

Wheat: a powerful crop in US-American culture

Between politics and *plant agency*

Intertwined in processes of ideological meaning-making, wheat has been particularly successful in pairing its genetic assets with a powerful symbolic charge in US-American culture. The sense of agency that US culture attaches to wheat is subsumed under paradigms of organized personhood such as the nation and the corporation. Artists and writers have merged the idea of “wheat power” with the fears and hopes of their specific historical moment.

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Abstract

Wheat is not only genetically complex but has also been exceptionally culturally defined. Interestingly, some cultural representations of wheat emphasize what may be referred to as *plant agency*. This is particularly striking in North American art and literature. There is often a certain wildness, independence, and power to wheat that are lacking in other cultivated crops. Focusing on the 19th and early 20th centuries, this article examines the active role of wheat in shaping US-American history and society. Starting from the assumption that cultural artefacts help societies to understand and negotiate their norms and values, I take a look at a painting (Emanuel Leutze's *Mrs. Schuyler Burning Her Wheat Fields on the Approach of the British* from 1852) and a novel (Frank Norris's *The Octopus* from 1901) to analyze their representation of the human-wheat relationship. Using a historicizing, philological approach, this case study contributes to a debate in the environmental humanities that seeks to redefine the human-crop relationship in times of climate change, diminishing biodiversity, and human population growth. Can the American legacy of wheat help us to reframe the human-wheat relationship? Are there potential pitfalls of crop agency as it is depicted in American representations of wheat?

Keywords

agriculture, anti-Semitism, capitalism, colonialism, genome editing, interspecies relations, plant ethics, political and historical transformation, race relations, USA, vitalism, wheat

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Covering more than 216 million hectares of the global land area, wheat is “a major agent of landscape change on most continents” and the second largest crop produced and consumed by volume (Head et al. 2012, p. 2). It is among the ten percent of crops that have not disappeared from global agriculture since 1900 (FAO 2004). Presently, wheat is one of only twelve crops that provide 75 percent of the food we eat (FAO 2004). This may seem surprising since wheat makes considerable demands on the soil, climate, and water supply. But the crop's extraordinary yields, long storage periods, as well as wheat flour's astonishing chemical reaction with water and yeast have contributed to the grain's migration across continents and cultures. As one of the oldest and most important cereal crops and the basis of a wide variety of baking products, wheat has always been a strong driver of politics and social transformation. In many languages, bread is synonymous with “food in general”, and eating the whitest bread of all has become a means of social distinction (Bjørnstad 2016, pp. 3 f.). In colonial America wheat was considered “the only acceptable grain for communion wafers” (Sanna 2003, p. 59), and in the early decades of the 20th century United States, the chemical bleaching of wheat flour furthered racist associations of cleanliness and moral purity (Brow-Strain 2012, pp. 66 ff.).

From the 1950s onwards, however, wheat has lost its aura of racial and class exclusivity: globalization, improved farming practices, and the cultivation of resistant new crossings have evoked a massive surge in wheat production (Fossati and Brabant 2003, p. 448). The global spread of industrial agriculture, the dependency of local farmers on big corporations in that sector, and the use of wheat as a major energy and protein source in animal diets have fueled reservations regarding the cereal crop. Transgenesis (the integration of isolated genetic elements from other plants into the wheat genome) and CRISPR/Cas9 genome editing (the strategic manipulation of the wheat's gene structure at particular locations in the DNA) have further discredited wheat, especially in the media and general public. In a 2019 interview in the German newspaper *Die Welt*, the German biochemist, physician, and book author Detlef Schuppan suggests that centuries of manipulations of the grain's extraordinarily large and complex genome (a wheat cell

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has six copies of its seven chromosomes) are responsible for irritable bowel syndrome and celiac disease, but also for aggravating symptoms of rheumatism, multiple sclerosis, and type 2 diabetes (Heinemann 2019, p. 27).

