressing the need for an efficient use of natural resources and disregarding the intangible benefits of environmental amenities to human wellbeing. Yet, as land slowly started to be perceived by agricultural and land economists as a bundle of resources that included air and water quality, a shift took place in their grasp of the scarcity value of environmental resources. This trend would lead, by the 1960s, to a new understanding of a given territory as a combination of land surface, water quantity, air and water quality, and accompanying property rights that would allow for the pricing of environmental amenities, including the aesthetics of landscapes.
- 8 There was a long way between such an outcome and Pinchot’s conservationism at the turn of the century, and for some time the privacy of individual feelings toward nature would still be kept separate from the material character of welfare-based policy decisions. In addition, the row between Pinchot and the Arcadian preservationism of John Muir did not wane, as there was no clear answer to such an “exclusion of non-material but no less real values from the utilitarian calculus” (51). In fact, to Banzhaf, it was the dissatisfaction with this impasse that “led to the emergence of environmental economics from natural resource economics, as a newer and distinct subfield” (51).

The first generation of American environmental economists

- 9 Two different reactions to this deadlock are portrayed in the book (Chapter 3). There was Aldo Leopold’s interdisciplinary approach, which sought a rapprochement between ecology and economics and rejected the quantification of the value of wilderness and ecosystems, proposing instead “prudential management toward given ends” (53). A second response was to devise ways to price non-traded environmental amenities not for the sake of wilderness protection but, on the contrary, to justify further economic development. The quantification of the value of outdoor recreation related to water

resources (especially water dams) became a first target and subject of subsequent turf wars between different strands of benefit-cost analysis.

- 10 Measuring the benefits of outdoor recreation was then used to tilt the scales in favor of infrastructure projects, to the point that it “became an indirect subsidy to farmers” (67–68) dependent on those projects. Nonetheless, methodological disagreements and obstacles persisted. Quite interestingly, Banzhaf emphasizes that pricing recreation benefits can be more accurately described as a response to the demand from bureaucrats eager to expand government planning⁴. For a long time, it would be met with scepticism by economists and “benefit-cost practitioners” (53) worried about the lack of actual prices and the level of subjectivity that would have to be involved in such measurements. Harold Hotelling’s travel cost method, which proposed measuring benefits using expenditures incurred by recreation, was also seen as arbitrary, even though it would become an established approach to pricing outdoor recreation.
- 11 On this matter, Banzhaf goes at lengths to contextualize it within broader developments in neoclassical economics and how there have been feedback loops between the discipline as a whole and environmental economics as an applied subfield. The need for practicality was at odds with the vagueness of cardinally measurable utility, whereas outdoor recreation was seen as the perfect opportunity to leave behind the resistance against the quantitative measurement of welfare. The growing acceptance of the “normative imperative of neoclassical optimization” (78) and the acknowledgement of prices as marginal values culminated with the use of consumer surplus as a means to assess welfare, even if the process was not so straightforward. Change had to come from the outside: the already mentioned “bureaucratic imperatives.” By the 1960s, measuring surplus was a part of research agendas at different institutions for varied purposes. Still, scepticism did not cease altogether in the case of recreation, with some, as will be discussed below, preferring to leave untraded goods and services to the realm of politics (Chapter 4)⁵.

The second generation of American environmental economists

- 12 Another one of Banzhaf’s sharp interpretations relates to John Krutilla as a pivotal figure in the transition from natural resources to environmental economics (Chapter 5). Although names such as Marion Clawson and Jack Knetsch had already started to incorporate aesthetic values of landscapes into their economic analyses, it was Krutilla who would eventually respond to the “philosophical challenges posed by people like Leopold” (99). His inclusion of intangible benefits associated with environmental amenities in benefit-cost analysis is described in the book as a third way between conservation and preservation—Krutilla’s “conservation reconsidered” (107). He argued for the incorporation of existence values (e.g. that of a beautiful and unique landscape) into the “rational utilitarian management of natural resources” (113), as they were as real as the value of material resources and likewise subject to demand and supply factors. As a result, preservation could also turn out to be an economically justifiable policy.
- 13 Pushing for environmental health also meant a bigger emphasis on pollution (Chapter 6). The book highlights Allen Kneese’s work on effluent charges, which still resembled

