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Commentary



Non-Human Labour History? Three Short Questions

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Abstract

Multi-species history, environmental humanities, Anthropocene studies and robotics all challenge core notions underlying labour history, such as ‘work’, ‘labour’ and ‘worker’. The note poses three questions about ‘non-human labour’ with a view to strengthening the dialogue between labour historians and practitioners of these new scholarly fields.

Keywords

labour history – non-human labour – animal history – plant agency – artificial intelligence

Labour History

For decades, the academic field of labour history has been moving away from the parochialism of Eurocentrism. Under the heading of ‘global labour history’ it has developed new theoretical insights and a more comparative

outlook.¹ During the same period, it has also responded to feminist and decolonial critiques, and today labour historians can contribute to a flourishing field with an increasingly inclusive reach. However, they have been slower in responding to another sea change in the social sciences: a reassessment of scholarly assumptions about the place of humans in history. Burgeoning new fields of enquiry (such as multi-species history, environmental humanities, Anthropocene studies and robotics) are now pressing labour historians to re-examine some basic notions and methodological choices. This note briefly posits three questions about non-human labour.

Non-Human Labour

Environmental historians have long deplored the fact that labour historians, reasoning from their field's core themes (such as class relations, workers' organisations, gender, race and the lives of 'ordinary' people), have perceived 'nature' as out there, a backdrop worthy of attention only in relation to what Marx called 'the metabolism of man and nature'.² As a result, 'enduring analytical and methodological differences between the two fields' have restricted border traffic between them.³ But labour historians are increasingly willing to learn from their environmental colleagues and 'green' their histories. Bailey and Gwyther pointed to three ways in which labour historians can benefit from environmental history: to expand the range of topics on the agenda; to see the environment as a force in its own right; and to take a fresh, eco-conscious look at old topics.⁴

But there is more. In labour history, non-human actors tend to be conspicuous by their absence. In most labour narratives, animals and plants have no agency.⁵ Labour history remains remarkably anthropocentric at a time when planetary changes such as global warming and substantial loss of biodiversity urge us to question the conceptual separation of humans and nature.

1 M. van der Linden, *Workers of the World: Essays toward a Global Labor History* (Leiden and Boston: Brill, 2008).

2 A. Schmidt, *The Concept of Nature in Marx* (London: NLB, 1971), 76–93; R. Grundmann, *Marxism and Ecology* (Oxford: Clarendon Press, 1991), 90–1.

3 G. Peck, 'The Nature of Labor: Fault Lines and Common Ground in Environmental and Labor History', *Environmental History* 11 (2006), 212–38, 213.

4 J. Bailey and R. Gwyther, 'Red and Green: Towards a Cross-Fertilisation of Labour and Environmental History', *Labour History* 99 (2010), 1–16, 11.

5 'Efforts to locate agency in human groups are often seen as an act of redress. Equally, an approach to inserting animals into history might take the form of reparation, drawing on the approaches, for example, of feminist historians and historians of slavery, who emphasize what has been termed "compensatory" history.' S. Swart, "'The World the Horses Made': A

Can Labourers Be ... Animals?

The question of non-human labour resonates with an old debate between two influential nineteenth-century theorists. Adam Smith argued that ‘not only [the farmer’s] labouring servants, but his labouring cattle are productive labourers.’⁶ Karl Marx, on the other hand, argued that labour is an ‘exclusively human’ characteristic.⁷ Mainstream labour history has followed Marx’s lead: it has understood animals as commodities, tools or capital – as ‘living machinery.’⁸ But a rumble of dissent has been gathering force, and it developed into a roar in the 2010s.⁹ In two articles, Jason Hribal has been especially insistent that theorists should re-engage with animal labour as a core subject of the