As a scholar of culture, I am not authorized to assess the scientific significance of these claims and medical observations nor can I evaluate new concepts of wheat farming. My expertise resides in analyzing how we speak about wheat, and why this discourse blocks the view of what are essential, ecological questions regarding the future of wheat agriculture. This article starts from the assumption that the ecological footprint of wheat is huge: wheat farming is fertilizer- and water-intensive and relies on global transportation systems; its “storage and processing phases of flour milling, and the retail and consumption phases” contribute considerably to the problem (Head 2012, p. 83). It is against this backdrop, and in the context of a limited supply of agrarian land, that scholars from the environmental humanities have started to rethink large-scale agriculture. As Schmidt et al. (2020, in this issue) explain, this relatively new academic field comprises scholarly expertise from a diverse array of disciplines. The Americanist Frieda Knobloch (1996) and the human geographer Leslie Head (2012, 2016) have spearheaded efforts to think about the crop in terms other than quantity, money flows, and national agricultural output rankings. They not only challenge the concept of agriculture as a “civilizing” force but seek to reframe human-wheat relations by asking, among other things, what it means to be a plant, and a human being, in the complex entanglements that mark the relationship between wheat and the people who breed, plant, and eat it.

By analyzing a prominent American painting, Emanuel Leutze’s *Mrs. Schuyler Burning Her Wheat Fields on the Approach of the British* (1852) and the country’s most famous novel about wheat, Frank Norris’s *The Octopus* (1901), this essay attempts to pave the way towards new and potentially more sustainable conceptions of human-wheat relations. This philological approach relies on an understanding of modern wheat as cultural artefact with the power of an agent active in the world of the living. Art and literary fiction not only explore human worlds of experience but contribute to how we relate to others and the environment, and how we imagine material transformation (cf. Weber 2013, pp. 59–62).

Focusing on the United States as the prototypical “nation in the making”, this essay places wheat at the center of processes of political self-definition, national expansion, technological innovation and progress. The effort that was invested in adapting wheat to the New World makes it an emblem of the transformation processes brought about by European invasion. It took many failed attempts, missionary zeal, territorial expansion, and slave labor for the United States to become independent of European wheat imports. Only in the 1870s, when Russian immigrants brought quality seeds to the Great Plains, did the country become a leader in global wheat production (Moon 2020, Dunmire 2004, pp. 6–26 and 83–299).

The present article recognizes wheat’s superior role in Christian religion and its contributions to cultural associations of the

cereal crop as a transformative, metaphysical power. Yet by focusing on the mid-19th and early 20th centuries, it emphasizes the crop’s secular dimensions, and how it was adapted to the cultural needs of American society during this phase of national consolidation, political crisis, and modernization. Inspired by democratic ideals, patriotism, and vitalist theories, American paintings and novels relied on wheat to express the political visions and fears that prevailed during those turbulent times. Between 1850 and the early 20th century, the cereal crop became synonymous with the spirit of United States innovation and transformative power.¹ As will be shown in more detail later, this resulted in a symbolic empowerment of wheat and its transformation into a bio-ethical vehicle of interaction and even intervention.

Interestingly, these earlier representations of wheat challenge contemporary, popular views of agricultural grains and vegetables as “enslaved” species and the “saddest plants of all” (Wohlleben 2017, location 53). Taken from Tim Flannery’s foreword to Peter Wohlleben’s *The Hidden Life of Trees* (2017), these claims tie in with what philosophers like Fechner (1848), Ingensiep (2001), and Coccia (2017) have suggested in their work about the lives and souls of plants. Writing about what it means to be a plant, they all ignore the domesticated kind, let alone cereal crops. Even the Swiss Federal Ethics Committee on Non-Human Biotechnology, a group of experts that developed official guidelines for the way humans should treat plants (especially in the context of bio- and genetic technological research), focused on “wild” plants to determine whether plants have dignity (EKAH 2008).

