An Invitation to Dance

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Pondering the relevance of New Materialism for agricultural history has been a bit like returning to a familiar childhood home only to find it newly remodeled. Is New Materialism simply wall-papering over existing grooves and contours of agricultural histories? Does it rewire and electrify our inquiries about the past? Does New Materialism simply add a new room onto an older structure? Or does it fundamentally alter the structures through which historians engage the subjects (and objects) of agricultural pasts?

New materialists often launch their case by describing a scholarly world inattentive or ignorant of material forces. Diana Coole and Samantha Frost open their book *New Materialisms: Ontology, Agency, and Politics* by discussing the impact of microorganisms and material artifacts on daily life with the comment: "For the most part we take such materiality for granted, or we assume there is little of interest to say about it."[1] Jane Bennett's widely acclaimed *Vibrant Matter*, similarly, describes a social and humanities scholarship about food that is inattentive to material forces.[2]

Such assessments prompted me to think new materialists are describing a different old house than the one with which I am familiar. For agricultural history pulses with materiality! In its pages, Bermuda grass creeps, boll weevils chomp, tsetse flies infect, cattle walk, weeds choke irrigation ditches, peaches enchant, bulls stomp, and boars refuse to mount.[3] Far from taking materiality for granted, or treating the material as mundane, among agricultural historians, even manure matters.[4] A great deal.[5]

If agricultural historians have already conceptualized animals and plants (and manure!) as consequential makers of history, what do they have to gain from the new materiality? New Materialism enlarges both the temporal frame and the scope of action, inviting scholars to imagine humans as objects of material manipulation, not simply as modifiers of the natural world. In his *Matter of History*, Tim LeCain presents the history of the longhorn cow as an evolutionary history, tracing ruminants' development of a

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four-chambered stomach to the domestication of cattle eight thousand years ago. LeCain argues that, ultimately, the story of cows' domestication is not only about something that humans did to cows, but also about what cows did to humans. Human proximity to a domesticated ruminant, combined with a genetic mutation to make it possible for adults to drink milk, compelled people to take advantage of the nearby food source. Over time, well-fed genetic mutants (milk drinkers) proved more likely to survive, and thus their cultural traits and genetic mutation thrived.[6]

This neo-materialist approach offers novel insights to histories of milk and dairying. Most works about dairy farming center people enacting change on cows—feeding, housing, and breeding them, and protecting their health.[7] To a point, cows pattern human lives in these works, structuring the days of those tasked with milking them. Historians rarely explore, however, the longer, more profound ways cows shaped humans' bodies and human history writ large. In a sense, such a perspective forces readers to wonder whether theirs is the only house on the lot—or whether the anthill, bird's nest, doghouse, and compost pile might hold greater leverage than previously understood.

Another element of LeCain's New Materialism is that it puts commodities in context with other materials—correcting a shortcoming of focused commodity-centric works. In LeCain's analysis of the cattle of the Deer Lodge Valley, evolutionary biology meets chemistry and physical properties of copper. He describes how copper smelting lofted arsenic-laden ash, ruining cattle ranching's prospects by tainting milk, poisoning cows' capacity to reproduce, and undermining cows' ability to fend for themselves on the open range.[8] Making these connections overt provides a more textured history of the unique features of the Deer Lodge Valley, and it also promises to help rescue the field from an ever-more complex set of commodity-focused monographs that largely offer different variations of a similar narrative.

LeCain makes this leap to understand humans as objects of cows by mining scholarly secondary literature in biology, psychology, and history, building on scholars who have mined the archives. By so doing, LeCain intends to bring about an end to anthropocentrism. It was striking to me, then, that to make this move, he turns to scientific traditions—cognitive biology, epigenetics—that center humans more than the ecological studies on which environmental historians have generally relied. Human biases are not historians' alone. What impact might amplification of the findings of cognitive and human biology at the expense of field biologists have on science, as well as on history?

Thinking more about neo-materialism got me thinking as much about the objects within the remodeled house as of its walls. In particular, neo-materialism offered new ideas about positioning the robust scholarship in

material culture studies in agricultural history. At present, neo-materialist works draw more heavily from the fields of technological, environmental, and animal histories than the robust scholarship in material culture and museum studies. Agricultural historians have thought deeply about the material world and the way it comes to life through objects.[9] They have used objects to trace trade across rural spaces and considered how objects helped foster the development of social or cultural or regional identity.[10] Agricultural historians have also turned to objects to glean hints of the meaning making and resistance of peoples otherwise sparsely documented in the written record. Lu Ann Jones's evaluation of embroidered and hand-dyed curtains made from chicken-feed sacks, for instance, reveals southern farm families' engagement with market-driven poultry production and demonstrates women's knowledge of the local ecology of natural dye sources.[11] A set of canning jars in the possession of a southern African American rural household signals how determinedly the family sought self-sufficiency and community resilience.[12]