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- South African Case Study of Writing Animals into Social History’, *International Review of Social History* 55 (2010), 241–63, 250.
- 6 A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 5 vols. (Chicago and London: University of Chicago Press, 1977), 2:481.
- 7 ‘Wir unterstellen die Arbeit in einer Form, worin sie dem Menschen ausschließli[c]h angehört’ (We presuppose labour in a form that stamps it as exclusively human); K. Marx, *Das Kapital: Kritik der politischen Ökonomie*, Karl Marx Friedrich Engels Gesamtausgabe (MEGA), 65 vols. (Berlin: Dietz Verlag, 1991), 10:162.
- 8 Recent issues of influential journals such as *International Labor and Working-Class History*, *Labour History Review*, *Labour/Le Travail* and *International Review of Social History* (but see footnote 5) consistently present labour as a human characteristic and do not engage with non-human labour beyond the occasional brief book review. Even *Labour History*, which published a forceful article by Hribal on animals as workers in 2003, has not returned to the theme since then: J. Hribal, ‘Animals are Part of the Working Class: A Challenge to Labor History’, *Labour History* 44 (4) (2003), 435–53. It is instructive to recall that it was not uncommon for employers to use the term ‘living machinery’ for their *human* labourers: C. Grant, *Rural Life in Bengal: Illustrative of Anglo-Indian Suburban Life ... Letters from an Artist in India to His Sisters in England* (London: W. Thacker & Co., 1860), 137.
- 9 For example, M.B. Ferster and C.B. Ferster, ‘Animals as Factory Workers’, *New Scientist* 15 (303) (6 September 1962), 497–9; K. Perlo, ‘Marxism and the Underdog’, *Society & Animals* 10 (3) (2002), 303–18; Hribal, ‘Animals are Part of the Working Class’; J. Hribal, ‘Animals are Part of the Working Class Reviewed’, *Borderlands E-Journal* 11 (2) (2012), 1–37; M. Murray, ‘The Underdog in History: Serfdom, Slavery and Species in the Creation and Development of Capitalism’, in *Theorizing Animals: Re-thinking Humanimal Relations*, ed. N. Taylor and T. Signal (Leiden and Boston: Brill, 2011), 87–106; A. Mikhail, ‘Unleashing the Beast: Animals, Energy, and the Economy of Labor in Ottoman Egypt’, *American Historical Review* 118 (2) (2013), 317–48; R.F. Monzote, ‘Animal Labor and Protection in Cuba: Changes in Relationships with Animals in the Nineteenth Century’, in *Centering Animals in Latin American History*, ed. M. Few and Z. Tortorici (Durham, NC: Duke University Press, 2013), 209–42; M. Barua, ‘Nonhuman Labour, Encounter Value, Spectacular Accumulation: The Geographies of a Lively Commodity’, *Transactions – Institute of British Geographers* 42 (2) (2017), 274–88; J.L. Hevia, *Animal Labor and Colonial Warfare* (Chicago and London: University of Chicago Press, 2018); H. Chhabra, ‘Animal Labourers and the Law in Colonial India’, *South Asia Research* 39 (2) (2019), 166–83.

field of labour history.¹⁰ He argued: ‘animals played an indispensable role in the development of capitalism [...] their indispensable role was that of laborers [...] They, as much as humans, built the modern world [...] through their indispensable labor, animals became part of the working class.’¹¹

This challenge, directed specifically at labour historians, is part of a much broader reassessment of human–animal relations. Other relevant debates swirl around the related fields of animal history,¹² interspecies justice,¹³ and labour studies.¹⁴ Even broader domains are involved in unpacking the ‘animal turn’ in philosophy and the social sciences.¹⁵ And even more wide-ranging conversations rage over the concept of the Anthropocene.¹⁶

By staying aloof from these sprawling debates, labour historians run the risk of painting themselves into a corner and being seen as stubbornly anthropocentric. Their mindset also remains detached from that of the many people in history who lived with animals and recognised them as co-workers. Such recognition has been given distinct material form, for example in numerous

10 Hribal, ‘Animals are Part of the Working Class’; Hribal, ‘Animals are Part of the Working Class Reviewed’.

11 Hribal, ‘Animals are Part of the Working Class Reviewed’, 2–3.

12 For example, H. Kean and P. Howell, eds., *The Routledge Companion to Animal Human History* (London and New York: Routledge, 2018); N. Harris, *The Thirteenth-Century Animal Turn: Medieval and Twenty-First-Century Perspectives* (London: Palgrave Macmillan, 2020); M. Roscher et al., eds., *Handbook of Historical Animal Studies* (Berlin: De Gruyter Oldenbourg, 2021).