A notable exception to this trend is the journalist and author Michael Pollan. In his popular nonfiction book *The Botany of Desire* (2001), he argues that apples, tulips, marijuana, and potatoes have developed unique features and qualities (agreeable taste, beauty, intoxicating effects, industrial agriculture’s suggestion that humans can “control” nature) to prompt humans into securing their (the plant’s) survival as cultivated varieties of botanical species: “These plants hit on a remarkably clever strategy: getting us to move and think for them” and to even incite us “to cut down vast forests to make more room for them” (Pollan 2001, p. xix). One should not mistake Pollan for a New Age vitalist or proponent of intelligent design; the point he puts forth in his discussion of potato planting stresses “a concatenation of accidents” as the basis of a “co-evolutionary relationship” between humans and plants: “every subject is also an object, every object a subject” (Pollan 2001, p. xx). There is a certain urgency to this seemingly banal reminder: in our time of accelerating environmental risk and destruction, where “all of nature is [...] in the process of being domesticated” (Pollan 2001, p. xxii), the “ability to get along” is of preeminent importance for a plant’s long-term survival (Pollan 2001, p. xxi). On the other hand, this admittedly fascinating account of cross-species cooperation ignores potential pitfalls of assigning agency to crops. What those pitfalls could be will be elaborated on in the following two case studies.

¹ For the contrasting idea of a “capricious nature” see Benz (2020, in this issue, p. 244).



FIGURE 1: Emanuel Leutze, *Mrs. Schuyler Burning Her Wheat Fields on the Approach of the British*. United States, 1852. Oil on canvas, 32x40 inches. Los Angeles: Los Angeles County Museum of Art. Download: www.lacma.org.

Revolutionary wheat, slavery, and the compromise of 1850: Emanuel Leutze's *Mrs. Schuyler Burning Her Wheat Fields* (1852)

While in European cultures wheat tends to have strong religious, moral, and personal connotations (Seifert 2005), American representations of wheat are often political in a narrow sense. Major political changes and ruptures connected to the seizing of territory in the West, the controversies around slavery and the war that followed, and the country's rise to global power were all connected (historically and in the national imagination) to wheat as a visionary and potentially destructive power. The transatlantic and transpacific history of the United States lends an additional, transnational component to many American scenes of wheat. This applies to Emanuel Leutze's *Mrs. Schuyler Burning Her Wheat Fields on the Approach of the British* (1852) (figure 1).

Leutze was the son of German immigrants and America's most famous historical painter. During a long stay in his ancestral country, he became a fervent supporter of the republican revolts of 1848, those Europe-wide anti-aristocratic upheavals inspired by the French Revolution. When he returned to the United States, he embraced the values of the American revolution but opposed slavery and was critical of religion. This political heritage is key to understanding the message conveyed via *Mrs. Schuyler Burning Her Wheat Fields*. The painting refers to an event that allegedly happened during the Battle of Saratoga in 1777. Catherine Schuyler, the wife of American General Peter Schuyler, wanted to cut off the British army from the supply of food, and set fire to her family's wheat fields. By capturing this legendary scene on canvas, Leutze not only commemorates the colonists' passionate dedication but comments, from the critical perspective of a "48er", upon the shortcomings of American democracy after the Compromise of 1850. Consisting of five separate bills to reduce confrontation between

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free and slaveholding states in the Western territories, the Compromise had resulted in voter apathy, internal party fractioning, and ideological repositionings that divided the nation. In this context, *Mrs. Schuyler Burning Her Wheat Fields* is best understood as creating a “useable past” (Brooks 1918) by bringing together a precarious historical moment in America’s colonial history and a long-term vision of societal cooperation across gender and racial lines.

The overall democratic message unfolds under the unifying flame of the Enlightenment that is symbolized by the burning sheath of wheat in the lady’s right hand. In notable contrast to Delacroix’s *Liberty Leading the People* (1830), Leutze stages the defense of American values as a hand-in-hand process where everybody plays their part in a functioning series of actions whose goal is seemingly counterintuitive and embodied by a mother burning her family’s food and riches. Importantly, however, the painting stops short of showing a wheat field in flames: this one is about to burn, and highlights the ideas of the Enlightenment that influenced the American Revolution. Freedom of speech, humanism, progress, but also prosperity and peace, are ideals worth risking one’s life for. The ripe wheat seems almost to welcome the fire and readily accepts “carrying the torch” into an unknown future. Loosely arranged and yet determined to defend the American ideals of democracy, individualism, expansion, and opportunity, these wheat spikes call on citizens to step out of themselves to preserve the values that define them.