How might neo-materialist scholarship mesh with material culture scholars to invigorate agricultural history? First, new materialists and material culture scholars might work together to probe the sensory elements of agricultural knowledge production. In the past two decades, sensory historians have helped reconstruct how the past smelled, sounded, tasted, and felt.[13] Environmental history, similarly, has paid greater attention to the way that knowledge was embodied through work.[14] In *The Matter of History*, LeCain emphasizes the significance of the material world in sparking cognition and knowledge. Drawing on anthropologist Tim Ingold, LeCain explains that a beginning cellist "would be unable to begin learning to truly play the cello until she picked one up, pressed her fingers to the board, and felt the inimitable deep vibrations as she pulled the bow across the strings."[15]

The sensory engagement afforded by object study is something long understood by agricultural historians. As John T. Schlebecker urged in his 1977 essay "The Use of Objects in Agricultural History," "if at all possible the object should be touched, handled, and lifted . . . to know that a grain cradle weighs eleven pounds is not really as useful as lifting and walking with it."[16] The practice of farming—and its attendant pursuits—have many of the same embodied qualities as playing a cello. Whether evaluating friability of soil or gauging the pliability of a tobacco leaf or feeling the heat of an infected udder, to farm is to know by feeling, sniffing, listening, and watching.

Might greater engagement with objects lend clues about the bodily experiences of these encounters? Might considering knowledge production from the perspective of cognitive science offer new angles on lay understandings of agriculture, and the pathways by which human bodies interact with the

natural world? Thanks to living history farms and museums, it's possible for many scholars not to simply read about past work but to enact it; neo-materialist scholarship helps legitimize the significance of such institutions as not only historical repositories but also laboratories for understanding cognitive experiences.

But objects of work are not the only kinds of artifacts that agricultural and rural historians have unearthed. In an arresting article in the 2018 *Agricultural History* special issue "Artifacts in Agraria," museum curator Roland Sawatzky provided the "biography" of a violin that traveled from a London workshop to the Manitoban frontier—becoming a prized possession of Pierre Bruce, a Metis middle man for the North West Company. The violin, Sawatzky concludes, "was formative not only for the owners who played it, but for the communities that experienced its playing, followed its rhythms, danced its tunes, shared its sound, and were affected and transformed by its cultural mediations."[17]

Sawatzky's masterful biography of the object, viewed from the perspective of materialist approaches that attend to the organismal qualities of human behavior, prompted me to wonder whether material-culture scholars might add to the methodology of artifact analysis: How did it move them? What physical actions did the object invoke? What kinds of bodily behavior did it incite? But also—what emotional responses did the object elicit? How? From whom?

Ultimately, my assessment is that much of the old house of agricultural history stands, even with the perspectives presented by New Materialism. Despite new materialists' bluster, agricultural history has a long tradition of acknowledging and being interested in the role of material forces—from animal bodies to climate, seed plasma to soil residue—as they interact with the human past. Rather than realign or replace existing fields of inquiry, New Materialism builds on and extends existing approaches.

But New Materialism—like a new piece of art or a just-installed mirror—does prompt different kinds of questions and reflections, offering fresh perspectives and evocative questions on familiar terrain. Much like the fiddle's call on the Canadian frontier, the tune of New Materialism offers an invitation to dance with new steps in a familiar space. May the call-and-response of historical inquiry be harmonious.

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Notes

1. Coole and Frost, *New Materialisms*, 1.

2. Bennett, *Vibrant Matter*, 43.

3. Brown, "From Ubombo to Mkhuzi," 312–13; Fiege, *Irrigated Eden*, 55; Lange, Olmsted, and Rhode, "Impact of the Boll Weevil," 688–89; Okie, *Georgia Peach*, 10; Rosenberg, "Race Suicide among Hogs," 63–64; Smith-Howard, *Pure and Modern Milk*, 88–92; Specht, *Red Meat Republic*, 134–41; Way, "Cosmopolitan Weed of the World," 358–59.

4. Cunfer, "Manure Matters on the Great Plains Frontier," 567.

5. Johnson, "Reconstructing the Soil," 196–97; Melillo, "First Green Revolution," 1051–52.

6. LeCain, *Matter of History*, 147–53.

7. McMurry, *Transforming Rural Life*, 103–13; Orland, "Turbo-Cows," 167–72; Smith-Howard, *Pure and Modern Milk*, 48–53; Woods, "Science, Disease, and Dairy Production in Britain," 300–302.

8. LeCain, *Matter of History*, 174–81.

9. Schlebecker, "Use of Objects in Historical Research," 200–202.

10. Kline, *Consumers in the Country*, 113–27; Barron, *Mixed Harvest*, 210–25.

11. Jones, *Mama Learned Us to Work*, 172–75.

12. Reid, *Reaping a Greater Harvest*, 68–80.

13. Chiang, "Nose Knows"; Fitzgerald and Petrick, "In Good Taste"; Smith, *Smell of Battle*, 84–114; Kiechle, *Smell Detectives*, 68–71.

14. White, "Are You an Environmentalist?"; Andrews, *Killing for Coal*, 125; Nash, *Inescapable Ecologies*, 137–39.

15. LeCain, *Matter of History*, 81.

16. Schlebecker, "Use of Objects in Historical Research," 202.

17. Sawatzky, "From Trade Routes to Rural Farm," 255–58.

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