13 For example, C.E. Blattner et al., eds., *Animal Labour: A New Frontier of Interspecies Justice?* (Oxford: Oxford University Press, 2020).

14 For example, L. Hamilton and N. Taylor, *Animals at Work: Identity, Politics and Culture in Work with Animals* (Leiden and Boston: Brill, 2013); K. Coulter, *Animals, Work, and the Promise of Interspecies Solidarity* (Houndsmills: Palgrave Macmillan, 2016); M. Barua, ‘Animal Work: Metabolic, Ecological, Affective’, *Cultural Anthropology* (26 July 2018), <https://culanth.org/fieldsights/animal-work-metabolic-ecological-affective>; C.E. Blattner and L.N. Bossert, ‘Tierarbeit – Animal Labour – Der Versuch einer Einordnung’, *TIERethik* 14 (1) (2022), 8–38.

15 For example, E. Andersson Cederholm et al., eds., *Exploring the Animal Turn: Human–Animal Relations in Science, Society and Culture* (Lund: Pufendorf Institute for Advanced Studies, 2014); C. Mengozzi, ed., *Outside the Anthropological Machine: Crossing the Human–Animal Divide and Other Exit Strategies* (New York and London: Routledge, 2021); M. Deckha, *Animals as Legal Beings: Contesting Anthropocentric Legal Orders* (Toronto: University of Toronto Press, 2021); J. von Uexküll, *A Foray into the Worlds of Animals and Humans, with a Theory of Meaning* (Minneapolis: University of Minnesota Press, 2010 [1934]).

16 For example, in *The Anthropocene Review*.

war monuments and honours that extol animals as colleagues,¹⁷ and in giving pensions to police dogs and horses.¹⁸ These social facts present labour historians not only with a poignant reminder of the complexities of historical perceptions of animal labour, but also with a critical question: can labour history continue to ignore animals as workers?¹⁹

Plant Agency in the Labour Process?

Labour historians' anthropocentric proclivities are also challenged by debates about 'plant blindness', the inability to understand the influence that plants exert on the social world of humans.²⁰ Even though labour's human character continues to be 'jealously guarded by many of Marx's disciples', others are now contemplating plant labour (like animal labour) as part of the 'work of nature ... a collective, distributed undertaking of humans and nonhumans acting to reproduce, regenerate, and renew a common world'.²¹ This approach seeks to reimagine the relationship between nature and capital by 'productively

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- 17 The Alabama War Dog Memorial states: 'Let us not forget that these unsung heroes were soldiers, too.' Animals receiving medals and other decorations for their war-related work include horses, homing pigeons, camels, mules, dogs and land-mine detection rats. See also I. George, *Sergeant Stubby: The Most Decorated Dog in History* (London: HarperCollins, 2012).
- 18 In the USA, the proposed 'Police K-9 Bill of Rights' demands that police dogs (K-9 = canine) be reclassified as 'canine law enforcement officers, not as equipment', <http://nationalk9workingdog.org/police-k-9-bill-of-rights/>. See also M. Scisłowska and R. Niedzielski, 'Poland Plans Pensions for Dogs, Horses in State Employment', *AP News* (27 March 2021), <https://apnews.com/article/horses-police-poland-legislation-dogs-b45b58d9a75aa18d02c5c1ebc82406>.
- 19 Barua distinguishes three forms of labour carried out by animals: metabolic, ecological and affective. Animal labour 'not only highlights the violence in commodifying life, but also signifies the economic force of nonhuman potentials co-opted by capital. Animal work reorients our understandings of capitalism: it shows the latter to be not just a set of cultural and economic practices, but ecological ones as well.' Barua, 'Animal Work'.
- 20 J.H. Wandersee and E.E. Schussler, 'Preventing Plant Blindness', *The American Biology Teacher* 61 (2) (1999), 82, 84, 86; D.L. Sanders, 'Standing in the Shadows of Plants', *Plants, People, Planet* 1 (2019), 130–8; S. Elton, 'Growing Methods: Developing a Methodology for Identifying Plant Agency and Vegetal Politics in the City', *Environmental Humanities* 13 (1) (2021), 93–112, 94.
- 21 A. Battistoni, 'Bringing in the Work of Nature: From Natural Capital to Hybrid Labor', *Political Theory* 45 (1) (2017), 5–31, 6 and 15. See also S. Besky and A. Blanchette, eds., *How Nature Works: Rethinking Labor on a Troubled Planet* (Albuquerque: School for Advanced Research Press, Santa Fe University of New Mexico Press, 2019).