The underlying social ideal is made visible in the spiraling, dynamic form of the group, which has racial implications as well. Symbolically arranged in the tradition of the 19th-century tableaux vivants, the black youth is harmoniously integrated in a staggered constellation of human figures that anticipates the (failed) effort to establish a radical, egalitarian democracy after the Civil War (1861 to 1865). At close view, however, the painting betrays the bourgeois roots of the 1848 upheavals. When we study it carefully, we can recognize ideological ambivalences and contradictions that illustrate what Schmidt et al. (2020, in this issue) refer to as the thought-provoking potential inherent in cultural artefacts. Mrs. Schuyler’s heroic deed was the privilege of Saratoga’s affluent citizens, who had stored enough wheat for their private usage. As the painting’s composition readily acknowledges, she is also sole authority defining the role of others (clad, symbolically, in blue/perseverance, red/bravery, and white/purity). This applies to the black youth in particular: although Leutze deserves credit for replacing the popular image of a childlike race with a man with individualized features, his youthful age, heightened physicality, position in the group, and half-kneeling posture allegorize the paternalistic concept of gradual emancipation and racial uplift that dominated Northern antislavery discourses until long after the American Civil War (Savage 1997, Twelbeck 2018).

Somewhat paradoxically, the undulating spikes and ears on Leutze’s painting stabilize relations of ownership and possession that have regulated American farming since the colonial period. Harmoniously embedded in a Europeanized pastoral landscape, Leutze’s wheat fields hide an earlier, pre-colonial geography: Sar-

atoga County used to be the hunting grounds of Mohawk Indians that had been seized by Dutch settlers in the 17th century.²

It also fails to address the fact that the Schuyler family owned at least 14 slaves (Funciello 2016, Grondahl 2016). By representing the youth as a servant rather than a slave, Leutze hints at the black man’s potential eligibility for citizenship. By keeping him half on his knees, however, the painting confirms the racist implications of the 1776 to 1777 struggle for independence. After all, the Revolution centered on America’s right to control its own property, and the promises of democracy were never meant to be extended to the slave population. Like the earth below his feet and the wheat that he was forced to plant and harvest, the black youth cannot be separated from the “larger desire for inhuman property” that drives colonialism in the first place (Yussof 2018, p. 16). In her critique of the racial blindness of Anthropocene geological discourse, Kathryn Yussof (2018, p. 13) demands that we pay attention to “the whole history of world making as a geophysics of being – a world making that was for the few and firmly committed to the enlightenment project of liberal individualism and its exclusions”. From this viewpoint, the young man in the painting stabilizes “a state of relation [...] that is assigned to difference through a material colonial inscription” (Yussof 2018, p. xii). By passing the flame on to his mistress, who endangers the lives of others to defend her liberty and lifestyle, he symbolically maintains the “energy regimes that [...] were forced into black material and psychic life – of being energy for others” (Yussof 2018, p. 16).

Imperial wheat, anti-Semitism, and colonial history: Frank Norris’s *The Octopus* (1901)

In the late 1840s, the mass production of the mechanical reaper by Cyrus McCormick (see Boyer 2010, pp. 238 f.) led to an increase of wheat production in California, a non-slave-holding state with a previously disappointing record in wheat agriculture. The influx of people in the course of the Gold Rush of 1848, and California’s non-integration in the national economy, added to a situation where “farmers learned about the state’s climate and soils and began to explore marketing opportunities for the developing surplus” (Gerber 2010, p. 58). Their efforts were successful due to interlocking factors, including California’s proximity to South American grain supplies, the exploitation of Native American labor (cf. Stuart 2016, p. 22), a high demand for American wheat as a result of political and economic developments in Australia and Europe, as well as a modern infrastructure provided by trains and steamships. By 1890, California was the second largest wheat producing state in the United States (Gerber 2010, p. 38). In the last

² As Schliephake (2020, in this issue) explains, a writer who is aware of the concrete, material qualities of a given environment, tends to provide a more inclusive picture of that region’s sociocultural transformation processes. Arguably, Leutze’s vision of American democracy would be by far more complex if he had actively paid attention to the material traces of the pre-agrarian geology and vegetation of the Saratoga hills.

decade of the 19th century, however, California's wheat production fell dramatically due to soil exhaustion and low farm prices which forced producers out of business (Geisseler and Horwath 2014).