that of the first generation of environmental economists—despite its new framing of benefit-cost analysis around the trade-off posed by the development of water resources and the generation of harmful waste. Banzhaf sees effluent charges as a concept similar to Pigouvian taxes (in broad terms, a payment in exchange for the emission of pollutants) but also bearing Coasean elements, whereas no direct intellectual line is drawn between them. A less distinct trend in pollution pricing—given the emphasis on cost minimisation rather than on optimal pollution levels (see also Berta, 2020)—was the now widespread notion of tradable rights or permits proposed by Thomas Crocker and John Dales, which offered operational advantages but faced its own empirical and institutional problems. While this approach offered practical benefits, it also encountered various empirical and institutional challenges. Scott Gordon is then mentioned as a promising name in the history of pollution pricing for his contributions to the property of common resources⁶. In this perspective, Kneese, Dales, and Crocker all drew from Gordon (as well as from postwar public finance literature) to differentiate between types of resources and to improve property institutions for the sake of efficient resource allocation.

- 14 Meanwhile, pricing intangible benefits begged the question of the value of human lives in the context of pollution (Chapter 7). New ways of “valuing lifesaving” (147) arose in the 1970s, moving beyond the human capital approach of investing in human health as good business⁷. Thomas Schelling’s “value of statistical life” (152), which focused on mortality risk rather than on more ethically dubious claims on the lives of specific individuals, illustrates the shift from income-based analyses to the use of willingness to pay (WTP) for one’s own life. Banzhaf shows how such types of nonmarket valuation took place at RAND Corporation some two decades prior to Schelling’s work, although applied to the lives of military airplane crews—the “criterion problem” (153).
- 15 Lingering criticism against the growing adoption of welfare measurement in applied economics was not only about the need to ensure scientific objectivity. Distribution was another case in point, as net measures of welfare—concealing how benefits and costs were allocated amongst stakeholders—contradicted a perspective that advocated for restricting benefit-cost analysis to the presentation of gains and losses, allowing for an informed political decision (Chapter 8). Monetary valuation based on WTP and its neglect for the incommensurability of benefits had to deal with questions about the legitimacy of normative statements by policy analysts. At best, economists should strive for sub-optimization, which meant that objectives could only be maximized given a set of constraints placed on other objectives; a trade-off between objectives (e.g. distribution of income, regional development, air and water quality, etc.) was a decision left for society and its representatives. This was the take of economists at the Harvard Water Program (e.g. Arthur Maas, Robert Dorfman, Otto Eckstein, and Stephen Marglin), who endorsed multi-objective planning and an emphasis on “public reasoning and civic republicanism over economic analysis” (171). Their rivals in the environmental policy arena were Resources for the Future’s Robert Haveman and Myrick Freeman (backed by Krutilla), who stood their ground on the need for “efficient” projects (i.e. with high benefit-cost ratios).

From the late 20th century into the future

- 16 Environmental economics by the late 20th century was still struggling with its search for a solution to the “quintessential problem of measuring the value of preserving the natural environment” (200). Surveys appeared as a promising avenue, which, as Banzhaf recalls, had already been suggested on several occasions throughout the 20th century, all the way back from Vilfredo Pareto and Ragnar Frisch to Siegfried von Ciriacy-Wantrup and Schelling. Its application to environmental issues in order to measure WTP was dubbed the “contingent valuation method” (Chapter 9). It proved instrumental as a means to observe—or, rather, to experimentally construct such observations, as Banzhaf accurately highlights—Krutilla’s existence values, even though it still faced “an uphill battle for acceptance within the wider intellectual community of academic economics” (201), being dismissed as “all too obviously performative” (202). Findings were riddled with anomalies that made contingent valuation inconsistent with some of the behavioural foundations of microeconomic theory, which, in turn, led to the questioning of economic models of behaviour themselves, spearheaded by Jack Knetsch, a pioneer of contingent valuation, and Daniel Kahneman.
- 17 The method itself was preserved and continuously refined to measure intangible benefits. It has been routinely applied to various environmental issues, including well-known cases such as the Exxon Valdez oil spill. Despite the highly abstract nature of a “contingent world constructed by the survey” (206), some number was still seen as better than no number at all, especially in the eyes of bureaucrats and federal agencies. The twist here is that such a stance was no longer seen as pro-development, but rather as favouring preservation. Exxon, for example, invested heavily to discredit contingent valuation methods in the hopes of getting away from paying fines stipulated in the magnitude of billions of dollars.
- 18 The book finishes with our current environmental predicament and what lies ahead for environmental economics and especially the notion of pricing the environment. Banzhaf points to several conditioning factors, which include whether the focus on consumption and the notion of consumer sovereignty will endure as well as how to deal with intangible benefits beyond quantification. The particularities of public goods and the issue of common property also come to the forefront. Most urgently and as a lesson from its own history, environmental economics should devise new ways to engage with political processes and “bureaucratic imperatives.” One might add that it should strive to do so while transcending apologetic calls for pragmatism.
- 19 Banzhaf sees a future role for carbon pricing, either as effluent charges or as the now more prevalent cap-and-trade schemes, despite their hitherto unconvincing performance in terms of curbing emissions. Distribution is another key point mentioned in the book as part of the future of environmental economics, rightfully acknowledging the social inequality associated with environmental damage. In this respect, environmental justice movements appear as another political force at odds with mainstream economic thinking, especially in reference to their refusal to accept monetary valuation as a means to meet their demands (i.e. arguing for value incommensurability; see Martinez-Alier, 2002). A third bet placed by Banzhaf in terms of what lies ahead for environmental economists relates to green environmental accounting and current attempts to reform indices such as GDP (so that they actually