collapsing the distinction between labor and resources'.²² It understands the metabolism of plants as a form of labour – vegetal labour – which, combined with human and animal labour, is a component of 'socio-natural working collectives'.²³ Vegetal labour comes in many forms: photosynthesis, plant growth, reproduction, carbon sequestration, and the production of food for humans and animals.

A second line of thought about plants and labour that is of special significance to labour history is how plant agency organises and disciplines human labour. Take the contrast between tea, indigo and jute in colonial South Asia. The natural features of the long-lived tea plant, notably the continuous sprouting of young leaves, demanded that the production process was non-stop, and that cheap human labour in tea gardens and factories was available year-round. By contrast, the production process of short-lived indigo and jute plants was seasonally interrupted, requiring migrant labour to be laid off periodically in indigo and jute factories.²⁴

The natural properties of plants serving as resources for industrial production played a role in determining what form supply chains took, where industrial labour was required, how it was organised and which technologies were applied. Highly perishable crops favoured industrial processing nearby, giving rise to rural industries, often with migrant labour, in which labour processes were moulded to the plant's needs. It was even possible to 'take the mill to the field' by means of portable processing technology.²⁵ Such rural industries could produce semi-finished products (sugar that was further refined in distant urban surroundings) or finished products (cubes of indigo dye ready to be shipped to consumers halfway across the globe). Non-perishable plants such

22 A. Krzywoszynska, 'Nonhuman Labor and the Making of Resources: Making Soils a Resource through Microbial Labor', *Environmental Humanities* 12 (1) (2020), 227–49, 227. The author applies the idea of non-human labour specifically to soil biota (bacteria, archaea, fungi, meso- and macro-organisms such as soil animals, and the plant and animal life with whom they form complex relations).

23 J. Palmer, 'Putting Forests to Work? Enrolling Vegetal Labor in the Socioecological Fix of Bioenergy Resource Making', *Annals of the American Association of Geographers* 111 (1) (2021), 141–56, 152. See also M. Ernwein, F. Ginn and J. Palmer, eds., *The Work That Plants Do: Life, Labour and the Future of Vegetal Economies* (Bielefeld: Transcript Verlag, 2021); M. Barua, 'Plantationocene: A Vegetal Geography', *Annals of the American Association of Geographers* 113 (1) (2023), 13–29.

24 R.P. Behal, 'Power Structure, Discipline, and Labour in Assam Tea Plantations under Colonial Rule', *International Review of Social History* 51 (S14) (2006), 143–72.

25 C. Daniels, 'Agro-Industries: Sugarcane Technology', in *Science and Civilization in China, Volume 6: Biology and Biological Technology*, ed. J. Needham (Cambridge: Cambridge University Press, 1996), 1–531, 113.

as timber could be processed anywhere, so sawmills and paper mills (and further processing in furniture factories) could be far removed from where the trees grew.²⁶

These considerations pose a question for labour historians: are we willing to play a part in conceptualising ‘socio-natural working collectives’ and in studying how plant agency organised and disciplined human labour?