This historical rupture inspired Frank Norris to write an *Epic of the Wheat*. He intended it to consist of three novels but did not live to finish the third one.³ *The Octopus* (1901) is the first book of the intended trilogy (figure 2).

Set in the Southern California San Joaquin Valley, it stays remarkably silent about the agricultural history of that region. In line with the social Darwinist narrative of competition and biological efficiency (Fluck 1997), the Spanish-Mexican population appears as the “decayed picturesque, vicious, and romantic[...]relics of a former generation” (Norris 1901, p. 13)⁴. What remains of indigenous life are occasional allusions to marginal figures of mixed heritage. That the ranches were once owned by Spanish-Mexicans who had seized the land from Miwok and Yokuts-speaking people is not mentioned. Nothing is said about the First Nations' resistance against the ranchers' advances into the inner parts of California, and about their slave raids in search of Indian laborers. The exploitation of those laborers by Mexican and later by American ranchers is drowned out by “the sonorous music of unfamiliar names – Quijotoa, Uintah, Sonora, Laredo, Uncompahgre” (p. 26). The killing of thousands of Indian miners during the Gold Rush, the destruction of wild plant resources that were fundamental to the Native American diet (regarding the so-called “Columbian exchange” see Lewis and Maslin 2015, p. 174), and their profound material, cultural, and spiritual deprivation are literally cross-faded by even-paced, almost hypnotic descriptions of a “limitless sea of wheat” (p. 244).

The Octopus is an example of the agricultural sublime. Instead of lamenting the monotony of monocultures, or reinforcing the “sense of failure and defeat that goes into the making of modern subjectivity”, it enables “a positively uplifting experience rooted in feelings of pleasure and awe” (Darvay 2015, p. 44). This also remains true when the focalizer (the character, a man called Presley, through whose perspective the story is told) registers “[t]errible, formless shapes, vague figures, gigantic, monstrous, distorted” (p. 26) rising from the gigantic wheat fields in the valley below. Imagined by Presley, these are not snippets of memories from a traumatic past but forebodings of the eventual defeat of the late 19th-century's rancher economy by American corporate capitalism and neocolonial expansion (Jacob 1954, pp. 365–378, Knobloch 1996, pp. 54–62).

To authorize its interpretation of that transformation, *The Octopus* concentrates on the so-called Mussel-Slough tragedy of the 1870s and 1880s, when farmers fought against the Pacific & Southwestern Railroad over land titles (Orsi 2005, pp. 92–104). The novel describes the replacement of those honest, hard-working ranchers by a disconnected “un-American” form of exploitation and theft.