translate into welfare) and consolidate frameworks such as the United Nations' System of Environmental Economic Accounting (SEEA).

The enduring controversy on value incommensurability

- 20 It is not hard to infer from the book that the long process leading to the establishment of tools to “price the priceless” was accompanied by either unyielding reluctance or outspoken rejection from many economists involved with environmental and development issues. Larger trends in economics, such as the rise of the consumer as a reference for ascertaining value, the new focus on trade-offs and opportunity costs instead of on material welfare, and the growing consideration of qualitative aspects and common pool resources were somehow not enough to get rid of the scepticism about assigning and measuring the value of environmental amenities.
- 21 As late as the 1970s, Eckstein and Dorfman, for example, disavowed the measurement of intangible benefits, and Maas, a political scientist, had strong criticisms against the notion of consumer sovereignty (to him, preferences were context-dependent and subject to political processes and public investments). In most cases, as shown by Banzhaf, it seems it were “bureaucratic imperatives” that finally scrubbed aside these dissenting voices, although only at policy level. The eventual political victory of traditional benefit-cost analysis over multi-objective planning also hints at the appeal of technocratic solutions and methodological individualism over public reasoning and the political character of policy decisions.
- 22 The book also identifies patent cases of ambiguity towards monetary valuation. Schelling, addressing the notion of statistical life, claimed that life and death were moral questions, impossible to be priced, arguing, at the same time, that “where life and death are concerned, we are all consumers” (165). Indeed, most of us would pay to extend our own lives, but the question remains whether consumers' choices can do without politics as the basis for social values and the evaluation of public investments.
- 23 Many other economists would become disillusioned with the limits imposed on their work by the mainstream view of pollution as a quantifiable “freakish exception” and not, in fact, as a “pervasive part of economics” (132). Knetsch, Kneese, E. J. Mishan, Ralph d'Arge, and Charles Schulze are amongst those who at some point attempted to build a broader version of their field that included energy and material flows and balances, a wider set of values, ethical considerations, and attention to the role played by social relationships in issues of external diseconomies. In this context, Spash (2024, 17) argues that the community of modern *ecological* economists was actually formed from “the ashes of radical environmental economics.” Despite the fact that monetary valuation of intangible benefits is common practice today in ecological economics, value incommensurability has been argued to be a foundational element of the discipline (Martinez-Alier, Munda, and O'Neill, 1998).
- 24 The enduring controversy on value incommensurability is, therefore, not only a clash between mainstream environmental and ecological economics as well as related strands of environmental social science (for recent critical accounts, see Buller, 2022; Christophers, 2024). It also took place within the communities that shaped environmental economics. What might seem obvious, but could be further explored by Banzhaf, is the realization that it is above all a battle between calls for pragmatism in

policy matters—which, as the book shows, came mainly from bureaucracies rather than economists and policy analysts themselves—and the demand for scientific rigor. The intangibility of environmental benefits and the absence of markets for them, the issue of “whose benefits and costs count” (64), and the fragility of the concept of consumer sovereignty itself made the results of benefit-cost analyses seem arbitrary—if not arbitrarily inflated to favour development projects—suggesting diverging answers to the question “is some number better than no number?” (57).

- 25 Banzhaf correctly comments on how economists pricing the intangible also had to cope with an epistemologically uncomfortable situation: “measurement came before the theory” (97) in the economics of outdoor recreation, with the need to supply federal agencies with numbers forcing those involved to concoct meaningful reinterpretations on the go for concepts such as consumer surplus. In the case of survey-based contingent valuation, the fact that its findings countered some of the most basic assumptions of mainstream economic theory would lead to new rounds of heated debates that remain open to this day.