Can Labourers Be ... Intelligent Artificial Entities?

Labour history’s anthropocentric proclivities are also tested by a new form of non-human labour that has been emerging recently, based on rapid advances in artificial intelligence (AI). Labour historians have long been successful in analysing how new technologies affected historical work patterns, career paths, labour relations and labour markets. Robotics and automation technologies have changed the world of work, and it is relevant to recall that the word ‘robot’, coined in 1920, derives from the Czech word ‘robota’, meaning ‘forced labour’. Artificial intelligence is not robotics, however. It is a self-learning technology that appears to augur the dawn of a new era. Artificial intelligence,

refers to algorithms that learn to complete tasks by identifying statistical patterns in data, rather than following instructions provided by humans [...] Whereas robots perform ‘muscle’ tasks and software performs routine information processing, AI performs tasks that involve detecting patterns, making judgments, and optimization.²⁷

Its impact on the future of human work is still hard to gauge, but scholars assume that we can expect self-learning non-human workers to marginalise human workers in some fields, and to create as yet unimaginable fusions of human and non-human skills in others.²⁸ At a time when AI experts are discussing ‘algorithmic bosses’, ‘machines with minds’, ‘rethinking the master – servant dialectic’ and whether ‘the increase of automation across various industries present[s] the next labor revolution’, the skills of labour historians

26 N.K. Menzies, ‘Forestry’, in *Science and Civilization*, ed. Needham, 541–689.

27 M. Webb, ‘The Impact of Artificial Intelligence on the Labor Market’ (6 November 2019), <https://ssrn.com/abstract=3482150>.

28 H.J. Wilson and P.R. Daugherty, *Human + Machine: Reimagining Work in the Age of AI* (Boston: Harvard Business Review Press, 2018), 183–206.

are much-needed.²⁹ We may be witnessing the beginning of a new phase of labour history, in which AI-charged entities are emerging and cyborgs (in which human organisms and technologies fuse in unprecedented ways) become more prominent in labour relations. How can concepts that labour historians have honed for generations – labour commodification, free and unfree labour, slavery, subaltern workers, precarity, and so on – be applied to this emerging world of, at least partly, post-human work? How novel are current anxieties and expectations about artificial intelligence, if we compare them with the fears and hopes generated by the introduction of new technologies in the past? What can labour history tell us about a world in which the distinction between humans and self-learning non-human workers is no longer straightforward? How does the conceptual toolbox of labour history stand up to these new challenges?

Non-Human Labour History

Today, the axiom of labour's human exclusivity is besieged from various sides. Concepts of work are being stretched and re-examined, and it seems no longer viable to strictly separate the human domain from 'nature' and 'machinery'. The challenge ahead is how best to integrate non-human forms of labour into the practices of labour history.

We seem to have reached a fork in the road. Current debates – boiled down into three questions here – provide ample scope for dialogue about what we mean when we use the words 'work', 'labour' and 'worker'. It is up to self-proclaimed labour historians whether they wish to join such dialogues. Those who choose to retreat into the purity of a gated 'humans-only' community will no doubt continue as a vibrant niche collective. But they will deprive labour history of the powerful impulses that the wider debates are now generating – just as they will deprive these debates of labour historians' profound scholarship and expertise.

29 A. Aloisi and V. De Stefano, *Your Boss Is an Algorithm: Artificial Intelligence, Platform Work and Labour* (Oxford: Hart, 2022); J. Bronowicka and M. Ivanova, 'Resisting the Algorithmic Boss: Guessing, Gaming, Reframing and Contesting Rules in App-Based Management', in *Augmented Exploitation: Artificial Intelligence, Automation and Work*, ed. P.V. Moore and J. Woodcock (London: Pluto Press, 2021), 149–61; C.D. Reinhard, 'Editorial Introduction: The Coming Robotics Era', *Popular Culture Studies Journal* 9 (1) (2021), 1–4, 2.

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