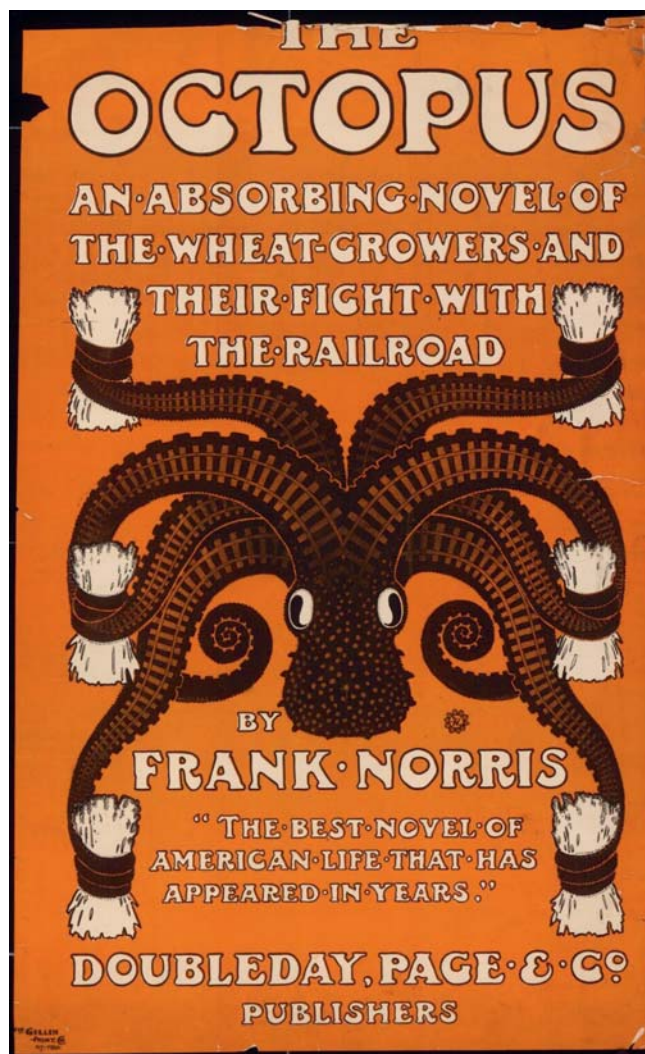


FIGURE 2: Publicity poster for the 1901 edition of *The Octopus* by Frank Norris. Download: University of Virginia Library.

Unfortunately, this well-known narrative abounds with anti-Semitic notions of rootlessness and greed (Pizer 2011). The railroad tycoon S. Behrman, who leads the struggle for control over the wheat market, is a stereotype older than Shakespeare's Shylock. *The Octopus* jumps on the bandwagon of late 19th-century anti-Jewish sentiment that flared up when about three million Jewish immigrants, who had escaped the pogroms in Eastern Europe, entered the country. They had nothing in common with a figure like Behrman, many in fact sympathized with socialism.

Historical accuracy did not seem to interest Norris. He was eager to prevent the stereotypical Jew from winning the race against the rural traditionalists from the valley. To the satisfaction of the average reader, who is never prompted to reconsider his or her solidarity with the ranchers, Behrman finds an early grave in a maelstrom of wheat: intoxicated by the harvest that is pumped into the belly of a giant freighter, he loses his balance and drowns in “a storm of small shot”:

3 The second book, *The Pit* (1903), is set in the trading pits in the Chicago Board of Trade Building and discusses wheat speculation.

4 In the rest of the essay, the page numbers referencing *The Octopus* are inserted alone, without further explanation.

[...] mercilessly, pitilessly, the unnumbered multitude of hurtling grains flagellated and beat and tore his flesh. [...] And all the while without stop, incessantly, inexorably, the wheat, as if moving with a force all its own, shot downward in a prolonged roar, persistent, steady, inevitable. (p. 322)

As Darvay (2015, pp. 44 ff.) noted, the novel's "noxious deterministic world" leaves "virtually no room for human agency", while "the reproductive power of nature epitomized by the wheat industry" and "the triumph of the Industrial Revolution symbolized by the steam engine" leave human protagonists in a state of "physical, emotional, and imaginative failure". By drowning Behrman in wheat, the novel explicitly extends this verdict to the executioners of speculation.