“Conservation reconsidered”: to Arcadia (and back)

- 26 Finally, there is Banzhaf’s argument on how environmental economics drew closer to an Arcadian view of nature through the understanding of environmental protection as a consumer right. The idea had already been articulated by figures such as Richard Ely, gaining a new meaning between the 1950s and the 1970s with the spreading notion of consumer sovereignty and the acceptance of the possibility of measuring intangible benefits. Banzhaf’s claim is best illustrated by Krutilla’s advocacy for the use of such methods as a means to preserve wilderness. The book aligns his “conservation reconsidered” with a shift in environmental thought that broke with the romanticism of preservationists in favour of a scientific approach informed by ecology, economics, and public health, attentive to new consumer tastes and bearing an overall reaction to “overdevelopment” (117). Contrarily to previous forms of conservationism, it refrained from valuing outdoor recreation and other subjective benefits with the intention to inflate results of benefit-cost analyses and thus to foster development projects. According to Banzhaf’s interpretation of the shift spearheaded by Krutilla’s “conservation reconsidered”, by the 1980s preservation goals had thus managed to sneak into the utilitarian economic calculus with immediate policy implications.
- 27 Nevertheless, other interpretations and inferences also seem plausible. While the characterisation of Krutilla as paragon of a fusion between elements of preservationism and conservationism is informative, some elements prevent a convincing attribution of the Arcadian outlook to “Krutillian” environmental economists then and now. Krutilla’s assimilation of the goal of environmental protection and emphasis on existence and option values indeed bring him intellectually closer to the transcendentalism of Emerson and the spiritualism of Muir. However, their subsequent application to a technocratic, efficient, consumer-centred, utilitarian economic calculus in monetary units hardly reflects the value incommensurability associated with an Arcadian worldview.
- 28 An example of how the turn to this new type of conservationism did not preclude direct opposition to a preservationist or Arcadian stance comes from Krutilla’s colleagues at Resources for the Future, Harold Barnett and Chandler Morse. Their attacks against

traditional forms of conservationism were in fact, as described in the book, based on a Cornucopian take around the possibility of endless growth based on price mechanisms and the ability to find substitutes. For them, the issue was to maintain standards of environmental health with an impact over quality of (human) life, hence also leaning towards the importance of intangible values. In this perspective, they are depicted as part of a shift during the 1960s “from studying the conservation of natural resources to the preservation of environmental quality” (106). Their technological and population optimism would inspire neoliberal thinkers like Julian Simon and the ensuing denial of any notion of limit to economic activity. Again, it was hardly compatible with dreams of Arcadia.

- 29 Therefore, arguing for the emergence of a mainstream environmental economics that was “about humanity becoming reacquainted with its dependence on nature while also coming to terms with the effects of its actions on it” (8) is arguably an exaggeration. It might have been the case in the face of previous trends and the prevalent view of economics narrowed down to well-behaved consumer preferences, trade-offs, opportunity costs, and the application of constrained optimization. Yet, it did little to incorporate knowledge on the embeddedness of social and economic dynamics in biophysical structures, as well as their interdependencies. While existence values and other types of intangible benefits are by definition subjective, environmental health also depends on complex ecosystem dynamics involving quite palpable impacts caused by resource extraction and waste generation. In contrast to Krutilla’s “conservation reconsidered”, Leopold’s land ethics (discussed in Chapter 3), informed by an interdisciplinary approach to ecology and economics without sacrificing much of Muir’s romantic or Arcadian views, seems to have gone much further in the direction of preservationism while retaining the focus on material welfare of Pinchot’s conservationism.
- 30 Although some environmental economists may have supported environmental protection, it seems that it was ultimately neither a priority nor a lasting source of inspiration, i.e. a quick trip to Arcadia and back. Stuck to a larger trade-off mentality, their idea of preservation remained contingent as far as it depended on consumer tastes. It is hard to imagine that Muir would agree with placing the fate of Yosemite Valley in the hands of consumers. In this regard, an intriguing question raised by Banzhaf is how Pinchot and Muir would be baffled by the challenges brought about by the Anthropocene and the current solutions proposed for global environmental issues. Their perplexity would likely be accompanied by a considerable sense of disappointment. So much for measuring intangible benefits when what is at stake is the survival of a habitable planet.