According to *The Octopus*, the power of wheat lies, essentially, in its seeds. As "eternal renascent germ of Life [sic]" they carry the earth's "desire of reproduction" across a hungry globe (p. 65). They are the driving force in the socioeconomic-biological struggle for existence and ready to kill whoever stands in their path towards new markets. Is there, then, a metaphysical power that makes them carry out a pogrom that they cannot be held responsible for? *The Octopus* ridicules religious explanations of any sort, and searches for a scientific, rational answer to explain wheat's extraordinary economic success. Anti-Semitism, which had a firm place in 19th-century social Darwinist discourse, serves a similar purpose. Ultimately, however, none of this explains why nobody, not even Behrman, is able to control the mechanisms of America's corporate, global market economy. Interestingly, the obvious, and not-so-unpopular solution to the problem – socialism – is not an option in *The Octopus*.⁵ Yet instead of experiencing the novel as fatalistic, readers may enjoy an epic fight between two equally greedy world forces in the grand social Darwinist theater of "natural selection". Freed from the spikes that held it, the wheat metamorphoses into a botanical Cerberus who beats and tears the flesh of his (Jewish) prey. Rendered in animalistic imagery, the "terrible dance of death" (p. 322) goes beyond the metabolic processes that usually explain the life of plants, and moves human perception center stage. What is initially explained as an accident turns into a contest between *homo economicus* and the brute force of domesticated nature unleashed. Deeply anti-Semitic, and charged with vitalist conceptions of plant desire, the novel celebrates the irrefutable end of an era through a violent spectacle of "hurtling grains."

Norris's murderous wheat obeys neither God nor does it recognize a human commander. While Behrman's death may satisfy the readers' desire for justice and revenge, the wheat itself is ignorant of such psychological and moral needs. As the novel emphasizes, this non-human protagonist moves "with a force all its own", thereby signaling an independence and aliveness entirely separate from its larger ecological environment but also from hu-

man norms, laws, and motivations. Norris's fictional wheat lacks the non-instrumental, intrinsic value that holds a central position in plant ethics (e.g., Odparlik and Kunzmann 2007, EKAH 2008), but at the same time it is more than a mere instrument of a capitalist market economy.

This explains why the literary theorist Michaels has compared wheat in *The Octopus* with a corporation: based on a "natural body", it is raised to become something surprisingly intangible and "separate from any body [sic] at all" (Michaels 1987, p. 189). Although it seems to possess a mysterious, transformative power, Norris's "corporate" wheat seems strangely removed from the biological "plantiness" that distinguishes plants from other organisms (Head 2012, pp. 26–30). This may sound odd at first – after all, the novel stages the crop's "natural body" in dramatic spectacles of photosynthesis; the reader can virtually see it grow under the influence of the sun. Yet, by placing the superior evolutionary capabilities of wheat at the service of a burgeoning international agribusiness, *The Octopus* creates an environment for wheat that makes us forget the "plantiness" of it. In the novel, wheat thrives in the artificial, self-sustaining, and mechanized realm of a rampant, insatiable capitalism that does not care about the soul or dignity of the product. And what is more, when one looks at this development more closely, one realizes that cereal grains are in fact merely a by-product of that incessant "desire to consume" that drives the capitalist economy. Represented as a mix between personhood, and intangible structure and mechanism, Norris's wheat is an incarnation of the insatiable desire for more (cf. Michaels 1987, pp. 187 f.).⁶

Conclusion

Contemporary varieties of wheat may be quite distinct from what farmers sowed in the 19th and early 20th centuries, but they are not a separate species, independent from the bio-chemical and cultural qualities of its multifold crossbred ancestors. Among the linguistic continuities that strike observers are the names of contemporary American wheat varieties: "Pioneer," "Lonerider," "Nufontier" or "Custer" store not only starch and protein but also human memories, more precisely, white traditionalist views of American history.

Names and emblems, novels and paintings, and all other forms of cultural expression can help us make sense of our lives on this planet and adapt to the changes that lie ahead. The main objective of this essay was to alert readers to the connotations and echoes that reverberate in what we often believe to be ideologically and culturally unmarked discourses – in this case about wheat breeding, wheat growing, and the uses of wheat. And by extension such observations may also apply to other major crops now or in the future. To give but one example: a well-known agrochemical and agricultural biotechnology corporation promotes its push for new markets by projecting a frightening scenario of population growth and climate change. "WHAT NOW?" asks this company's ad, to then offer a solution that brings to mind the insatiable appetite for more that drives the wheat in *The Octopus*: "[...] producing more.

5 To see how the transfer of the Soviet model of agriculture played out in Cuba, that unloved neighbour of the United States, see Benz (2020, in this issue).

6 Regarding the more recent self-fashioning of Cuba as an alternative to "modern growth thinking" see Benz (2020, in this issue, p. 246).

Conserving more.”⁷ This is clearly not about ending world hunger or slowing down climate change but a culturally appealing appropriation and continuation of that fascination with quantitative growth as an end in itself that figures prominently in *The Octopus*. As Schmidt et al. (2020, in this issue) outline, the ability to recognize and analyze such continuities depends on the cultural literacy of the recipient. Yet as this example also shows us, such an ability does not save us from making difficult decisions based on complex considerations. After all, human population growth and climate change do require agricultural innovation, and what and how we “produce” and “conserve” are central concerns in current debates about the future of farming.

Importantly, however, cultural literacy helps us gain a clearer and fuller picture of many issues that preoccupy contemporary societies, including those referring to ecology and agriculture. The ability of cultural literacy to disentangle and demystify “irrational” public reactions to factual knowledge revives the relevance of such literacy at a time when confidence in the natural sciences and in governments is dwindling in some countries and sectors of society. The COVID-19 pandemic is a case in point (as I write this in August 2020): not virologists but sociologists and psychologists, media scholars and literary theorists, art historians, linguists, and cultural studies scholars are capable of explaining why relatively small but highly visible fractions of the German and American population are turning to conspiracy theories and fears of a totalitarian state, inserted microchips, Chinese laboratories, and biological warfare instead of following scientific advice and government regulations that have been developed on the basis of this advice.

We are currently witnessing a surge of popular and philosophical publications that urge us to recognize humanity and nature as one. Most of them say very little about the ethics of cultivated plants (as compared to wild ones).⁸ Michael Pollan and Lesley Head are rare exceptions in this regard; they remind us that we will need both our heads and our hearts if we wish to replace the current logic of production and extraction through an ethical sense of earth care and mutual connectivity. According to scholarship in the emergent field of plant ethics, such an approach relies on our readiness to recognize plants as subjects in their own right. Yet if we wish to continue this conversation in a productive manner, and make it viable in the realm of agriculture, we must be aware of the philosophical and ideological prerequisites that inform our thinking. Studying the vital energy that inheres in past representations of wheat can train us to recognize some of the potential pitfalls of assigning agency to plants in general, and to culturally charismatic crops in particular.

Both the painting and novel presented here rely on biblical wheat imagery to develop a modern, largely secular discourse on wheat that meets the needs of post-Independence nationalism and late 19th-century industrialized New Imperialism. While

Leutze inscribes wheat into the white democratic narrative of US-American patriotism, Norris turns it into a natural emblem of corporate capitalism. In both cases wheat becomes a player in a larger social and economic constellation, although it is not driven primarily by the biological mechanisms and evolutionary capacities that usually help us to consider the specifics of *plant agency* (cf. Head 2012, p. 29). Leutze’s active wheat is not part of a mutually beneficial relationship but a self-sacrificial, suicidal supporter of the anti-colonial fight against the British. Norris’s “merciless” wheat, by contrast, seems to possess a “force all its own”. Contrary to Pollan’s “botany of desire”, this inborn vitality does not strive for mutually beneficial relationships but connects wheat to the immaterial capitalist corporation. The story of wheat agency is, in other words, steeped in ideological pitfalls. While in *The Octopus* even monocultures speak to us, they rely on sensationalism and anti-capitalist anti-Semitism to catch our attention. By contrast, Leutze’s seemingly progressive wheat scene is complicit in the drama of dispossession, genocide, and post-slavery racial oppression. This essay thus ends on a sobering note: the legacy of wheat agency in American culture does not provide a valid model for a socially, economically, and ecologically sustainable future. All the same, we should study it carefully so as to recognize the possible limits and ideological aberrations in even the most well-meaning revisions of the human-plant relationship.

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⁷ www.blueadvertising.com/monsanto (accessed August 28, 2020)

⁸ To better understand where and why moral considerations are extended to plant life (and where this does not happen) see Hall (2011).

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