BIBLIOGRAPHY

- Berta, Nathalie. 2020. Efficiency without Optimality: A Pragmatic Compromise for Environmental Policies in the Late 1960s. *Journal of the History of Economic Thought*, 42(4): 539-562. <https://doi.org/10.1017/S1053837219000579>
- Buller, Adrienne. 2002. *The Value of a Whale: On the Illusions of Green Capitalism*. Manchester: Manchester University Press.
- Christophers, Brett. 2024. *The Price is Wrong: Why Capitalism Won't Save the Planet*. London: Verso.
- Kula, Erhun. 1998. *History of Environmental Economic Thought*. London: Routledge.
- Martinez-Alier, Joan. 2002. *The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation*. Cheltenham: Edward Elgar.
- Martinez-Alier, Joan, Giuseppe Munda, and John O'Neill. 1998. Weak Comparability of Values as a Foundation for Ecological Economics. *Ecological Economics*, 26: 277-286. [https://doi.org/10.1016/S0921-8009\(97\)00120-1](https://doi.org/10.1016/S0921-8009(97)00120-1)
- Missemer, Antoine, and Marco Vianna Franco. 2024. Municipal Housekeeping and the Origins of the Economics of the Urban Environment (1900s–1920s). *Review of Political Economy*, 36(1): 97-115. <https://doi.org/10.1080/09538259.2022.2146447>
- Parent, Baptiste, Lauriane Mouysset, Antoine Missemer, and Harold Levrel. 2024. Building Integrated Models in Environmental and Natural Resource Economics: The Case of Gordon's 1954 Fishery Model. *Journal of the History of Economic Thought*, 46(1): 117-139. <https://doi.org/10.1017/S1053837223000056>
- Pearce, David. 2002. An Intellectual History of Environmental Economics. *Annual Review of Environment and Resources*, 27: 57-81. <https://doi.org/10.1146/annurev.energy.27.122001.083429>
- Philippy, David. 2021. Ellen Richards's Home Economics Movement and the Birth of the Economics of Consumption. *Journal of the History of Economic Thought*, 43(3): 378-400. <https://doi.org/10.1017/S1053837220000115>
- Philippy, David, and Marco Vianna Franco. 2024. Ecology and Environment in Home Economics. In Vitor Eduardo Schincariol (ed.), *Environment and Ecology in the History of Economic Thought*. London: Routledge, 69-88.
- Sandmo, Agnar. 2015. The Early History of Environmental Economics. *Review of Environmental Economics and Policy*, 9(1): 43-63. <https://doi.org/10.1093/reep/reu018>
- Spash, Clive L. (ed.). 2024. *Foundations of Social Ecological Economics*. Manchester: Manchester University Press.
- Vianna Franco, Marco, and Antoine Missemer. 2023. *A History of Ecological Economic Thought*. London: Routledge.

NOTES

1. In Greek mythology, Arcadia refers to a place of unconquered, idyllic or pastoral landscapes. It would also represent ideals of unspoiled wilderness and freedom in Western culture, from European Renaissance to American transcendentalism.
 2. Previous works in the history of environmental economics as a whole include Kula (1998), Pearce (2002), and Sandmo (2015), among others.
 3. Surprisingly, the book does not mention home economists such as Ellen Richards and Hazel Kyrk (apart from a passing mention to Margaret Reid) in the context of the connections between consumption and environmental health in the history of American economics in the early 20th century. Even if their focus lay rather on urban settings and their approach differed significantly from that of figures discussed in the book, they are certainly an important part of the historical reconstruction of how links between consumption and environmental health were forged by economists at the time. They engaged in intellectual and public debates with direct environmental implications, spanning from household and urban environmental health to thrift culture and programmed obsolescence (Philippy, 2021; Philippy and Vianna Franco, 2024; Missemer and Vianna Franco, 2024; Vianna Franco and Missemer, 2023).
 4. Bureaucracies involved with benefit-cost analyses of water resources included the US Army Corps of Engineers, the Department of Agriculture, and the Department of Interior (Bureau of Reclamation, Fish and Wildlife Service, and the National Park Service), among others.
 5. Some, like Marion Clawson, were at first keen on qualitative analyses and sceptical about measuring the monetary value of recreation, but eventually changed their minds in the mid-1950s.
 6. For a recent account of Gordon's 1954 fishery model, see Parent *et al.* (2024).
 7. It is worth noting that home economists had been discussing the subject in these terms since the late 19th century.
-

AUTHORS

MARCO VIANNA FRANCO

Goldsmiths, University of London. m.viannafranco@gold.ac.uk